

AMERICAN CULTURE AND MILITARY LIFE

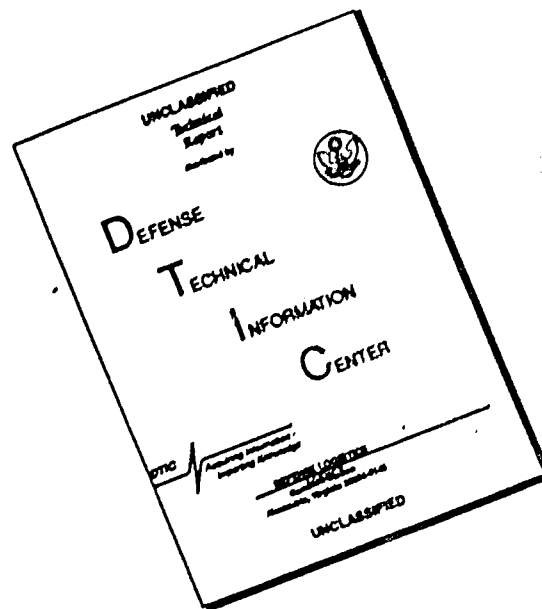
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1. Problem area of this memorandum:

The following is a report on the concensus reached by social scientists as to the main characteristics of American culture and character. Beyond that it refers to important direct studies of American military life and brings into the open the usefulness of general studies of the American nation for the solution of some present military problems. It lists, too, some major gaps in social science investigation and knowledge concerning information needed by military authorities.

2. Abstract:

On the main components of the American value system many lines of social scientific evidence converge in the definition of the American Creed. Agreement on the elements of this Creed is so substantial that, for all practical purposes, they can be taken as established. There are two principal types of American values; the official core of the value system about which one hears in patriotic orations and about which the Constitution and the Declaration of Independence are quite explicit; and the unofficial values which are necessary in order to apply the more general official values to the specific and concrete details of everyday life. People can and do talk about many of these unofficial values, but behind them lies another deeper layer of values which are shared by the American people, but about which Americans either cannot or do not customarily talk. These are the values

which are felt rather than verbalized and intellectualized. The principal elements of the official ideology are: equality, which means not equality of men but equality of opportunity; freedom, which most often is interpreted negatively to mean freedom from restraints; intense respect for private property, to which is now assimilated corporate property; free enterprise, originally an economic value, but now connoting a whole way of life; democracy, which is stronger in the political than in the social aspects of life; justice before the law; which along with the valuation of democracy connotes a government of laws rather than of persons; the primarily religious value of the brotherhood of man; and individualism, which is interpreted to mean that the individual is the unit of both action and responsibility. At a less official and often less conscious level, Americans share the following values: valuation of doing something, effort, achievement, and success; but action in America should be justified by high moral purpose; the future rather than the past is faced with confidence; answers, even to complex problems, should be simple and understandable to the common man; nature and one's surroundings can be mastered by reason and technology; education is valued as an avenue to success, but the practical man is more esteemed than the scholar; individuals are responsible for their own fate, but should be free from public intervention; the common man is America's idol, but he is judged dispassionately by his accomplishments; and no one, no matter how exalted his place, is immune from criticism and ridicule.

Men in America are expected to be "manly," responsible, doers and achievers able to find their place in a competitive world; women are expected to some extent to balance the competitiveness of the world by

focusing on more personal and humanistic values. Children and youth are expected to look to the future during which they will surpass in performance the parental generation. Consequently, the age mates of a child are often more important in setting the standards of his behavior than his parents. Law is officially respected, but Americans are not particularly law-abiding. Government is a vague and far-away something about which one gripes and from which one should get as much as he can. Business is the focus of American life, and what helps business helps the nation. Organized religion and faith in the supernatural are less influential in America, but religious groups and religious values remain very important in shaping social life.

These are the main outlines of American values, but there are significant cleavages within the nation in commitment and conformity to the core value system. Perhaps the principal cleavage is that which follows rather flexible but significant class lines. The great middle class is most fully committed to the core American values, but there are divergencies both above and below it. An emerging upper class elite deviates in the directions of hereditary status and emphasis on the past rather than the future. An increasing solidary working class diverges from the middle class confidence that the individual is the proper unit for achieving the better future, increasingly submerging the individual to collective action for group goals. A residual lower class rejects most of the achievement values of the middle class, lacking confidence in the future to such an extent that life is framed largely in the present tense. Regional and rural-urban differences are significant, too. The Eastern and Southern regions are more stable and exhibit more evidences of the crystallizing class structure which is officially dis-valued in America. The most

significant regional differences, however, are those which differentiate the Southern regions with their distinctive interpretations of race and minority problems from the central values of the nation. Since the American creed is historically based in the values of agrarian life, further differences in values and interests divide the country from the increasingly predominant urban concentrations of people.

The American national character is an open, optimistic, generous, gregarious one directed toward action, success, winning, and the future. But while Americans are gregarious, they are also alone. They are a "lonely crowd" to whom conformity to the standards of the crowd is extremely important. They are individualistic, but they can seldom cultivate individual uniqueness. They are anti-authoritarian and do not like people who pull their rank, but there seem to be important suppressed tendencies to authoritarian behavior in the American character, which expresses itself when opportunities arise. Masculinity — always being fully a man — is an important component of the American male character, but there is always a lurking fear that one will not always be up to the task, that one will show passive feminine characteristics rather than aggressive masculine ones.

Both the American value system and the American national character pose difficult problems for the armed services in America. Since the American gears his life to being a success in civilian life, it seems inevitable that the regular army will be composed predominately of persons deviating in one direction or another from the central value system, the officers being drawn predominately from groups aspiring to the upper class

way of life and from the more traditionalistic areas of the nation; and the enlisted men being drawn from the lower classes and from the more economically depressed areas where the American Dream is not fully realizable. Similarly, the wartime situation will be viewed by the American as a temporary matter, and will to some extent be resented as an interruption of his normal life. Once war is accepted, he will fight, but he trains and fights best when he can see the direct relevance of his action to the principal goal of getting it over with and winning. His resentments, both of the temporary situation and of the authoritarian structure of the military, will inevitably lead to gripes. He will fight best when the military organization is made as fully compatible as possible with his central values; but he seems to resent direct ideological indoctrination. He would prefer to see his ideology manifested in military life rather than to get it by precept. A component in his character which can contribute to military objectives is his deeply felt desire to be a man and to use his temporary role in the military as demonstration of that manhood to himself, to his buddies, and to the folks back home. Also important are his desires not to let his buddies down, to survive, and to return home. As a result of his strong dependence on buddy groups, he probably will fight best when he feels himself a part of a continuous unit, which plays an important role in setting and enforcing group standards of behavior and in supporting and sustaining him, particularly in time of crisis.

3. Available research and findings:

In the present section extensive use has been made of a large series of studies. The authors of these include anthropologists, historians, political scientists, psychologists and sociologists. The studies

themselves are of various kinds: (1) community studies (notably R. S. and H. M. Lynd: Middletown and Middletown in Transition); L. W. Warner: Social Life of a Modern Community and the other volumes in his Yankee City Series; and J. Dollard: Caste and Class in a Southern Town.) (2) studies of selected important characteristics of American society, such as problems of race, social status and social mobility (notably: G. Myrdal: An American Dilemma; R. Centers: The Psychology of Social Classes and the Warner volumes already mentioned), (3) studies from the historical viewpoint (e.g., Connager, The American Mind), (4) studies that are now generally regarded as classical descriptions of the culture especially Alexis DeTocqueville: Democracy in America, published in 1863, and James Bryce: The American Commonwealth, published in 1893, (5) previous summaries of the literature in this general field, such as John Sirjamaki: "A Footnote to the Anthropological Approach to the Study of American Culture" in Social Forces, March 1947, (6) many journal articles, mostly to be found in The American Anthropologist, The American Sociological Review, The American Journal of Sociology or such anthologies as Kingsley Davis': Modern American Society.

In the main, these studies fall into one or the other of two broad categories. The first group of studies deals with American culture and society as a whole, sometimes emphasizing one or more aspects of American society, such as the family, or race relations, or class differences. This group is dealt with first. Its concern is with what Americans consider right and wrong, proper and improper. Frequently enough the authors of these studies either acknowledge that their data apply to some parts of

the United States and not to others or they stress that parallel to the great agreements in the American way of life there run many differences. These differences fall along, regional, rural-urban, religious, ethnic, class and other lines; they are dealt with in the second division of this section. The main pioneers in the study of American national character have been Geoffrey Gorer, The American People and Margaret Mead, And Keep Your Powder Dry. Also mentioned in this connection should be a historian, Dennis Brogan, (The American Character) and a social psychologist, Kurt Lewin ("Some Socio-psychological Differences between the United States and Germany" in Character and Personality, June, 1936). Rich insights concerning American psychology are of course also found in movies (notably Nathan Leites and Margaret Woffenstein: The Movies). In general, authors addressing themselves to problems of national character admit to the danger as well as to the usefulness of using the word "character" on a large scale rather than confining it to particular individuals. They reason, however, that if Americans share certain beliefs which distinguish them, to different degrees, from Frenchmen, Japanese or Russians, they must also share deeper attitudes and resemble one another in the manner in which they respond to crises or jokes, or in the way in which they court or feel about their children. National character is not meant as some mysterious entity about which one should think apart from the particular individuals of one's acquaintance; nor is it meant as a complete description of these acquaintances. It refers rather to a common psychology based on similar past experiences. This common psychology facilitates by way of our feelings what the shared American beliefs demand of us by way of obligation to similar standards: a characteristic pattern of American life through which Americans find the answer to why they are.

The American Creed

There is general agreement that Americans have a creed. This creed, however, is more than a simple collection of a few basic beliefs. It contains an official core about which speeches are made on the Fourth of July and about which the Constitution has much to say. It also entails a less official version. This includes those notions like the belief in hard work or in fun, in education or in novelty, which link every day life and its diverse demands to the general principles which bind Americans together. In themselves, these principles are not sufficiently detailed to show clearly how to behave, in particular situations. They must, therefore, be supplemented. Behind this more unofficial version of the creed, about which people can still talk with relative facility, there lies another layer of beliefs. Social scientists have inferred this layer rather than directly discovered it. It lies at the back of people's minds and they find little need to discuss it, since their neighbors, too, take it for granted and call it obvious. Only strangers and people, like intellectuals, who "stand back" put it into words or notice it. On the other hand, were one only to know that Americans believe in individual success or democracy or in fun without knowing too that behind these beliefs lie the premises that one must do something, must conform to the neighbor, must forever validate oneself, then the characteristic quality of the more general, public affirmation would be missed and one's expectations concerning American behavior would be inappropriate.

The main tenets of the official American creed are these:

Equality; freedom; private property; free enterprise;
competition; the pursuit of individual happiness;
democracy; justice (before the law); and brotherhood
of man.

The creed, that is, is explicit in the realms of economics, personal freedom, government and religion. It accents each of these main concepts in a special way. Equality, for instance, is meant to apply to opportunity rather than to men. Freedom is phrased primarily in terms of the absence of coercion, of ties or of excessive duties beyond family and career. It is meant as the condition for personal effort, achievement and risk. Government, therefore, is to interfere little in one's life, except to guarantee its safety and latterly its security in more than a physical sense. The recent emphasis on "security" (against accident, illness, bereavement, etc.) has not been extensively studied in the sources used here, nor has the potential rivalry between such concepts as individual freedom and collective security been too closely analyzed. We will return to this problem in a later section of this report. Private property is cherished as a right and as sign of one's coveted success. Hereditary property, however, is not valued in the same sense, except by an emergent minority. The accent is always on new and free enterprise taxing one's initiative and one's ability to foresee and to risk. Many authors point out that in reality the opportunities for these are fewer than they were. Others, while not denying this, put the emphasis on new kinds of

opportunities, on education as the new frontier. There is agreement, though, that Americans tenaciously desire to have accomplished much in the future so that the past can seem poor in retrospect. Where they are frozen into a position such hopes, it seems, are shifted on to sons. Of course there are exceptions. Upper and lower classes do not exactly share the middle class pre-occupation with achievement. These exceptions will be partly dealt with below. They are nevertheless referred to here and there to note the fact that the literature on American culture covers most of its generalizations with some important qualification and is thus conscious that statements about such complex an entity as American society undoubtedly is still at best tentative, need to be revised at intervals and be supplemented with systematic observations on exceptions and variant groups. To return to the creed: the pursuit of happiness, whatever religious qualifications are associated with it, is meant as being relevant here and now, on this earth. Democracy means primarily a system of checks and balances which makes possible a balance of private and group interests, assures the right to vote and, in principle at least, keeps government within the reach of the layman and the common man. Myrdal, especially points out how at the same time politics as any man's chance to participate in government is called "dirty" how the belief in justice before the law is accompanied with a cynicism concerning law and a gleeful pride in having circumvented the law and how indeed the faith in the common man is balanced with a cynical apathy concerning public issues. Others point up the readiness of Americans to do their share in emergencies. The better description of American culture indeed always return to representing

American beliefs as the ingredients of a balance of apparent contrast which must be seen together. The final concept of the creed - brotherhood - is primarily a religious one and a close corollary of the belief in equality. In fact, the creed and the various other beliefs yet to be mentioned all form a unity which is often referred to as "the American Way of Life". There is as yet no large scale systematic study as to how the various elements of this way of life actually "fit" together. However, these elements of the American Creed are definitely agreed upon by social scientists and can for all practical purposes be taken as established.

Associated with this official creed are various other beliefs which further buttress the general American faith in the common man. Some of these beliefs concern the means by which equality and freedom are in fact to be achieved and to be maintained. Much value is placed on individual effort, on hard work and repeated trial. This, however, is to be done for one's own sake, not out of duty to some collectivity. Whatever the tensions, one should take it easy - not to avoid the tensions, but to be able to continue to stand them. Work, moreover, is relegated to one sphere, personal life and family to another. Work, that is, is to be balanced with fun and life itself should move forward to success and also to new experience. But while life should move forward, the past prior to excessive responsibilities remains as a most pleasant memory. The freedom of adolescent exploits remains a nostalgic value. The sense of responsibility thus has a balance in the emphasis on "youth", just as the belief in competition is accompanied by a feeling of solidarity with

similarly placed age-mates who are not one's competitors. They, among others, form the members of the many voluntary associations which are spread thickly over the United States and which do good works and dispel the sting of what might otherwise be a lonely and competitive life. Again class differences limit the truth of this picture. There is, however, a great accent on being a joiner and exposing your opinions and habits to the inspection of others. There is a value in being alike. There is much pressure to conformity, but one conforms as an equal, not as a subordinate. In one's way of life one conforms to an anonymous authority, not to specific orders of identifiable superiors. The bonds that are thus sustained between people are not so much deep ties involving long range responsibilities as they are expressions of easy-going friendly attitudes leading to short-range generosity and helpfulness. Friendship shifts with shifts in locale and status. This continuous shift is embedded in a diffuse goodwill toward others and a general confidence and optimism concerning the present order and future possibilities. Towards visible others, there is to be, on the whole, goodwill, but "they" - the politicians those who are different from us, the unfair competitors, - deserve distrust. The literature, accordingly, refers to a balance of goodwill and distrust and an idealization of the "sincere" person, who is free from tricks.

Behind these general values of competition and achievement and freedom and youth, there lie not only differences but also less clearly expressed assumptions concerning right and wrong. There is, to begin with, the emphasis on the deed. One must keep moving, away from the past and up the scale. One must do things rather than be things.

Still for those who do not quite succeed there is an out in the values of kindness and tolerance; just as those who try valiantly to succeed can at times be excused from observing all the rules of fair-play - especially, in the case of men where the wives make up in humanitarianism what the husbands offend through competitive aggression. One must moreover judge and measure. Purpose must be morally justifiable and achievement be tangible and measurable. There are, however, legitimate holidays from all this. The unemotional friendly outgoing American who works hard, justifies himself through work, keeps his efforts parallel to his neighbors, also values carefree fun and temporary disregard of the calculations of economic life. He can indulge dreams and emotions, (partly with the help of manufactured moviedreams), in romantic encounters and can demand that his family obligations can be disregarded should present love no longer live up to unreasoned past promises. It cannot be repeated often enough, though, that these general values are emphasized differently by different classes and in different regions. The present section, therefore, raises problems that are taken up again in the sections on class and regional differences - and vice versa.

This is the creed in outline and a paraphrase of the consensus, by and large, of the literature. Luckily the literature goes further:*

* Especially: Florence Kluckhohn, "Dominant and Substitute Profiles"; Clyde and Florence Kluckhohn, "American Culture: Generalized Orientations and Class Patterns", in: Conflicts of Power in Modern Culture, Symposium of Conference in Science, Philosophy and Religion, 106-128, 1947.
 Sirjamaki, John: "A Footnote to the Anthropological Approach to the Study of American Culture", Social Forces, 25 2:253-263, March 1947.
 James Bryce: The American Commonwealth (New York, 1893)
 R. S. Lynd: Knowledge for What? (Princeton: 1946)

it describes the working out of this creed in various areas of life (family, occupation, education, law, business); it shows the differences that partly divide America and that hence limit any analyses one can make of it; it also tries to summarize in a least number of phrases the most significant characteristics of America -- characteristics which distinguish it from other nations of similar complexity and which, if seen together at one time allow one to recognize sense in what otherwise often appears as incongruous behavior. A composite summary of these over-all characteristizations would assert American culture to be concerned with:

1. Making an effort and doing things
2. Pursuing moral purposes
3. Facing the future, not the past, with hope
4. Hoping that life, though confused, can still be reduced to simple formulae.
5. Believing that life can be mastered through reason and machines
6. Demanding that people stand on their own feet and make their own name
7. Educating the young into ever-better adults
8. Maintaining personal freedom from various public interferences
9. Valuing the average man and judging him dispassionately by his achievements
10. Allowing no one, however important he may be, not to be criticized, ridiculed or laughed at should he deserve it

Increasingly, it would seem, a description of the official American ideology has to be accompanied by an account of actual American behavior. This will be taken up again in the section on national character. The actual conditions under which America's creed was born have changed. As a specific guide for actual behavior in present situations the creed is therefore insufficient, however important it undoubtedly remains as a statement of general principles on which people of highly different backgrounds and opinions can agree. Often this discrepancy between creed and conduct has been noted. Gunnar Myrdal's work, An American Dilemma, is an imposing recent example of this. This discrepancy gives rise to cynicism in some quarters, - a problem taken up again in the section on law and government. For present purposes most of the problems posed by such a discrepancy between dream and reality must remain undiscussed. It should, however, be pointed out that here lie some of the reasons for the changefulness of American life and for the fact that at different times different aspects of the creed will be emphasized - at times even to the exclusion of others. Such elasticity, provided it does not betray some consistent direction, is useful in times of crisis.

Man, Woman and Child.

Much is made throughout the literature covered for this report of the American man's need to prove that he is a man that he is not a coward, that he can compete, that he can gain respect from his wife. There are suggestions too that he is hampered in this task by his childhood and by the particular kind of family of which he is expected to be the head. In his childhood he learned his notions of right and wrong

primarily from his mother, but he was expected to imitate his father in learning to become a boy and man. The busy fathers involved in a hard world thus delegate the tasks of "culture", of "finer values", of "being sensitive to others" to their wives and in return demand - not always knowingly - that their wives do not compete with them in a man's world and that the family's standing be first of all a reflection of the father's success, whatever independent career the mother may also have established on her own efforts. Such a division of labor is slightly precarious, for the status of women has undergone an undoubted improvement. This together with their greater involvement with children makes women always potentially dominant at home. This adds a further challenge to the man to prove that he is a man and to show that there is indeed a difference in capacity between him and his wife. In many cases this leads to a denial of the inevitably dependent and passive sides of men and to a fear, therefore, that they may reassert themselves. By ideal, then, the American man is to be a good provider, a good fellow and a good sport. He ought to be able to take hardship, to follow and to lead, to wield power, assume responsibility and coordinate men. Different jobs require these demands in different proportions and different class levels permit such self-assertion to different degrees. In any case, whatever the romantic bonds, the man as man validates himself primarily through his job, or profession or his "calling". In one respect American men and women are in principle divided by a gap: the men usually live in two worlds - job and family. Often the wives know or understand little of the former. The family is left behind when the man opens his paper on the commuters train or the bus or when he enters his place of work. With some exceptions - such as the professions - the

reverse also holds: the job is forgotten when the place of work is left behind.

By contrast, the feminine world is more personal. To be sure the man too deals with people, be he salesman, executive or manual worker. He deals with them in the process of his work which aims at "production" - of things, ideas, sales. His wife deals with growing people as her work or better instead of it, though some mothers now make child raising into a profession. Ideally, the American woman is to be a versatile person, smoothly switching from the glamorous co-ed or office girl, to the quiet unaggressive, family-centered homemaker. At home she should manage the household in dungarees, raise the children to be and become normal and appear in a pretty dress at night as fresh as ever, but sufficiently wise to understand male troubles and to represent a refuge from the tough world of competitive success. The woman ought also be responsive to church, clubs and philanthropy. She must not be too intelligent, witty or independent. The man, however, must be able to credit her with a superior intuition at whose lack of logic he can laugh at the same time as he makes use of it. A woman, moreover, is "expected to want a child" - for it is from motherhood rather than housewifeliness that she derives her pride. Clearly the balance of all these demands is easily upset and there is always a chance that American man and women become rivals. This further enhances the possibility of the man's fear concerning his own masculine adequateness. He is not so much praised for being a "man" as he is afraid that he might not be one. Aggressive activity sanctioned and praised in public (such as the Marine corps) might for

some men therefore be a welcome opportunity. In fact any large scale effort, praised by and in public, in which one can be a man and yet be free from the kind of competitive world in which one has not quite managed to be a success could under certain circumstances be a welcome way out, provided there are not too many other frustrations associated with it, such as subordination to imposed leadership and authority.

There are negative ideals for both men and women: men should not be sissy or cowardly; women should not nag and domineer. Common parlance has more colorful terms for these than does the technical jargon of social science, but social science sees a broad connection between the ideal of American masculinity and the system of a competitive economy, between that economy with its emphasis on success and the typically small family based on romantic love and separated from work and the older generation, between that family and the great emphasis on continuous changes in child raising or, finally, between the feelings associated with various techniques of child raising and some of the traits of the American character outlined below.

The childhood of men and women is an object of great conscious concern in American culture. This fits with the prevailing emphasis on youth as well with that American optimism which believes both that the future will bring us closer to some dreams and that it is up to our own efforts to make this in fact come true. The changefulness of American life, moreover, has infiltrated into child raising practice especially since the older generation is kept at some distance and since science, in this case psychology, is relied on instead of tradition and unreasoned precepts.

The obvious success and grandeur of American technology which directly and indirectly rests on science further enhances the prestige of science in general and thus adds to the trends here broadly described. Mothers, especially in the middle class, almost compete with one another via their children and their accomplishments and general behavior. The child, especially the son, is therefore valued not only for what he is but also for what he does and can do: to be toilet trained soon, to be moderately good at school and really good in athletics, to be able to assume responsibility, save money, have the courage and imagination to be a "bad boy" on occasion, be a leader, be well liked by his friends, - all these are qualities in their sons about which mothers can be proud.

American parents enter the tasks of raising their children with a resignation that they will 'have' their children only for a short time. Soon they will share them with teachers and playmates. Once the children embark on courtship and career the parents increasingly recede into the background and the children, now grown, are expected to surpass their father's achievements and change their mother's methods. The typical American family is isolated from sustained contact with the older, parental generation and is closer to age mates and friends from school or job. It is with the latter, rather than the former that troubles are shared, if they are shared at all. The hope of parents, however, is to avoid troubles for their children. Because of this ideal and the fact that the ways of one's own mother cannot be automatically followed there is much concern in America as to what constitutes a "good mother". It is a public concern. Fathers have a similar concern, but it is kept relatively more private. Much has been made, though, of the fact that fathers are home little, that his children learn their values from their mother, that his sons do not see him at work (unless he is a farmer),

and thus can picture him as little more than a shadowy figure whom they must surpass. Sporadic evidence suggests that this is a misleading and incomplete picture and that the American father is a badly forgotten figure in the work of the social scientists. Perhaps our analyses of the causes that lead to breakdown would be more fruitful if not so much were made of "momism" and the father were included more conspicuously. Certainly the whole problem of authority and leadership, taken up again in the section on military problems, is of immediate relevance here. To return to the "good mother" she is to be mainly a good housekeeper, who takes care of the welfare of the children, physical and mental. She shares with the father the job of disciplining the child. Whatever differences in strictness the American child may experience on the part of his parents, increasingly he will be equally punished by mother and father. This together with many other forces may lead to a certain fear of women which some observers claim to have observed in American men. The ideal of the "good mother" is subject to class and ethnic variation. Typically, middle class mothers are more concerned with being "psychological", letting their child "develop" and avoiding "frustrating it". Lower class mothers are more concerned that their children learn to be clean, and to obey. Middle class mothers, too anxiously watch their children in their performances. It is as though in America parents were the spectators and children the players and performers. This "rugged familism" - counterpart to America's individualism - has been summarized by Sirjamaki as consisting of

1. Marriage - as the dominating life goal for men and women
2. A personal and romantic give and take within marriage
3. Happiness (rather than family continuity) is the measuring rod within a family
4. Sex should be exercised within wedlock
5. Husband and wife divide the labor between them, though the male has the right to a superior status, (provided he can demonstrate it through his capacity to earn money)

Finally, one ought to mention the special value America places on "romantic love". The movie and advertising industries are geared to it and so are adolescent hopes. As one ironic French observer put it: "America appears to be the only country in the world where love is a national problem"; he added that no country in the world consumes such a fabulous amount of love songs (usually with a woman rejecting a man or a man puzzled and lost over having been let down).

The best summaries on these and other aspects of American family and love relationships can be found in Margaret Mead (And Keep Your Powder Dry. Male and Female), Geoffrey Gorer (The American People) and in essays by Talcott Parsons and others in a volume collected by Ruth Anshen (The Family).

Law, Government and Education.

Americans tend to respect the law without abiding by it. They write their ideals into their laws. Consequently, the common man can be proud of the national judicial system. Moreover, this system with its guiding conception of justice is seen to correspond to a higher,

natural law. If any particular law, therefore, seems unjust individuals often feel free to disobey it. Such disobedience is justified in the name of this higher, natural law. It is further encouraged by a certain disregard for law and order, a strong emphasis on rights without an equal emphasis on duties and a general distrust of government. On the other hand Americans who are so proud of not obeying laws other than those which are "good" and "just" also believe that there "ought to be a law" against anything they consider bad and unjust. "America has become a country where exceedingly much is permitted in practice, but at the same time exceedingly much is forbidden in law".* This combination of idealism and legal formality helps to discredit law, give an unsavory name to the clever lawyer and to "politics" in general and breeds a sort of "fatalism": politics is dirty, the government is inefficient and interferes (but it owes me security and protection) - and so what is the use. Accordingly, strong feelings of responsibility for participating in public affairs or for helping to enforce the law are not too widespread.

As has been suggested, the "government" is generally considered something about which one gripes because of taxes, inefficiency and selfish, corrupt politicians, from which one demands protection and security and of which one is proud in comparison with the dictatorial governments of other nations. "Democracy", that is, is an important rallying symbol, but its precise connection with specific governmental procedures or economic arrangements are not clearly thought about, except by sporadic radical groups.

*Gunnar Myrdal, An American Dilemma, p. 17.

About "business" many American values are organized. The concepts of private property, private profit, individual initiative, competition all apply to it. There is a half-expressed assumption in the air that "American business will always lead the world" (see Lynd, Middletown in Transition), that the American combination of big and small business attests to the soundness of the American way of life, that business can run its own affairs best and government should therefore keep interference to a minimum, that competition is what makes for progress and has made the United States great, that the chance to grow rich is a necessary hope since men won't work if they don't have to, and that in the end a "man really gets what is coming to him in America."

One way of making sure that he does indeed make the required progress is to acquire the necessary education. Education is seriously valued in America - often as a mean for climbing social and economic ladders. Besides, education is also a means for creating one (the) American way of life from many immigrant and class traditions. Further, there exists the belief that all that is worth learning can also be (formally) taught - and needs to be taught. This is enhanced by the fact that in America such great value is placed on "techniques" (of production or of love, etc.). Problems become situations to be handled. Situations, most often call for action. Education, therefore, is geared towards learning skills, techniques and competence. Ideas, too, belong in this category. The expert as competent technician is valued, but the intellectual as theoretical speculator is suspect. Education also is concerned with "building character", a character which may be tested in action.

Religion

Except for the large Roman Catholic minority and numerous small minorities, Americans are less and less influenced by organized religion. But all observers consulted for this memorandum agree that Protestantism and a lingering Puritanism lie at the very heart of the American system of values; and there is considerable disagreement over the extent to which America is actually secularized. As Gunnar Myrdal has pointed out, social scientists are likely to get their attentions fixed on the process of progressive secularization to such an extent that they fail to see the main fact "that America probably is still the most religious country in the Western World." (An American Dilemma, pp. 10-11) In America, with its high valuation of the separations of church and state, religion is focused on shaping social life rather than on maintaining a theocratic church which can provide a spiritual refuge from the world. As Brogan has pointed out, religion in America is primarily a matter of "conduct, of good deeds, of works with only a vague background of faith." It is highly functional and pragmatic, a guarantee of success moral and material". As for the large Catholic minority, the American people seem to be prepared to tolerate it, but not to love it or admire it, and often to resent acts of the official Catholic hierarchy which are interpreted as attempts at religious influence on public policy.

Religion in America helps to make men good, honest citizens; but as Mead has pointed out, God is less important than one's neighbor and thus is not to be remembered either too much or too often. The devil has become innocuous, and there is little need for serious concern about heaven or hell.

Significant Cleavages in American Society: Class

The problem of class in America is both enigmatical and paradoxical. The enigma lies in the fact that despite great differentials in wealth, prestige, and power, there are no clearly marked social classes in America. Numerous economic, political, and sociological studies have shown that the extent of the differentials in the American population is just as great as any found in class organized societies; and yet Americans lack clear-cut class consciousness or class identification. A survey by Fortune Magazine indicated that the overwhelming majority of Americans identify with the "middle class"; and a recent study by Centers indicated that 78% of Americans report that they have a good chance to get ahead in their work, while almost 90% report the belief that their children have as good a chance to rise in the world as those of anybody else. The paradox lies in the fact that despite the official American ideology of equality, virtually every social scientist who has studied American social organization in the last generation has asserted some kind of a class system. The very resistance of Americans to the recognition of class in their society is itself symptomatic of the conflict of class organization with the official ideology of the nation. When class position is recognized by Americans, it is recognized grudgingly and often with anger as something un-American and wrong.

Several lines of social science evidence suggest solutions to the puzzling and seemingly contradictory character of class in America. In the first place, studies which see American values as a system

rather than a disparate and unrelated series point out the fact that there are values of inequality as well as of equality in America. While the official values of equality and the brotherhood of man and the unofficial "cult of the common man" keep class lines from crystalizing and becoming absolutely fixed in America, certain other values — just as significant — make some kind of differential ranking of persons and groups inevitable. First, the official valuation of equality refers not to the equality of persons, but to equality of opportunity — opportunity to achieve and succeed in the free enterprise system. In terms of the unofficial values necessary in order to apply the official ideology to specific situations, the importance of success and the competitive process through which success is won imply the ranking of persons in a hierarchy of worth. If individual initiative and effort are important, if achievement, doing, and mastery are valued; then it is inevitable that individuals will be ranked in order of achievement and "good works". And if equality of initial opportunity and individual responsibility are asserted, then the whole ranking has its justification in the American value system. Thus the successful have reached their high places through superior ability and superior output of effort, while the unsuccessful have failed to reach high places because of lack of ability and/or failure to exert sufficient effort. Evidence from most social scientific studies conforms to this view of stratification in America. While Americans deny class in their society, they are quite willing to rank the individuals and groups in their communities in a hierarchy. Thus Americans do not deny the reality of class, but only

the value of class. In their seemingly paradoxical behavior, they are stating that class organization is antithetical to their official values, but that the differential evaluation of individuals is necessary in order to put their values into operation.

Because of the contradictory nature of certain American official values and the realities of hierarchical ordering of individuals and groups, social classes in America have been defined in large part by social science analysis rather than in the minds of people in the society.* These social science "demonstrations" of class have taken various forms. Some investigators have taken specific attitudes and behavior and shown them to differ systematically along class lines. For example, Allison Davis has shown that type of training given to children follows class lines; Kinsey and his associates have demonstrated the class patterning of sex behavior; Centers and the various national opinion polling organizations have shown voting behavior and political party affiliation to differ with class; Hollingshead has shown systematic class differences in attitudes toward the consequences of the atomic bomb; and various investigators including Centers, Jones, Warner, and the Lynds have shown that such attitudes as those toward opportunity in America and the clash between "human rights" and "property rights" follow the lines of class affiliation. Other investigators have taken whole sets of cultural characteristics — such as style of life and typical goals and motivations and demonstrated that these configurations can be

*The best and most recent summary and analysis of the social science evidence on social class in America is a paper by Walter Goldschmidt, "Social Class in America — A Critical Review", appearing in the American Anthropologist, Vol. 52, No. 4, October-December, 1950.

ordered by class. Among these are Warner and his associates, the Lynds, Gardner and Davis, West, and Goldschmidt. Level of living studies made by numerous economists and sociologists and by government agencies show material possessions, objects of expenditure, and general standard of living to vary with class. Economic analyses show class differences in relation to the instruments of production and assert the existence of certain fiscal elites in America. And finally, the students of the local community in America, chiefly anthropologists, assert the importance of hierarchical ranking of individuals and groups as an organizing principle at the local level.

The social science literature seems to indicate the following generalizations on class in America.* In the first place, there are extreme differences in wealth, economic conditions, prestige, and power between individuals and groups in America. But secondly, equality of opportunity is a major part of the American credo. This credo is supported by a relatively high level of individual movement from one class to a higher one, but most persons remain in the economic and social status to which they were born. In the third place, the life ways of people vary with their level in the class hierarchy. Fourth, a common system of values by which class position is measured seem to exist despite the heterogeneity of the American population. Of primary importance are occupation (source of income) and expenditures (public display of income); but in addition to these monetary criteria, considerations of family or

* Based primarily on Goldschmidt's summary.

"background" and education or "culture" are operative in the most immediate spheres of the individual's life. In the fifth place, subtle differences in values and in commitment to the core of the American creed exist between the classes. (This important generalization will be taken up in more detail below.) Sixth, attitudes on issues such as labor, governmental assistance, and "human rights" vary with class level; and a high degree of concentration of control at least in the economic sphere, has been demonstrated. These differences in attitude are related to differences in class, but conformity to the class line in America is irregular. Last, class identification is frequent, as shown by the readiness of persons to identify classes in their local communities and in the national economy. Other significant evidences of class alignments are the trends in the last two decades to increased unionization of the working classes and class patterning of voting.

These pieces of evidence suggest the emergence of a class system in America, although it is not yet clearly defined. While individual investigators have differed in the number of classes they have defined and in the criteria for class identification, certain important regularities in their studies suggest that the emerging pattern is toward a system of four basic classes, which are already important determinants of the values, goals, and motives of their members, and of differing degrees of commitment to the historic American creed.

The smallest and most clearly established of these classes is an elite which may be called the upper class. It is characterized by the long-established possession of power and money, by the stressing of

"family" and "background" more heavily than achievement and success, and by the adoption of an aristocratic mode of life quite distinct from that of the rest of the society. By stressing values which are inaccessible to "social climbers" — tradition, lineage, family integrity, leisure activities and "refinement" — the upper class elite is able to maintain its distance from the mass of the population. It is possible to lose wealth without losing class position among the "uppers"; leisure rather than labor is dignified; social ritual is more important than the Ten Commandments, but still there is a high regard for personal morality. The upper elite in America is thoroughly committed to the official American creed, at least at the verbal level; but at the level of unofficial values it deviates significantly from the core of the American value system. Most important are the upper class valuation of who a person is rather than what he does; the traditionalistic facing toward the past rather than the more characteristically American facing toward the future; and the emphasis on an individual's responsibility to his lineal family rather than to himself as an individual. This elite is not found in each community or even in most communities, but is concentrated in the larger urban centers, and in certain of the oldest and most stable areas of the eastern seaboard and the South. The fact that the vast majority of Americans have had no personal contact with this elite group is no doubt an important factor in the frequent denial of class by Americans.

In the middle class, constituting about 40% of the population and including professional, managerial and proprietary groups, is found

the truest embodiment of the American value system. Absolute equality of opportunity and its correlate, the individual's responsibility for his own status are heavily emphasized, and are manifested in the unofficial values of self-control, ambition, and "style of doing things". Great stress is put on property values and ownership, thrift and hard work, respect for law and order, and emotional control in the present in the interest of a bigger and better future. The individual is expected to be a "good fellow" who holds a "respectable" job and who associates socially only with "respectable" people. He is expected to have good manners of a conventional type; and he is severely disapproved if he is conspicuously different from his associates. In his motives, the middle class individual shows a strong sense of duty and responsibility; he is ready to "do a job" and to be responsible for the consequences of his performance. At the upper end of the middle class is found conspicuous consumption of expensive goods and services, which are significant as "badges" of success in the competitive system. In summary, the middle class is most fully in accord with the dominant American value system, stressing opportunity and freedom from restraint; effort, achievement, and success; the future as the "golden age" yet to be fully realized; and individual initiative and responsibility.

The third class in the emerging system may be called the working or laboring class. It is different from the middle class not merely because it is made up primarily of manual workers, but because it rejects, or tries to reject, the middle class values of advancement through individual achievement. It devalues the middle class standards of self-discipline

and self-containment, and the middle class optimism about the future. For individualism it tends to substitute identification with labor and the ideal of collective action for social gains. While it accepts the basic desires for material goods and wealth, it tends to see the solidary group rather than the responsible individual as the basic unit in the pursuit of these goals. It is more concerned with the immediate problems of subsistence than with the accumulation of property for the future; and it exhibits less respect for property and for the law. It is less confident that effort, moral purpose, and rationality will result in mastery over one's surroundings; and it is less concerned than the middle class with thrift, work for its own sake, cleanliness and the social graces. It is more tolerant in its judgment of morality; and it considers itself less a part of the total community.

Although the working class departs significantly from the most general values of American culture, it is significant that this segment has not developed to the extent of its counterparts in European culture. This is due at least in part to the official denial of class in the American ideology and to the valuation of individual achievement which has drained off from the working class most of those individuals who are sufficiently in line with the general American value system to succeed in the competition. These individuals have most often broken their ties with the working class and moved into the middle class.

The fourth class in the American system is made up of those laboring people who depart from the general American ideology to such an

extent that they accept their laboring status and do not expect to advance, either individually or collectively from their position. They inhabit the slums of cities and the sharecropper slums of the rural South. Their ways of life are degraded, and they are oriented to present impulse satisfaction rather than to success in the future which is sufficiently promising to warrant either thrift, hard work, initiative and responsibility, or self-control. They are the "floaters" and "drifters" who are thoroughly alienated from the core of the American value system.

The class system of America is not rigid or crystallized. The cultural denial of class remains strong, but convincing evidence of a rather flexible class system which is necessary to the understanding of America today abounds in the social science literature. Class is necessary in order to understand and predict the behavior of Americans, but we must not exaggerate the importance of class. Within the framework of generalized American values and goals which operate to minimize class-type organization there are more specific values and conditions according to which the behavior of individuals in different social divisions of America is organized. The principal specific values of the middle class are most fully in line with the general, culture-wide values of America; the ideology of equality of opportunity, romantic individualism, the importance of effort, achievement, and success. Members of the upper, the working, and the lower class also adhere to these culture-wide values, at least at the level of official, explicitly verbalized values. At the level of more specific goals and of

unofficial values, however, the members of the upper and working classes and especially the members of the lower class are far less well integrated with the general values of American society. Herein lies a source of much tension; and failure to recognize it accounts in part for the frequent difficulties of educators, welfare workers, and hospital authorities (almost always middle class) in handling lower class persons. But the American unity of values provides a theme to which there are many variations, some of which are not out of tune with it. As long as America is committed to its historic "creed", it will find it necessary to maintain a shifting balance between equality and freedom on the one hand and invidious comparison and class on the other.

While concepts of class organization and differentiation seem necessary in order to understand contemporary America, one must not exaggerate the influence of class or the decrease in social and economic mobility. It should not be forgotten that almost all of the community analysts who have emphasized class have had a propensity for studying the more static communities, those in the "backwater" of America's main current. In view of the fluidity of America's class system, perhaps one should avoid the word "class" with its misleading European connotations and speak of status groups instead. But on the other hand, one should also avoid the opposite error of dismissing class in America on the ground that class organization is alien to the official beliefs and values of Americans.

SIGNIFICANT CLEAVAGES: REGIONAL

All of us are conscious of the fact that there are significant regional differences in the diverse fabric that is American life, and of the intensely local character of certain American loyalties — to "my hometown" and to "where I come from." Southerners are different from Northerners; and Texans are in many respects different from South Carolinians; New England Yankees are different from Mid-Westerners; and Californians are not quite like anyone else. But since in America there are no universally accepted provinces ready to accept the leadership of a provincial center, there is surprisingly little social science knowledge on the subject of regional differences in values and in culture. There are multitudinous studies by ecologists, demographers, and geographers showing differences in natural environment, settlement patterns, and population characteristics such as birth rates, death rates, age and sex composition, etc.; and there are studies by economists and sociologists focusing on standard of living, income from manufacturing and farming, resource-use, etc. But in this large volume of literature showing regional differences in certain natural and social characteristics, there is little systematic work on regional differences in culture or in value system. There are studies of communities in the various regions of America, and certain historians such as Frederick Jackson Turner and James Truslow Adams have been interested in the development of regional and sectional distinctiveness; but to supplement these two types of sources there is little beyond impressionistic reports of

regional differences in values. Thus most of the statements in this memorandum explicitly directed to regional values have the status of reasonable inferences from literature which seldom treats values explicitly or systematically.

The sociologist Odum delineates six major regions of the United States which we shall call the Northeast, the South, the Southwest, the Middle West, the Northwest, and the Pacific. The Northeastern region is practically synonymous with the historian Frederick Jackson Turner's greater New England, including in addition to the New England States New York, New Jersey, Pennsylvania, West Virginia, Delaware, Maryland, and the District of Columbia. This region is the historical cradle of the nation, the concentration area of population, industry, cities and wealth. It is the home of the "Old Americans," the "Yankees," and the Puritans, but it is also the home of heterogeneous immigrant populations and the center of American Catholicism. The people of its great cities, which fail to reproduce themselves biologically, is extensively recruited from the surplus population of more agrarian regions of the nation, as well as from immigration. The most recent immigrant streams — from Southern Ireland, Italy, Poland and Central Europe, French Canada, and Puerto Rico — are predominantly Catholic in religion, while the migrants from other regions of the United States — whites and Negroes from the South and "Old Americans" from the West — are predominantly Protestant. At the heart of this region are the city, the factory, and technology; even the rural people are closely tied to the city in whose markets they sell their produce. The conditioning of the past is

everywhere apparent in the Northeast, but the vast majority of its people continue in typical American fashion to look to the future with optimism as the golden age bigger and better than the past. Urbanism, industrialism, and technology have provided the ever-expanding frontiers necessary to continued dynamism of the official creed of individualism, achievement, and future success; as well as concrete monuments to the efficacy of the American system. The impersonality of urban life provides a fit medium for the operation of the American values of abstract justice and equality of opportunity, and for the judgement of persons predominantly in terms of what they have done rather than in terms of who they are. Opposing the tendency of the egalitarian attitude to persist in the Northeast, however, are the crystallization of class distinctions in certain of the older and more stable sections, and the emergence of hereditary elites cultivating the aristocratic way of life in the largest cities. Among the urban working classes and certain minority racial, religious, and ethnic divisions of the heterogeneous population, the traditional individualism seems to be yielding to group consciousness and collective action and responsibility in the achievement of group goals. Trade unionism is perhaps the best example of this increasing subordination of the individual to the collective pursuit of group goals.

If the Northeastern region typifies "Americanism," then the great Middle West is even more "American." Here, in the relative recency of frontier, migration, and westward movement Europeans became in reality

Americans rather than transplanted Europeans. In the quality and composition of its population, the nature and diversity of its occupations, and the balance of its industry and agriculture, its urban and rural life, the Middle West is perhaps most fully "American." The regional sociologist Odum has so characterized this region in which he includes the states of Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, and Missouri. Here in the midst of a vast wealth of natural resources we find urbanism built on an agrarian base — a fertile environment for the flowering of the American creed of equality and freedom~~to~~ to achieve and succeed, democracy and justice before the law, private property, individual responsibility, and free enterprise. Doing and effort, reason, technology, and moral purpose have resulted in mastery of the environment, as indicated by the high standard of living of the region; and past achievement in terms of the American ideology justify an optimistic facing of a future which promises even greater rewards. In the manufacturing centers the traditional individualism is veering in the direction of collective solidarity, but in the more agrarian Middle West this tendency is counter-balanced by the intense individualism of its rural people.

The new Northwest, in which Odum includes the western mountain states of North and South Dakota, Kansas, Nebraska, Montana, Idaho, Wyoming, Colorado, and Utah, is an even more recent frontier of westward migration, but it is not so richly blessed as the Middle West with the natural resource base necessary for the continued expansion

which seems necessary for peak vitality of the American creed. This region is predominantly rural and agricultural, lacking the balance between urbanism and agrarianism, manufacturing and farming which led Odum to characterize the Middle West as the "most American" region. Scattered through this region are numerous enclaves of minority cultures deviating in various respects from the central American value system — the Mormons of Utah, the Russian Mennonites, and many remnants of American Indian tribes. The Northwest pattern of immigration has been one of "group-settlement" of agrarian newcomers who continue to live in ethnic pockets and are thus being acculturated to full "Americanism" slowly and with difficulty.

Odum's Far West region, including Washington, Oregon, California, and Nevada, is in the words of Brogan typically American in being enterprising, unsettled, careless, a mixture of science, rudeness, shrewdness and superstition, happy, confident, and grasping for the future. This is a formative and fluid region of the future where everything that is American seems to be sharpened and exaggerated — the highest standard of living in the world, indignant soapboxers and grimly standpat conservatives, raw flaming youth and fagged-out oldsters, a baronial aristocracy and an aggressive working class, fluidity and change in the shadow of the ancient culture of the American Indian and the Spanish padre. The Far West is the national testing ground for Americanism, providing the new frontier of future success through individualism and free enterprise. But in the treatment of its racial minority groups — principally Orientals and Spanish Americans — it deviates from the

official American values of equality, freedom, democracy, and justice perhaps to a greater extent than the Northeast, the Middle West, or the Northwest.

Regional students agree that there are two, not just one, "South" in America. Odum calls one region, approximating the "Old South," the Southeastern and places in it the states of Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Tennessee, and Kentucky. His Southwestern region represents a culture long since differentiated from "the South" and nearer West than South. It includes Texas, Oklahoma, New Mexico, and Arizona. In the Southeast we find the most highly developed regional consciousness in America --- consciousness and loyalty which often takes on the "sectional" character of placing the interests of the region above those of the nation. The most important factor differentiating the South from the rest of the nation is common historical experience which diverges significantly from that of the nation as a whole. The Southeast fell out of step with the nation long before 1861, and since its defeat in the Civil War has to some extent turned in on itself in veneration of a "past of fables." The Southeast is that part of America which has the highest proportion of Negroes, members of evangelical Protestant churches, illiterates, murderers, drinkers of coco-cola and tenant farmers, and the smallest proportion of voters, taxpayers, Catholics, Jews, and immigrants. The Southeast, with its remnant of an upper class which sometimes produces good statesmen and its depressed poor whites and Negroes, maintains a defensive ideology

which looks to the past rather than to the future and which is significantly out of step with the dominant American value system. The tendency of non-Southern politicians and urban intellectuals to belittle and characterize as bad much of the culture of the South and to refer to the South as the "disease" and the "problem number one" of the nation has tended to heighten this tendency to militant defensiveness on the part of Southerners.

The main traits of Southern culture are strong individualism, strong Protestant religious influence, strong sense of honor, impatience with formal organization and law, and allegiance to the family, organized primarily in terms of patriarchal authority. The official creed of the nation is accepted verbally in the Southeast, but the meanings of the terms are often different. Individualism in the South means the right of each individual to make his own decisions, including the right to choose not to associate socially with the Negro. Democracy is framed primarily in terms of political rather than social democracy; and political democracy means the right of the majority to rule, and even to disenfranchise some elements of the population defined as innately incapable of assuming the responsibilities of democracy. Thus the spokesmen of the South use the language of democracy in defending their values which often deviate from the core values of the nation. The content of the vocabulary is familiar, but its implications to the Southerner are quite different. Perhaps the most important unofficial value distinguishing the Southeast from the rest of the nation is the regal personalness of life in the South as opposed to the egalitarian

impersonalness of Northern living. This value is perhaps a survival of the rural and agricultural nature of the early South, but it is a value predominantly important in the contemporary South. It connotes emotional involvement and face-to-face relationships; and its highly valued corollary "kindness" connotes relationships involving patronizing understanding on the part of superordinates and a reciprocity of unlimited devotion on the part of subordinates. These personal relationships both reassure and enslave; and in the traditional Southeast they have an equal hold on the superordinates and the subordinate, the white master and the Negro servant. These unofficial values of personalness and kindness seem to be the emotional heart of the distinctiveness of the Southeastern way of life. Both the great graciousness, hospitality, and friendliness of Southern life and the great capacity of the South for violence seem to be facets of this aspect of the culture. Individuals matter and feelings for individuals are important. Personalities are more important than ideological issues, which come to life through personalities. But intense personal feelings of this order can break out in violence rather than kindness when the expected reciprocities are not found. Framed in these personal terms, an individual is either a friend or an enemy; there is no middle ground. And when life is led in a setting of personalness and emotional involvement, the disinterested criticism and the abstract standards implicit in the official creed of America are difficult to apply to everyday life. Thus, while the Southeast holds to the official creed of America at the official verbal level, it deviates from it in the

peculiarly personal and emotionally loaded interpretation it gives to its premises.

The sixth great American regional sub-culture is found in the emerging Southwest, which includes the states of Texas, Oklahoma, New Mexico, and Arizona. Culturally this area has long been differentiated from the South, even though its largest state, Texas, was a member of the Confederacy. Nor is it completely East or West or North. Because Spanish and American Indian cultures were so deeply imbedded here before the arrival in dominant numbers of "Americans," there remain in this region more vestiges of "alien" culture than in any other major area of the nation. The presence of large numbers of "Mexicans" in the population — people who have inhabited the area for generations, who speak the Spanish language, and who practice Spanish-American culture — perpetuates this situation of heterogeneity and less than full "Americanism". Dominant though the "American" is now, his frequent contact with a Latinized culture has its inevitable effect on his behavior and his attitudes. Accentuating the lack of full conformity to central American values in the Southwest is the strength of the "Southern way" in the Southwest. Not only is Texas usually thought of as "Southern," but the principal migratory streams settling the other states have been from Texas and the South. In these respects, then, the Southwest is perhaps the least fully "American" of the six regions. On the other hand, the Southwest is intensely American in its fast-growing cities and bigger-and-better motivations so characteristic of the frontier, in its oil derricks and cattle ranges, its conversion of the desert into fertile

fields through the rational techniques of irrigation and scientific agriculture. Like the southeast, it has its problems in reconciling the realities of the treatment of its substantial minority groups with the official American creed.

SIGNIFICANT CLEAVAGES: RURAL AND URBAN

The original of much of the American value system is rural and agrarian; the basic Jeffersonian conception of America was that of a nation of self-sufficient farmers who must be freed from the restraints of strong government and the demoralizing influences of large cities. Thus many of the historical values and expectations of America seem "rural." The English historian Brogan goes so far as to suggest that ideally America, with its Protestant rural creed is a farmer's republic, "where the population doubles every year" and land values and markets increase proportionately. As many social scientists have shown, the more primary and personal world of the country, where farmers are typically individualistic, independent, conservative, mystic, possessed of deep convictions, superstitious and fatalistic in their direct dependence on fortuitous "Nature," contrasts today to the point of tension with the world of the increasingly populous cities where people live past one another in congestion and impersonality. To a significant extent, rural-urban differences are paralleled by Protestant-Catholic differences in religion and by "Old-American"-immigrant differences in ethnic composition of the population. Rural people, using as their critical standards the agrarian Protestant values of stability, personal relations, and

simplicity, tend to define the city and urbanization as "evil" and "immoral," as a threat to basic values and to rural interests.

While, as Kingsley Davis has pointed out, the urban population of the United States has increased 420 times since 1790 at the same time the rural population was increasing only 15 times, there are many characteristically rural survivals in American urban life. Tomars suggests that the typical urban preference for a single-family house with a fireplace if possible is such a survival. And due to the rapid recent growth of American cities, in addition to the fact that birth rates in cities usually fall below the level necessary to maintain the population, the "typical" American city-dweller is only one generation removed from either a farm or a rural small town. He is thus in many respects sympathetic to the farmer and to rural values and deeply suspicious of the typically "urbane" person whose external conformity, superficial politeness, and sophistication hide rather than reveal his internal motivation and state of mind. Still meaningful to him is at least that part of the rural value scheme which strictly defines the "manly man" and the "womanly woman" and which abhors as sophisticated and affected that whole range of habits for which the cigarette holder is one symbol. Perhaps the principal changes in the rural value scheme brought about by city life have been modifications in the rural definition of morality in the direction of greater tolerance, and modifications in the traditional rugged individualism in the direction of greater concern with and responsibility to certain collectivities organized principally around secular rather than sacred interests and goals.

AMERICAN NATIONAL CHARACTER

Innumerable books and articles full of simple statements have been written about Americans and their style of feeling and thought. There is something deceptively simple about American personality with its emphasis on being outgoing, friendly, open to inspection. But were these simple statements wholly true, Americans would not have accomplished what they have or survived what they have survived. On the other hand, the literature is also full of contrasting statements about Americans. Americans believe in individual achievement, yet there is a general passivity and fatalism when it comes to public issues. They believe in freedom and yet conformity is to be found everywhere. They believe in equality of opportunity, yet they believe that without breaks or pull few get anywhere and that breaks and pull certainly are unevenly distributed. These contrasts are obviously of different sorts and of varying severity. Paradoxical statements as alternative to simple statements about the American character thus also have their shortcomings. But there is agreement that the investigation of feelings shared by Americans, of the manner in which Americans sustain relationships to parents or children, or equals or superiors, or of the way in which some specific characteristics develop early and change or persist is very useful and important indeed. Large-scale efforts in this field are, however, still few and tentative, though the literature is full of most suggestive hunches.

On a general list of American characteristics there is substantial agreement:

1. They are geared to success and to winning. Winning is somehow always possible. Obstacles are invigorating. For defeat there is just no answer and no rationale.
2. They are extravagant, generous, wasteful, in some ways lazy.
3. They are gifted in technology, organization, gadgets, mechanical devices.
4. Results count, but apart from results there should be fun and happiness. Formal dignity, like the past, goes ignored. Attention is paid primarily to the future, to effort and mastery.
5. To others one is open and expects the same from them. Such openness is accompanied by friendliness, but not by intimacy. The core of the American, with its fear that he might not be adequate, might be a failure, might be unwholesomely different from others, is hidden. Trouble, that other side of the American dream, is hidden. As long as possible one remains easy going. But friendliness has a right to change into aggression where the other has been the attacker: then one must fight, be tough and fair.
6. Americans are gregarious and alone. Peers are highly important in the sum total of one's relationships. They set and maintain standards and give advice, by the by. But Americans are a "lonely crowd." It is their responsibility to strive on their own and to keep in line with their set. It is not, on the whole, their privilege to develop individual uniqueness, to cultivate individuality that might accompany their individualism.

But how widespread are these traits, how do they differ from class to class or region to region, where do they come from? The literature, at its best, is aware of these vexing problems without being able to render definitive answers at this moment.

Some situations and relationships have been more deeply probed than others. Some agreement exists, for instance, concerning the questions of

authority. American culture in general and the family in particular generate a predisposition toward anti-authoritarianism. Americans do not like people who pull their rank. If one is barred from certain privileges because they are expensive it is one thing. One might at some future time afford them. In principle they are available. It is quite another thing to be told that these privileges are out of one's reach because one is not an officer or not called by a certain name. Authority as the mark of inequality of status is objected to. However, leadership is acceptable; "bosses" too flourish - in various contexts. The anti-authoritarianism of the American, in other words, goes together with a willingness to lead or to be led, some capacity for being oneself "authoritarian" and a need, often denied, of being dependent on the decision and imagination of others. It makes sense, accordingly, for Americans to be anti-militarist without being anti-military; besides, they like to play with tin soldiers.

Aggression is another frequent topic of discussion. It is generally agreed that there is a vagueness and confusion of standards concerning what is appropriate aggression at home, on the street, in business. Classes differ. The lower class tends to be more physical in its aggression; the middle class is more verbal. The sissy and the bully are despised alike. For a boy it is important to be a good fighter and to prove his manliness. As an adult he attacks provided he can justify it as defense.

Another facet of the American character is its attempt at simplification. It seeks simple answers. It measures varied matter on uniform

scales. It accompanies its optimism by a faith in simple formulae. Inevitable issues are somehow denied; death tends to be hidden by the morticians; complicated emotions are suppressed; problems are "solved" by starting afresh. Yet there is a tentativeness about these simple answers. Americans shift almost easily from general principles to temporary slogans, from "the brotherhood of man" to "let's get the hell out of here". This tentativeness is sometimes also referred to as superficiality. Americans avoid intense involvements. They move through particular situations and analyze their behavior in terms of external events or the particular acts of others. It is to others that they are primarily oriented, for they do not wish to be alone and they always try to evade their loneliness. Yet their privacy remains defended. Social intercourse, therefore, involves much of one's time but little of oneself, despite the fact that social relationships are kept as informal as possible. Such informality and superficiality keeps personal tensions at a minimum. Americans thus function well in groups. By exposing themselves to groups they also open themselves to inspection and to becoming similar. There are limits to all this and there are other sources of tension, notably the pressures of time and work. These leave especially men little time for personal and family matters. Consequently the male needs for being dependent and looked after which inevitably accompany his other desires to success and domination often go unfulfilled, and become, moreover, accentuated in the hard world in which he spends most of his time.

For some the services might well be an escape from such a world. In civilian life, the many voluntary associations - by-products of a stratified society - provide a balance; meanwhile the home is in some cases haunted by the spectre of "momism." The "mom" fills in for the otherwise occupied father. At her worst she a moral authority who blames her children, not herself; she teaches self control without exhibiting it; she suppresses her children's sensual needs and tries to maintain her own, often inappropriately so; she expects her children to be hard on themselves, while she herself has tendencies toward hypochondria; she stands for tradition and is afraid of her own old age.*

For these and other reasons some writers believe that in America the girl has in general an easier time of growing up than has the boy. Unlike the former, the latter must soon learn to make a distinction between the mother as teaching him his values and the father as teaching him how to act as a man. In technical parlance he must identify with the father's "role." The girl may identify both with the mother's values and with her role. Since the fathers of so many boys cannot actually be seen at work and since the distinction between men and women is becoming less clear as mothers share with fathers in the disciplining of children and fathers share with mothers in housework, the boy's task of identification, of knowing through his feelings exactly what is masculine and feminine, is a difficult one. The girl, by contrast faces her task in learning to treat a man. Her fears are concerned with

* This description is taken from Erikson, Childhood and Society Chapter 8: Notes on the American Identity.

being let down or exploited. The boys fears are concerned with being adequate as man, breadwinner and lover; they are also concerned with being rejected by women. This is especially so within the middle classes. In living up to adult expectations, men and women thus are required to balance and unite diverse demands. Women are expected to be attractive (if not glamorous), good wives, good mothers, good housekeepers. Men are to be successful, good husbands, good fathers and above all masculine. Some observers in fact sense in America a "compulsive masculinity." This strict division between masculine and feminine standards is accompanied by a division between youth and age. The accent is on youth, irresponsibility and romance. These are the best years of life. Adults must be responsible; but they may have temporary relapses into youth, especially at various reunions away from home, supported by alcohol. Women, moreover, ought to stay young. Yet there is a pressure to settle down, to found a family and a home. It is often a transportable home. To settle down is not to stay put. The American character harbours a restlessness and a capacity for several kinds of mobility: social and geographic and occupational. He drives himself and his car; he is more often at peace when he can keep going than when he has to stay in one place. In America it is still "too early to relax"; the young are kept on their toes; the old are often not respected; their achievements are to be exceeded. Yet, though age is not respected for its own sake, young men with much power are suspect; "experience" is a valued asset which, unlike education, ensures that one has enough "common sense."

For any one person all this starts at home. The family is "a training ground in the tolerance of different interests, not of different beings." The family is geared to the outer world with its different classes, its emphasis on occupation and money as a symbol. In the family one accrues "claims for future privilege, justifiable on the basis of past concessions." In the peer group one can compare one's family with the families of others; and from then on the representative American remains aware of others' evaluation of him, strives on his own and joins with others who do likewise in voluntary organizations, balances job with family, hopes his children will avoid his mistakes and tries to maintain an area of freedom for his own decisions in a world that anonymously guides him along.

AMERICAN CULTURE AND THE ARMED SERVICES.

The previous sections on American values, class, regions and national character provide in brief an outline of the kind of society within which the Armed Services operate. In a sense the Armed Services constitute a separate world. Yet their members come from America and the morale of fighting men is affected by civilian morale and vice versa.

The representative American gears his life to being a success by virtue of his own efforts, to being happy, having fun, and accumulating material possessions as symbols of his success. He is interested in activity, not in speculation; in practical effort, not contemplation.

He gets his sense of power from his achievements and his possessions, not from being allied with a great cause or a strong collectivity. However, in the course of his individual efforts he accumulates enough loneliness to be in need of the support of smallish groups. These, again, do not stand for causes, but for common interests and common activities. In one sense, therefore, the typical American does not wish to fight and does not wish to be part of a military system in which he must obey orders and gear his habits to those of others. Once war is given, though, he will fight and do a good job. This he accompanies with gripes towards the Armed Services, resentment toward those who do not share his hardships and toward those who can continue the primary civilian effort of getting ahead while he is not directly adding to his own successes. The great American emphasis on happiness is bound to produce a generalized feeling of dissatisfaction and a readiness to compare oneself unfavorably with others who are "better off" and "getting a better deal." In many ways, therefore, the military situation runs counter to the things Americans expect to get out of life. At the same time it can capitalize on some of the needs civilian life accumulates without always fulfilling them: the need to be a man and to have friends on whom one can rely.

Inevitably the army imposes other strains, given on the one hand the strengths and weaknesses of the American character and on the other the mission of the military unit. For instance, the American character relishes action; "doing something about a situation" -especially if it is a critical one. In the Armed Services, however, there is bound

to be the familiar "hurry up and wait," - a complaint frequently heard by chaplains as very frustrating to American men. The Chaplain, by the way, can legitimately act as a sympathetic listener, perhaps even a go-between, who can promise remedial action without the threat of punishment. Furthermore, one can voice criticism to the Chaplain which cannot be voiced directly to the authorities involved. This is important in view of the previously stated American value that no one ought to be immune to legitimate criticism. In a sense, of course, military organization cannot fully allow for this value; thus the chaplain's role as an outlet for tensions and gripes - apart from his spiritual functions - seems a very much needed one.

In America, military society and civilian society poses an especially vivid contrast, compared with more tradition-bound societies (such as Germany and England). The question of officer-enlisted men relationships is bound to be a significant one under these circumstances. The presence of visible differences in privilege and authority easily becomes a provocation to people taught to regard themselves as equal with others, or at any rate as potentially equal, once enough money, experience or luck is available.

However, Americans will fight. They will accept war as a temporary necessity. They will accept discipline as a means to an acceptable end. They will go through deprivation in order to return home again.

AMERICAN CULTURE AND MILITARY PROBLEMS

Available research and resources

Without a doubt the four volume work, The American Soldier (by S. A. Stouffer and others) is the single most useful and compact source book in this area. It would by far exceed the limits of this report to give an at all adequate survey of the problems discussed or raised by this extensive work. In fact, a special work Continuities in Social Research, acting as a commentary on the American Soldier, edited by R. K. Merton and written by several social scientists, is about to be published. Also important is Volume LI, Number 5, March 1946 of the American Journal of Sociology, completely devoted to various phases of "human behavior in military society." Various social scientists have subjected their own military experience to systematic scrutiny. Good examples of this are George Homans: "The Small Warship," (American Sociological Review, Vol. XI, 294-300, 1946) and David M. Schneider: "The Culture of the Army Clerk" and "Some Observations on Army Basic Training," both published by the Institute for Intercultural Studies, New York and "The Social Dynamics of Physical Disability in Army Basic Training" (Psychiatry, 10,3, August 1947).

Some important general trends emerge from these various studies:

1. The American armed forces constitute a separate social world within the larger American Society on which, however, it is dependent in many ways. The Army's social world is characterized by a changing balance of several traditions:

- a. The modern American democratic tradition
- b. The mediaeval feudal tradition
- c. The recent effort of applying scientific knowledge to the management of men (rather than merely the management of machines)

In addition, the formal organization of military life is always accompanied by informal organization and arrangements; without these the smooth functioning of the military forces would be impossible.*

2. In some respects the American army is in a state of transition. In the "old army" differences between military life and civilian life were especially marked; in the "new army" various devices (screening, education, application of "psychological principles") are employed in the hope of reducing the more disabling aspects of the army's authorization organization, its highly stratified social system and its emphasis on traditional ways of doing things. Consequently many phases of army procedure present themselves as "problems" to be considered by a range of experts. Such "problems" include: design of screening devices; methods for maintaining morale and diagnosing signs and causes of its decline; appropriateness of various kinds of indoctrination; constitution of units relative to geographic, racial and other factors; relative emphasis on technical vs. general physical fitness training; etc. The Army, like American industry and business, is becoming a large scale organization involved in innumerable technological and human problems. The problem of balancing "efficiency" and economy with acceding to demands coming from a democratic tradition emphasizing technical competence, individual initiative, reassuring sociableness, freedom from interference and chance for betterment, is not an easy one.**

* See especially A.J.S., LI, 5: 361-375, March 1946

** See especially: The American Soldier, Vol. I, ch. 2

3. The one most crucial difference between American military and civilian life is the Army emphasis on authority, hierarchy and differential privilege based on rank, not wealth or immediate achievement. This will continue to be a source of "griping," especially where men undergo the experience of "subordination" for the sake of fighting for "democratic" principles. It remains to be explored in detail to what extent the rank system of the Army is dictated by the purposes of the Army: to fight effectively. Some branches of the services lend themselves to more equal arrangements between officers and men than do others. The extent to which General Carlson's "experiment" could be applied on a wider scale is not yet known.*

4. Actual morale and motivation for combat are the products of a balance of opposite forces. The positive factors include: a desire to be a man and to use the soldier role as a demonstration of one's manhood which is of relevance to later civilian life; a desire not to let one's buddies down; a desire for survival and return. Negative factors have to do with the relative deprivation one experiences within the army, given one's previous educational level and general expectations. American civilians bring to their military tasks desires concerning: status in the Army - formal and informal; experience which would be useful in civilian life; survival and avoidance of injury; minimum loss of accustomed civilian comforts.**

5. The place of commitments to the American creed in the motives of fighting men is difficult to assess. Under conditions of stress, certainly, there exists a "tabu" on discussing what seem at such times sentimental

* See especially, The American Soldier, Vol. I: 65-75

** The American Soldier, Vol. I: Ch. 7

issues (love of country), etc. ; concentration is instead on survival, on "getting the hell out of here." The rest is "bullshit," to put it briefly and accurately. One should not confuse an unwillingness to discuss convictions with a belief that therefore convictions, ideologies, knowledge concerning war aims, etc., are unimportant aspects of morale. It seems as though these lie behind other factors and that as such they play an important, but indirect role.

6. The more immediately important factors in combat willingness are those of masculinity and loyalty to peers (buddies) or tangible groups of which one is a part. Masculinity as an ideal consists: "courage, endurance and toughness, lack of squeamishness when confronted with shocking or distasteful stimuli, avoidance of display of weakness in general, reticence about emotional or idealistic matters, and sexual competency."* The group "in its informal character, with its close interpersonal ties, served two principal functions in combat motivation: it set and enforced group standards of behavior and it supported and sustained the individual in stresses he would otherwise not have been able to withstand.**

7. Once a war has been started and has been morally justified as a necessary defense of violated principles, the American soldier tends to accept it as "given," but as temporary, as something to be gotten over it, not something to be glorified in its own right. The principles that have been violated and that are to be defended are felt, rather than discussed. But they are felt. The urgent goal is to get home again

* The American Soldier, Vol. II: esp. pp. 131-167

** The American Soldier, Vol. II, p. 130

either to resume where one left off or to start again where previously one had not succeeded. Some of the army experiences are, however, then used as standards for civilian life. Sometimes mobility within the army is faster than it is in civilian life, and there are certain securities (prescribed duties, three square meals a day, regular pay, etc.) which the civilian population does not enjoy as uniformly as do all the members of the Armed Services.

8. The future problems of the American Armed Services will in part resemble those of the past; in part they will be new. Past research, such as that embodied in the American Soldier, should therefore be taken into account:

"If our nation should be forced to defend itself in global conflict, some of the findings may help prevent in another war mistakes which were made (in the last one)"*

For many of the current problems no direct knowledge is immediately available. Yet the collected data of various public opinion research agencies and other research enterprises are of potential use to the army and might well be tapped. For other problems the army itself provided a useful context for research and experimentation. The past work of the Research Branch clearly demonstrates this.

CONSIDERATION OF SOME SPECIFIC PROBLEMS OF THE SERVICES

Motivation for combat

1. Given American culture, a military organization based mainly on enlistment of volunteers is likely to attract predominantly people from economically depressed areas and from the lower class. This applies

* The American Soldier, Vol. I, p. 53

primarily to enlisted men. Evidence about regional and class differences suggests that officers will come primarily from middle and upper class groups, especially those of the South. In the regular army, where the majority of the enlisted men are concerned with individual security rather than with competitive achievement, problems of "relative deprivation" concerning various expectations for status, training or advancement are less likely to arise than in an army composed of draftees. In both cases, though standards of "masculinity" and of "loyalty to outfits and peers," will be important aspects of fighting morale.

2. The American soldier will fight well, when

- (1) His competence - concerning training and equipment - is superior to that of his enemy and can be relied upon under conditions of stress.

Therefore: the training programs should at all points be seen as leading to an effective mastery of the eventual reality of fighting. It should, that is, be seen as a continuous process leading from self-respecting civilian to good soldier. The question is not, for instance: calisthenics vs. no calisthenics; but: what can the soldier see as leading to improved chances for his survival. Factors among this would be physical fitness and technical competence and group support to help him maintain standards and master fear. Besides, technical competence as a matter of individual skills allows the soldier to be self-reliant, to assume - if necessary - responsibility and to avoid being too exposed to an authority which he in part rejects and which he might well lose in battle.

- (2) He is firmly tied to a continuous group, which sets and enforces standards of competence and expected behavior and supports him, especially in times of crisis.

Therefore: the group rather than any individual soldier should be treated as the unit of military organization. This is especially important for replacement policies as well as for training policies.

It is inadequate, for instance, to think of a platoon as of 40 exchangeable units, which are replaceable merely according to some norm of "efficiency." Men are not simply MOS numbers that can be fitted anywhere and replace any body. Besides, the group ties that they do enjoy compensate to some extent for the impersonality of army life. This impersonality further enhances the need for personal acceptance, especially since family ties that previously fulfilled this need are absent within the army context. Thus the importance of the peer group is established once more. But peer groups, to function properly, must be continuous as far as possible. Their capacity to absorb a steady influx of strangers is limited. Besides, such strangers will probably have to survive a period of initiation during which they are given less pleasant duties.

- (3) His deprivations are not out of line with the needs of the military situation as he sees them, do not exceed his own tolerance for frustration and are similar to the deprivations suffered by those around him.

Therefore: the visibility of differences should be minimized.

- (4) He is committed to a shared ideology which he can take for granted, about which he can feel rather than talk and about which he thinks in terms of concrete rights (i.e. to a job), privileges, pleasures and duties - most of which are set in the future. The Army life is thus a temporary matter separating him from these.

Therefore: the temporaryness of Army life will mean that the American soldier can stand some deviations from his accustomed civilian life,

provided he can be confident about a future in which these deprivations (though not necessarily others) will no longer be encountered.

Ideological indoctrination which it is direct in the past seemed to have had little visible bearing on combat morale and was often written off as irrelevant or embarrassing. Individual convictions - felt, rather than verbalized, - nevertheless played their important role. It would seem therefore that acquainting American troops with ideological issues ought to take an indirect form. Films devoted to teaching technical competence which is important for individual survival might, for instance, accommodate reference to ideological matters as well. Besides, the more the actual organization of army life can tacitly incorporate the principles of democracy and can involve "equality of hardship between officers and men, full understanding of common objectives, pride in group achievement, group discipline and sacrifices together with training for individual self-sufficiency in a pinch," the more acceptance of the American ideology is facilitated. Ideology taught by example rather than precept is most likely to have positive effects on combat motivation.

Composition of units:

1. Regional.

There may be some advantages to organizing local units: it makes for homogeneity, it allows the tapping of local loyalties. It also generates competitiveness which might spur effort as well as degenerate into aggressiveness and brawls. However, casualties might deprive any one given area disproportionately; this has serious consequences for home front morale. Besides, an army increasingly concerned with technical competence must select its men on the basis of aptitude and past training

rather than place of origin.

2. Racial and ethnic

While from the point of view of purely technical efficiency of troops there may be some advantages derived from segregated ethnic and racially composed units, the commitment of America to its historical creed of equality seems to make such a policy inadvisable. To the extent that it is important for the organization of the services to incorporate the principles of the creed, units organized on the basis of ethnic or racial origin will be inefficient. It has been argued that racially mixed units will be unacceptable to Southern white people. No doubt there will have to be some sacrifice in the efficient utilization of Southern white personnel; but on the other hand, there is evidence from World War II that the disruptive consequences of racial mixture are not serious. Studies reported in The American Soldier indicate that, once racial mixture in the units is an accomplished fact, the cost in morale and motivation is minimal. Some recent data from Korea on mixed Air Force units indicate real gains.

AVAILABILITY OF DATA ON THE PREVALENCE
AND INCIDENCE OF MENTAL DISORDER

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UNDER CONDITIONS OF MILITARY SERVICE

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AVAILABILITY OF DATA ON THE PREVALENCE AND INCIDENCE
OF MENTAL DISORDER
-Morton Kramer-

Summary

The limitations of the data available on the prevalence of mental disease in the United States are such that no attempt was made to estimate the proportion of individuals with such illness in the general population. Instead, a critical review is made of the existing data to point out the shortcomings of any estimates that might be made on these bases.

Such information as is currently available is derived from the annual census of patients in mental institutions, other studies on the hospitalized mentally ill, a prevalence survey in Baltimore, a similar survey in Tennessee and Selective Service and Armed Forces data.

Hospital Data. Data on the hospitalized population deal with only one segment of the mentally ill population, those sufficiently ill to warrant their being hospitalized. Even this number is affected by the uneven distribution and availability of diagnostic and hospital facilities throughout the country.

As of the end of 1948, 554,000 patients were resident in all types of long term hospitals for the care of the mentally ill, a rate of 3.8 per 1,000 population. Of all the States, New York had the highest resident patient rate (5.8 per 1,000). There is evidence that if every State had as adequate capacity as New York, the same high rates of hospitalization would be achieved throughout the nation. For example, if the age and sex specific resident patient rates for New York had been applied to the whole country at the end of 1947, the number of hospitalized persons would have been 774,000, as compared to the 541,000 actual residents. It is believed that the former figure is a reasonable

(Summary, continued)

II

estimate of the minimum number of persons in the country with sufficiently serious mental disorder to need long term hospitalization.

Community Surveys. Two extensive community surveys have been carried out on very different population groups, the Baltimore survey in an urban area of 55,000 persons and the Williamson County (Tennessee) survey in a rural area of 25,000 persons. Case-finding techniques, classification of cases and analysis of data were sufficiently different to make the results basically incomparable. For example, the rate determined for the Baltimore survey of 60.9 per 1,000 population relates to the number of cases active during the survey year 1936 and is thus a one-year prevalence rate. The rate determined for the Tennessee survey of 69.1 per 1,000 population relates to the number of cases (active plus inactive) per 1,000 population in the survey area as of September 1, 1936, and is a one-day prevalence rate.

Selective Service Data. During World War II, more Selective Service registrants were rejected for mental and personality disorders than for any other defect. As of August 1, 1945, an estimated 856,000, or 17.8 percent of the 4,823,000 rejectees aged 18 to 37, had been rejected because of such disorders. In addition, studies based on a sample of first examinations during November 1940 to December 1943 revealed that the prevalence rate for mental disease was 55.8 per 1,000 men aged 18 - 44 years. The limitations of Selective Service data, however, are such that it is hazardous to apply rates for the prevalence to mental illness in males examined by Selective Service to the comparable age group of males in the general population.

Before we can obtain the necessary statistical data on which to base useful

estimates of the extent of mental illness in the general population, some basic methodological problems must be solved. Among these are the development of standardized diagnostic methods for detecting clearly definable and comparable types of mental illness in representative segments of the population, the development of mass screening techniques and other case-finding methods, and the development of case reporting methods.

Several research projects are currently under way which are designed to answer some of these basic questions relative to prevalence of mental disorders and to methodology for research in this field. Most interesting among these are:

Nova Scotia Project. This study is being carried out in a county of Nova Scotia by Dr. Alexander H. Leighton, Professor of Industrial Sociology, Cornell University. Its purpose is to determine relationships between sociologically and anthropologically definable types of stress and the occurrence of mental disease. The project has three major parts: mapping the distribution of stresses in the study area; development of case-finding techniques for all types of mental disorder, and development of a screening test applicable to the general population to serve as a check on the completeness and accuracy of case-finding.

New Haven Study. This project is being carried out by Dr. F. C. Redlich, Professor of Psychiatry, Yale University School of Medicine, and Dr. A. B. Hollingshead, Associate Professor of Sociology, Yale University. Its purpose is to determine the relationship between social structure and the prevalence of psychiatric disorders. One part of this study is a census of the number and characteristics of people receiving psychiatric treatment (that is, under hospital care, clinic care or receiving treatment from private psychiatrists)

(Summary, continued)

IV

as of a given date. Related to this is an intensive study to determine the social structure of the community and to place within this structure those persons with psychiatric disorders.

Syracuse Project. This project has been initiated by the New York State Mental Hygiene Commission, under the direction of Dr. Ernest M. Gruenberg. Methodology will be developed to determine the distribution of, and the relationship between, the hospitalized and unhospitalized psychoses of the senium in the population of Syracuse.

It is encouraging to note that research workers in these and other related projects have met to exchange ideas so as to prevent repetition of errors and to develop standard diagnostic and counting procedures. It is hoped that in the next few years the results of these projects will provide us with methodology that will enable us to obtain the statistical data needed to make estimates of prevalence of various types of mental disorder in the general population.

AVAILABILITY OF DATA ON THE PREVALENCE AND INCIDENCE OF MENTAL DISORDER *

Determination of the number of cases of mental disorder in a population as of a given date requires statistical data that for a variety of reasons are not available at this time. To determine the prevalence of a given disease, information is needed on the number of cases of the disease that exist in a specified population group at a given time. This assumes that there are methods available for diagnosing the particular disease entity and for obtaining a count of the persons with this entity at a given point in space and time. Practical methodology for achieving these ends has as yet not been developed for mental disorders. Felix and Bowers ^{1/} have reviewed the current status of case-finding for the mental disorders. Their statement is an excellent one and it is quoted here in detail:

"Case-finding in mental hygiene has remained a poorly exploited research field. Most studies of prevalence or incidence have been confined to hospitalized psychotics, usually patients of public hospitals, although there have been attempts to go beyond this, notably, nationally conducted censuses, the draft and armed forces data from the two world wars, and occasional studies of population samples.

"With reference to the censuses, Lemkau, Tietze, and Cooper in a recent report state the general conclusion that 'such attempts have been generally unsuccessful because of widespread failure on the part of informants and

* Prepared by Morton Kramer, Chief Biometrics Branch, National Institute of Mental Health

enumerators to recognize or report any but the most obvious cases' 2/. With reference to studies of sample populations, they report that 'poor selection of sample populations and insufficient numbers of cases as well as differences in investigation methods, differences in fundamental concepts, and differences in diagnosis and classification tend to make the available studies of prevalence and incidence of mental disorder basically incomparable' 3/.

"World War II draft and armed forces' medical data will, when available, provide psychiatric information on a larger proportion of the population than has ever before been provided. However, it must be remembered that these millions of medical records constitute a special population group in men who were determined by law and Selective Service regulations to be non-deferrable and hence available for military service. Moreover, the number of socio-environmental factors available on these tabulations will be few indeed.

"Finally, the large number of prevalence and incidence studies of hospitalized psychotics are inadequate for our purposes on many counts. First of all, they deal with only one part of our problem, the seriously ill. Secondly, they deal only with that portion of the seriously ill which becomes hospitalized. Third, they can deal only with those socio-environmental factors which are included on hospital records. The studies are in no sense carefully designed experiments to explore relationships or test hypotheses by means of original data. The researchers have no control over the case-finding process, over the record keeping, or even the diagnosis. Rather, they are dependent upon the public's uneven willingness to give up its mentally ill members and to support them in institutions, the hospitals' unstandardized record-keeping activities,

and the hospital staffs' varied training and skill in classifying disorders.

Finally, the studies have not always been made with much perception of sound methodological principles.

"They have been confined to describing certain basic population attributes of the hospital population such as age, sex, economic status, residence, marital status, race, nationality, residence, etc. The results show substantial agreement on age, sex, and marital status differentials, 4/ some debatable evidence of economic status and ecological differentials 5/ and skepticism with regard to some of the other findings of early studies . . . "

Felix and Bowers conclude by stating that,

". . . while statistical studies of prevalence in recent years have been more carefully done and have dispelled some of the inaccurate generalizations of the past, they too have generally suffered under the same methodological handicaps--confinement to hospitalized psychotics and general lack of control over the data used. Regrettably, it must be concluded that the amount of evidence they have produced for the improvement of case-finding is negligible even for psychotics. In the field of neurosis and the milder disorders, pertinent evidence is almost totally lacking."

The preceding has been quoted in detail to emphasize the reasons why it is virtually impossible to provide accurate estimates of the number of mentally ill in the population. An attempt will be made, however, to summarize the facts that we do have concerning the occurrence of mental illness in the population of the United States.

Only two extensive community surveys of mental disorder have been carried out in the United States: one in Baltimore, Maryland 6,7,8,9/, and one in Williamson County, Tennessee 10/. Both of these surveys attempted to provide prevalence data on the number of persons in the population who have an identifiable type of mental disorder.

The Baltimore Survey

The Baltimore survey of 1936 was limited to the Eastern Health District, an area about one square mile in the eastern part of the City. This district serves as the field laboratory of the Johns Hopkins University School of Hygiene and Public Health. At the time of the Survey, the Eastern Health District had 55,000 inhabitants, of whom 23 percent were Negroes. Among the white were many families of Hebrew and Czech extraction. The area is for the most part residential, and the income level for both white and Negro families is definitely below the average of the city. The case-finding survey was carried out by searching written records of some 43 institutions and agencies that deal with mental health problems, including public and private mental hospitals, training schools for mental defectives and delinquents, psychiatric clinics, social agencies, certain departments of the public school system, the National Health Survey, juvenile court, etc. In many of the cases discovered, a psychiatric diagnosis or detailed description by a competent social worker was available. Diagnosis, where not already given, was made from the written records after careful study of the data. It should be noted that no cases were personally examined by the survey staff psychiatrist.

The cases included were those active at some time during the survey year, 1936. An effort was also made to ascertain the number of residents who had previously suffered from a psychosis, but such individuals were not counted as active. Thus, the prevalence rates for this survey are one-year rates rather than one-day rates, as were determined in the Tennessee survey.

The results of the Eastern Health District survey are shown in table 1, where the cases are arranged according to their leading classification. For the survey year, 3,337 active cases of mental disorder were found in a population of 55,129, a one-year prevalence rate of 60.5 per 1,000 population.

(Insert table 1 appended)

Although age specific prevalence rates are not given for the 3,337 cases of mental illness included in the survey, they are given for the 367 psychotics. These rates are given in table 2.

(Insert table 2 appended)

It should be noted that 367 or 10 percent of the cases were psychotics, a prevalence rate of 6.7 per 1,000 population. Of the psychotics 294 had been in a hospital in 1936, and 73 had not been in the hospital in that year. On the basis of data available to them, the investigators estimated the one day prevalence of psychosis in the Eastern Health District to be 300 cases, or 5.44 per 1,000 population. They further estimated that 226 were resident in the hospital and 74 were outside. That is, only three-quarters of all the psychotics were hospitalized at one time.

The Tennessee Survey

The Tennessee survey gives information on the number of cases of mental

disorder found in Williamson County as of September 1, 1938. Williamson County is a fairly typical agricultural community in middle Tennessee with an area of 586 square miles and a population of 25,000. About 78 percent of the people are native white, mostly of English or Scotch-Irish extraction, and 22 percent are Negroes. Some of the cases in this survey were reported to the investigating group by such persons as physicians, nurses, teachers, ministers, judges, postmasters, country storekeepers, etc. The remainder were discovered by the field workers of the study, who spent considerable time actively participating in community activities and searching institutional records. Somewhat over half of the cases were interviewed or examined by one or more members of the staff, which consisted of a psychiatrist, social workers, and nurses. In addition to the general county-wide investigation, an intensive house to house survey was conducted in three selected areas. All cases discovered were followed up to verify their continued residence in the population and to determine their status as of September 1, 1938.

Basic information about the 1,721 cases present in the study as of September 1, 1938, is summarized in table 3 by primary diagnosis and activity status. It should be noted that a somewhat different system of classifying mental disorders was used in this survey than in the Baltimore one. However, the survey includes approximately the same range of mental health problems. In addition the cases were classified as active and inactive. The age distribution of the 1,721 cases included in this study and the age specific prevalence rates are given in table 4. The total prevalence rate for the entire county was 69.4 per 1,000 population. However, the case rate for the three districts subjected

to special study was 123.7, or twice as high as the rate of 64.5 for the remainder of the county.

(Insert tables 3 and 4 appended)

The investigators have pointed out that the numbers of persons from this county in mental hospitals (52 or 2.1 per 1,000 population) was relatively low, but if the number of persons eligible for hospitalization is added, a rate of almost 4.8 per 1,000 would be obtained. The latter rate is still far short of the rates of hospitalization in areas where facilities are better developed.

Selective Service Data

Data are now available on the principal causes for rejection and the prevalence of defects among registrants 18 to 44 years of age who were physically examined through Selective Service 11/.

It must be remembered that rates of acceptance and rejection from military service during World War II were dependent largely upon the ages of the men examined, the physical standards at the time of examination, and the extent to which the more physically and mentally fit men were withheld from these examinations by voluntary enlistments and current deferment policies for dependency, occupation or age. Further restrictions were imposed on the men available for examination at certain periods by non-acceptance of educationally deficient registrants and those with limited service defects, or by changes in standards pertaining to other defects. There is also evidence to show that there were wide differences between induction stations in efficiency of screening for neuropsychiatric defects 12/. Limitations such as these make it extremely hazardous to apply to the general male population age 18-44 years the prevalence

figures for specific defects that were obtained from Selective Service examinations. Selective Service data may be quoted merely to give some idea of the high prevalence of mental disorders in males of this age group.

It is well known that more registrants were rejected for mental and personality disorders than for any other defect. On August 1, 1945, an estimated 856,200 registrants, or 17.8 percent of the 4,828,000 registrants aged 18 to 37 in the rejected classes, were rejected because of such disorders.

On the basis of a 10 percent sample of first examinations during November 1940 to September 1941 and 7 percent sample of first examinations during the period April 1942 to December 1943, an estimate was made of the prevalence of defects, that is, a total count was made of all defects which were regarded by local board physicians and Armed Forces medical examiners as sufficiently important as to have been included in the summary of defects. Mental disease was the sixth most prevalent defect among all registrants (55.8 per 1,000), the fifth most prevalent among the white population (57.1 per 1,000) and the eighth most prevalent among the Negroes (48 per 1,000). Age variations in prevalence rates per 1,000 registrants examined were as follows:

Table 5: Prevalence of mental disease per 1,000 registrants examined by race and age. November 1940 to December 1943*

	<u>Age Group (yrs.)</u>				
	<u>Total</u>	<u>18-20</u>	<u>21-25</u>	<u>26-29</u>	<u>30 & over</u>
Total	55.8	52.5	34.5	48.9	87.2
White	57.1	51.6	34.9	49.2	92.3
Negro	48.0	58.9	31.9	47.0	60.0

* Source: Physical Examination of Selective Service Registrants Vol. II, p. 39, Table 78

A further tabulation was made to determine the principal or most important defect in the physically examined registrants. Mental disease was the principal defect of 4.8 percent of the white registrants examined, and 4.2 percent of the Negro registrants. The relative position of mental disease among the five principal defects for white and Negro registrants was as follows:

Table 6: Rate of occurrence as principal defect for the five leading defect groups by race, 1940-49 *

White		Negro	
Principal defect	Rate per 100 examined	Principal defect	Rate per 100 examined
Eyes	9.4	Mental & educational deficiency	13.9
Teeth	7.6	Syphilis	12.3
Musculo-skeletal	5.9	Feet	5.8
Mental Disease	4.8	Cardiovascular	4.9
Cardiovascular	4.3	Mental Disease	4.2

* Source: Physical Examination of Selective Service Registrants
Vol. I, p. 176, Table 50

Of the white registrants with mental or personality disorders as a principal defect, only five percent were found acceptable for general service, three percent for limited service and 92 percent were disqualified. Among the Negroes, two percent were found acceptable for general service, less than one percent were placed in limited service groups and 97 percent were disqualified. The distribution of type of mental disorder by age for rejected white registrants is given in table 7 and for rejected Negro registrants in table 8.

(Insert table 7 and 8 appended)

Armed Services and Veterans Administration Data

The data available to us concerning the occurrence of mental disease in the Armed Services is quite limited and it is suggested that for detailed information the Medical Statistics Divisions of the Army and Navy, respectively, should be contacted. Some figures will be given here merely to indicate the magnitude of the problem in the Armed Forces where neuropsychiatric disability is the leading cause for medical discharge.

From July to December, 1943, 39.4 percent of all medical discharges from the Army were because of neuropsychiatric causes. This percentage was twice as high as that for the second most frequent cause for medical discharge. From January to June, 1944, this percentage was 48.3 or five times as high as that for the second ranking cause. These percentages do not include mental defects, nor do they include that group of individuals classed as psychopathic personalities 13/. Table 9 shows the number of disability discharges of enlisted men from the Army by cause, for the period December 7, 1941 through December, 1945.

(Insert table 9 appended)

Diseases of the mind were also the leading cause for invalidation from the Navy and Marine Corps. For the years 1942, 1943, 1944 and for the first six months of 1945, there were 72,044 separations from the naval service for this cause. This represents an average rate of 7.97 per 1,000 total Naval and Marine Corps strength for this period of time 14/.

The magnitude of the neuropsychiatric problem, insofar as Veterans Administration facilities are concerned, is indicated by the fact that as of

January 31, 1950, the 46,388 patients with psychiatric and neurological disorders resident in Veterans Administration hospitals comprised 57 percent of all patients resident in these hospitals 15/. Further detailed information may be obtained from the Medical Statistics Division of the Department of Medicine and Surgery, Veterans Administration.

Patients in Mental Hospitals

The most extensive data available on the mentally ill in the general population of the United States relates to the number of persons with sufficiently severe mental disorders to warrant their admission to hospitals for the long term care of mental patients. As of the end of 1948, more than 554,000 individuals (or 382 per 100,000 population) were resident in such hospitals. This number has increased steadily over the years so that the 1948 figure compares with 150,000 patients or 186.2 per 100,000 population resident in such hospitals at the end of 1903 and 480,600, or 364 per 100,000 at the end of 1940. A time series of resident patients by type of control of hospital and by year from 1903 to 1948 is given in table 10. The great majority of patients has been in the State hospitals which now include 85 percent of patients resident in all long term hospitals.

(Insert table 10 appended)

As stated earlier these data on the hospitalized population do not give an adequate picture of prevalence of mental illness in the general population. Before the hospitalization rate can be used as an index of the prevalence of mental illness, it is essential to determine first the relationship between that rate and the distribution of disease in the unhospitalized population.

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The Baltimore survey indicated that only 75 percent of the psychotics in the Eastern Health District were hospitalized at any one time and the Tennessee survey indicated that in Williamson County only 50 percent were hospitalized. Because of the different characteristics of the populations in which the surveys were done and the variations in availability of psychiatric services and hospital beds, it is impossible to determine what these findings mean with respect to the number of unhospitalized psychotics in other parts of the United States.

Furthermore, patients admitted to a mental hospital present a variety of mental disorders, including not only the organic psychoses and the functional psychoses, but also other types of disorder without psychosis; we have no knowledge as to whether the ratio of the hospitalized to the non-hospitalized for each of these disorders is the same or different. Variations in the average daily number of patients resident in State hospitals throughout the United States are extremely wide, ranging from 1.7 per 1,000 population in New Mexico to 5.5 in New York State as of the end of 1943. Overcrowding is quite common in practically all the State hospital systems. The average daily census in these hospitals exceeds the rated bed capacity by 13.2 percent for the United States as a whole, by 20 percent for New York, and 6 percent in New Mexico. As a result, it is impossible to determine to what extent regional differences in hospitalization rates are accounted for by differences in the prevalence and incidence of mental disorder and by the availability of diagnostic and hospitalization facilities.

The New York State mental hospital system has had the most extensive hospitalization facilities for the mentally ill of any State. It also has a Bureau of Statistics which has provided the Nation with much of the existing

information regarding the hospitalized mentally ill. On the basis of a tabulation for the age distribution of patients on the books of the New York State civil hospitals as of April 1, 1947 16/, an estimate was made of the proportion of persons in various age groups who were resident in all kinds of long term mental hospitals in New York State, including the civil State hospitals, hospitals for criminally insane, licensed private hospitals and Veterans Administration neuropsychiatric hospitals. In making this estimate, it was assumed that the age distribution of patients on the books of the New York State civil hospitals was a good approximation to the age distribution of the resident patients (resident patients constituted 89 percent of the book population), and that the age distribution of resident patients in the New York State civil hospitals was a reasonable approximation to the age distribution of patients resident in the other long term mental hospitals (patients in State hospitals constituted 90 percent of the patients in all long term mental hospitals). The results of these computations are given in table 11.

(Insert table 11 appended)

As of April 1, 1947, 83,736 patients were resident in the State and licensed mental hospitals of New York State, a ratio of 531.6 per 100,000 population. This ratio increased from a low of 8.9 per 100,000 in the age group under 15 to 2,308 per 100,000 in the age group 75 years and over. Below the age of 45, the male ratio exceeded the female; in the age groups 45 to 54 and 55 to 64, the female ratio exceeded the male, and in the age group 65 and over there was relatively little difference as between the sexes.

A further computation was made to determine how many people in the United

States would be in a long term hospital for mental disease as of a given day, if the age and sex specific rates of hospitalization of the State of New York applied to the United States as a whole. In determining their needs for increased hospital space for the mentally ill, the States have been planning on the basis of five beds per 1,000 population. There is no doubt that, if every State had this number of beds, they could easily be filled. It would appear, therefore, that application of New York State age and sex specific resident patient rates to the population of the country as a whole would provide a reasonable estimate of the minimum number of people who should be in long term hospitals for the mentally ill. The results of these computations by age and sex are given in table 12. If the New York State rates applied to the country as a whole, at the end of fiscal 1947 there would have been 774,000 patients in long term mental hospitals as opposed to the 541,000 who were actually hospitalized.

(Insert table 12 appended)

Incidence and Expectation of Mental Illness

Attempts have been made to measure the incidence of mental illness--that is, the number of new cases that develop in the population during a stated interval of time--by determining the proportion of a given population that enter a mental hospital for the first time during a given year. The same criticisms apply to this measure of incidence as to using the number of patients hospitalized as a measure of prevalence: the relationship of the first admissions for a particular mental disorder to the total number of cases of the same disorder that exist in the population is unknown; and admissions to mental hospitals are largely determined by the availability of diagnostic and hospital facilities, and the willingness of families to have their mentally ill members hospitalized.

There is the additional problem of determining the actual date of onset of a given disorder in relation to the date of hospitalization. Despite these limitations, first admission rates have been put to good use in estimating future admissions to mental hospitals and in other problems dealing with certain aspects of the problem of mental illness.

Table 13 gives the number of first admissions and rates per 100,000 population to State, county and city hospitals for mental disease for the period 1939 - 1948. During this interval, the number of annual first admissions to these institutions increased from 88,400 to 104,700 and the rate from 67.5 to 72.1 per 100,000 population.

(Insert table 13 appended)

Methods of summarizing concisely the information contained in a set of age-specific first admission rates have been suggested from time to time. Typically, these summary measures state the chances that a person of a given age will enter a mental hospital for the first time at some time during the remainder of his life or during some segment of it. Such figures are referred to as the expectation of mental illness. They are discussed here because reference to these expectancy figures is made frequently in the literature on mental illness.

One method of computing the expectation of mental illness is to apply mortality rates and first admission rates to mental institutions of a specified population at a given time to a hypothetical number of infants, say 100,000, and determining the number that would be alive and sane at a given age, if they were continually subjected to the assumed mortality and first admission rates. The expectation of mental disease is the ratio of the number who live to become

hospitalized for mental illness to the original cohort of infants. Malzberg has computed such tables for New York State for 1920, 1930 and 1940, using age specific first admission rates to State and licensed institutions in New York State and life tables for New York State for the corresponding periods 17/. For 1940, the expectation of mental illness at birth for males was 80 per 1,000 and for females 82 per 1,000. Thus, if the children born in New York State in 1940 were subjected throughout their lifetime to the age specific mortality rates and age specific first admission rates that operated in 1940, eight out of every 100 or 1 in 12 would be hospitalized for mental illness at some time during the course of his or her life. This compared with an expectancy of 48.2 per 1,000 for males and 48.1 per 1,000 for females in 1920.

Emphasizing a point first made by Dorn 18/, Malzberg points out that, since the expectation of mental disease is a function of both first admission and mortality rates, part of the change in expectation of mental illness is due to changes in mortality alone. By assuming that in the period under investigation both males and females were subjected to a constant mortality schedule, namely, the male death rates for 1920, while being exposed to the actual rates of first admission, Malzberg shows that between 1920 and 1940 the expectation of mental illness at birth among males would have increased by only 37 percent instead of 67 percent, and for females by 30 percent instead of 70 percent. Malzberg 17/ concludes that, "the price of improved conditions of mortality has been, in part, an appreciable increase in the risk of mental disorders."

Even the use of a constant mortality schedule does not completely eliminate the effect of mortality on the expectancies. The use of different

constant mortality schedules, in comparing two periods, may lead to different measures of change in expectancies between the two periods. Goldhamer and Marshall 19/ have developed what they call conditional expectancies of first admission to a mental hospital, which state the chances of commitment between any two ages, providing the person survives to the later specified age. These figures are merely the sum of all the age specific first admission rates between the two ages. A mortality schedule does not enter at all into the computation. Thus, using first admission rates in New York State in 1940, Goldhamer and Marshall found that, assuming a man lives to age 90, the chance of commitment before he reaches that age is 224 per 1,000, or one chance in five. The corresponding figure for women is 199 per 1,000. It is interesting to note that the latter approach yields a higher expectancy for men than for women, while Malzberg's figures for 1940 show the reverse, since they are affected by the lower mortality of women.

Summary

The limitations of the data available on the prevalence of mental disease in the United States are such that no attempt was made to estimate the proportion of individuals with such illness in the general population. Instead, a critical review is made of the existing data to point out the shortcoming of any estimates that might be made on these bases.

Such information as is currently available is derived from the annual census of patients in mental institutions, other studies on the hospitalized mentally ill, a prevalence survey in Baltimore, a similar survey in Tennessee and Selective Service and Armed Forces data.

Hospital Data. Data on the hospitalized population deal with only one segment of the mentally ill population, those sufficiently ill to warrant their being hospitalized. Even this number is affected by the uneven distribution and availability of diagnostic and hospital facilities throughout the country.

As of the end of 1943, 554,000 patients were resident in all types of long term hospitals for the care of the mentally ill, a rate of 3.6 per 1,000 population. Of all the States, New York had the highest resident patient rate (5.8 per 1,000). There is evidence that if every State had as adequate capacity as New York, the same high rates of hospitalization would be achieved throughout the nation. For example, if the age and sex specific resident patient rates for New York had been applied to the whole country at the end of 1947, the number of hospitalized persons would have been 774,000, as compared to the 541,000 actual residents. It is believed that the former figure is a reasonable estimate of the minimum number of persons in the country with sufficiently serious mental

disorder to need long term hospitalization.

Community Surveys. Two extensive community surveys have been carried out on very different population groups, the Baltimore survey in an urban area of 55,000 persons and the Williamson County (Tennessee) survey in a rural area of 25,000 persons. Case-finding techniques, classification of cases and analysis of data were sufficiently different to make the results basically incomparable. For example, the rate determined for the Baltimore survey of 60.9 per 1,000 population relates to the number of cases active during the survey year 1936 and is thus a one-year prevalence rate. The rate determined for the Tennessee survey of 69.1 per 1,000 population relates to the number of cases (active plus inactive) per 1,000 population in the survey area as of September 1, 1938, and is a one-day prevalence rate.

Selective Service Data. During World War II, more Selective Service registrants were rejected for mental and personality disorders than for any other defect. As of August 1, 1945, an estimated 356,000, or 17.8 percent of the 4,828,000 rejectees aged 18 to 37, had been rejected because of such disorders. In addition, studies based on a sample of first examinations during November 1940 to December 1943 revealed that the prevalence rate for mental disease was 55.8 per 1,000 men aged 18 - 44 years. The limitations of Selective Service data, however, are such that it is hazardous to apply rates for the prevalence of mental illness in males examined by Selective Service to the comparable age group of males in the general population.

Before we can obtain the necessary statistical data on which to base useful estimates of the extent of mental illness in the general population, some

basic methodological problems must be solved. Among these are the development of standardized diagnostic methods for detecting clearly definable and comparable types of mental illness in representative segments of the population, the development of mass screening techniques and other case-finding methods, and the development of case reporting methods.

Several research projects are currently under way which are designed to answer some of these basic questions relative to prevalence of mental disorders and to methodology for research in this field. Most interesting among these are:

Nova Scotia Project. This study is being carried out in a county of Nova Scotia by Dr. Alexander H. Leighton, Professor of Industrial Sociology, Cornell University. Its purpose is to determine relationships between sociologically and anthropologically definable types of stress and the occurrence of mental disease. The project has three major parts: mapping the distribution of stresses in the study area; development of case-finding techniques for all types of mental disorder, and development of a screening test applicable to the general population to serve as a check on the completeness and accuracy of case-finding.

New Haven Study. This project is being carried out by Dr. F. C. Redlich, Professor of Psychiatry, Yale University School of Medicine, and Dr. A. B. Hollingshead, Associate Professor of Sociology, Yale University. Its purpose is to determine the relationship between social structure and the prevalence of psychiatric disorders. One part of this study is a census of the number and characteristics of people receiving psychiatric treatment (that is, under hospital care, clinic care or receiving treatment from private psychiatrists) as of a given date. Related to this is an intensive study to determine the social

structure of the community and to place within this structure those persons with psychiatric disorders.

Syracuse Project. This project has been initiated by the New York State Mental Hygiene Commission, under the direction of Dr. Ernest M. Gruenberg. Methodology will be developed to determine the distribution of, and the relationship between, the hospitalized and unhospitalized psychoses of the senium in the population of Syracuse.

It is encouraging to note that research workers in these and other related projects have met to exchange ideas so as to prevent repetition of errors and to develop standard diagnostic and counting procedures. It is hoped that in the next few years the results of these projects will provide us with methodology that will enable us to obtain the statistical data needed to make estimates of prevalence of various types of mental disorder in the general population.

Table 1

Active Cases of Mental Disorder in the Baltimore Survey for the year 1936.
(Population: 55,129)

Leading classification	Number of cases	Rate per 1,000	95 percent confidence limits
Psychosis	367	6.7	6.0 - 7.3
Schizophrenia	158	2.9	2.4 - 3.3
Manic-depressive	41	.7	.5 - 1.0
Senile and arteriosclerotic	38	.7	.5 - .9
Alcoholic	15	.3	.1 - .4
Syphilitic	29	.5	.3 - .7
With mental deficiency	28	.5	.3 - .7
Other 1/	27	.5	.3 - .7
Undiagnosed	31	.6	.4 - .8
Psychoneurosis	171	3.1	2.6 - 3.6
Psychopathic personality	30	.5	.4 - .7
Personality disorder in adults	218	4.0	3.4 - 4.5
Psychotic traits	26	.5	.3 - .7
Neurotic traits	60	1.1	.8 - 1.4
Psychopathic traits	13	.2	.1 - .4
Behavior deviation	119	2.2	1.8 - 2.5
Behavior disorder in children	449	8.1	7.4 - 8.9
Neurotic traits	162	2.9	2.5 - 3.4
Conduct problems	287	5.2	4.6 - 5.8
Minor and possible disorder in adults and children	651	11.8	10.9 - 12.7
Epilepsy	75	1.4	1.1 - 1.7
Mental deficiency	375	6.8	6.1 - 7.5
School progress problems without mental deficiency	434	7.9	7.1 - 8.6
Adult delinquency without other information	567	10.3	9.4 - 11.1
Total active cases 2/	3,337	60.5	58.5 - 62.6

1/ Involuntional, with epilepsy, post traumatic, and deliria not due to alcohol.

2/ Active and inactive cases: 3,416 = 62.0 per 1,000.

Source: Lemkau, Tietze and Cooper: A Survey of Statistical Studies on the Prevalence and Incidence of Mental Disorder in Sample Populations. Public Health Reports, Vol. 58, p. 11, table 3.

Table 2

Age Distribution of Psychotics Discovered in 1936 Baltimore Survey.

Age group	Number of cases	Rate per 1,000 of the population
0 - 4	--	--
5 - 9	--	--
10 - 14	1	0.18
15 - 19	12	2.28
20 - 24	15	2.83
25 - 34	69	7.29
35 - 44	94	11.24
45 - 54	68	11.12
55 - 64	50	14.45
65 - or over	58	21.57
Total group	357	6.66

Source: Lemkau, Tietze and Cooper: Mental-Hygiene Problems in an Urban District. Second paper, Mental Hygiene Vol. 26, p. 5, table 2 (1942).

Table 3

Active and inactive cases of mental disorder in the Williamson County Tennessee
Survey as of September 1, 1938. (population: 24,804)

Primary diagnosis	Number of cases			Rate per 1,000 (total cases)	95 percent confidence limits
	Active	Inactive	Total		
Psychosis	121	35	156	6.3	5.3 - 7.3
Schizophrenia	*	*	43	1.7	1.2 - 2.5
Affective	*	*	41	1.7	1.1 - 2.2
Senile	*	*	23	.9	.5 - 1.3
With mental deficiency	*	*	15	.6	.3 - .9
Other 1/	*	*	24	1.0	.6 - 1.4
Undiagnosed	*	*	10	.4	.2 - .7
Psychoneurosis	89	10	99	4.0	3.2 - 4.8
Conduct and behavior disorder	285	129	414	16.7	15.1 - 18.3
Psychopathic traits	152	34	186	7.5	6.4 - 8.6
Special personality traits	203	127	335	13.5	12.1 - 15.0
Mental deficiency	19	184	203	8.2	7.1 - 9.3
Organic and miscellaneous conditions	40	288	323	13.2	11.8 - 14.7
All types	914	807	1,721	69.4	66.1 - 72.7

1/ General paresis, other organic states, posttraumatic, with alcoholism, and with epilepsy.

* Specific types of psychoses were not broken down by whether the case was active or inactive.

Source: Lenkau, Tietze and Cooper: A Survey of Statistical Studies on the Prevalence and Incidence of Mental Disorder in Sample Populations. Public Health Reports, Vol. 53, p. 12, table 4.

Table 4

Age Distribution of Referral Cases with Rates per 1,000 Population,
September 1, 1938, by Color. Williamson County, Tennessee

Age group	Total		White		Colored	
	No.	Rate	No.	Rate	No.	Rate
Total	1721	69.4	1480	77.6	241	42.1
Under 5 years	69	25.5	64	30.3	5	8.4
5 - 9 years	224	74.6	203	88.3	21	29.8
10 - 14 years	335	114.3	294	132.5	41	57.7
15 - 24 years	421	87.5	357	99.3	64	52.5
25 - 34 years	192	63.2	145	61.5	47	69.0
35 - 44 years	169	64.1	147	71.0	22	38.8
45 - 54 years	147	61.4	137	74.6	10	17.9
55 - 64 years	85	44.7	69	46.1	16	39.7
65 - 74 years	51	53.9	44	58.8	7	35.4
75 years and over	28	64.7	20	58.3	8	88.9

Source: Roth and Luton: The Mental Health Program in Tennessee American
Journal of Psychiatry, Vol. 99, No. 5, p. 669, Table I (1943)

Table 5

See text, page 8.

Table 6

See text, page 8.

Table 7

Percent Distribution of Mental Disease Among White Registrants
Disqualified for Military Service 1/

Principle cause for rejection	Age group					
	All ages	18-20	21-25	26-29	30-37	38 and over
Total mental disease	100.0	100.0	100.0	100.0	100.0	100.0
Grave mental or personality disorders	9.7	9.2	11.6	9.2	7.3	11.9
Major abnormalities of mood	2.3	2.3	2.4	2.3	2.1	2.4
Psychopathic personality	27.0	36.1	26.1	24.8	25.0	24.6
Psychoneurotic disorders	52.9	51.0	56.2	57.3	56.6	42.7
Chronic inebriety, drug addiction	5.1	.2	.5	2.2	5.9	15.5
Mental disease not classifiable elsewhere	3.0	1.2	3.2	4.2	3.1	2.9

1/ Includes all races other than Negro

Source: Physical Examination of Selective Service Registrants Vol. 1, p. 174, table 46

Table 8

Percent Distribution of Mental Disease among Negro Registrants
Disqualified for Military Service

Principle cause for rejection	Age group					
	All Ages	18-20	21-25	26-29	30-37	38 and over
Total mental disease	100.0	100.0	100.0	100.0	100.0	100.0
Grave mental or personality disorders	5.5	5.4	6.4	5.0	4.3	7.4
Major abnormalities of mood	.8	.8	.7	.3	1.1	.6
Psychopathic personality	43.1	46.1	44.7	43.0	42.2	36.9
Psychoneurotic disorders	46.3	46.5	44.8	48.2	47.9	40.8
Chronic inebriety, drug addiction	1.8	.2	.9	1.2	2.2	7.6
Mental disease not classifiable elsewhere	2.5	1.0	2.5	2.3	2.3	6.7

Source: Physical Examination of Selective Service Registrants Vol. 1, p. 174,
table 47

Table 9

Number of Disability Discharges of Enlisted Men from the Army,
December 7, 1941 through December 1945.

Cause of discharges:	Number	Percent
Neuropsychiatric reasons	419,500	42.8
Bones and organs of locomotion	114,000	11.6
Infectious diseases	88,000	9.0
Gastro-intestinal diseases	71,000	7.2
Eye, ear, nose and throat	67,000	6.8
Cardiovascular diseases	62,500	6.4
Respiratory diseases (excluding TB)	56,500	5.8
Result of traumatism	54,500	5.6
Genito-urinary diseases	17,000	1.7
Tuberculosis	17,000	1.7
Venereal diseases	7,000	0.7
Unclassified	6,000	0.6
Total	980,000	100.0

Source: Army Service Forces, Office of the Surgeon General, Medical Statistics Division.

Table 10

Resident Patients at End of Year in Hospitals for the Long-Term Care of Psychiatric Patients, by Type of Control, For United States: 1903, 1909, 1922 and 1933 through 1948.

Year	Number of Resident Patients					Rate Per 100,000 of the Population 5/				
	All 1/ Hospitals	State Hospitals	2/ Veterans Hospitals	County and City Hospitals	Private 4/ Hospitals	All Hospitals	State Hospitals	Veterans Hospitals	County and City Hospitals	Private Hospitals
1948	554,454	469,500	52,619	19,240	13,095	381.6	323.1	36.2	13.2	9.0
1947	540,987	452,464	52,505	23,643	12,375	379.2	317.2	36.8	16.6	8.7
1946	529,247	445,561	48,235	23,150	12,301	382.4	321.9	34.9	16.7	8.9
1945	518,018	438,864	42,204	23,850	13,100	371.1	314.4	30.2	17.1	9.4
1944	506,346	434,209	38,623	21,259	12,255	366.7	314.4	28.0	15.4	8.9
1943	500,564	430,958	35,953	21,297	12,356	366.7	315.7	26.3	15.6	9.1
1942	497,938	432,550	32,348	21,256	11,784	369.8	321.2	24.0	15.8	8.8
1941	490,506	417,315	30,443	31,812	10,936	368.2	313.3	22.8	23.9	8.2
1940	480,637	410,427	29,951	29,581	10,678	364.2	311.0	22.7	22.4	8.1
1939	472,385	400,017	28,653	32,463	11,252	360.9	305.6	21.9	24.8	8.6
1938	457,983	364,573	26,599	35,980	10,831	352.8	296.2	20.5	27.7	8.4
1937	445,031	374,043	24,483	34,829	11,676	345.5	290.4	19.0	27.0	9.1
1936	432,131	364,403	21,960	34,743	11,025	337.5	284.6	17.2	27.1	8.6
1935	416,926	352,305	18,276	34,703	10,642	327.6	277.6	14.4	27.3	8.4
1934	403,519	341,485	17,894	33,839	10,301	319.3	270.2	14.2	26.8	8.1
1933	389,500	332,517	13,946	32,936	10,101	310.2	264.8	11.1	26.2	8.1
1922	267,617	229,837	1,703	26,846	9,231	243.2	208.8	1.5	24.4	8.4
1909	187,791	159,096	—	21,146	7,549	207.5	175.8	—	23.4	8.3
1903	150,151	128,312	—	16,341	5,498	186.2	159.1	—	20.3	6.8

1/ Statistics are for hospitals providing long-term care for psychiatric patients and are based on data presented in reports on patients in mental institutions issued by the Bureau of the Census, Department of Commerce. However, for the years 1947 and 1948 the data were collected and reports issued by the NIMH.

Table 10 (continued)

Resident Patients at End of Year in Hospitals for the Long-Term Care of Psychiatric Patients, etc. (continued)

2/ The coverage for State hospitals is substantially complete throughout the entire period.

3/ From 1922 to 1945, statistics for veterans hospitals are based on reasonably complete reports from those Veterans Administration hospitals designated as neuropsychiatric hospitals.

In 1946 and 1947, coverage was extended to include neuropsychiatric patients under V. A. control in all types of V. A. and other Federal hospitals. In 1948, coverage was reduced somewhat to exclude patients in "other Federal hospitals," many of whom were in St. Elizabeth's Hospital, Washington, D. C. and are therefore included in data under "State Hospitals."

4/ The coverage for county, city and private hospitals has never been entirely complete. A special study covering the years 1940 to 1945 indicates, in terms of psychotic first admissions, an estimated coverage of between 90 and 95 percent.

5/ Estimated total population as of July 1, of the corresponding year, 1903 through 1945. From 1946 through 1948 estimated civilian population as of July 1, of the corresponding year has been used. Since these rates are based on revised population estimates, they may differ from corresponding rates previously published. Source: Statistical Abstract of the United States 1948, U. S. Department of Commerce, Bureau of the Census.

Table 11

Estimated Number of Patients per 100,000 Population Resident in all New York State Hospitals 1/ for Mental Disease, by age and sex, April 1, 1947.

Age	Total	Male	Female
<u>Resident patients per 100,000 population</u>			
Total	581.6	590.8	572.5
Under 15	8.9	14.5	3.0
15 - 19	83.0	101.1	64.5
20 - 24	210.1	243.8	173.5
25 - 34	398.3	462.3	341.3
45 - 54	881.5	849.0	915.3
55 - 64	1268.5	1229.2	1308.6
65 - 74	1564.5	1585.9	1545.9
75 and over	2398.8	2348.8	2436.9
<u>Estimated Resident Patients</u>			
Total	83,736	41,965	41,771
Under 15	270	225	45
15 - 19	897	551	346
20 - 24	2,344	1,315	1,029
25 - 34	9,447	5,163	4,284
35 - 44	15,861	8,518	7,343
45 - 54	17,892	8,777	9,115
55 - 64	17,530	8,582	8,948
65 - 74	12,097	5,703	6,394
75 or over	7,398	3,131	4,267
<u>Estimated Population <u>2/</u></u>			
Total	14,398,800	7,102,800	7,296,000
Under 15	3,046,700	1,554,000	1,492,700
15 - 19	1,081,300	545,300	536,100
20 - 24	1,115,900	539,400	576,500
25 - 34	2,372,000	1,116,800	1,255,300
35 - 44	2,289,500	1,122,400	1,167,100
45 - 54	2,029,700	1,033,800	995,900
55 - 64	1,382,000	698,200	683,800
65 - 74	773,200	359,600	413,600
75 and over	308,400	133,300	175,100

Source: The sources and method of estimating resident patients are described in pp. 12&13 of text; data are as of April 1, 1947. Population estimates were obtained from "1947 Vital Statistics" published by N.Y. State Dept. of Health and refer to July 1, 1947.

1/ Includes the following types of hospitals for long-term care of the mentally ill: Civil State hospitals, hospitals for criminally insane, licensed private hospitals, and Veterans Administration neuropsychiatric hospitals.

2/ Individual figures may not add to totals because of rounding.

Table 12

Estimated number of patients that would be in long-term hospitals for the mentally ill in the U. S. as of mid-1947 on the assumption that the age specific resident patient rates for New York State hospitals would apply to the United States as a whole.

Age	Total	Male	Female
<u>Estimated Resident Patients</u>			
Total	774,023	392,507	381,516
Under 15	3,310	2,760	550
15 - 19	9,335	5,755	3,580
20 - 24	25,537	14,684	10,853
25 - 34	51,963	51,778	40,185
35 - 44	139,483	75,298	64,185
45 - 54	148,272	71,121	77,151
55 - 64	161,726	78,865	82,861
65 - 74	114,785	56,474	58,311
75 and over	79,612	35,772	43,840
<u>Population 1/</u>			
Total	144,024,000	71,747,000	72,277,000
Under 15	37,373,000	19,033,000	18,340,000
15 - 19	11,242,000	5,692,000	5,551,000
20 - 24	12,103,000	6,023,000	6,080,000
25 - 34	22,975,000	11,200,000	11,774,000
35 - 44	20,122,000	9,922,000	10,201,000
45 - 54	16,806,000	8,377,000	8,429,000
55 - 64	12,748,000	6,416,000	6,332,000
65 - 74	7,333,000	3,561,000	3,772,000
75 and over	3,322,000	1,523,000	1,799,000

1/ Source: U. S. Bureau of Census Release No. P- 25, No. 39

Table 13

First Admissions in the United States to State, County and City Hospitals,
and Rates per 100,000 Population, 1939 - 1948

Year	First Admissions			Rate per 100,000 population
	Total	State hospitals	County and city hospitals	Total
1948	104,696	101,218	3,478	72.1
1947	97,125	93,749	3,376	68.1
1946	92,317	89,299	3,018	66.7
1945	88,943	85,426	3,517	69.8
1944	86,821	83,723	3,098	68.6
1943	85,562	82,650	2,912	67.2
1942	88,210	84,835	3,375	67.4
1941	91,169	84,201	6,968	69.3
1940	87,750	81,899	5,851	66.6
1939	88,368	81,655	6,713	67.5

Source: Patients in ~~Mental~~ Institutions 1948, published by the
National Institute of Mental Health, Federal Security Agency

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DESIGN OF TRACKING DEVICES
WITH REGARD TO HUMAN REQUIREMENTS

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INTRODUCTION

Tracking is that procedure whereby a continuous effort is made to minimize a difference between two positions by exerting control on one of them. For the most part tracking is done by minimizing differences in positions which have spatial coordinates and hence involves the realm of vision, but nothing prevents the generalization of the concept to other sense modalities like audition (hearing) in which the positions are referred to other dimensions like pitch or intensity. As we know the process of tracking, however, the positions have spatial coordinates, and the signals which give rise to these positions are visual signals. It can thus be seen that tracking is involved in aiming a rifle, steering a ship or a jeep, determining an aircraft's altitude or laying an anti-aircraft gun.

Certain distinctions have to be made among situations which require the process of tracking. In some of them by the tracking process is meant the extent to which a system like a gun-director and its crew are able to follow a target with minimum error. Here the difference in positions is the difference between present gun position and that position which it should occupy if a collision is to occur between target and projectile. In other instances by tracking is meant the human operation, often carried out on a radar screen or by some other symbolic means, which performs the central coordinating function in maintaining minimum difference in the positions previously defined. Here the difference in positions is defined by the signals furnished the operator, which may or may not be coincident with the positions just defined (depending, of course, upon the presence

of lags in the computing or communication systems.) Finally, by tracking is sometimes meant the specific motor responses by means of which a human operator conducts a tracking operation.

The foregoing distinctions have little meaning in simple tracking operations like those involved in aiming a rifle, but they become important when we consider any tracking operation in which target and own positions are presented symbolically (as on a radar screen), particularly when time-lags are present. Under such circumstances tracking can be good from the operator point of view and poor from the system point of view.

In the present text tracking will be considered primarily as a human operation. As examples of tracking, so defined, in the military services, are the aiming of gun directors, such as the Mark 37 or M7, the aiming of weapons carrying lead-computing sights such as the Mark 14, the operation of radar P31, and such tracking as is carried out in the control of guided missiles by optical guidance systems.

The central problem in all such operations is the minimization of error occasioned by the presence of angular rates and accelerations in the movement of targets. This report will be primarily restricted to a consideration of tracking as it relates to such determinations, particularly in connection with fire control problems.

TRACKING AND COMPUTING

While the primary function of the tracking task is to solve an aiming problem, tracking is also often required to supply inputs to a computer. This is made necessary by the fact that the weapon must lead the target by an appropriate angle. In the example of aiming a rifle, the computer is the gunner's brain, but in the more complex problems arising in gunnery the computer is a complicated electrical or mechanical device designed under certain assumptions to receive values for certain variables. The need for the introduction of computing mechanisms as a surrogate for the gunner's mind can be readily understood by considering the flexible gunnery problem of defending a bomber against an attacking fighter. The problem of estimating the proper angle by which the gun should lead the target was so complicated by the relative motion of gun mount and target that many cases arose in which gunners lead the target in the direction opposite to that required for true lead. The fact that tracking must supply data for computation has two consequences to which the following text is devoted. The first consequence is the fact that the signals furnished the human operator may not accurately reflect the existing discrepancy between target and weapon. The second is the fact that the nature of the computation defines the kind of motor responses which necessarily must be used in order to simultaneously meet the tracking the computational requirements. This latter fact is of material importance since it affects the definition of the criterion by means of which satisfactoriness of tracking by a human operator is to be judged.

Computing sights may be divided for convenience into two types. Vector sights which compute from a velocity vector diagram, and angular rate sights which feed on the angular rates of certain lines related to the sight line and gun axis. The distinction between the vector sights and the angular rate sights arises from the special problem each sight was designed to solve. The vector sight represents a solution to the gun aiming problem to counter a fighter flying a pursuit course against a bomber. Angular rate sights, on the other hand, do not assume that the target is following an aerodynamic pursuit path, but they do generally assume that the target's path relative to the gun is a straight path over the line of flight of the projectile.

Consider the following simplification of the air to air firing situation, and its solution by vector and scalar means. Figure 1 describes the idealized aiming problem. (2, Chapt. 1) The medium is designated by a, the attacking aircraft is represented by point b, the target by point c, and the projectile by d. Assume the target is not accelerated and that the projectile proceeds initially in the same direction in the medium as is the attacking aircraft at that instance except that its velocity is K times that of the parent vehicle. Ignore the drag of the medium but consider the acceleration of gravity. The position of the projectile in the medium, considering time measured from an origin at the instant of firing is

$$\bar{R}_{ad}(t) = \bar{R}_{ab}(0) + t\bar{V}_{ab}(0) + (K - 1)t\bar{V}_{ab}(0) + \frac{1}{2}t^2\bar{A}_g$$

\bar{A}_g is the invariant acceleration of gravity

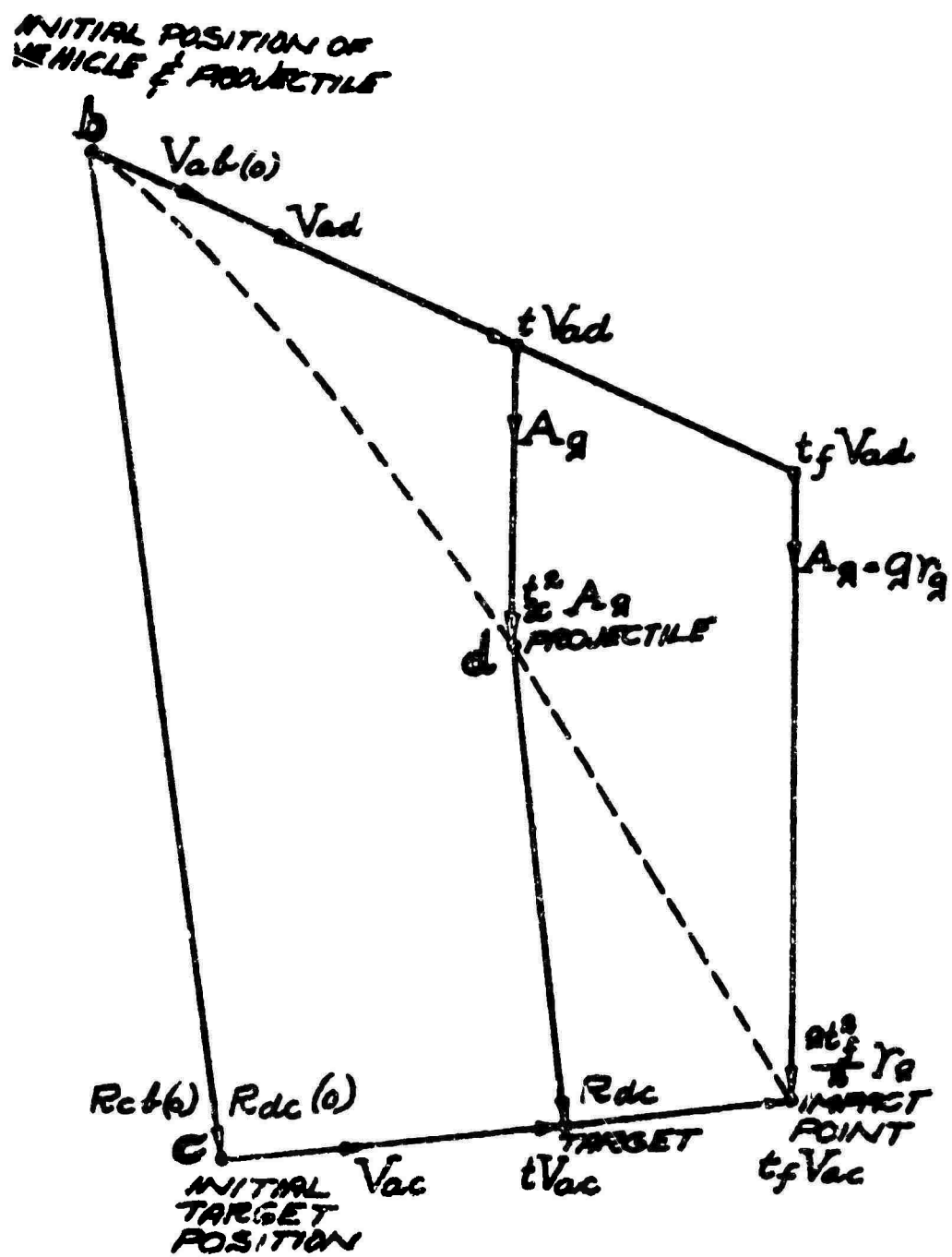


FIGURE NO. 1

The target position is

$$\bar{R}_{ac}(t) = \bar{R}_{ac}(0) + t\bar{V}_{ac}(0)$$

In order to have a hit the last two equations must be equated with t becoming t_f , the time of flight.

Thus

$$\bar{R}_{ac}(0) - \bar{R}_{ab}(0) = \bar{R}_{bc}(0) = -t_f\bar{V}_{bc}(0) + (K-1)t_f\bar{V}_{ab}(0)t_f + \frac{1}{2}t_f^2\bar{A}_g$$

$\bar{R}_{bc}(0)$ is the vector for present range

$\bar{V}_{bc}(0)$ is the present relative target velocity

$\bar{V}_{ab}(0)$ is the parent vehicle's present velocity

and \bar{A}_g is known;

hence knowing the foregoing, we have the solution to the aiming problem.

It will be noted that $\bar{R}_{bc}(0)$ and $\bar{V}_{bc}(0)$ are quantities which could be supplied by trackers to a computer; thus determining the vector \bar{V}_{ab} along which to guide the attacking aircraft. Thus it can be seen that tracking serves to solve a given vector equation.

In view of the importance of the lead computing sight in modern gunnery, consider the following simplification and discussion of lead angle. See Figure 2. Accelerations and air resistance have been omitted and the problem has been reduced to two dimensions. A vehicle pursuit course is defined when \bar{V}_{ab} lies along the relative position vector \bar{R}_{bc} . The conditions for a vehicle collision course are that the projections of \bar{V}_{ac} and \bar{V}_{ab} normal to \bar{R}_{bc} be equal and that \bar{R}_{bc} uniformly decrease.

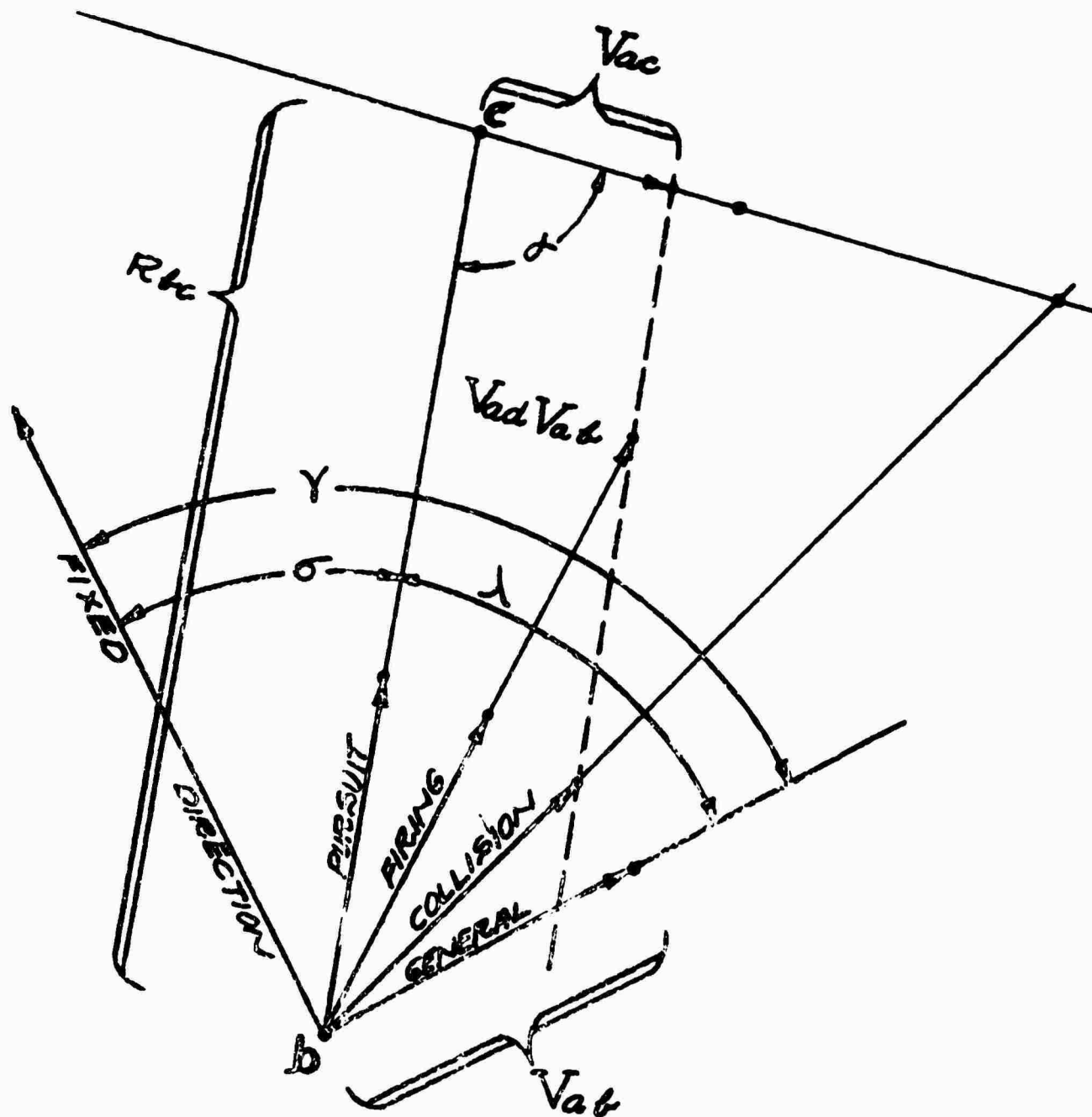


FIGURE NO. 2

A projectile collision course can be determined by the following equation in scalar notation.

$$V_{ad} \sin \lambda = (V_{ab} + V_{bd}) \sin \lambda = V_{ac} \sin \lambda$$

Subject to the condition that there be a velocity along R_{bc} the foregoing defines a collision course for a projectile. The necessary lead for a collision course can also be expressed in terms of angular rate since

$$R_{bc} \dot{\sigma} = V_{ac} \sin \lambda - V_{ab} \sin \lambda$$

and the lead angle necessary for a hit is $\sin \lambda = R_{bc} V_{bd}^{-1} \dot{\sigma}$. The determination of lead angle is the goal of fire control systems, since it is the lead angle which defines the orientation of the guns, airplane, torpedo, and so forth. It can be seen that for solution this expression requires the following inputs: vehicle to target range, angular rate of vehicle with respect to a reference line, and the velocity at which the projectile was fired. Thus tracking need not supply target velocity in this system, but must supply the other inputs. For lead angles less than 10° , the last equation becomes $\lambda = t_m \dot{\sigma}$ where t_m is a time of flight multiplier.

The fact that the tracker provides inputs to a computer makes evident a very important consideration. That is, it is necessary to consider goodness of tracking from the system point of view which emphasizes end results, i.e. impacts on target, or missile successfully steered to destination, etc. It is sometimes true that excellent matching of reticle to target does not result in the best end results. This apparent paradox arises from the fact that the computer is an instrument containing various

types of filters which attempt to obtain the best possible values of target position from which to extrapolate future position.

Since the differentiation between noise and the target position signal is made on the basis of frequency discriminations, the character of the tracking is of prime importance for the design of computing devices. (35)

H. K. Weiss has emphasized this point as a basis for his suggestion of the value of autocorrelation analysis for the purpose of obtaining power spectra for a more complete evaluation of tracking. (88-92)

Such an analysis is pertinent because of the irregular nature of the tracking error, in which all frequencies are present. Its aim is to determine the relative importance of various frequency components in the tracker's output. Once these are known, use may be made of those design characteristics of the computing system which specify the amplification of error as a function of frequency. Thus by consulting such records it can be concluded that tracking with the M-5 and M-7 trackers should be as "smooth" as possible; whereas tracking with the M7A1B1 and M9 directors should be as accurate as possible. (90)

It follows that a criterion for good tracking cannot in general be based on so simple a concept as only time on target or average error, but must include considerations related to the character of the tracking errors.

ANGULAR RATES AND ACCELERATIONS AND TRACKING

Target rates and accelerations are important for two reasons in the tracking situation. The first reason holds in those instances where a computation must be carried out. In such instances the computation may be based on the assumption that the target is moving at a constant rate or on the assumption that the target is accelerating. Computations based on the rate hypothesis will necessarily give only approximate solutions when the angular rates are changing and in this respect the tracking (of the system) may be said to be only approximate. The problem created by the decision to base the computation upon the angular rate is an engineering problem for the most part--it is psychological only in the extent that the approximate solution makes the overall task of the system of which the human operator is a part a more difficult task.

The main psychological problem created by the rates and accelerations characteristic of target motion arises out of their status as the stimuli to which the human operator must respond. In direct tracking systems in which the man is required to manipulate the weapon without help from a power-driven mount the rates themselves are of considerable importance. In power driven tracking systems, constant rates present no particular problem provided the power drive is adequate to the range of angular rates with which the operator and his weapon will have to cope. Changes in the rate, however, are of material importance to the tracking

since they characteristically affect the way in which the tracking is done (i.e., whether in the direction of smoothness or accuracy). Of paramount importance is the fact that changes in the angular rate at which a signal is moving bring the reaction time of the human operator into central importance in the tracking problem, since this time is an interval during which error necessarily is out of control provided the target is moving at other than a constant rate.

CHARACTERISTICS OF THE HUMAN OPERATOR

To define the tracking problem within the limits set by human abilities, this section will discuss certain relevant human characteristics. Reaction times, the nature of corrective movements and visual factors will be included in the discussion because of the obvious importance these aspects of behavior have in a manual control task dependent. The extent to which an operator will tolerate errors, and the influence of perception and set, fatigue, and the distribution of attention, are other pertinent aspects of the tracking situation which have been treated in what follows. The reader is cautioned to note that while certain of the following data were obtained in laboratory situations designed to study the tracking problem, other data were gathered from laboratory situations which were not originally intended to shed any light on the tracking problem. Very little experimentation has been carried on under actual field conditions, and this fact should be kept in mind before applying any of the results to specific combat problems.

Reaction time is a parameter of human response which is of great interest in tracking studies and which has been studied extensively.

It is well known that under laboratory conditions the simple reaction time to light is about 180 milliseconds, to sound 150 milliseconds, and to light or sound 200 milliseconds. Using an apparatus which presented left and right marker displacements in arbitrary order from a central position above a marker, the Foxboro research staff required subjects to press

one of two keys to correct for this displacement. Reaction times in this experiment were about 400 milliseconds, whereas when the same apparatus was rigged up to measure simple reaction times the findings were as would be expected for visual, auditory, and auditory or visual signals. (61 p. 87) The reaction time is, of course, a function of experience, and the 400 millisecond figure for the reaction time to a sudden displacement could probably be shortened by 25-30% after practice.

Turning to reaction times determined in tracking situations:

Craik and the APU at Cambridge found reaction times in a pursuit task to be about 300 milliseconds. (21,84) Searle and Taylor (67) in a pursuit task found reaction times of about 250 milliseconds as well as did Ellison (28) and Hill, (77) although Taylor and Birmingham found a reaction time of 435 milliseconds in a compensatory random step function tracking situation. Experiments using a simple compensatory tracking device performed at The Franklin Institute under AMC contract revealed reaction times of the order of 300-350 milliseconds.

The large spread of reported reaction times in the tracking situation as just reviewed may very well be related to stimulus linked variables as well as training. It has been found by many workers in the field that when a human is tracking a simple visual signal such as a regular sine wave, the reaction time induced phase difference between stimulus and response quickly approaches zero. On the other hand, the reaction time in an arbitrary program of step functions is consistently between 250 and 350 milliseconds. It would be reasonable to suppose, therefore, that the reaction time is related to the extent to which the

operator expectancy about the stimulus is fulfilled. As an example of this anticipatory behavior we may take some British work.⁽⁶⁾ In these experiments men were told to trigger a gun when a black square crossing a telescope field at constant rate coincided with a fiducial line. The mean point of triggering was found to coincide with the desired point of aim, and there was a random variability having the same variance as in the simple reaction time to a light stimulus. The subjects were obviously anticipating. Still another example of anticipatory behavior is some recently reported American work.⁽³⁾ The stimulus was a visual or auditory signal presented at a fixed frequency. The task was to respond by pressing a key at the instant the signal appeared. An analysis of the data revealed a skewed distribution with the greater number of responses anticipating rather than lagging the stimulus. (The error which the tracker was minimizing in this experiment was not the usual space error but a time error, an unusual example of tracking.)

The foregoing reaction times were measured under circumstances wherein the refractory period of response (first reported by Telford⁽⁷⁸⁾ in an experiment using auditory stimuli) did not occur. The refractory period occurs when two stimuli occur within a period of time equal to or less than an interval about as long as a reaction time plus movement time. In this event, the reaction time to the second stimulus is inhibited. Vince and Hick^(40,85) following Craik investigated and verified this finding in the tracking situation, and found the refractory period to be about 500 milliseconds, in agreement with Telford. This point has been under intermittent discussion in the literature. Ellison,⁽²⁸⁾ for example, has found results

somewhat akin to the findings of the British group, but has chosen to explain his results differently. The controversy is somewhat difficult to resolve since the response records are such that it is difficult to determine unequivocally when the first response has ended and when the second has begun.

Movement is an aspect of human behavior which has been studied thoroughly long before the tracking context became of importance. Interest in the characteristics of corrective movements was revived in the last decade when a concentrated effort was made to examine the human operator's responses while acting as a link in a regulating system. Craik⁽²⁰⁾ hypothesized that human responses are ballistic in a control situation, and his interpretation harks back to the work of Stetson.^(73,74) The essential characteristic of the ballistic motion is that the limb is tossed back and forth, as it were, from two end positions with a minimum of muscular control in the midpoint of its traverse. In this type of movement the muscular contraction starting the movement ends by the first half of the movement. The ballistic movement is supposedly characteristic of highly skilled and well coordinated movements such as typing, tennis, and so forth. Some of the early studies of ballistic motion claimed that for movements of small amplitude the time taken to make a movement was independent of amplitude. The evidence is by and large unconvincing.^(37,43) The general findings of more recent research^(22,54,67) indicate that for swift corrective movements ranging in amplitude from about 5 to 80 cms in displacement, movement time is a slowly rising function of displacement which could be approximated by a straight line without doing great violence to the data. Perhaps

the most thorough study of the characteristics of corrective movements was made at NRI⁽⁷⁷⁾ where the first three derivatives of control stick motion in a compensatory tracking task were examined. The results show that these corrective motions are not ballistic since force varies continuously throughout the motion.

Another type of motion of great importance in the tracking problem is the circular movement. A circular movement is a coordinated pattern of reciprocal movements properly related in phase. This type of motion is of great advantage in fatiguing tasks since the work done is spread over a group of muscles rather than over two muscles and hence the onset of fatigue effects can be delayed. The maximum rate of circular movements is roughly half the rate for simple back and forth movements of the same amplitude. In addition there is evidence that the rates of rhythmic movement are weakly dependent on amplitude, but this is not a clear-cut finding. This result does, however, check with the findings of the research at Foxboro⁽³⁹⁾ which demonstrated that although handwheel diameter is a strongly significant determinant of tracking accuracy, it is a relatively weak determinant of speed of handwheel turning. As a general conclusion the maximum recommended speeds for handwheel rotation were from about 150-200 revolutions per minute.

In any control task the question of the basic output of the operator is of importance. For example, if an attempt is made to characterize the human operator by means of differential equation, the question

arises as to whether operator response should be expressed in terms of displacement, velocity or acceleration for the achievement of the most appropriate mathematical model of reality. Furthermore, the answer to the question of basic output of the operator will determine the areas for future critical experimentation. This is to say, the differential ability to discriminate proprioceptive differences in position, velocity, or acceleration of a control may be an important area of research, since the characteristics of these proprioceptive feedbacks define the ability of the operator to apply these outputs accurately in a tracking task. Evidence exists that the discrimination of the extent, the duration, and the force of a movement are independent functions.⁽⁹⁴⁾ Duration obviously relates to velocity since the specification of minimum discernible velocity is not meaningful unless a time interval is specified. Definitive information comparing and evaluating these characteristics of operator output does not exist explicitly, but it doubtless has been incorporated implicitly in the various studies which have defined optimal control design for certain specific control tasks with regard to such parameters as inertia, friction and speed of movement.

Visual Factors—Tracking displays are commonly visual although this is not a necessary condition for tracking in general. Of prime importance in designing a display for tracking is an appreciation of some of the limitations on the operator's vision. Visual acuity refers to the resolving power of the eye. To speak of visual acuity in an unrestricted sense is not meaningful since the acuity in a particular observation is a

function of the retinal area irradiated, the adaptation of the eye, the stimulus intensity and the stimulus duration.^(35,38) Visual acuity can be broken down for convenience into three separate functions: a measure of the minimum visible, a measure of the minimum separable which is the resolving power, and a measure of the minimum distinguishable change in contour such as would be pertinent in reading a vernier. There is difficulty in obtaining a threshold value for the minimum perceptible display because of the interaction with intensity; i.e. this threshold is intimately associated with the least amount of radiant energy needed to arouse a visual sensation. For example, a luminous point, such as a star, intercepting an arc of order of magnitude .05 seconds is perceptible. A thin wire against a bright sky background can be perceived if it intercepts an angle of about one second. What is perhaps a more pertinent example of this threshold, applying the problem at hand, is the threshold intercepted angle of a square against a contrasting background. The minimum visible white square on a black background is about 10 seconds of arc, whereas the minimum visible black square on a white background is about 30 seconds of arc. Data such as these would be valuable in the design of optical tracking missile guidance systems.

The resolving power of the eye is about one minute of arc at the fovea; about 5 minutes at an angle at 3° from the fovea, 10 minutes at an angle of 6° from the fovea; and about 100 minutes at an angle of 30° from the fovea. Eye movement studies have shown that in the tracking operation the eye constantly fixates at the point being tracked; thus the region of the retina in use is within $2-3^{\circ}$ of the fovea, and the resolution is at worst limited to 5 minutes and at best about 1 minute of arc.

When the surrounds of a display are illuminated by light having an intensity from 1/100 to 1/10 of the test object, acuity is increased. As the surrounding illumination is increased or decreased outside of these rough limits, visual acuity diminishes. There is much information available in the literature on the interactions of pip intensity, ambient illumination, and previous light adaptation with regard to the discrimination of signals on a cathode ray tube.(81)

Vernier acuity as is exemplified by reading a vernier or detecting a break in the continuity of a line between two surfaces, is much greater than the resolving power, and varies between 6 and 10 seconds of arc; although individuals may be trained to detect misalignments of as little as 3 seconds of arc.

The following data bear on the visual perception of displacements, velocity and acceleration. An examination of detectable displacements of a horizontal line from the centre of a vertical line in a cross shaped display was shown to obey Weber's law so long as the horizontal line subtends at least 1/2 degree at the eye.(6) The Weber "constant" rapidly rose from the limiting value of 7% to 30% between 30 minutes and the smallest perceptible differences. The magnification utilized can thus be determined by making the smallest displacement under observation subtend at least 30 minutes at the eye. Apropos of the interaction between stimulus duration and acuity it has been shown that an exponential curve describes the functional relation between the difference in misalignment of the vertical cross piece from horizontal center versus exposure time necessary to get

the correct response 95% of the time. The horizontal cross piece intercepted 30 minutes, and at least 2 seconds of time were needed to perceive correctly when the misalignments were less than 10%.

The perception of movement is, of course, undefinable unless a time interval is specified for the observation. According to Aubert the angular velocity of an object must be between one and two minutes of arc per second in order for the object to appear immediately to be moving. In this experiment, stationary objects were in the field of view, viewing conditions were favorable as regards contrast and size of object, and the object was within about 1° of the fovea. At $2-3^\circ$ from the fovea the least perceptible angular velocity is from 3 to 4 minutes of arc per second and at 8° from the fovea the threshold for immediately perceived velocity is 9 minutes of arc per second. When the number of static references in the field was minimized to the slits of a viewing box the thresholds were raised to 10 to 20 times their former values. To unstructure the field any further would involve questions of autokinetic activity.⁽³⁸⁾

Dimmick and Karl⁽⁶⁾ investigated movement perception in terms of exposure time necessary to discern a given movement and found that for a motion of from 1 to 2 minutes of arc and exposure time of from .5 to 1 second would be needed. This is not inconsistent with Bourdon's work since there are many extraneous variables affecting this threshold which were not constant in both experiments. The orders of magnitude are what is of interest.

Using oscilloscope presentations Hick found that thresholds for the perception of changes of velocity roughly obeyed Weber's Law over a range from about .15 to 10 degrees per second with the constant difference

about 12%, but the spread of values was between 9 and 20% for either velocity increment or decrement. Bourdon found roughly the same Weber's constant in the neighborhood of 8 to 12%. (38,41)

There is, furthermore, an upper limit to perceived motion which Bourdon has found to be about 140 to 400 degrees per second for a range of motion of 10°. The smaller thresholds are related to the smaller objects and the larger thresholds to larger objects.

Tolerance Levels---Helson has pointed out the importance of distinguishing between physiological limits to performance and self imposed levels of performance. (39) The tracker who is attempting to minimize an error will not necessarily reduce the error to the limits of his visual acuity, but will reduce the error to that level which he is willing to tolerate. Certain errors may be deemed unavoidable or too small to bother with. Magnification serves to increase the apparent error of a given operator. The improvement due to fourfold mechanical magnification, which was studied by Helson, however, is not linear since, in general, the gains attributable to magnification are offset to some extent by the loss in accuracy due to diminution of field size. The tolerance for error which operators exhibit at a given time is related to motor and motivational factors as well as to perceptual factors. Performance may be limited by the operator's inability to handle load, inertia, and high rates of turning, or poor design may result in friction, backlash and improper choice of aiding time constants. The result of these motor factors will be to deteriorate manual control thus preventing the operator from working within his standards.

Emotional factors related to frustration tolerance and motivation are instrumental in defining the error tolerance. Operators of equivalent physical and physiological characteristics may be influenced differently by backlash or by the resentment of a superior so that their tracking performance will differ markedly.

Perception and set—Searle and Taylor have also expressed the opinion that the actual level at which responses are made is influenced significantly by the perceptual aspects of the experimental situation, or by factors of internal set and expectancy which may vary with the conditions of presentation. (67) In a pursuit tracking task the ratio of knob motion to observed displacement ratio was examined at the values 1:1 and at 3:1. It was observed that hand movement rates for the 3:1 ratio are consistently higher than for the 1:1 ratio whereas the pointer movement is relatively slightly affected by the change in knob:pointer ratio. The implication is that the subjects are attempting to make each correction in a certain length of time, regardless of the required effort. Response time changed only slightly over a wide range of displacements, and conditions of presentation. The increase in rates at the 3:1 ratio may be explained as a result of the reduced speed of perceived pencil movement for which the subjects involuntarily compensate by making faster hand movements. Again, this implies that subjects are attempting to make each correction in a certain length of time, regardless of the required effort.

Another manifestation of perceptual influence is the "range effect". This effect occurs when displacements of varying sizes are presented in random order and the subject's response to any given displacement is influenced by the relation of this displacement to the other sizes in the sequence.

Indications are that rates are too low for the large displacements and too high for the small displacements. The subject apparently develops a "set" for the average-size displacement. There is reason to believe that this average is the geometric rather than the arithmetic mean of the series.

The range effect which the Naval Research Laboratory mentioned was investigated in some detail at the University of Indiana.⁽³¹⁾ Separate groups of 25 subjects each tracked two different ranges of three step function displacements. The one-inch displacement was the largest stimulus in range 1 and the smallest in range 2. The subjects tended to undershoot the 1" stimulus when it was largest in its series and to overshoot it when it was smallest in a series. This tendency is a function of the range and not the absolute magnitudes of the stimuli, and is thus related to some expectation or set on the part of the operator.

The subject's internal set or attitude plays a part in influencing his psychomotor performance and the type of instruction given the subject may be instrumental in establishing this set. It is known that under laboratory conditions instructions inducing a set for speed will yield different results from those inducing a set for accuracy. Subjects receiving instructions stressing speed usually minimize the importance of accuracy. This was indicated by a study on the effect of "speed-up" instructions on the performance of discrete movements of the hand and arm.⁽⁷²⁾ The resulting increased speed of movement was accompanied by a decrease in accuracy.

Instructions were found to be important in influencing the rate of learning to track with a pursuitmeter.⁽⁶³⁾ One group of subjects was told to keep the instrument running; another was told to use analysis and

cleverness to keep the instrument going; and the third was given as many facts about the operation of the machine and the nature of the task as were available; presumably this latter group learned at the verbal rather than the motor level. This last group, however, has a higher frequency of errors than did the other two and did not show any improvement between the first and last days of practice. The second group had the most rapid rate of learning. However, both the first and second groups showed similar improvement between the first and last days of learning and the curves for both were essentially similar in form. The conclusion which, therefore, must be drawn from this experiment is that evidently verbal instruction cannot be substituted for the sensory stimuli received from performing the pattern of movements involved in pursuit learning and may even hinder progress.

Fatigue---A series of experiments have been performed at Tufts College to study the effect of fatigue on psychomotor efficiency, using the Mark II Navy Trainer for tracking in azimuth. (61, pp. 70-74) The results of these experiments indicated that continued tracking for long periods resulted in a decrement in performance, but this decrement was reduced by motivating factors (such as rest, pay, encouragement). It was concluded, therefore, that the decrement here was due to boredom since azimuth tracking does not involve considerable muscular effort. Deprivation of sleep for as long as two days did not affect tracking performance adversely, although subjects reported that it was necessary to make a greater effort to attend to their task to keep performance from falling off. It was also found that performance of a complex task for four hours did not yield a significant change in the efficiency of performance.

The effects of prolonged strenuous exercise were also studied here. Although subjects showed clinical signs of fatigue during a 30-mile hike there was no decrement in tracking accuracy. (24) Climbing a staircase rapidly with a heavy load resulted in a statistically significant increase in the variability of stereoscopic ranging which disappeared very quickly. It was believed that this was due to hyperventilation because of breathlessness. Further studies were made at the Harvard Fatigue Laboratory during which subjects breathed deeply until dizziness or blurring of the visual field was experienced. Range estimates made by these subjects all showed poorer and more variable judgments, although the effects were more pronounced on stereo than on vernier acuity. It would be well for tracking and ranging personnel to avoid strenuous activity which might lead to breathlessness immediately before performance. It also appears that trained trackers should be able to track for long periods of time without a reduction in efficiency due to fatigue. The Fire Control Division of NDRC reported to the Services that no special precautions need be taken against fatigue for tracking personnel.

Distribution of Attention---The distribution of attention in a military tracking situation may be affected by many sources of distraction. Among the possible sources are the very complexity of the manual tracking and firing task, the complexity of the visual field, combat noises and perhaps emotional or physical injury to the operator. That these sources affect time to respond is indicated by a recent experiment in which the reaction time necessary to identify various numbers of stimulus objects

was measured as a function of the number of stimulus objects. It was found that the reaction time was lengthened as the number of stimulus objects in the field was increased. This little experiment illustrates the obvious truth that if a tracker is required to be aware of and make measurements of several stimuli at the same time, the reaction time needed to respond to the constellation of stimuli will increase as the complexity and number of stimuli is increased. (66)

An excellent example of a study undertaken to examine the shortcomings of highly complex equipment was project AC-94, Psychological Factors in the Operation of Flexible Gunnery Equipment. (82, Chapt. 20; 59, Chapt. 18) During the course of the last war the gunner's relation to his gun became remote as motors replaced muscle control and complicated lead computing sights replaced lead estimation. The result of these changes and the great skill required to use the gun sight complicated the gunner's task to such an extent that it was feared, in certain circles, that the limits of the B-29 gunner's ability were being surpassed.

It was necessary for the B-29 gunner to simultaneously track in elevation, and azimuth, as well as to range. These tasks were relatively independent of one another and each was a difficult task in itself. The sight as originally constructed required tracking in azimuth and elevation as well as in range by means of a variable diameter reticle circle. The movements of the range handwheel had to be made relative to movements of the sight in elevation, and as a consequence, the rate of hand movement in ranging might differ for the same target range rate. The gunner, moreover, was required to judge when his performance was good enough to warrant

firing. It was shown by AC-94 that triggering was not dependent on the goodness of the target size and position relationship to the reticle, but rather that triggering was a non-discriminating function characterized by semirhythmic patterns peculiar to the individual gunners. The project made several redesign recommendations in an effort to obtain smoother and more accurate tracking and firing. Thus it was suggested that handgrips be used to control azimuth and elevation tracking and that a pressure type ranging control be mounted on the right handgrip. The trigger was conveniently mounted on the left handgrip and firing was to be continuous or, if intermittent, automatically programmed. The results of these recommendations were tested experimentally. The tests supported the validity of the recommendations.

The Foxboro Company conducted several tests on simultaneous tracking and stadiametric ranging. (69,70,71,75) This task is difficult for inexperienced operators and the indications are that ranging is the more difficult task. Up to about 10 hours of training are generally needed to acquire proficiency in the simultaneous tracking and ranging problem. Whether pedal or hand controls be used for ranging is largely a matter of physical convenience.

Another frequently met disturbing influence in the total stimulus field is provided by noise. (12, pp. 32-40) Results of several experiments with noise have indicated that loud sounds as such do not effect the efficiency of stereoscopic ranging or tracking. In fact, although muscular tension is produced, the introduction of noise often relieves the

monotony of the task and helps keep the men awake. Subjectively operators reported the need to compensate for the strain of noise by putting forth greater effort. It is also true that the loud sounds are often extremely disturbing to the emotionally disturbed, but this is a problem of personnel selection.

MATHEMATICAL MODELS FOR THE HUMAN OPERATOR IN A TRACKING SITUATION

Several theoretical schemes of varying degrees of generality have been suggested thus far in an effort to characterize mathematically the human operator in a tracking situation. The late K. J. W. Craik enunciated one of the earliest of these descriptive schemes as the result of the extensive experience gained by the Applied Psychology Unit in their tracking studies during the past war^(20,21,40,84,85). The time record of tracking errors reveals a periodicity with a predominant period of 0.5 second according to the evidence which Craik cites. This periodicity is unaffected by magnification, thus eliminating the possible argument that it is a function of sensory threshold. The periodic corrective movements, which are ballistic in nature, are due to the fact that the response pattern after the last corrective movement consists of a reaction time lag of about .3 second and a corrective movement of predetermined course usually lasting about .2 seconds. The operator's movement is not determined continuously by the perceived error, but rather in an intermittent manner. Were the control continuous, the time lag would result in continuous oscillations of .5 second period, but were the control intermittent the error could be corrected in a series of triggered off movement patterns of predetermined course. In addition to acting as an intermittent correction servo the human operator acts as a predicting mechanism, extrapolating from past data. This prediction mechanism results in smoothing out the operator's behavior and perhaps masking some of the intermittent characteristics of tracking.

It is of interest to point out that Woodworth observed that when subjects were allowed less than .5 seconds per movement, responses with the eyes closed were about as accurate as responses with the eyes open. (95) This was explained on the grounds that rates faster than two movements per second did not leave time for the more delicate visually controlled secondary adjustments.

Other work has corroborated Craik's hypothesis that the following occur within one reaction time: error perception, organization of the appropriate response, and the triggering off of the proper pattern of nerve impulses. (77) As Craik pointed out this pattern cannot be altered once triggered off, and is essentially an open loop characteristic. That the control mechanism must be intermittent follows from an examination of the acceleration patterns of corrective responses which show that the movement passes through its patterns of positive and negative acceleration in just about one reaction time. The operator, therefore, cannot stop or alter his corrective response once it has begun.

The previously mentioned range effect is a set to respond based apparently on a predicted mean response amplitude. This predicting function was also noted by Helson who observed that the tracking error converted into time units was of the order of milliseconds--which is several orders of magnitudes smaller than a reaction time. (39) In a demonstration of prediction, simple sinusoidal courses varying in amplitude and frequency were presented to the tracker. The target was followed closely for large amplitude and low frequency, but as frequency increased the tendency was to anticipate by shortening the amplitude of response while reproducing the input frequency. When an erratic course input was used the operators responded with an averaging crank motion. Helson hypothesizes that the beneficial

effects of low gear ratios and heavy handwheels may be due to their facilitation of the operator's smoothing type of behavior.

Ellson and Gilbarg discuss operational analysis in the hope that such methods may be applied to human operator behavior.⁽²⁶⁾ Unfortunately, the mathematical requirements on the system are that it be linear, i.e., describable by a set of linear differential equations, and except for a very few examples, the evidence is that the human operator is not linear⁽⁷⁶⁾ to any significant degree. Efforts have been made to determine the extent of the operator's linearity, and Ellson and Gray studied human responses to various sine wave inputs.^(27, 29, 30) The human operator behaved in a basically non-linear manner; i.e., the superposition theorem did not hold. It is of interest that for 3 and 4 cps inputs the operator responded with decreased amplitude and slightly higher frequency. This type of response may be related to the averaging mentioned by Helson, and may shed some light on the limitations and nature of the human predictor. Further information on the nature of the manner in which an operator predicts may result from Ellson's finding that the responses to complex inputs are more nearly linear than responses to simple inputs.

R. S. Phillips has investigated the human role in a tracking system and in so doing created a linear mathematical model of a human operator.⁽⁴⁸⁾ The basic assumption was that the operator turns the handwheel at a rate proportional to the magnitude of the tracking error. Using this fact, a time lag of .5 seconds for the system, and the provision for derivative control of handwheel rate, should the operator begin to anticipate the error, an expression for the rate at which the operator turns a handwheel

control was written out and expressed in operational terminology. The following is a statement of the same equation in terms of displacement of the control handle.

$$H(t) = \left[\left(b + \frac{c}{p} \right) e^{-pL} \right] E(t)$$

where $H(t)$ represents handwheel position, $E(t)$ the error signal, L the time lag, c the operator on the error time function expressing proportionality of handwheel rate, $pH(t)$, to error, or integral control of position, $H(t)$; and b the derivative control of handwheel rate or proportional control of handwheel position. This expression was combined with the equation for an aided tracking unit, resulting in a general equation for aided tracking involving the aided tracking constant and the operator's parameters. The stability region and the best values in a minimized mean square error sense for the three parameters, a , b , and L , were obtained for a course characterized by constant velocity over a sequence of intervals with abrupt independent changes in velocity at the end of each interval. It was shown that the best tracking can be done with an aided tracking constant of .9 and about as much derivative control as position control of handwheel rate. If, however, the operator is not exerting derivative control on the rate, as would be the case were there no prediction on the operator's part, the optimal aided tracking constant is about 5 times the operator's time lag. This would yield a value of about 2.5 seconds, and this is just about what was found in a corroborating experiment in handwheel tracking wherein mean square error was plotted versus aided tracking constant. This value of the aided tracking constant is much different, however, from empirical determinations made by other groups using more rigorous experimental designs.

Randall, Russell and Ragazzini have also made an effort to represent the human operator in a linear mathematical form.⁽⁶⁰⁾ Their decision as to the function to be used was governed by a series of minor tests of human operators which indicated that though the human operator was non-linear to a significant degree, linear approximations may be made. They also found that from the viewpoint of ease of control, proportional and integral terms are easiest for a human to insert, but that the operator has difficulty inserting derivative terms. Furthermore, the lag in human response time was observed to be about .3 seconds.

The resulting equation describing the human operator was

$$H(t) = \left[(ap + b + c/p)e^{-pL} \right] E(t)$$

where the term additional to the terms in the Phillips equation is an operator on the error signal, $E(t)$, representing derivative control of handwheel position. The problem is to specify the ranges of values of these parameters under specified conditions and to examine the variability over human operators.

Tustin determined a linear relationship of the form

$$H(t) = \left[(b + c/p)e^{-pL} \right] E(t)$$

where $L = .3$, and as can be seen, this is identical to Phillips' form.⁽⁸³⁾ Both Tustin and Phillips wrote their equations so that handwheel velocity, $pH(t)$, was the dependent variable, since they were concerned with aided tracking (aided tracking will be discussed in the following section of this report), but the equations were reformulated here in terms of handwheel position so that they may be compared more easily with the Randall, Russell and Ragazzini equation. Tustin discussed aided tracking and servomechanism design in the light of those human

operator characteristics which he hypothesized. The value of this conjecture is questionable in view of the paucity of experimental data at this stage of research and the dubious nature of the linear approximations used.

What is perhaps a more promising approach has been discussed recently by Mayne.⁽⁵⁰⁾ Two types of body movement control are hypothesized. The first type characterizes motion of an unpredictable nature and is a closed loop response involving an external error sensing device such as the eyes. The second type is a closed loop response which operates without external error sensing and is characteristic of highly predictable behavior. The difference between the two forms is illustrated by the tracking responses to a regular sine wave input and to an irregular input program. Typically the phase shift between input and output will become negligible while tracking a sinusoid, as has been noted in past tracking studies. Thus the operator is not responding to a closed loop system which includes the eyes as error detectors but some sort of autopilot response has taken over. In the tracking of an irregular course, the response pattern is characterized by lags in response of one reaction time duration. A physiological illustration is offered by tabes dorsalis. In this disease, proprioceptive feedback from the feet is eliminated, thus a tabetic must look at his feet while walking in order to find out where they are.⁽⁹³⁾ The higher type of closed loop control (visual feedback) has had to take over the function formerly served by the lower type of autopilot control. Mayne makes the stimulating point that the human response to a complex input may act as an optimal Wiener filter in its predictive characteristics. This is a point of departure for future research.

ENGINEERING EFFORTS TO MEET HUMAN REQUIREMENTS

The human characteristics previously mentioned present design problems which have been attacked and solved in various ways. It is both convenient and meaningful to group these psychological problems and engineering solutions about four foci of interest: displays, applications of power, linkages, and types of controls. It should be borne in mind that the various solutions may be specific in certain cases to particular military problems. One can readily see that the tracking problem confronting a pilot flying an attack course differs from the task of an airborne or ground tracker attempting to down this attacking pilot. The stimulus situation will differ in that different rates will be presented to each tracker and the computing mechanisms employed may have different display characteristics. There are, of course, additional differences as well. On the other hand, the following section will mention several design features of general application.

Display Problems—Three characteristics are of prime interest in the optical tracking display problem; these are reticle design, reticle target relationship, and magnification.

Considerable research has gone into the problem of reticle design for stereoscopic ranging. (82, Chaps. 4, 22; 61, Chaps. 2, 4, 5, 11) The stereoscopic ranging difficulties arise from the fact that errors of large magnitude arise when ranging is performed with the target position in the field beyond the vertical or horizontal limits of the reticle pattern. This points up the need of smooth and accurate target tracking for stereoscopic

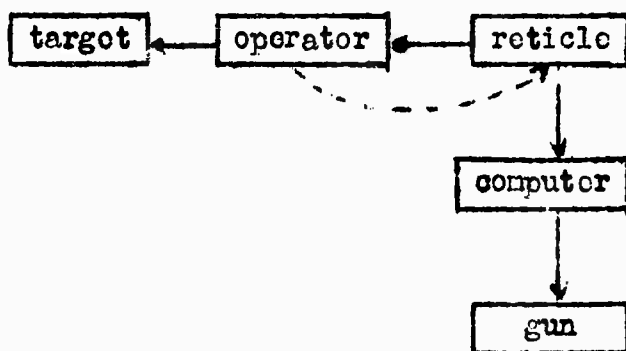
ranging so that the target position will be maintained as near as possible to the center of the reticle. A conclusive explanation of the causes for these errors in stereoscopic ranging has not as yet been presented. Experimentation has, however, indicated that the reticle design to be striven for in stereoscopic ranging is one in which there is an opportunity for positioning the target in a break in the fiducial line or of placing the target as near to fiducial lines as possible. Reticles which present simple vertical line fiducial marks are superior to reticles which present complex figures such as diamonds. It is recommended that vertical lines be 5' of true field and that these lines be sufficiently thin, .20' for true field, so that parts of stationary targets will not be masked. Another consideration in stereoscopic ranging reticle design is the minimization of fusion of unpaired reticle lines. False fusion can best be eliminated by irregularly spacing markers in the main row of the reticle. All that is required is one pair, and it has been shown that these will not interfere with accuracy.

Reticle design for stadiametric ranging and sighting is more directly pertinent to the tracking problem as this paper is treating it. (82, pp. 182-185; 61, Chapt. 10) Reticle design must take into consideration the use to which the mechanism is to be put. Just as stereoscopic ranging reticles solve a particular problem so must reticles be specialized for slewing as opposed to careful tracking, for on target tracking and for lead tracking, and for tracking in daylight as compared with tracking at night. In general reticles which present a greater field of view allow more rapid slewing while the presence of a center dot or a small ring of

order of 10 mils in a reticle slows down slowing while increasing the accuracy of careful tracking.⁽¹³⁾ Radial lines in a reticle were not found to improve tracking either when tracking on target or when the operator tracked with an estimated lead.⁽⁴⁷⁾ In a specific comparison of several sights with regard to slowing time, the optical ring sights ranked best, illuminated ring sights next, and the ring post and telescopic sights were poorest.^(14, 15) The poor rating of the telescopic sight is due to its restricted field of view and center dot. Slowing time is likewise cut down by the presence of a center dot. One difficulty in illuminated ring sights is the matching of ring illumination to the sky intensity. Under bright sky conditions the ring tends to disappear; whereas against dark sky backgrounds the reticle pattern is so bright that the eye's capacity to discriminate small brightness differences is greatly reduced. The telescopic sight, though more fatiguing to use, showed up best with regard to tracking accuracy under both high and low illumination, but it was no better than the optical ring sight for high illumination. The disadvantage of the optical ring sight under low illumination conditions can be traced to reduced light transmission as compared with the other reticles. The advantages of an optical sight follow from the fact that the reticle is located at the focal plane of a collimating lens system. Since the reticle will thus appear at infinity to the observer, there is no need to fix the observer's eye position since parallax has been eliminated. This difficulty can be overcome by using this sight with both eyes; one eye looking directly at the target and one eye looking through the sight. The ring post sight was poor for both slowing and tracking since it presents a

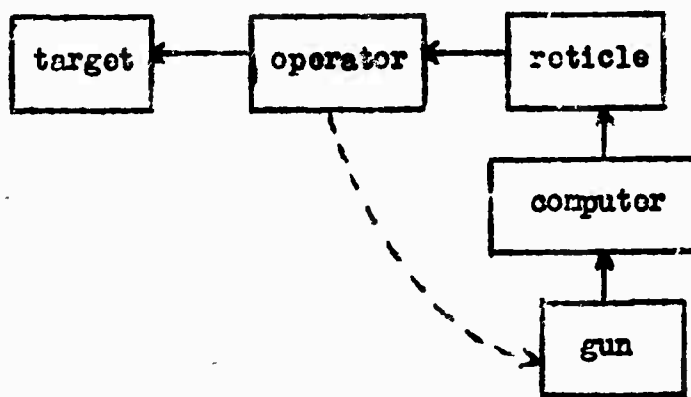
difficult visual task. This arises from the fact that it is necessary to align three points: target, post and ring, and eye. Any slight head movement throws the ring post out of line, so that any advantage accruing from its open field is lost. Save for the mention of the lack of effectiveness of radial lines in a reticle, the foregoing refers to on-target tracking. This is to say the tracker does not mentally estimate a lead. Leads are usually determined by specially designed computers, and this is the occasion for another aspect of the display problem.

Tracking may be divided into direct line of sight tracking and disturbed line of sight tracking. In direct line of sight tracking the line of sight is fixed to the tracking system and moves with it. The reticle is stable and does what the operator would expect of it. An example of direct line of sight tracking would be a director as illustrated by the following block diagram:⁽⁸⁹⁾



The operator minimizes the difference between target and reticle position by controlling the reticle position directly. From this reticle position, the various angular rates and so forth, the computer computes the lead and sets the gun.

The disturbed line of sight, or floating reticle, system is characterized by the following block diagram of a lead computing sight.



In the above the operator attempts to minimize the difference between the target and reticle position as before, but he does not control the reticle directly. He has his hands on the gun, and this is the important and crucial difference between the two systems. This difference results in requiring different dynamics for the eye-hand response of the operator. In the lead computing sight the operator's eye has a distorted knowledge of what his hand is doing. Lag and smoothing in the reticle position results and under certain conditions the reticle moves in a direction opposite to the movement of the gun. The engineering solutions to this display problem will be presented in the discussion of aided tracking. Considerations related to the advantages of getting on target rapidly and the disadvantages of slowing have resulted in a novel recommendation for a reticle display.(49)

Magnification advantages and disadvantages illustrate the necessity for effecting compromises in the design of equipment for optimal human operation.(39, 45) In a compensatory aided handlebar tracking experiment, the

average tracking error was reduced from .82 mil to .30 mil by the replacement of the open viewing tube by a monocular telescope of 6 magnifying power. Further increase of magnifying power to 20 resulted in an error reduction to .26 mil, which though highly significant statistically, indicates that there is an optimum level of magnification. It is of interest to note that fourfold magnification in an aided handwheel tracking situation resulted in about $2\frac{1}{2}$ times greater error reduction than did fourfold magnification in the corresponding direct handwheel tracking situation. This differential improvement may be due to greater importance of rates in aided tracking.

The disadvantages of magnification are due to reduction in field size as well as to the increases in apparent velocities and accelerations due to target or mount vibration. The constricted field of view makes it difficult to get on and stay on the target. The increases in apparent motion as well as the reduced field make slowing both more necessary as well as more difficult. Although the usual tracking telescope is 6 or 8 magnifying power, it should be stressed that the magnification used in any particular application should be the result of a study of such considerations as the necessary speed of tracking, mount stability, regularity of the course being tracked, accuracy required, as well as size of object being tracked. (23)

The display problem is obviously of great importance in radar tracking, but this discussion will limit itself to a few points directly related to the tracking problem. (82, pp. 235-246) The range tracking unit of the SCR-584 was examined to determine whether it was better to adjust a

rotating hairline to a rotating pip than to adjust a rotating pip to a fixed hairline. This reduces to a comparison of pursuit versus compensatory tracking. The fixed hairline or compensatory tracking display resulted in more accurate tracking and could be learned more rapidly. With either method, however, terminal accuracy after training could be brought to a level well within the accuracy demands of the SCR-584.

In an investigation of tracking aerial targets with the Navy Mark 12 radar, three different types of presentation were compared. It was found that the best display for both accuracy of tracking as well as target retention was obtained by requiring the centering of a spot on fixed crosshairs. This was a compensatory tracking task. The matching of pips for height on an A scope was the poorest of the three displays tested; whereas the centering of a needle on a null position was somewhat less accurate than the spot centering display.

The oscilloscope tracking task can be made easier by introducing ambient lighting of the order of about one foot candle. The reduction of excessive contrasts, the alleviation of strain and the greater precision of the light adapted eye are probably responsible for the improved tracking. The detection of signals on an A scope was not adversely affected by ambient illumination except for the unusual conditions of minimal trace brightness and maximal ambient illumination. The problem of proper cursor design for tracking radar pips and deriving quantitative relations from their position is the radar analogue of reticle design for optical tracking.⁽³³⁾ It appears that the best cursor design and doctrine is one using crosshairs so that the fiducial line is set within one just noticeable difference of the pip's reference edge.

Applications of Power - Direct, Velocity and Aided Control---

The method of applying power while tracking has been a subject of extensive and thorough research. In general, the gun or other device being directed by the tracker is maneuvered by a mechanism which boosts the operator's muscle power. The question of how the tracker's input shall be transformed is a fundamental problem in the design of tracking systems. (10)

The simplest form of control is direct, proportional or position control. In this type of control, the output position, θ , of the reticle or cursor is proportional to the input position, ϕ . Thus $\theta = A \phi$. Direct tracking is useful in situations requiring the rapid setting of an index to a target for the making of accurate measurements. An example would be radar tracking of ship or ground echoes at a short range from a rapidly moving plane. Another application would be in the use of GCA tracking wherein a cursor is required to be set on a blot of light and certain readings taken. This form of tracking is highly unsatisfactory for use with intermittent information since it does not maintain a ratio between signals.

The Foxboro studies present a considerable body of (1, 25, 39, 46) research on compensatory direct tracking by means of handwheel controls. Coulomb friction, inertia, handwheel diameter and rates of turning were among the variables studied. The speed at which the handwheel was turned had a considerable effect on both the accuracy and pattern of tracking error. The error versus speed of turning curves demonstrate a steep negative slope until about 50 rpm at which point they begin to level off. The optimal speed increases with decreasing handwheel diameter. The speed of handwheel turning effects are attributable to the decreased sensitivity of the

handwheel for higher speeds; i.e. lower gear ratios. The error patterns show that at high turning speeds high frequency low amplitude harmonics predominate whereas at low turning speeds low frequency harmonics of high amplitude predominate. Handwheel diameter was not a very strong determinant of accuracy, but speed was. Larger handwheel diameters were advantageous, as would be expected, under conditions of considerable load. Small diameter handwheels were preferable at higher speeds, i.e., above about 100 rpm, 4.5 inches diameter was preferable to a 9" diameter since their motion did not exceed physical limitations as was true with the large handwheels. At low turning speeds large handwheels provided both smoother and more accurate tracking. Interestingly enough, accuracy of tracking appears to be greater for arm and hand motions near the operator's limit of turning.

Inertia was found to benefit accuracy of handwheel tracking greatly, provided the required changes of direction and rate were such that it was within the operator's power to accelerate and decelerate adequately. Inertia smoothed the tracking error curves markedly. As is characteristic of control design parameters, there is an optimal region in which the appropriate amount of inertia improves tracking. This region is characterized by both inertia, diameter, type of course, and speed of turning variables. As an order of magnitude example, the use of a 9 pound handwheel effects an average improvement in accuracy of 40% over a 2.5 pound handwheel up to about 100 rpm. The effects of inertia can be explained as follows. Mechanically, inertia in opposing changes in rotation smooths and reduces the error. Operatorwise the tactile and kinaesthetic

cues serve to supplement visual signals. This proprioceptive feedback enables the operator to sense changes of rotation expressed as changes in force and thus to oppose them, hence producing smoother tracking. Otherwise changes in speed would build up into presentation errors before being corrected. Inertia thus acts as an aid to prediction since it provides the operator with second derivative information on potential displacement errors.

Friction was found to be detrimental to accuracy and to contribute to jerky error curves. Frictional effects were more marked when the other variables in the problem were off from their optimal values. Friction effects were attributable to the mechanical fact that friction is a force fairly independent of handwheel velocity, and to the psychological consideration that this effect upset the operator's predictions, since speed of handwheel rotation did not bear a simple relation to the force applied. Research performed in Britain indicates that friction is advantageous under conditions of jolting. (59, p. 227)

Velocity tracking represents a different type of power control. In this type of tracking the rate of reticle or cursor movement, $\dot{\theta}$, is proportional to the position of the input control. Thus $\dot{\theta} = B \phi$. Velocity tracking provides a simple means for tracking constant velocity targets, but it has the big drawback of changing displacement settings rather awkwardly. There are, however, tracking problems which may be so defined that it is velocity matching rather than position matching which is of prime importance for the fire control system. Low flying high speed aircraft might present a problem to ground based trackers which could best

be solved by attempting to get on target at the beginning of the run and then attempting to match rates as best as possible during the run by matching appropriately geared slowing rate to the target rate.

Aided tracking supplies the smooth rate information characteristic of velocity tracking, but in addition provides a means for getting on target rapidly. The output rate, $\dot{\theta}$, in aided tracking is a linear combination of the control position, ϕ , and the rate of control movement $\dot{\phi}$. Thus

$$\dot{\theta} = A\dot{\phi} + B\phi$$

The ratio of the position component to the rate component A/B is called T , the aided tracking ratio. T , therefore, represents the time taken to move the tracking reticle from an original displacement through an additional distance equal to the original displacement. In practice T is generally a constant, although suggestions have been made that T should be made functionally dependent on certain parameters of the tracking situation such as projectile time of flight, or target slant range. (88,89,92) The Norden bombsight provided a double gripping control so that rate and position ratios could be varied at will, but this required considerable operator skill. In practically all comparisons between aided tracking and velocity tracking, aided tracking, subject to proper choice of aiding ratio, is faster and more accurate.

The process of adding aiding terms can, of course, be extended beyond the first derivations so that acceleration and higher derivative components may come into the control system. Thus

$$\ddot{\theta} = A\ddot{\phi} + B\dot{\phi} + C\phi$$

As yet there is no thorough and systematic study on higher tracking which would be comparable to the research on first derivative aided tracking. Facilities for such a study have recently been constructed at NRL and there is reason to expect results on this problem to be available in the near future. Higher order tracking may result in more stable and effective tracking by analogy with certain regulatory circuits in which the introduction of higher order dynamics allows a readjustment of parameter relationships so that results of strikingly advantageous features emerge. (2, pp. 28-29) Experimental results presently available are equivocal, possibly because of the fact that courses and error criteria are not readily comparable. One study indicates accelerated tracking decreases displacement error and tends to smooth tracking, (5) whereas another study though concurring in higher aided tracking's more accurate positioning, finds rate errors increased. (34)

The manner in which power is exerted in the tracking situation is intimately related to the nature of the presentation. This statement is best illustrated by certain theoretical and empirical findings related to the choice of power control to be used with a disturbed reticle sight. By consideration of the dynamic relations between the angle of the optical sight line, σ , and the angle of bore line of the gun, T , as well as the parameters of the lead computing sight, a , t_f , the following differential equation can be written. (See figure 3)

$$\ddot{\lambda} - \sigma = \lambda = t_f \left[(1 - a) \dot{\sigma} + a \ddot{\sigma} \right] \quad (1)$$

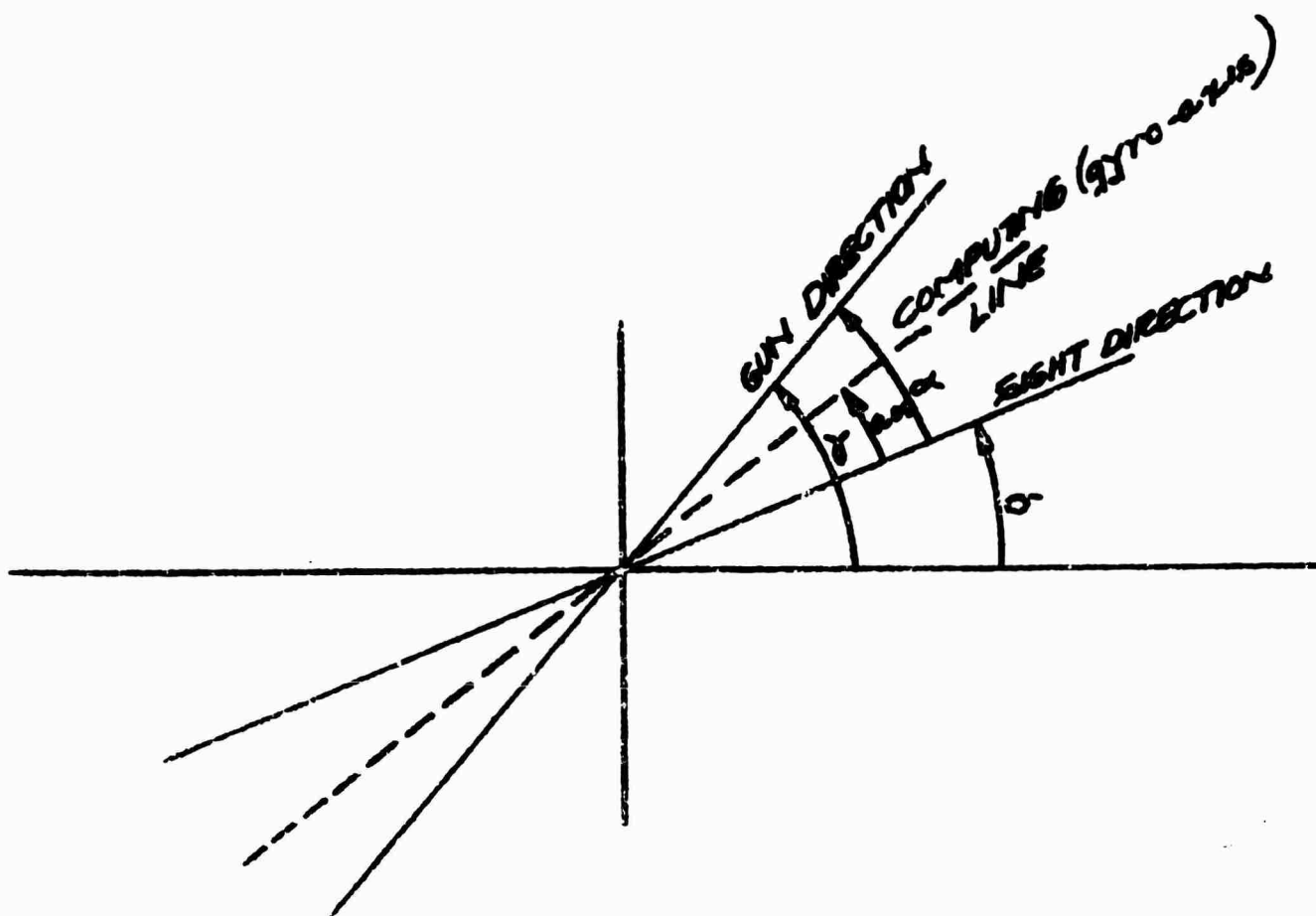


FIGURE NO. 3

where λ is the computed lead angle. t_f is the time of flight of the projectile and "a" is the angular multiplication factor expressing the ratio between the angle between gun line and computing line and the angle between gun line and sight line. The physical significance of "a" can be seen more clearly when it is realized that the gyroscopic lead computing sight requires certain angular rates as inputs. The specification of which angular rate will be the input is provided by "a". For "a" = 0 the computations are based on the angular rate of the sight line, when a = 1 the computations are based on the gun angular velocity. Negative "a" means that the computing line lags the sight and when "a" is greater than one the computing line leads the gun. Fractional positive or negative values of "a" denote relationships in between the extremes mentioned. Further significance may be attached to "a" when it is realized that equation (1) is an exponential smoothing circuit. This is to say, this equation determines how past information about the target being tracked will be created so as to make predictions of the future behavior of the target. It can be shown that as "a" becomes increasingly negative the smoothed present value of the lead depends more heavily on past values.

In order to illustrate the dependence of sight position on gun, (1) may be rewritten

$$\dot{\sigma} + \sigma/K = \dot{\delta}/K - \frac{a}{1-a} \dot{\delta} \quad (2)$$

where $K = (1 - a)t_f$. (16, 89)

The right hand terms of equation (2) are known forcing terms and it can be seen immediately that "a" must be less than one, for were $a > 1$, K would be negative and the exponential in the transient term of the solu-

tion to (2) would increase without limit; in other words the sight would run away.

Consider a special case of (2) wherein the gun and sight are initially at rest and aligned. If then the tracker imparts a certain velocity to the gun, the sight line moves according to the following equation:

$$\dot{\gamma}_{\text{initial}} = (a/a-1) \dot{\gamma}_{\text{initial}}$$

It can be seen immediately that for negative values of "a" the sight will initially move in the same direction as the gun, whereas for positive "a" the sight will initially move in a direction opposite to the gun's initial movement. Obviously a more natural visual display results when "a" is negative or at the largest zero. There are, of course, disadvantages pertaining to negative "a" values as can be seen from (2) where negative "a" would result in a large time constant $(1-a)t_f$, hence a sluggish sight. In the foregoing discussion it should be borne in mind that the tracker controls γ and $\dot{\gamma}$. He has his hands on the gun. A further consideration of the sight gun dynamics shows that the computing system acts as a low pass filter for higher values of the sight time constant $(1-a)t_f$. Thus as the frequency of gun control is increased a smaller and smaller fraction of this oscillation manifests itself at the reticle. Tracking for high K or t_f will thus appear deceptively smooth and accurate to the operator. This smoothness is of little avail since it blinds the tracker to his high frequency gun errors. The tracker obviously cannot react to what he cannot see, thus his gun accuracy is bound to drop. This is to say he will track well but he won't score many hits. It can be

readily appreciated that the slewing protocol adopted by the gunner will be determined by the constants of the computing system being used.

The relationship of type of power control to disturbed reticle tracking can be predicted by making a polar plot showing amplitude and phase of sight motion with respect to gun motion for various frequencies of control oscillation. In addition to acting as a low pass filter the computer introduces a phase change in the gun motion input. In ordinary direct tracking without a computing sight there is no lag between control and sight and the two movements are related by the direct tracking constant A . In rate tracking without a computing sight there is a lag of 90° between control and sight since the operator must wait for sudden rate changes to build up to position changes. In aided tracking the lag of sight control is intermediate between 0 and 90° , whereas for fast control movements, position dominates and the lag approaches zero. For a lead computing sight, with the parameters " a " = $.2$ and $t_f = 1$, there is lag and attenuation of high frequencies for direct tracking, but the lag never exceeds 45° . Therefore even though tracking is deceptively smooth, the operator is not asked to do the unnatural but is presented with a task which he can reasonably be expected to learn.⁽⁸⁹⁾ Rate tracking, however, when applied to this lead computing sight produces extremely undesirable results. The lag characteristic of the direct tracking is rotated through 90° , thus at all frequencies the sight will lag the gun control by more than 90° . In addition, the amplitudes are attenuated by an additional factor of $1/\omega$, smoothing out high frequency control movements even more. More than half the time the gun control and reticle will be moving in opposite directions.

Thus it can be seen that rate tracking with a lead computing sight is an extremely difficult and unnatural task.

Now if aided tracking be considered it can be shown that if the aided tracking constant $T \geq t_f$ the lag angle between control and reticle will never exceed 90° . Moreover if $T = (1-a)t_f$ a comparison with fixed sight equations shows that the disturbed reticle sight characteristics will appear to the operator identically the same as the characteristics of a fixed sight with aided tracking control and $T = -at_f$. (16, 89)

These analytic deductions can be checked with the results of the very extensive experimental investigations of velocity and aided tracking with fixed and lead computing sights carried on at The Franklin Institute by Preston and Irwin. (56-58, 79, 80) The prime result of The Franklin Institute studies was that aided tracking was clearly and consistently superior to velocity tracking. This finding was true for both gun and tracking errors over a wide range of subjects, courses, T values, " a " values, and three sets of experimental setups, one of which was a Martin Turret with Maxson aided tracking controls. The superiority of aided tracking control was greater the more difficult the conditions; for example, small negative values of " a " and target motions of large rates and accelerations. The superiority of aided tracking manifested itself for criteria other than error measures. The other criteria considered were: duration of trigger use, amount of trigger use when gun error is small, percentage of time gun error is small during which the trigger is used, and the length of time tracking and gun errors are small.

In particular, The Franklin Institute carried out a series of experiments to empirically check the prediction that the lead computing sight with aided tracking adjusted so that $T = t(1-a)$ would track like a fixed sight with aided tracking ratio $T = -at_f$. (56) It was found that when the foregoing conditions obtained, mean tracking errors did not differ significantly, on the average, for the fixed and lead computing sights. The tracking and gun errors observed at the match point are minimal as the match position is broken by varying A in the relation $A/B = T = t_f(1-a)$. This holds for one and two dimensional tracking, individual subjects, early and late in practice, at the beginning and the end of the course and for two separate match points. The minimum error at match point is less strikingly obvious when B is varied and A is held constant. When "a" is varied the minimum appears present but not marked and when t_f is varied tracking error doesn't exhibit a systematic dependence on departure from match point, but gun errors increase uniformly with increase in t_f without regard for whether a given value of t_f establishes a match. The variation of tracking and gun errors with t_f merits further study. The results confirmed the prediction made for the $T = t_f(1-a)$ condition, and provide a striking example of balanced engineering, analytical and psychological research. In general the experimental investigation found that tracking and gun errors tended to decrease as "a" varied from small to large negative values. This finding also held for the several firing criteria already mentioned. This finding was true for velocity or aided tracking. It is somewhat surprising since the sight acting sluggishly for higher negative "a" should yield larger gun errors. Furthermore gun errors did increase for increasing t_f , which would be consistent with what would be expected of a sluggish system. The extensive

Franklin Institute tracking studies indicated that as a general rule the aided tracking ratio is of greater importance in determining tracking accuracy than either A or B separately and that the best value of T was somewhere in the neighborhood of .3 to .7 seconds.

The question arises as to just what is the significance of this range of T values. The answer to this question came about in a roundabout manner as part of the solution to the problem of determining the optimum aided tracking time constant for an intermittent pip display on a PPI radar.⁽⁵¹⁾ The antenna associated with this radar rotates at a constant rate and the target appears only once during every rotation. The spot on the PPI scope persists for a few seconds and then fades out. The operator's task is to use an aided tracking device to position an azimuth shaft which determines the angular position of a cursor which tracks the target on the PPI scope. Aided tracking is used to smooth out the discrete target data. Since the pip appears every τ seconds, and assuming cursor error of A° after τ seconds, the error in cursor rate is A° / τ . For perfect tracking the deflection of the tracking control must change the position of the cursor by A° and must change the rate of cursor motion by A° / τ . From the definition of T, it can be seen that the following must hold for perfect tracking:

$$T = A^\circ / A^\circ / \tau = \tau \text{ seconds}$$

This time constant theoretically will result in perfect tracking after the initial adjustment provided neither the target or observation position changes speed or direction. By considering the difference

equations relating the values of reticle motion to the observed target motion in a constant rate target course, it can be shown analytically, as has been demonstrated logically, that T should equal τ for the best choice of T ; and generally for stable tracking, the aiding ratio should have a value between the duration of the interval and half the duration of the interval. For $T > \tau$ the tracking will be stable but transient components of the error will decrease slowly. Moreover, it follows from the analysis that there are advantages in having $T = \tau$ for non-constant rate target motions since this condition eliminates the transient components of the response. The foregoing facts indicate that the optimal aided tracking constant of about .5 seconds which was noted at Foxboro, Farnborough, and The Franklin Institute for continuous error signal presentations may result from the operator's responding discontinuously with a silent interval of approximately .5 seconds. This finding fits right in with the theories on the human operator's response which were put forth by Craik and furthered by Vince and Hick. (20, 21) An important point to note is that it can be shown that stable tracking exists for all $T > \tau/2$ and this admits the several discrepancies in the values of T found by various investigators. (5, 34, 39, 48) Foxboro, for example, found $.15 \leq T \leq .3$ for handwheel tracking as well as for tracking with the Mark 56; whereas the MIT Radiation Laboratory research on handwheel tracking points to a T of order of magnitude 1 or 2 seconds.

Linkage Problems—The question of the extent to which controls in a tracking problem respond in a manner consistent with expectations and uniformly fulfill these expectations is, as has been previously pointed out, one of the considerations for stability in a complicated

tracking problem such as is presented by a lead computing sight. The extent to which this consideration is capable of generalization to all tracking situations is made questionable by considerations related to the interactions of the type of display, the complexity of the task, and the rigidity of the operator's expectations. An experiment on compensatory tracking by means of a joy stick controlling a cathode ray scope pip subject to a random step function program, revealed that the sensed relation of pip to stick motion was not a determinant of the accuracy of tracking. Subjectively, once the operator began to track he lost any feeling for whether or not his corrective motions were made in the same sense as natural expectations might predict, but rather a situation arose in which the tracker's hand was dragged, as it were, through the course after the pip without memory or consciousness. It may be, however, that the context of the control situation defines the degree to which expectations should be met in order to obtain optimal tracking. It has been found in a similar compensatory tracking situation that the reversal of sense of control by the stick did not significantly affect tracking accuracy, but that when the sense of control of reciprocating fore and aft rudder pedals was changed for the expected right rudder-right pointer movement, significant deterioration of tracking accuracy resulted. (59, Chapt. 17) These results are colored by the fact that the subjects were pilots who therefore, may have had more rigid expectations in a mock flying situation. The insignificance of stick sense reversal may be due to the fact that the artificial horizon responds in the reverse stick sense.

It has been suggested by a study of compensatory control of a pip programmed by a series of discrete step displacements on the face of

an oscilloscope by means of two knobs controlling the two dimensions of movement that the best orientation and sense of control of the knobs is as follows. (59, Chapt. 10) The axis of movement of the rotary control in a display control relationship should be perpendicular to the line of movement of the pip. In addition to the foregoing condition, the knob controlling horizontal movement should be so related to pip movement that a clockwise movement of the control causes a movement of the pip to the right; and the knob controlling vertical movement should cause the pip to move down for a clockwise rotation. The foregoing was found to be the case when the control knobs are positioned between the operator and the display. The two preferred motions are consistent to the extent that the pip is controlled in both cases in the same direction as the control knob's vector tangent at the point closest to the display. In this experiment the oscilloscope was mounted on a table facing the operator; the left knob controlling horizontal movement rotated so that the vector angular rotation was down and perpendicular to the table on which the oscilloscope rested, and the right hand knob controlling vertical motion rotated so that the angular rotation vector was parallel to the horizontal pip director and perpendicular to the vertical pip motion. It is of interest to compare these findings with a similar experiment using a modified SAM two hand coordinator. (53) The modification allowed the right hand control handwheel to be rotated about an axis perpendicular to the table top so that its axis was perpendicular to the left hand control. The display was in a horizontal plane and the problem was one of pursuit tracking. The optimal control conditions found were that the left hand handwheel control right-left motion of the target follower in such a manner that a clockwise movement

displace the target follower to the right, and the right handwheel control rear and front target follower motion in such a manner that a clockwise rotation of the handwheel move the target follower rearward. As before, it was found that optimal control occurs when the axes of rotation of the controls are perpendicular to the direction of controlled movement. It will be noted that the direction of motion of pip for both controls is consistent for the tangent vector. To compare the consistency with the oscilloscope controls, consider the SAM two hand coordinator to be rotated so that the display is vertical facing the operator. In this presentation clockwise rotation rear movement becomes clockwise rotation upward motion, which differs from what would be expected from a consideration of the scope controls. This inconsistency may be due to the location of the controls with reference to the display, to the frame of reference adapted by the operator; i.e., does the target appear fixed and the pursuit tracking appear to be compensatory tracking, or the two tasks may be incomparable. This issue is raised so that the futility of making blanket a priori predictions of expected or natural, hence optimal, control-display relationships will be made evident.

In experiments designed to compare vertical and oblique positions of handwheel controls of a compensatory point matching display directly in front of a subject, no differences were found in tracking accuracy.⁽¹⁾ When, however, tests were made on a group of skilled handwheel operators on unidirectional courses with handwheels designed for optimal accuracy it was found that the single handwheel with its axis at

right angles to the direction in which the operator was facing was 10% more accurate without friction or 18% more accurate with a frictional torque of 7 lb. inches than was the handwheel oriented with its axis parallel to the direction in which the operator faced. Oddly enough the advantage of the side handwheel over front handwheel position disappeared for a turning speed of 140 rpm for the no load condition. The display was in a vertical plane, facing the tracker, and allowed horizontal tracking motion. (62) It is hard to find a consistency between this and the aforementioned findings. It may be that the critical location of tracking controls shows up as a variable influencing accuracy only when tracking conditions have been optimized for other, more important, factors. The superiority of the side crank under load may be related to the more effective use of shoulder and arm muscles. It should be pointed out, however, that in tracking courses involving reversals of direction learning was faster with the front crank in the front position. In general evidence does not favor the concept of natural or expected directions of motion as important determinants of accuracy for various types and locations of controls in the continuous tracking task. In a discontinuous adjustive task, however, it would appear that expectancies for control behavior must be considered carefully. (86, 32 pp. 35-40) It would appear that specific research may be needed to provide answers for each new system as it is put forth, except in the most obvious cases.

Another attribute of the tracking control linkage is the time delay between the action of the control and the movement of the corresponding visual indicator. This question has been investigated in the complicated disturbing retical sight problem by variation of the time constant of the sight. The general result of these tests was that the tracker did

somewhat better with the more sluggish sight; i.e. larger time constant. This would produce an exponential lag between the gun motion and the reticle motion. These results are confounded by the highly complex load computing sight system so that generalizations to simpler tracking tasks are hard to establish. It has been shown that the human operator is usually unable to recognize the presence of a simple transmission type lag; i.e., dead time, of 60 milliseconds or less. In an investigation of transmission type control lags in a compensatory tracking situation it was suggested that there is an inverse linear relationship between the logarithm of time on target and control lag or dead time. The 60 millisecond lag resulted in a decrease of time on target score of about 15%.⁽⁸⁷⁾ An investigation was conducted at The Franklin Institute to determine the effects of exponential lags in the control stick in the direct compensatory tracking of an oscilloscope step displacement program. The average tracking error increased by about 20% when the exponential lag's time constant was increased for 0 to 60 milliseconds. The functional form of the average tracking error dependence on the time constant of the lag was similar to the dependence of charge on time of charging for a capacitor: i.e. $Q = Q_0(1 - e^{-t/\tau})$ for, τ , in the range of 0 to .4 seconds.

Types of Controls---The type of control, i.e. whether stick, grip, knob, etc. used in a tracking task can be examined profitably with regard to the requirements of the task. The B-29 investigation, for example, demonstrated the superiority of hand grips over knob controls in the particular problem. The results of a single dimension compensatory tracking

investigation point to the fact that control by hands and arms was more accurate than control by feet and legs. (59, Chapt. 17) This is to say, steering wheel and joystick control was compared with the reciprocating fore and aft movement of foot pedals. Fore and aft hand motions were more accurate than either lateral or rotary motions. The stick and wheel were about equally effective for either vertical or horizontal tracking. The wheel could move fore and aft as well as rotate. The extent of leg or arm flexion during tracking had no bearing on tracking accuracy providing the limbs could move through the necessary range, but it was found that the positions of medium extension for arms or legs was most comfortable.

There is evidence that tracking is more accurate if the entire arm or shoulder rather than just the fingers are used. Evidence has been presented that accuracy can increase, within limits, to the extent that the controlling limb rotates about its joint. (32, pp. 80-81) Offsetting the handgrip controls of a G.E. pedestal sight used in a one-handed direct pursuit tracking task resulted in a bettering of azimuth tracking probably as a result of the greater radius of motion necessary for operation. Offsetting the grips produced no betterment of elevation tracking, but the operational radius for elevation tracking was not increased by offsetting the grips. In two-handed tracking, however, elevation tracking was improved, whereas azimuth tracking was not. This is related to the use of limbs in opposition as compared with their use in concord. The effectiveness of a change in operating radius is related to absolute values of the radii before and after the change, the amount of change, and the tracking conditions. (18, B)

German war research claimed that a single control grasped in both hands can be controlled with greater accuracy than the corresponding number of one dimensional controls. (59, p. 228) This claim has been disclaimed by American research, but the problem merits further investigation over a wider range of situations. (7)

The problem of anatomically appropriate design arises quite often and must be solved with due considerations for the anthropometric data available for the potential users of the equipment as well as with regard to considerations peculiar to each individual problem. (82, pp. 185-189)

Proper anatomical design is generally not so much related to accuracy of tracking as it is to comfort and freedom from fatigue provided, of course, the design does not cause physical hardship. The design of a mount for a tracking telescope, which must be capable of moving in an arc from -45° to $+90^{\circ}$ degrees, presents the problem of choosing a pivoting mechanism which will allow the operator to track most comfortably. This problem was approached by experimentally determining a curve representing eye movement for unrestricted head movement. It was found that a segment of 90° of eye movement path is sufficient to represent the full range of 135° target movement. A comparison of the arc described by the exit pupils of several standard Navy pedestal type directors with the arc described by the eye, demonstrates a gross mismatch which results in the trackers having to assume awkward postures at high angles of sight elevation. The solution to this problem was achieved by an equipment design which constrained the telescope exit pupil to move through a smaller angle than the line of sight of the system.

The comparison of prone position with seated position tracking reveals that in this case the position of the tracker's body is the determining factor in tracking accuracy.⁽⁷⁾ The type of hand controls used made no difference. Thus under extreme conditions anatomical considerations may take preeminence over other design considerations.

Comparisons of one and two handed tracking show a general and consistent advantage for two handed tracking. Pursuit tracking tests with the G.E. pedestal sight and handgrip controls demonstrate that two handed control is roughly 20% more accurate in terms of time on target than is one handed control.⁽¹⁹⁾ Compensatory handwheel tracking tests indicate that there is a great advantage in double crank handwheel control over one handed handwheel control.⁽⁶²⁾ This increase in accuracy is 25% with a frictional load and somewhat less without a frictional load. The disadvantage of double crank control is that the position of the handwheel relative to the operator is much more constrained than that of single handwheels. The advantage of 2" diameter double finger knob control has been shown over that of 2" diameter single finger knob control in a compensatory tracking situation over several course rates. It should be pointed out that the evaluations of the two handed tracking experiments mentioned did not use harmonic content of the tracking as a criterion. It is reasonable to expect that two handed tracking will be smoother than one handed tracking.

Multiple Operator Tracking---Tracking accuracy may be improved by controlling the operation by more than one tracker. There are three ways by which multiple operator tracking can be effected. Firstly, a

three phase tracking task may be broken down into the separate components of azimuth, elevation and range tracking and each of these tasks can be assigned to an individual operator. This is a common procedure when precision tracking is desired in anti-aircraft fire control. Secondly, the individual tracking tasks may each be performed by two operators acting in tandem. Thirdly, tracking may be accomplished by a team of independent trackers whose outputs are averaged.

Experimentation was carried out to investigate what accuracy improvements could be effected over method one by the introduction of tandem tracking.⁽⁵⁵⁾ The problem presented was a moderately difficult course to be tracked in azimuth by means of handwheel controlled compensatory tracking. The first tandem tracking investigation compared one operator using conventional aided tracking with optimal time constant with the same operator using rate tracking followed in tandem by a direct tracking operator who reduced the residual position error of the first operator. Tandem teams yielded more consistent tracking and fewer large errors. The maximum tracking error for a team was about half that of the worst single operator. The mean error reduction effected by velocity-direct tandem tracking over aided tracking was about 15%. A second experiment investigated a tandem tracking situation wherein aided tracking by operator one was followed by direct tracking by operator two. A more difficult target course was tracked by aided-direct and velocity-direct tandem tracking as well as by single aided tracking. In this experiment velocity-direct was about as good as single aided tracking. This was due to certain confounding factors in the design

of the experiment. Aided-direct tracking for aided tracking constant .3 was 34% better than single aided tracking with the same time constant. These studies suggest the possibilities for improving on present aided tracking by about 30%.

Several experiments were conducted at The Franklin Institute in an effort to determine the effect of a team of trackers on the average curve of tracking error.(52) A team of three resulted in a decrease of about 30% in the mean tracking error, and a team of six resulted in a decrease of about 45% in the mean tracking error. Furthermore, the tracking becomes considerably smoother in that the incidence of sharp changes of slope in the error curve goes down by about 30% for three trackers and decreases by about 80% for six trackers.

ACQUISITION OF SKILL IN TRACKING

Questions related to the acquisition of skill in the use of tracking devices are properly beyond the scope of this report, but a few salient facts will be mentioned here both for the sake of completeness and because of their support of the thesis that proper equipment design is more economical than specialized personnel selection procedures. (82, Chap. 3, 4, 5, 16, 17, 20) Certain general facts are that motivation should be kept high during training by suitably orienting the subject and by acquainting him with his tracking score. Distributed trials are to be preferred over massed trials. (4) Objective measures of the tracker's skill, such as would be provided by check-sight scores, are much more valuable and reliable than subjective ratings by instructors.

Results of training in tracking with the 40 mm gun, the Mark 15 gunsight, the Mark 5 trainer designed for the Mark 14 gunsight, and SCR 268 Radar training equipment indicate that a maximum of three to four hours spread over a few weeks is required to attain a stable plateau on the learning curve. Learning records show that once a man is adequately trained in tracking, refresher drills are needed no more than once a month. The question of the transfer of tracking training from course to course and from one form of tracking control to another is yet to be unambiguously answered. (8)

An important consideration in acquiring tracking skill is the effect of instructions. The importance of this question arises from the previously mentioned differential sensitivity of most tracking mechanisms to inputs of different frequencies. For example, when the time constants of the

prediction mechanism of a sight are small, higher frequency errors are amplified more than lower frequency errors. Thus, it behooves the tracker to track smoothly and not to slow, in this case.⁽⁹⁰⁾ There is no conclusive set of experiments devoted to determining the effectiveness of instructions on the frequency spectrum of tracking error. This is to say, the question is, will the instruction "Track smoothly" suffice to make the tracker a low pass filter? The effectiveness of training is somewhat doubtful in this case for even if smooth tracking were learned in practice runs it is difficult to imagine a harassed gunner confronted by several attacking aircraft slewing in a controlled and careful manner from target to target. Present research using autocorrelation techniques should serve to shed more light on the frequency content of tracking errors in the near future.

What is perhaps the most significant set of training findings from the viewpoint of equipment design is that what the operator is given to work with is more important than his training. This is strikingly illustrated by the Foxboro research on direct compensatory tracking with hand-wheel controls where it was found that untrained operators tracking with low gear ratio handwheels can do a more accurate job of tracking than can the best trained operators using high gear ratio handwheels. Further corroboration of the principle that the choice of the tools is more important than the choice of the man is found in the tracking studies of Preston and Irwin performed at The Franklin Institute.⁽³⁸⁾ They found that in no case did the individual differences between subjects obscure the effects of apparatus changes. The subjects used in these experiments comprised college students, engineers, secretaries and trained pilots. Consideration of the tremendous cost in time and money of training programs makes it obvious

how money spent in the careful design of manually operated instrumentation may prove to be a great economy.

CONCLUSIONS AND RECOMMENDATIONS

The implications of the foregoing to the military situation are contingent on several factors. Firstly, the reader should be cautioned not to apply results of investigations mentioned in the body of this report to a given tracking problem without carefully considering the similarities and differences between past research and the problem at hand. This is not to imply that the findings of the many tracking studies are without generality. The superiority of aided tracking over velocity tracking using disturbed reticle systems has been shown, for example, to hold as a general finding consistent with both analytical prediction and empirical evidence. On the other hand, questions of attained accuracy and the harmonic composition of the tracker's input would appear to be intimately related to the particular display and control characteristics of the given system under study. Questions of the extrapolation of laboratory results to a field situation present another problem which must be considered anew for each case. It is for these reasons as well as out of a desire to avoid classification of this material that tracking errors have not been quantitatively presented in the body of this report. It is generally true that the best way to determine tracking accuracies for a given manual tracking system is to perform a series of experiments on the system. The results of prior investigations serve best to provide the first approximation to the optimal design criteria which are used to construct the system under experimental study.

Secondly, present and near future tracking requirements may be such as to imply somewhat different problems than have been previously studied. It is possible, for example, that the future context of manual

tracking of a visual display will be such that the operator will be monitoring an automatic tracking system requiring radar inputs. The increasingly high speeds of modern fighter aircraft in itself may present problems hitherto unimportant.

The foregoing paragraph implies the need for research in tracking systems paralleling the demands of technical advances in the waging of war. It might be well to point out certain applied aspects of the tracking problem which merit future study from the viewpoint of present as well as potential requirements.

A comparison between systems for automatic and manual tracking is needed for the evaluation of overall military requirements. Such a comparison should consider criteria such as accuracy, response time, weight and bulk, maintenance needs, power supply requirements, and so forth.

The development and application of communications analysis techniques for the purpose of specifying the harmonic content of the human operator's input to the tracking mechanism is needed for the design of various fire control systems. This study of the form of the tracking response should be sufficiently broad to determine the interaction and influence of different variables; such as, instructions, display characteristics, muscle groupings used to perform the response, controls and linkages, and so forth.

The criterion problem in the evaluation of tracking performance needs further study, and a report crystallizing present information on the subject would serve a useful purpose. The proposed study of the criterion

would not merely treat the question of whether time on target or average error is to be used to evaluate goodness of tracking. The critical question is, how good is the fire control system of which the man is a part? The answer to this question can be arrived at by specifying human behavior in such a manner that the end results of the man machine system can be evaluated. Thus the criteria for human operator performance could be formalized. The criteria for the end results of a fire control system would probably be chosen as the kill probability as a function of time, range, or number of shells fired. One cannot naively assume minimum error as the sole or best criterion for goodness of a fire control system since the errors involved combine differently depending on their source. It is, for example, commonly found that the number of planes destroyed by a given system can be increased by increasing the ballistic dispersion of the missiles in the event that there is a systematic error.

A possible source of fruitful inquiry would be the study of modalities other than vision. which heretofore has been the only modality of any consequence for tracking, for their possible application to specific problems. Audition, for example, might be an admirable modality for the monitoring of automatic tracking. This investigation should be extensive enough to determine when a modality is overloaded; how many modalities can be used simultaneously and how well each can be used; whether the simultaneous tracking of the same problem by means of two modalities is feasible; for example, could ranging be converted into an auditory problem thus relieving the visual modality's load, and so forth. An interesting example of auditory signals used as an input in a tracking problem is provided by aural radio range signals used in aerial navigation. Riding the beam results in hearing

a steady tone composed of Morse code A and N signals, whereas deviations from the beam are detected by the pilot's ability to discriminate the dot-dash, A, and dash-dot, N, components of the steady signal. (11, 32 pp. 44-50)

Tracking studies represent a limited region of a general area of psychological research aimed at the design of equipment in the light of human requirements. This application of psychology has become known as human engineering. The essence of human engineering is that engineering design criteria be integrated with what is known or can be experimentally determined about human abilities so that this man-machine system will perform at its peak level. The bias of human engineering is that it is more economical to fit the machine to the average man than it is to set up selection procedures for obtaining individuals best fitted to operate certain machines. The methods by which these design criteria are determined in a general human engineering problem are exemplified by certain of the tracking studies such as those performed by Preston and Irwin at The Franklin Institute and by Helson and his associates at the Foxboro Company.

In conclusion, the author would like to express his thanks to Dr. M. G. Preston for his aid in organizing and criticizing this report and for the many additions and improvements which he suggested. The third section of this report was written by Dr. Preston, and what lucidity the first two sections have attained is due in large measure to his efforts. The author would also like to thank Mrs. Norma Price for her aid in the search of the literature.

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(C) - Confidential

(R) - Restricted

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MILITARY MORALE AND INTERIOR COMMUNICATIONS

1. Preliminary Memorandum

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Prepared for

THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE

Department of Defense
Research and Development Board
Washington 25, D. C.

June 30, 1951

MILITARY MORALE AND INTERIOR COMMUNICATIONS

A Preliminary Memorandum

By

Daniel Lerner

Contents

1. The Problem of Military Morale	1
2. Morale Requirements in A Democratic Army	5
a. The Sense of Injustice	6
b. The Sense of Purpose	11
3. The Functions of Interior Communications	14
a. The Intelligence Function	14
b. The Orientation Function	19
4. Concluding Comment: Interior Communication and External Publics	26
Notes	29

MILITARY MORALE AND INTERIOR COMMUNICATIONS

A Preliminary Memorandum

1. The Problem of Military Morale

The concern with "human behavior under conditions of military service" is, essentially, a concern with the morale of soldiers. The aim of morale management, in turn, is to establish and maintain conditions among soldiers which make for the most effective performance of their duties.

Such a goal for morale management seems obvious upon statement, but it may be deceptively simple in appearance. The criterion of "effective performance" leads to quite a different perspective on military morale than various alternate criteria. For example, "keeping the boys happy" was the criterion which underlay much of the morale-maintenance activity in World War II. As the United States moves from the periphery of world politics to the center of world leadership, such a "contentedness" criterion becomes less adequate to meet the demands of national strategy.

The situation confronting the National Military Establishment today resembles that of the manufacturer required to increase his production without a corresponding increase in his working force. His central problem becomes, in such a situation, to increase the per capita production of the individual workers he does have. He still has to keep his workers contented, but he has to do more. He has to devise ways of making contentment yield more product. This is the general problem of the American armed forces today, and it

imposes the criterion of effective performance upon military morale management.

The United States, as most of the Western nations with which our political future is closely allied, is a nation of "incipient population decline." ¹ Demographers use this phrase to emphasize that our rate of population increase has reached, or passed, its peak. Therefore, our expectation for the future is a stationary, or declining, population. This means, for the armed forces, a problem of military recruitment.

Various measures indicate that we are cognizant of this problem: Universal Military Training, lowering the age-limit of military induction, introducing females into the military services. All these are techniques for maintaining the size of our military establishment, in the face of recruiting difficulties. These difficulties arise because our stabilizing population is confronted by increasing demands for personnel and service from all sides (industry and government as well as military). For, if population-wise we have entered the phase of "incipient decline," then policy-wise we are in the phase of "high growth potential."

As we move into the place of world leadership, demands upon our capacities increase and each new commitment brings added responsibilities. Already we have taken responsibility for leadership in Europe. In consequence, we are now gradually assuming responsibility also for previous commitments made by some European Powers in Africa, the Middle East, the Far East. From a continental and hemispheric power we have already grown into a world power.

Our commitments -- that is, the authorized demands upon our capacities -- are already nearly global. The expectation is that, with each "victory," these demands upon our capacities will increase both in number and in variety. Since we cannot expect to supply these increased capacities by simply increasing the number of soldiers, we must concentrate our effort upon increasing the capacity of the individual soldiers who are available. This raises the problem of military morale.

We thus see the morale problem of our military establishment as part of the general problem facing our society: How we can satisfy the increasing demands upon our capacities without corresponding numerical increases in our manpower. We formulate the problem this way because we are convinced that a parochial view of military morale as a "self-contained" problem lessens our chances of finding adequate solutions. Thereby it threatens an adequate development of our national policy which, in the future far more than in the past, will depend upon the effectiveness of our fighting forces. The parochial view thus becomes a menace because it obscures the fact that the problem of our military effectiveness cannot be solved independently of our industrial effectiveness. Attempts to solve them separately will lead to competition between civil and military institutions for increased shares of available capacities (i.e. manpower), instead of cooperation in increasing our total capacities.

The general purpose toward which our society must apply its ingenuity is this: to increase the capacities of individual

members, thereby increasing the total capacity of the society as a whole. This is partly a problem for technical ingenuity: as the invention of assembly-line technique increased the productive capacity of each individual worker and hence the total productive capacity of the nation, so the invention of automatic weapons increased the destructive capacity of each individual rifleman over the old-style musketeer and hence the total destructive capacity of the nation. (These parallels are not fortuitous; in any stable society, given a world arena in which war is the ultimate test of power, the ratio between productive and destructive capacities will constantly tend toward equality.)

The problem of increasing total capacity through enlarging individual capacities is also, and mainly, a problem for administrative ingenuity. As assembly-line production created unsatisfactory life conditions for workers, administrators became increasingly concerned with safety devices, rest periods, lunch rooms, housing, recreation facilities, etc. So, too, as military life increasingly follows the pattern of division of labor and hierarchization of skill, the administrative apparatus of the Army has had to devise means for keeping the soldiers contented: PX and canteens, toilet paper in the K-rations, USO shows and rest centers. The perspective underlying these administrative devices was that military service was, for most men, merely an interlude in their "normal" life-history -- an unpleasant but necessary interruption of their civilian careers. Hence, the job of morale management was to reduce the irritations caused by temporary military service, and the way to

do this was by making military life conform as closely as was feasible to the "normal" practices of civilian life.

As we move into the present phase of vastly increased responsibilities for American military forces, new perspectives requiring new techniques of morale management become necessary. Just as present physical requirements cannot be satisfied with the technological capacities that won World War II, so the present morale requirements cannot be met simply by the administrative techniques developed in World War II. To invent and develop the new techniques of morale management that we require -- just as to invent and develop the new physical techniques of increasing firepower -- is a matter for serious research. It is to the clarification of problems confronting military morale management, problems on which research can help us find solutions, that we now turn our attention.

2. Morale Requirements in A Democratic Army

In the preceding discussion we conceived the present problem of military morale as the establishment and maintenance of conditions which make for the "most effective performance" of duties by persons in the military service. The question this raises is: which conditions do, in fact, make for most effective performance?

This question immediately reveals a major area in which research is needed. Many shrewd guesses have been made concerning the conditions of effective job-performance, both in the military and in other highly-structured social institutions. Such guesses are often illuminating, but they are unreliable as a basis for

confident administrative action. Accordingly, they have been able to improve morale management best when systematic research has demonstrated the reliable scope and limits of such guesses in the actual functioning of institutions. An outstanding example is the work of Elton Mayo and his associates, who for several years conducted a program of research into the morale of factory workers. The results they achieved are reported to have played a major role in transforming morale in those factories where they have been made the basis for new policies of morale management. ²

Two large areas call for systematic research by those concerned with military morale: gripes and hopes. These are short words for subjects which have been explored over many years by social scientists, but which still remain largely terra incognita for practical morale administration. We turn to a brief discussion of these two areas in somewhat more refined terms: the sense of injustice and the sense of purpose.

a. The Sense of Injustice

For many years psychologists have studied the processes of deprivation among individuals in a variety of social situations. During World War II such studies were systematically extended to include the griping process in the Army, by the Research Branch of the Information and Education Division. The findings of these researchers have been printed in a two-volume study entitled The American Soldier. ³ These volumes have drawn high tribute from many of our top military leaders and responsible officers in each of the Branches of our National Military Establishment. For example,

we may quote the following statement by General George C. Marshall:

"The volumes of 'The American Soldier' give a unique picture of what the American soldier was thinking and feeling, at home and abroad, before, during, and after combat.

"These are, so far as I know, the first quantitative studies of the impact of war on the mental and emotional life of the soldier. They add enormously to our knowledge of the factors which affect soldier morale. Every serious student of military leadership will find in these volumes important criteria by which to judge the validity of previously established theories of morale and the circumstances which modify such theories...

"In the recent war the Research Branch of the Information and Education Division made available, for the first time in any army, a current picture of what was in the soldier's mind. Through special monthly reports, this knowledge provided an important supplement to the information which formed the basis for many staff decisions." 4

In the course of its work, the Research Branch developed many specific conclusions which have clarified our understanding of the morale process in general, and among soldiers in particular. Perhaps more important, as a guide for future research, they developed a number of concepts which indicate where our next steps should be made. Central among these, for systematic study of the sense of injustice among soldiers, is the concept of "relative deprivation." The essence of this concept can be stated very simply: The kinds of gripes which occur among soldiers depend upon the ways in which they compare their lot with others. When they believe that others who are "no better" than themselves have been better favored by the military institution, their sense of injustice is aroused and gripes are widely heard. 5

Such gripes are not always harmful to morale. In many

cases, obviously, griping was a way of maintaining morale. The area of griping with which morale management must concern itself is that in which the military institution itself figures prominently in arousing a sense of injustice among a large number of variety of soldiers. Clearly, when there is a pervasive feeling that the whole institutional setup is responsible for injustice, then accumulated resentments against the institution cannot be discharged simply by conventionalized (and even amiable) griping over a glass of beer in the PX.

There is good reason to suspect that systematic inquiry into this area of griping -- that is, the area in which the military institution as a whole evoked a widespread sense of injustice among different types of soldiers -- would reveal much about such widespread Army practices as "gold-bricking", "goofing-off", AWOL, and desertion. It would go even further to account for the high rate of psychiatric disturbances among soldiers which led to deterioration of job-performance or, in extreme cases, to effective incapacitation.

Serious study of this area, within the context of the general problem of military morale sketched in the preceding section, would lead us to concentrate on these three broad topics: (1) the causes, characteristics, and consequences of the sense of injustice among soldiers; (2) the ways in which this sense of injustice hindered effective job-performance in World War II and after; (3) the policy alternatives available to morale management for reducing the disruption of job-performance among present and future soldiers. Since such a program of study would involve nothing less than a systematic

effort to reduce the "human cost" of maintaining an army and fighting a war, it may be useful to add a few comments about ways of proceeding with the investigation.

1) In any program of study designed to achieve long range effects, it is desirable to base the investigation upon a broad and explicit theory of the behavior to be investigated. Such theorizing need not be highly formalized, but the main conceptions evolved do need to be clear and shared among persons responsible for the study. Accordingly, all persons concerned with the direction of such a study should early reach agreement, on a highly general level, as to what they were talking about. This might be done, in an exploratory way, by a series of discussions around such a book as The Sense of Injustice by Edmond N. Cahn. ⁶ Professor Cahn has developed a sufficiently general and plausible conception to serve as the basis for developing a research-oriented theory of the psychological origins and behavioral consequences of the sense of injustice. In adapting such a theory to the practical concerns of military morale management, the next step would be continuously to test and revise these formulations according to the evidence on "deprivations" already accumulated by psychologists, sociologists and others. Thus, our accumulated knowledge would be put to work on refining our conception of the problem, thereby showing where the next steps in research should most profitably be taken.

2) Equipped with such a clear and shared general conception of the sense of injustice, social scientists could then turn to a specific investigation of its consequences on job-performance among

American soldiers since 1940. For this purpose, our task would be greatly facilitated by the systematic work produced by the Research Branch. An important contribution would be made by reanalyzing the data presented in The American Soldier, as well as other data collected by the Research Branch which has not yet been published. 7 Another, and parallel, study could be made by following through some of the leads suggested in Assessment of Men, by the OSS Assessment Staff, on methods of predicting job-performance among soldiers. 8 A third study, of deprivations which led to incapacitation, could generalize several propositions contained in Men Under Stress, by Grinker and Spiegel, on the incidence of pathological symptoms in the Air Forces during World War. 9 Such a study could be extended to ground soldiers, and to members of other branches, by systematic analysis of the records of Army General Hospitals during and since World War II. 10 A fourth study, related to the preceding inquiries, but focused on job-performance of units rather than individuals, could be made by comparative analysis of the Morning Report and other records of various units whose actual job-performances (in combat, service and staff echelons) have been evaluated or can be evaluated.

3) The third step, and the most crucial, is the translation of research findings into policy recommendations and administrative actions. By any sober logic, this step does not come last chronologically, nor is it a task for research alone. Involved here is the problem of clarity on the purpose which research is to serve. Such clarity must be attained before actual research begins; and it must be attained by agreement, among those responsible both for

morale management and for research operations, on what is desirable (in terms of administrative purpose) and what is feasible (in terms of research capabilities). This third phase must therefore enter heavily into the initial considerations on which the research plans are based; must re-enter the process at various stages while research is being carried out to insure that what is desirable and what is feasible remain in a mutually supporting relationship; and finally must re-enter at the point where actual research is concluded and the difficult task arises of translating research findings into administrative procedures.

b. The Sense of Purpose

This is the positive side of the same problem of morale management, of which inquiry into the sense of injustice is the negative side. While the investigation of gripes should contribute much to the reduction of those hostilities which adversely affect job-performance in the Army, systematic and objective investigation of hopes should form the basis on which morale policies and procedures can be invented which will activate soldiers to much more effective job-performance than could be achieved merely by remedial measures based on the alleviation of current complaints. This is the creative function of morale management, which accompanies and envelopes the maintenance function served by investigating gripes.

The central problem of military morale in the future will be the problem of eliciting greater "productivity" (i.e. more effective performance of duty) among individual soldiers. It is not demonstrated, anywhere in human history, that such a problem has

been solved on a long run basis by increasing coercion of individuals. The record suggests, rather, the contrary: that new bursts of productivity in any group or institution have been achieved by eliminating those psycho-social obstacles which previously restricted individual effort. This is a complicated way of saying that the problem of military morale is the problem of providing individual soldiers with motivations to greater productivity in behalf of their group and institution. An important source of motivation, for soldiers as for all human beings, is a sense of purpose.

While there is no substantial literature, either theoretical or empirical, on the sense of purpose as a motive force with respect to productivity ratings, there is sufficient material to form the basis for an investigation along the lines suggested in "a" above. There is, for example, a very useful body of experimental and observational data on "levels of aspiration" which has been accumulated by social psychologists in recent decades.¹¹ Sociologists, too, have made some studies of the bearing of "purpose" on job-efficiency.¹² Additional, though scattered, materials are presented in the studies of American soldiers in World War II which have already been cited.¹³

The urgency of this problem requires that it be investigated in most sober fashion, regardless of the limitations on available scientific materials. We need only recall the importance of the words "What are we fighting for?" to recognize that the sense of purpose is an active force which has shaped our recent past and is likely to shape, in an even more potent way, our future. Should

any re-enforcement for this view be needed, we may recall Marshal Stalin's dire prediction that American forces will eventually be driven out of Korea; and that the main basis for this forecast is Stalin's belief that the American soldiers "do not know what they are fighting for." It would be all too easy to dismiss such remarks as poisoned at the source. This would be a great, and perhaps catastrophic, error. The fact that our most potent adversary takes account, in his calculations, of the "absence" of a sense of purpose among our soldiers should in itself be sufficient grounds for warning us to take this problem very seriously indeed.

While the impression seems widely held that cosmic purposes, of the sort associated with Stalinism, would not be an effective way of motivating American soldiers, we have little solid evidence for this view and less for any positive assertion as to what sorts of purpose would motivate them effectively. One important hypothesis, originally developed in a study of "cohesion and disintegration" among Wehrmacht soldiers, more recently has been tested with Research Branch data on American soldiers in World War II. This hypothesis asserts that the over-riding purpose which motivates soldiers in combat is to maintain solidarity, through self-identification, with their "primary group" (squad, platoon, company). ¹⁴ The concept of primary group environment is very useful for organizing much of the data on efficient performance gathered by the Research Branch. A somewhat more general conception, based on "reference group theory," has been shown to account for a large number of conformities and

variations of behavior reported in The American Soldier. 15

Such work has given us important leads for studying the relationship of a sense of purpose to effective performance of military duty. Such leads might be extended by careful analysis of adverse comments about the "purposelessness" of American soldiers in World War II. Analysis should be made of such comments by soldiers -- in such places as the "B-Bag" of the Stars and Stripes, the stories in Yank, the interview reports by members of the Research Branch and Army Talks, and even the public writings of G.I.'s since the war (including the novelists like Norman Mailer, Irwin Shaw, James Jones, etc.). 16 It would be useful to analyze also adverse comments by persons outside the Army -- Americans and foreigners who were our Allies (British, French, Burmese) and our occupied enemies (Italians, Germans, Japanese, Koreans). 17 Such exploration and analysis of disparate materials would help us to isolate the factors and develop an adequate framework within which current research could become useful.

3. The Functions of Interior Communications

The function of communications within the military establishment is twofold, with respect to the problems of morale management: (1) receiving gripes; (2) transmitting purposes. The first is an intelligence function; the second is an orientation function. Both functions are indispensable to morale management in an institution as large as our National Military Establishment.

a. The Intelligence Function

The intelligence function of "receiving gripes" keeps the

2
military institution alerted to malfunctioning within its jurisdiction which affects morale and deteriorates performance of duty. For the effective execution of this intelligence function, the military institution requires an interior communication system which picks up signals of distress from all points and transmits them to appropriate centers for analysis and action. Such a system of detecting and transmitting relevant signals might be likened to the communications network which is built around radar equipment.

Even a cursory inspection of recent military history reveals how important the intelligence function of interior communications, so conceived, has become for all modern Armies in the Western world. In the War of Independence, it was possible for General Washington to circulate among his troops frequently, even regularly, and to learn at first-hand what was "bothering" his soldiers. During the Civil War Grant could do this only occasionally, and Lincoln even less frequently, because the soldiers were more numerous and more dispersed. In World War II, it was possible for Eisenhower and MacArthur (not to mention Churchill and Roosevelt) to perform this intelligence function only on occasions so rare that their chief import could only be to re-enact this ancient rite of responsible military leadership as a ceremonial tribute to their soldiers. The vast and sprawling armies of our time have made it physically impossible for top leaders to receive adequate intelligence on morale through direct face-to-face contact with their men.

As the character of Armies changed in these ways, the

military institution developed administrative techniques to cope with problems of morale management that inevitably arose. Such agencies as the Inspector General's office, concerned mainly with overt violations of military codes, has increasingly become an important source of information on "trouble spots" within the military structure -- after these had led to overt infractions of military regulations. Such agencies as Counter-intelligence, too, helped locate morale (and other) hazards through investigation of overt misconduct -- and increasingly through their recently augmented function of checking "loyalty."

More important than such specialized agencies, whose contributions to morale intelligence were sporadic and quite incidental to their main function, was the internal reporting system based on the "chain of command." Indeed, the development of a highly-formalized chain of command may be regarded as the military's chief device for maintaining the face-to-face relationship between leaders (or leader-surrogates) and soldiers within massive and dispersed armies. The reporting system based on this chain of command is designed to provide the higher commanders with regular reports distilled from the observations of those who are in face-to-face contact with soldiers at company level. Downward through the chain of command is transmitted "purpose" (military missions); upward is transmitted information on capabilities.

Such upward reporting provides very illuminating data on morale, particularly on those objective indicators of morale which have been validated by centuries of military experience. The

Adjutant General's analysis of Morning Reports -- presenting data on the incidence of sick call, courts martial, prisoners, AWOL's, and other such items among the troops -- forms one important basis for general morale estimates. Such items are the "hard facts" for morale management. Taken together, and analyzed systematically, they form a useful behavioral index to morale fluctuations in military units.

However, their intelligence utility for morale management is severely limited by two related factors: (1) these acts are consequences, not causes, of low morale: (2) they notify leadership that undesirable acts have occurred, but do not alert leadership in advance to the incidence of conditions which increase the probability that such acts will occur. That is, soldiers fake "sick call" or "go AWOL" in large numbers in consequence of a state of low morale which has been allowed to develop among them. An intelligence apparatus which is confined to reporting the occurrence of such acts, after they have taken place, has no predictive -- i.e., preventive -- value.

Such an apparatus was adequate when the perspective on military morale was remedial, that is, when soldiers were conceived as civilians whose "normal" lives had to be "temporarily" interrupted owing to some national "emergency." Since the main task of morale management under such a perspective was to keep the soldiers "contented" until they could return to civilian life, it was sufficient that they be notified of "trouble spots" so that they could remedy the local irritations.

Now, however, we face a situation in which American men, for the first time in our history, are learning to regard military service as an integral and important part of their careers. Men who already have served four to five years in World War II will, in the near future, probably be recalled to serve another four to five years or more. When military service lasts ten years (one-quarter of the average man's entire working life), and when this service is required of millions of men (a majority of our adult male population), then the role of military institutions, and consequently of all work institutions, in our society is being transformed. In such a situation, military service comes to be regarded not as a transitory interruption of normal life -- but as a regular feature of normal life.

The perspective of morale management, consequently, becomes broadened. Morale maintenance through "remedial" measures to eliminate gripes that count continues as one important, but limited, type of operation. The focus of effort, however, becomes the task of "building" morale, one might even say "creating" morale. On the intelligence side, a "radar system" is needed -- one that picks up distress signals long enough in advance to enable the control tower to take preventive measures before troubles bombard the target. Such intelligence -- when the matter at hand concerns the diffusion of sentiments among a large, and crucial, body of men -- finally confronts the central problem of all mass organization, i.e., the problem of "social cohesion." Cohesion, for morale management, is a function of consensus -- i.e., clear, shared, and invigorating

purpose. The intelligence function thus becomes, ultimately, the finding (or inventing) of ideas and methods which will enrich the sense of purpose among soldiers.

b. The Orientation Function

The orientation function is to disseminate among soldiers within the military institution the sense of purpose which will motivate them to the "most effective performance" of their duties. Dissemination is the transmitting function of interior communications; and ideally it operates in close and converse connection with the receiving function (intelligence). The actual coordination of incoming and outgoing signals in any communications system depends, however, on the perspective, intention, and skill of the policy center.

The Pentagon Building houses the policy center of our National Military Establishment. All subordinate formations -- service commands, army and division commands, even theater commands overseas -- are policy subcenters with respect to the Pentagon. That is, the scope of their authority to originate policies for their commands (whether on administrative rules, social relations, or military missions) is subject to the higher policy authority of the Pentagon. Many decisions made at the Pentagon do, in fact, restrict the range of decision which can be made in subordinate formations.

When the policy subcenters detect the need for a new policy or revision of an old policy which lies outside the scope of their delegated authority, they must rely upon upward communication to stimulate the appropriate action which only the policy center can take. The Pentagon evaluates the signals received and then transmits

its decision downward. The converse process also occurs: the policy center, acting on information received, may initiate policies of which subordinate commands (having only partial or no information) may have felt no need.

This system makes interior communication an essential part of the policy process by which a massive institution is kept both stable and adaptable. The system is a tribute to the ingenuity military men have applied to maintain cohesion in the military institution, over centuries that have seen small professional armies which were relatively detached from their societies transformed into gigantic citizen-soldier armies which operate as a reciprocal force with their social environment. The "chain of command" -- as a unique communication system which integrates the functions of receiving information and transmitting decisions -- is among the notable achievements in the history of social organization.

The crucial role, as we have just seen, is that of the policy center. As relations between the military institution and the environing society alter, the policy center continuously modifies the scope of its operations. An army of mercenaries made no decisions which affected the normal functioning of the society which employed its services. An army of citizens, which embodies at all times a substantial proportion of the adult male population, cannot help but affect the society of which it is a part with every important decision it makes. Decisions about how much or how well to feed, clothe, and house its soldiers affect the distribution of these commodities throughout the rest of the society. Recruitment

policies -- that is, decisions concerning the number, age, and qualifications of men taken for military service -- seriously affect the total productive force of the society as a whole. Thus, policymakers for the military institution become policymakers for the society as a whole.

This grave responsibility weighs heavily upon morale management concerned with diffusing a cohesive "sense of purpose" among the soldiers. This is particularly true when the purposes exalted by the society as a primarily civil enterprise do not serve all the needs of military morale, as is partly the case in America today. The conditions of American life have evolved what may be termed an "ingenuity culture." That is, the traits that have been rewarded are initiative and inventiveness, with the focus on self-expansion within the group. The conditions of military life, historically, have had to develop a "courage culture" -- in which the traits most highly prized have been loyalty and obedience with the focus on self-constriction for the group.¹⁸ While these patterns of rewarded behavior are not mutually exclusive at all points, they do provide conflicting motivations for American soldiers at several points which are crucial to military morale. Chief among these is the payoff point: Battle.¹⁹

Battle provides, today as ever, the most demanding trial to which human motivations can be subjected. The stakes, here as nowhere else in large-scale social processes, are literally life-or-death. In such a situation, with such stakes, it is natural that men will ask the historic questions: What are we fighting for?

What may I be dying for? The only convincing answer can come from his sense of the purpose for which he and his fellows find themselves in battle.

Such a sense of purpose is the product of beliefs he has acquired about the ends of life, for himself and his fellows, in the course of daily living. Beliefs and values acquired in this empirical way are "cultural" in that they are roughly shared by most people whose course of daily living is roughly the same. It is largely because American culture, over two centuries and still today, has inculcated "ingenuity" values as primary that the current problems of morale management in the military institution are so complicated. What high morale means in an army is a widespread readiness to fight -- if necessary, to die -- in behalf of some cause greater than oneself. This is not a common attitude among soldiers brought into military service from a culture which has encouraged them to believe (not in its formal doctrines rehearsed on ceremonial occasions, but in the actual practices of daily life) that one's self-advancement is a superior cause -- and that this cause does not require a man to be brave, but rather to be ingenious.

Quite apart from the question whether such a motivation is "bad" in a civil society (and this writer would reject any hasty inference to this effect), there is the problem of how morale management can deal with such an orientation among citizen-soldiers. It is clear that the American military establishment is aware of the problem and has made serious efforts to cope with it through information and education programs, vocational training, and other methods that go

beyond USO shows and cheap beer. That these efforts have not been completely successful in developing an appropriate sense of purpose among many soldiers seems equally clear. 20

A major difficulty is that American Society, with its predominantly civil tradition, has imposed severe limits upon the scope within which the military institution can "tamper with" the values and beliefs of men conceived to be temporarily subject to its discipline. Operating within a society where the military institution always has been carefully watched, and often distrusted, morale management is in a delicate position to perform its orientation function adequately.

This is a false position, however, which cannot long endure. It is anachronistic to conceive the military institution in America today as merely a striking arm of the society -- merely one among several instruments of national policy -- and hence to regard with suspicion its "intrusion" into matters of social policy and practice. This is not to deny that an increasing militarization of civil societies around the world has been going on in recent decades. Nor is it to deny the very real threat of a "garrison state" to democratic values which increasing militarization presents in every society. 21 Our point, rather, is that passive doubts and fears about militarization only lead to ambivalence and paralysis. What is needed is to face the fact of increasing militarization, and then to find the ways of integrating the changes it brings within a framework of democratic values. 22

Responsibility for inventiveness in this direction lies largely

with the military institution, and increasingly as it becomes one of the most powerful institutions in the society. Already the military institution is probably the strongest educational force in this country. Far more American males have passed, and will pass, several years of their lives in military service than in any other single common experience. What the military teaches (or fails to teach) these young men during their service will have a decisive influence upon the sense of purpose which answers their question, "Why do we fight?" -- and later, as they return to civil life, "Why do we work?"

What can military morale management do to fulfill its responsibilities to American society? No hasty answer to a question of this gravity would be worth reading, for there are no quick and easy solutions. One general point emerges from the preceding remarks: the orientation function, if properly conceived, will make itself felt in the habits of daily life of the soldier, from his induction as a recruit to his honorable discharge as a veteran. It will show in the things that he learns are expected of him (which will probably be far more than at present in vital matters, far less in many trivial situations). It will show in the things that he learns to expect from others and particularly from his leaders -- whether it be the language habits of corporals (and I am not queasy about "earthy language" under most conditions) or other habits of his officers.

The specific leads to be taken by an orientation function, properly conceived in a mass army, have been suggested by many

observers. Our military leaders are well aware of these leads and of the difficulties in using them. Ways and means need to be worked out on the basis of systematic research. The testing of specific conclusions and procedures, as of all our ideas, will be worked out by experience. The starting point is a vivid sense of the enormity of the problem, and of the inventiveness and inquiry needed to cope with it.

A number of essential research problems has already been formulated by the Research Branch, whose work will be a valuable basis for future research. We need to study adjustment, service, and aftermath as phases of the total military process through which most men in American society must pass, now and in the visible future, for the first time in our national history. From this perspective, we need to study the interior communication system as a focal process by which these men can be motivated to give their "most effective performance" within the military institution. Several contributions to the study of interior communication have been made by the "experiments on mass communications" within the Army conducted by the Research Branch. 23

While these experiments are methodologically important, because useful in designing future researches, the context within which interior communications are studied must be broadened. For, more is involved than occasionally subjecting soldiers to a movie on "Why We Fight," however useful such a procedure may be in making soldiers aware of certain appropriate attitudes.

"Orientation" means locating one's present activities with

respect to future consequences. When the military institution becomes the central common experience of millions of young men, as it is in America today, then the process of "orientation" involves nothing less than providing soldiers with a clear and shared purpose -- that is, with a common set of consequences in the future to which their common activities in the present are directed.

To accomplish such a mission, interior communication must diffuse a common set of values and goals (identifications, expectations, and demands) among the soldiers. This is a full-time job, which cannot be performed only by "extracurricular" showings of movies or talks by I & E officers. What is required is integration of the purposive factor into the whole formal structure of interior communication -- in the communication "chain of command" through which the policy center and subcenters maintain adaptability and stability throughout the massive military institution.

4. Concluding Comment: Interior Communication and External Publics

The ideas sketched in this memorandum have presented the view that a broader perspective on the problem of military morale is needed today than in earlier periods of our history. It has outlined a framework within which such a broader perspective may be articulated, and has indicated the functions of interior communication as a system for receiving signals of distress and transmitting signals of purpose (which may be both remedial and preventive in character). In this discussion the military institution was conceived as an interactive social structure -- i.e., one whose words

and deeds influenced the activities of many other social institutions and was, in turn, influenced by them.

This view, which we considered essential for an adequate perspective on the scope of military morale problems in our time, is also necessary when we discuss the possible courses of action open to morale management for coping with these problems. Since the military institution is not self-contained, responsible morale management has always had to consider the probable effects of its internal policies on social structures outside the military. At times, indeed, the military has considered it necessary to abandon certain policies considered beneficial for its internal functioning because it was estimated that the effects on non-military institutions would be undesirable.

Such a situation arises when one comes to discuss the possible ways in which morale management might undertake to orient soldiers with a "sense of purpose" adequate to the demands which their military environment may make upon them. Such demands would be, for all soldiers, the "most effective performance" of their duties at all times. For a smaller number of soldiers the crucial demand would be to "face the enemy" in combat. For a still smaller number, the payoff demand would be to take certain actions (in combat) even though these actions clearly increase the probability of being killed. All these demands are special to the military environment -- and, for most soldiers, are quite different (even the opposite) from the typical demands to which their civilian environment has trained them.

Where civilian training does not equip a man -- in fact, may "dis-equip" him -- to make certain crucial responses demanded by the military environment, morale management confronts its key problem. The chances of modifying his response-structure by "propaganda" (manipulating symbols) alone are obviously very slim. The chances of accomplishing the necessary attitude-changes by coercion alone are even slimmer. Such manipulative and coercive measures have only a limited utility (in isolation) for most social institutions which operate interactively within a larger society. Their utility for the military institution -- whose activities with respect to internal ideology and coercion are always suspiciously watched by American civilians -- is even more limited. 24

The way open for modifying soldier attitudes is to modify motivations, i.e., desires and opportunities to make the appropriate responses demanded in military situations. This will require modification of the conditions as well as the symbols by which soldiers are oriented in their new environment. While the function of interior communications, as we have indicated in this memorandum, is central, the broader perspective of morale management must integrate what goes into interior communications with what goes into policy decisions on all the major phases of military life. Morale management, thus, is one aspect of the total problem of military administration. To clarify this relationship is a task for further thinking and research.

NOTES

1. On these points see the work of Frank W. Notestein and the Office of Population Research at Princeton University, e.g., The Future Population of Europe and the Soviet Union.

2. The literature stimulated by the original Hawthorne Study has proliferated. In addition to the books by Elton Mayo, The Human Problems of an Industrial Civilization (also The Social Problems ... and The Political Problems ...), see the work of Roethlisberger and Dickson, Management and the Worker, and of T. N. Whitehead, Leadership in a Free Society. Further related material is cited in these volumes. The detailed original reports on the Western Electric relay-assembly room and other experiments will also repay careful study by men concerned with morale management in the National Military Establishment.

3. S. A. Stouffer et al, The American Soldier, 2 v. Vol. I: Adjustment During Army Life; Vol. II: Combat and its Aftermath (Princeton University Press, 1949).

4. Daniel Lerner, "The American Soldier and the Public", in Continuities in Social Research, edited by R. K. Merton and P. F. Lazarsfeld (The Free Press, 1950). The statement by General Marshall is quoted on page 234 of this book.

5. The concept of "relative deprivation" is discussed and illustrated on the following pages of The American Soldier: Vol. I, 52, 125-127, 153, 172, 181, 250, 279, 563-564.

6. Edmond N. Cahn, The Sense of Injustice (New York University Press, 1949).

7. Relevant cases of productive reanalysis of published results are presented by Shils and Merton in Continuities in Social Research. Studies of The American Soldier (see note 4 above). Important suggestions for further research, including the reanalysis of unpublished Research Branch data, are given by Speier, Kendall and Lazarsfeld in this volume.

8. OSS Assessment Staff, Assessment of Men (Rinehart, 1948).

9. R. R. Grinker and J. P. Spiegel, Men Under Stress (Blakiston, 1945).

10. Valuable methodological clues for such a study are contained in the study by Herbert Goldhamer and Andrew W. Marshall, The Frequency of Mental Disease: Long-Term Trends and Present Status (Report R-157, U. S. Air Force Project RAND).

11. A convenient bibliography and summary of the experimental literature is Murphy and Newcomb, Experimental Social Psychology (Harper, 1937). Some recent work is illustrated in Newcomb and Hartley, Readings in Social Psychology (Holt, 1950). The various writings of Hadley Cantril and Muzafer Sherif bear directly on this problem; see especially, The Psychology of Ego-Involvements (Wiley, 1946).

12. See, for example, P. A. Sorokin et al, "An Experimental Study of Efficiency of Work Under Various Specified Conditions", American Journal of Sociology (1930) XXXV, 765-782.

13. See The American Soldier: Vol. I, chapters 7-9; Vol. II, chapters 1, 3, 8.

14. E. A. Shils, "Primary Groups in the American Army", in Continuities in Social Research, op. cit. Also his study of "Cohesion and Disintegration in the Wehrmacht", in Propaganda in War and Crisis, edited by Daniel Lerner (Stewart, 1951).

15. R. K. Merton and A. S. Kitt, "Contributions to the Theory of Reference Group Behavior", Continuities in Social Research, op. cit.

16. It goes without saying that judgments from all such sources are not taken at "face value." Novelists, journalists, and letter-writers all have certain special "bias" in recording experiences which make their writings unsuitable as the analysis of data, but very usable indeed as data for analysis. This writer has taken very relevant notes on the "sense of purpose" from the following fictional accounts of military life in World War II: Mister Roberts (Thomas Hagen); No Arms, No Armour (Robert Henriques); The Crusaders (Stefan Heym); From Here to Eternity (James Jones); Company Commander (James McDonald); The Naked and The Dead (Norman Mailer); Tales of the South Pacific (James Michener); The Young Lions and Act of Love (Irwin Shaw).

17. A collation of voluminous interview material giving the opinions of British, French, and German residents about American soldiers, during and after the war, would provide a rich source of data on the "purposes" attributed to American soldiers. Systematic analysis of press commentary in these countries would be a valuable complement to the foregoing. Perhaps most enlightening would be the records of interrogations of captured American soldiers by German,

Japanese and other captors -- if such records (which were, to my knowledge, among the military documents found by the SHAEF Documents Teams) are still available for study.

18. The terms "ingenuity culture" and "courage culture" were used in this general sense by Macauley, the British historian. They have been revived recently by P. F. Lazarsfeld, "The Obligations of the 1950 Pollster to the 1984 Historian", Public Opinion Quarterly (Winter 1950-51)

19. See "Attitudes Before Combat and Behavior in Combat", Vol. II, chapter 1 of The American Soldier, and succeeding chapters.

20. On this point note, as an illustration of newspaper reports which recur too frequently (by different writers on different areas for different newspapers) to be disregarded entirely, the New York Times dispatch of 17 March 1951 regarding the U. S. garrison in Trieste: "the overwhelming majority of the soldiers do not have a clear idea of what the U. S. Government is doing in the field of domestic and foreign policy No one here makes a determined effort to explain to them why, for instance, they have been undergoing intense training for the nine months since the outbreak of the Korean War, and why it is so hard to get a furlough. Because of this, there has been a lot of beefing, which could be minimized if it were explained to the GI's that the officers are not a bunch of sadists who enjoy seeing soldiers sweat and die, but that the duty of the Army is...." (page 3).

21. See H. D. Lasswell, "The Garrison State and Specialists on Violence", The Analysis of Political Behavior (Oxford University

Press, 1948).

22. See the important programmatic statement developed, to counter the trend outlined in the paper cited above, by H. D. Lasswell, National Security and Individual Freedom (McGraw-Hill, 1950).

23. C. I. Hovland et al, Experiments on Mass Communications (Princeton University Press, 1949). This book, which follows the two-volume report on The American Soldier, is third in the series of "Studies in Social Psychology in World War II". The fourth and concluding volume, on methodological problems and discoveries, is entitled Measurement and Prediction (Princeton, 1950). For a general analysis of these methodological contributions, with an eye on their future utility, See M. A. Girshick and Daniel Lerner, "Model Construction in the Social Sciences: An Expository Discussion of Measurement and Prediction", Public Opinion Quarterly (Winter 1950-51).

24. See, for example, the suspicions, and even nagging, hostility to military "propaganda" by Hanson Baldwin, "When the Big Guns Speak", in Public Opinion and Foreign Policy, edited by Lester Markel (Harpers, 1949).

RECOMMENDED CHANGES IN PROCEDURES FOR OFFICER SELECTION

J.S. Levine

Prepared for
THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE

Department of Defense
Research and Development Board
Washington 25, D. C.

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Recommended Changes in Procedures for Officer Selection

A. S. Levine

HUMAN RESOURCES RESEARCH CENTER

A. Aviation Cadet Selection

1. Problem: At the present time, completion of at least two years of college is required of all applicants for Aviation Cadet training. The supply of college trained men who volunteer for this training falls far short of the need. Furthermore, many applicants who have completed two or more years of college training may actually be sub-standard in terms of the intellectual factors necessary for success in various kinds of aircrew training.
2. Research Reference: Project 21-03-026, "Development, Analysis and Refinement of an Officer Qualifying Test Suitable for Utilization in All Air Force Officer Procurement Programs".
3. Solution: The Aviation Cadet-Officer Candidate Qualifying Test was developed to measure the intellectual and background factors essential for success in all types of rated and non-rated officer assignments in the Air Force. Available data on the AC-OC Qualifying Test and the extensive wartime experience with the similar AAF Qualifying Examination, indicates that the adoption of the AC-OC as a screening test would provide a larger pool of qualified Aviation Cadets, who, on the average, would be superior

to those qualifying on the basis of the two-year college requirement.

B. Selection of Officer Candidates

1. Problem: Extra credit is given for two or more years of college training so that the college trained OCS applicant is at a distinct advantage in gaining admission to OCS. Since colleges vary considerably in their standards, and college students vary even more with regard to intellectual abilities considered desirable for officers, this policy results in the rejection of many potentially good officers and the acceptance for training of many relatively poor risks.
2. Research Reference: Project 21-03-026, "Development, Analysis and Refinement of an Officer Qualifying Test Suitable for Utilization in All Air Force Officer Procurement Programs".
3. Solution: No extra credit should be given for college training. Instead, scores on the AC-OC Qualifying Test should be weighted so that applicants with the highest scores will be given the competitive advantage in applying for OCS.

FACTORS INFLUENCING PROSPECTIVE CIVILIAN EMPLOYMENT
OF RETIRED MILITARY PERSONNEL

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Great Atlantic and Pacific Tea Company

Prepared for
THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE

Department of Defense
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**FACTORS INFLUENCING PROSPECTIVE CIVILIAN EMPLOYMENT
OF RETIRED MILITARY PERSONNEL**

Robert J. Levinski, Ph.D.

The ex-serviceman who is returning to civilian life, either by reason of retirement or discharge, must at the outset take cognizance of one important fact in particular: He must compete, in seeking an appropriate civilian vocation, on an equal basis with others who are candidates for similar employment. These will include veterans as well as non-veterans, and his own chances of procuring the job he wants will depend in large part upon what he as an individual has to offer to his prospective employer. He should neither ask nor expect special favors; instead, he must realize that his personal assets will be scrutinized and evaluated objectively, and that they will then be correlated impartially with the demands of those jobs for which he is an applicant. Every phase of his job-seeking activity will be characterized by competition with others.

If he has not done so already, the retiring serviceman should become aware of the personal requirements sought for in potential employees by management today. A unique problem is presented in the cases of most, in that they have been detached from civilian life for extended periods of time and have given little thought to the intricacies involved in securing suitable civilian employment. Some launched upon their military careers during the business depression which began in 1929, and the industrial setting during that period was radically different from

that which exists today. While the industrial environment to which he returns has undergone considerable alteration, it has been pointed out that the ex-serviceman has likewise changed, and that he can never return to being the civilian he was prior to his military service (5). Thus, a dual adjustment is necessary on his part, one to a reorganized industrial world, and the other to specific changes which have occurred within himself.

Radcliffe (11) has enumerated four problems of vocational adjustment which face the ex-serviceman, and which probably will be encountered by the majority: (a) Insecurity of civilian employment as compared with the absolute security afforded by employment by the State; (b) lessened responsibility and initiative required by certain civilian jobs; (c) a diminished sense of comradeship felt in civilian life, in that he will work in competition with others rather than with them as a group; and (d) the absence of the personal care and interest shown him by his military superiors. These problems can be met and solved only if he understands what lies ahead and what will be expected of him as a civilian looking for a job.

More and more emphasis has been put on selective employment in business and industry, and such emphasis has become increasingly marked since the termination of World War II. By selective employment is meant simply that the employer seeks to place the individual worker on a job which is in keeping with his over-all ability, interests, special aptitudes, and temperamental make-up. In reality, the goal of selective employment in civilian life is the same as that of the military,

namely, to place the right man in the right place at the right time (9). Scientific placement of personnel has resulted in increased industrial production, as well as in employees who are better adjusted to their jobs. In other words, it has been good business to utilize such methods, and being good business, they have become permanently adopted as an integral part of most modern employment programs.

The hit-and-miss methods which were in vogue twenty or thirty years ago have been replaced with a streamlined system of employee evaluation and job analysis, which permits the progressive employer to appraise the demands of each job and to measure the skills of those persons who apply for them. In so doing, misfits are eliminated and applicants who qualify can be assigned to work which is commensurate with their present aptitudes, and which will offer the possibility of advancement and the assumption of greater responsibility when these aptitudes are further cultivated.

While the selective employment techniques utilized by business and industrial firms today differ in their elaborateness, it is possible to analyze them in terms of the basic requirements which are incorporated in the majority. These requirements should be explained to the retiring serviceman before he makes his first effort to procure civilian employment. Actually, they may differ only in slight degree from those of the services; however, their ramifications are such that they could be easily misconstrued in the absence of complete insight into them.

Except in filling the most mediocre or trivial jobs, employers

in general look for the following qualities in evaluating an applicant for a position: (a) A satisfactory level of general intelligence; (b) a stable, well-balanced personality; (c) physical fitness; and (d) specific aptitude in relation to the demands of the job to be filled. There are, of course, other requirements which are appraised and which are too numerous to mention: those noted, however, are of greatest importance in so far as the ex-serviceman is concerned.

With regard to the first entity, a satisfactory level of general intelligence is one of the most fundamental factors. Without adequate intelligence, the individual who is asked inadvertently to assume a position of importance cannot be expected to perform competently. Fortunately, industrial personnel methods have permitted the approximation of the intellectual level necessitated by most jobs, and it is realized that these levels will vary with the complexity of the work. Fortunately too, adequate psychometric tests exist by which it is now possible to harmlessly ascertain an applicant's level of intelligence through the administration of a relatively brief paper-and-pencil type of group intelligence test. The literature is replete with references to the utilization of tests in selecting routine workers as well as key industrial personnel (1,2,3,7,10,12,13).

In qualifying for most positions, the retiring serviceman need have little fear in so far as his own mental level is concerned. Looking at the situation objectively, he should stand in better stead than many of his competitors, since he has been screened already in this respect by the service which he originally entered. In addition,

he has to credit years of practical experience in adjusting to many situations which is not shared by the man without benefit of military service.

The personality structure of the applicant is a quality which most employers will evaluate critically. He will seek out the person with a stable, well-balanced personality who can adjust to changing situations without the undue display of emotion which is upsetting to both personal efficiency and the morale of those about him. The man with a stable, well-balanced personality is a mature individual, one who evaluates those problems which confront him judiciously, and who works out his own solutions to these problems prudently. He is unprejudiced, recognizes the apparent weaknesses of others, and is tolerant of their shortcomings. Stability precludes the presence of disturbing psychosomatic manifestations and neurotic symptoms, which too frequently incapacitate the worker and lead inevitably to job inefficiency.

There are other personality factors which are sought out by the prospective employer. The quality of these are ascertained either through penetrating interview of a quasi-clinical type, or through the use of objective measures of personality and temperament. In the industrial sphere, these stand out as being of particular importance:

Leadership, i.e., the ability to direct and supervise effectively the activities of others.

Energy level, i.e., the degree physical effort can be put forth without generating immoderate fatigue.

Sociability and friendliness, i.e., the predisposition to get along well with others.

Cooperativeness and objectivity, i.e., freedom from any trace of paranoid propensity.

Self-reliance, i.e., the ability to assume responsibility and discharge any assigned duties with a minimum of supervision.

The retiring serviceman who seeks civilian employment must understand the significance of the factors mentioned above. This information should be passed on to him during a counselling interview prior to his detachment. If any gross weaknesses or deficiencies of personality structure exist in his particular case, these should be pointed out to him, so that an intelligent effort can be made toward self-improvement. While it is true that most personality traits become rather firmly engrained by the time adulthood is attained, nevertheless, conscientious effort coupled with competent counselling often can result in marked improvement.

Physical fitness is a relative term, and the degree of fitness which will be required by a prospective employer will depend upon the nature of the job to be filled. There are those jobs which necessitate physical perfection by reason of the demands made by them in terms of physical effort and exertion; on the other hand, there are many positions which can be filled satisfactorily by persons with minor physical disabilities. The retiring serviceman may expect, in his quest for civilian employment, to be asked to undergo thorough medical examinations which are initiated by the company with which he seeks employment. Many firms today have specific physical standards, but these are

often found to vary somewhat with the nature of the work to be done. Again, the ex-serviceman is in a position of advantage, since in most cases he will have been pronounced physically able as the result of medical tests conducted prior to his retirement. By reason of the medical facilities at the disposal of the serviceman during his career, the chances are great that his own condition will in all probability be better than many of the civilians with whom he is competing. The importance of a complete, pre-retirement physical check-up cannot be over-emphasized. Those irregularities which are found to exist should be corrected, so that the serviceman, upon retirement, will be in position to withstand the pre-employment medical examinations which he is certain to encounter.

Specific aptitude is necessary to qualify for jobs and positions of a technical nature. A machinist, for example, must have aptitude in dealing with the machine he is assigned to operate; the truck driver must demonstrate a proficiency for driving; the salesperson must have an aptitude for retail selling; and the office clerk must possess a knowledge of office procedures, record keeping, and the like. The serviceman returning to civilian life will possess those individual aptitudes which were developed by him during his military career. Fortunately, many of those developed will fit in nicely with the demands of civilian employment; unfortunately, in many cases, they will not. However, it should be realized that aptitudes can be developed, and that the age of the ex-serviceman will probably not hinder their development in him.

A certain number of servicemen returning to civilian life will

not have developed those aptitudes which can be of direct use to him in his civilian pursuits. In those cases, it is well for him to undergo a series of aptitude tests which will predict those latent abilities which have not become crystalized. Testing services of this type are available through the Veterans Administration, or through other public or private vocational guidance agencies.

The serviceman who is returning to civilian life after retirement will probably find a more humane, tolerant, industrial setting than existed when he first embarked upon his military career, since human factors are becoming more and more recognized in the industrial situation (6). Certainly the approach to hiring individuals for particular jobs has changed. It has been realized for some time that industrial production is dependent largely upon two things: The employment of people who can do their jobs well; and the existence of a high degree of morale among the group of employees. In other words, an important aim of business today is to build a happy, efficient, and thus more productive organization. Increasing emphasis is being placed upon personnel, and upon the human relations which are necessary in order to get any job done well.

As the economic situation is today, the retiring serviceman can look with confidence upon obtaining a job which is to his liking, providing he meets the basic requirements which have been set forth. Some may become apprehensive over the fact that they lack the particular training necessary for those jobs which are available. In such cases, the serviceman will be interested to learn of the forward steps which

have been taken by industry in the realm of job training. It is characteristic today for the progressive industrial firm to have its own training programs which are designed to orient the inexperienced worker in respect to the new job he is going to undertake. In the main, these training programs are of two varieties. One type, on-the-job instruction, consists of training the worker while he is actually performing the job assigned him. The other, off-the-job instruction, is a more formal system of training embodying some classroom principles, and is removed from the actual job setting. A combination system involves the utilization of aspects of both methods to advantage.

The occupational areas chosen by the retiring serviceman will be governed by factors other than his own personal qualifications. He will, of course, have a choice in the matter, and the choice he makes will have a bearing on his civilian adjustment in general. As Centers (4) has pointed out, it is an established fact that varying degrees of prestige, esteem, remuneration, and social status accrue to individuals as the result of the vocational pursuits they follow. Then, too, he will scrutinize carefully what the job has to offer to him. If he is an average individual, the chances are that he will look first to job security, then to the opportunities for advancement afforded by the job, and then to the type of work itself, before considering other factors. At least, this seems to be a typical pattern set among American workers, according to a report of research conducted by Jurgensen (8). His ultimate vocational adjustment will be brought about through self-realization of his own personal goals, abilities, responsibilities, and

desires, which must correlate with the type of work he eventually chooses.

The retiring serviceman need have no fear of civilian life and his pursuit of adequate civilian employment. His many years of military life should, if anything, be of distinct advantage to him. He should emerge a mature individual, with a degree of insight not shared by many with whom he will compete for employment. Economic conditions remaining good, he can expect industry to be prepared to consider him for employment for which he can best qualify. He will compete on equal terms with others; he should, therefore, expect no special dispensations, nor should he need to expect them. What he has to offer as a prospective employee will be evaluated carefully, and his ultimate job placement will depend upon the caliber of his personal qualifications.

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SUMMARY

The problems faced by the retiring serviceman in obtaining satisfactory civilian employment will be lessened if he has a complete understanding of the qualifications currently sought in applicants for work by business and industrial firms.

Selective employment methods are used by management extensively today, since it is realized that correct job placement is necessary to insure efficient production. In utilizing such methods, effort is made to appraise each applicant's personal qualifications and to relate these to the job for which he is a candidate.

In the filling of jobs of any importance, employers in general look for the following qualities in evaluating applicants: (1) A satisfactory level of general intelligence; (2) a stable, well balanced personality; (3) physical fitness; and (4) specific aptitude in relation to the demands of the job to be filled.

The retiring serviceman should seek counsel so that he will gain an understanding of his own abilities as they pertain to positions in which he is interested. A knowledge of these personal assets he has will permit a more intelligent job search and those latent abilities which were not developed during his military career can be cultivated through the formal job training which is afforded by most industrial firms.

Equipped with insight into his own qualifications, together with the requirements set forth by management today, the retiring

serviceman can look forward with confidence on procuring civilian employment which is to his liking and in keeping with his overall aptitude level.

PRISONER OF WAR SURVIVAL

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Prepared for

**THE WORKING GROUP ON HUMAN BEHAVIOR
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Summary

In the past many military personnel have failed to escape after surrender due to several causes: (1) lack of knowledge of one's rights to escape as laid down in international law; (2) fear of being court-martialed for desertion often augmented by threats of senior officers to press such charges; and (3) lack of training in survival and guerrilla warfare (essential items for survival; sufficient skill to live off the land; tact in dealing with native inhabitants).

In not a few instances energetic and aggressive military personnel have evaded capture by quick and positive action before the enemy could round up and isolate prisoners. In quite a number of such instances these individuals rendered a service to their country by continuing action against the enemy by harassing lines of communication, gathering military information as to enemy troop strengths and locations, air fields, airplanes, etc., and setting up clandestine radio transmitters to relay the above information to our own forces. Others who escaped capture surrendered voluntarily at a later date because they found it too difficult to live away from civilization. A greater number failed to take advantage of the opportunities to escape due to lack of action and thought.

The problem of survival after one is actually a prisoner and confined

is a difficult one, especially when the enemy does not choose to abide by the Geneva Convention. Food and medical supplies are necessary for the maintenance of physical health. The International^{al}/Red Cross can do much in this regard, provided the enemy is sufficiently humane to allow the proper agencies to distribute the supplies. In the Philippines the Japanese refused to allow this, and as a result only a small percentage of the total food and medical supplies reached the people for whom they were intended.

The mental state and morale of prisoners are generally poor because of the very nature of their role as prisoners. Adequate food and freedom from disease are potent factors. Another important factor, and one over which our own military establishment has some control, is that of promotion of prisoners of war. To have one's promotion blocked while a prisoner is a serious morale factor. This was done by the Army in World War II and was considered by the prisoners to be essentially a penalty for becoming involved in a situation for which the prisoners were not responsible.

Another psychological consideration is that of encouraging personnel to evade capture by assuring them of promotion and inclusion in any remunerative benefits (such as the \$1.00 per day allowed prisoners of war). Many of these men in the Philippines did a definite service while evading capture but were denied the above considerations.

A third problem has to do with the relationship of prisoners, and especially evadees, to the native population. This is very important when the population is friendly. Success of escape to our own lines or of actions against the enemy often depended on an adequate understanding

and respect of the customs, habits, and language of these natives. If prisoners or evadees were authorized to promise compensation, to be paid at a later date by our Government, for materials or services rendered by individuals in the native population, success would more likely be assured.

PRISONER OF WAR SURVIVAL

The problem of prisoners of war can be divided into two phases: (1) that period when capture is imminent; and (2) that period when capture is a reality. A third phase covering the post-prisoner period need not be considered here.

The first phase is generally short and requires quick decision and action on the part of the defeated. In our military schools much time is spent teaching how to win battles. Little or no time is utilized teaching individuals what to do when battles are lost and surrender is necessary. Is one obliged to accept capture when escape is reasonably possible? Should one obey the commander's order to surrender and be captured when he is in the hands of the enemy at the time he issued the order? Napoleon recognized the danger of obeying orders from a captured commander, and international law is quite clear on the matter.

In our military training instruction on survival and guerrilla warfare would be invaluable to individuals at times when capture is a certainty unless evasive action is initiated. Such instruction should include lists of all items of personal equipment desirable to make survival either alone or in small groups feasible. Since weight is all important, only essential items should be considered and these, of course, would vary for different theaters of operations. Food is bulky, so every effort must be made to teach personnel to live off the land.

In the Philippine campaign not a few young energetic officers desired to escape to the hills after the formal surrender and before prisoners could be gathered together and isolated. In several instances

their superiors threatened to prefer charges of desertion after the war against such individuals if they escaped. In another instance a captured commander sent American officers, with the enemy's permission, to the hills in an effort to force escaped military personnel to surrender, again with the threat of charges of disobedience to orders being filed after the war. Even though one may be quite sure he is in the right he is apt to procrastinate and surrender just because he is not positive of his rights, and, knowing the penalty for desertion in time of war, does not prefer to jeopardize his position in any way. Adequate instruction in our military schools would do much to alleviate situations as mentioned above.

Quite a number of officers did escape immediately after the surrender and continued to fight against the enemy. By so doing they rendered a definite service to their country by harassing the enemy, gathering military information concerning enemy troop strength and location, air fields, etc., and setting up clandestine radio transmitters used to send out information of military value to our forces. Strangely, one could almost have picked out, by their physical and psychological make-up, even before the war, the ones who would have been expected to do as they did at the end of the Philippine campaign. As a rule those who escaped were athletic, aggressive in thought and action, compared to the greater number who had the same opportunity to escape but who showed indecision, reticence, defeatist attitudes, and were willing to "just sit and see what happens." Other individuals evaded capture but surrendered voluntarily within a few months due to lack of sufficient skill

to exist in the hills.

The problem of survival after one is actually a prisoner and behind barbed wire is a difficult one. So much depends on the nature of the enemy and luck. The Geneva Convention is a very fine instrument on paper, but in our situation in the Philippines it was a farce, even though the Japanese Government promised the United States that it would abide by it. In talking to former prisoners of Germany I gained the impression that they fared better than Japanese prisoners, but in many instances the Geneva Convention and international law were not adhered to. I also have been told from authentic sources that some 3,000 Japanese soldiers died while prisoners of the United States in the Philippines in the first 6 months after their capture. If this is true, it is a definite blotch on our own record. It has been much too often the case to blame such catastrophes on the time worn excuse of "military necessity."

The question arises whether prisoners of war should be written off as lost and left entirely at the mercy of their captors, or if definite efforts should be made by our own agencies to help them stay alive. If the former attitude is accepted, only the few prisoners and their relatively few relatives at home would be involved, which is of no measurable significance as far as the entire national effort is concerned. I personally rebel against this view, although one must admit it has practical aspects.

If the second view is accepted, the question arises what can be done to augment the prisoner's mental as well as physical health. This latter problem of physical health is easily answered since only two things are

required: (1) food, and (2) medical supplies. The International Red Cross is an agency authorized by the Geneva Convention to deliver such materials and also to authorize their distribution. This latter authority was the joker in our situation in the Philippines, since the Japanese would not allow International Red Cross representatives to enter prisoner of war camps. As a result the Japanese took what food and medicine they desired for themselves and gave only what they pleased to the prisoners. Whether the aid and comfort given the enemy by such action outweighed the benefit derived from the food and medicine by the prisoners is difficult to answer.

The mental health of prisoners of war deserves more attention and is a very fertile field. Survival in many instances was closely associated with mental outlook and morale. Many individuals just gave up and could see no reason to carry on. Many factors, some of which were beyond control, had a part in the mental states of prisoners. Adequate food and freedom from disease are important factors.

The factors about which something can be done deserve serious consideration. Perhaps the most important of these is the policy of promotion of prisoners. It was the policy of the United States Army to block the promotion of their military personnel when they became prisoners of war. Such a decision is tantamount to penalizing individuals for becoming involved in a situation over which they had no control and were in no way responsible. That was a bitter pill to swallow, especially when you were captured in the first few months of a three and one-half years war. Prisoners began to wonder if we were justified in criticizing

the Japanese for their injustices when our own people were treating us unjustly. What harm would have resulted had prisoners been promoted to the same grades or ranks, while they were incarcerated, at the same time as the groups of individuals with whom they entered the service? That injustice is being carried down to the present in the United States Air Force, since one of the criteria for temporary promotion to a higher grade depends on the date of the last promotion. Obviously, prisoners who were not liberated until the end of the war are penalized by such a policy. (The Army does not use such a criterion.)

Another psychological consideration is the matter of rewarding those who evaded capture. In July 1945 an Army regulation was issued for ex-prisoners of war, which stated in substance that ex-prisoners of war would be promoted to the grade or rank they presumably would have attained had they not been captured. Evadees were not considered under this regulation. Furthermore, in many instances of ex-prisoners great difficulty was encountered in convincing the board concerned to pass on these cases that a certain grade or rank would have presumably been attained. Certainly, individuals who evaded capture, and in many instances offered further resistance to the enemy, should have been included within the scope of such a regulation. In fact, these individuals should have been promoted at least with their service contemporaries while they were operating in enemy-held territory. If such a policy were in effect it would encourage personnel to evade capture.

A third problem has to do with the relationship of prisoners, and more especially evadees, to the native population. This is most important

when the native population is friendly to our own country, as was the case in Europe, China, Philippines, East Indies, etc., in World War II. The chances of survival and successful operation are enhanced when the customs, language, and habits of the native inhabitants are known by prisoners or evadees. Excellent cooperation and even recruiting of native personnel can often be accomplished by using knowledge of the above. Failure to respect local customs and habits may and has led the native inhabitants to side with the enemy. Their assistance to accomplish missions in enemy-held territory cannot be over emphasized, whether the mission is action against the enemy or escape to our own lines. Considerable care, however, must be exercised in taking native inhabitants into confidence. In the Philippines failure to exercise sufficient care in this respect in several instances resulted in capture when enemy troops were led to the spot by persons previously considered loyal. In some such cases rewards offered by the enemy to those who gave information as to the whereabouts of Americans was sufficient to overbalance any feeling of loyalty. Such unfortunate occurrences could be prevented, in part at least, if prisoners, or more especially evadees, were authorized to promise individuals remuneration by our Government at a later date for services rendered or for supplies, such as food.

PRISONER OF WAR SURVIVAL

Recommendations

1. That military schools include in their curricula courses in which the rights and obligations of military personnel about to be made prisoners of war are explained.
2. That training in survival and guerrilla warfare be given all military personnel before going into combat.
3. That aggressive and energetic members of combat units be selected and trained as leaders in escape operations.
4. That escapees and evadees be assured that they will not be penalized as far as promotion or receiving special monetary consideration (as accorded prisoners of war in World War II) for their escape or evasion of capture.
5. That actual prisoners of war be promoted at the same time as their service contemporaries even though they are incarcerated.
6. That military personnel be given instruction concerning the character, customs, and language of the people who are native to the theatre of military operations.
7. That prisoners, escapees, and evadees be authorized to promise monetary rewards to native inhabitants for materials or services rendered for aiding escape or for action against the enemy.

**A QUALITATIVE ANALYSIS OF ON-THE-JOB TRAINING
IN THE AIR FORCE**

Staff Study Prepared for the Air Force

Charles Linburg

**Human Resources Division
Headquarters USAF**

Prepared for

**THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE**

**Department of Defense
Research and Development Board
Washington 25, D. C.**

June 30, 1951

A QUALITATIVE ANALYSIS OF
ON-THE-JOB TRAINING IN THE AIR FORCE
STAFF STUDY PREPARED FOR THE AIR FORCE

by

Charles Linburg

PROBLEM:

A question has arisen concerning the usefulness of on-the-job training as a substitute for formal training in the Air Force.

FINDINGS:

This study presents evidence that on-the-job methods of training alone are inadequate to meet the requirements of the Air Force for training. It points out that the Air Force presently lacks the capacity to produce a quality product by means of such training and that such methods are likely to be slow and costly in comparison with formal training.

CONCLUSIONS:

Based upon the tradition of training in the Armed Services, the clear and compelling experience of World War II and the lessons of related civilian experience, it is concluded that the basic training design most suitable for Air Force use is formalized technical training supplemented by standardized on-the-job, unit and crew training in the operational commands.

RECOMMENDATIONS:

It is recommended that the Air Force be guided by the principles which have evolved around vocational technical training in civilian experience in establishing firm training policy and that a comprehensive peacetime master plan be formulated on this training design. Research

should be directed toward improving, expediting, and reducing the cost of formal training rather than in looking for a substitute for it.

QUALITATIVE ANALYSIS OF ON-THE-JOB TRAINING

The Human Resources Division has received a requirement that research be initiated in order to obtain information on which Air Force Headquarters may establish firm policies concerning the following:

1. The skills or career fields in which on-the-job training can be expected to produce a satisfactory product.
2. The minimum average period of on-the-job training required to produce an acceptable product by skill or career field, or in lieu thereof, a formula for conversion of formal course lengths to an average period of on-the-job apprentice training.
3. The relative value to the Air Force in terms of productivity of specialists trained through formal training as compared with on-the-job training.

In order to determine the feasibility and desirability of conducting research on these problems, a preliminary survey has been made of previous research results and of authoritative experience in related areas. The conclusions are as follows:

1. A rapid survey of the scientific literature reveals that there are no substantial data available which would furnish direct evidence on the questions asked. There is, however, a tremendous amount of reported authoritative experience having direct bearing on the problem. Such fragmentary research results as can be found support the conclusions of authoritative experience.
2. The problems which exist in relation to the quality of Air Force training cannot be solved by words, or formulas, or conversion factors, or magic. The things that are required are a clear statement of objectives, a peacetime master plan for training all career fields in the light of such

objectives, well qualified instructors, comprehensive curricula, facilities and equipment, and the educational and training know-how to transform such raw materials into efficiently operating knowledges and skills. To get quality will require time and money. The only immediately available foundation upon which to build such a superstructure is the individual training program of the technical schools. Such individual training conducted in formal schools must be coordinated with and supplemented by on-the-job, unit and crew training in the operational commands.

3. There are three readily discernible criteria against which to evaluate training: **QUALITY, TIME, and COST.** Wartime training ignored cost, concentrated on speed, and achieved quality only by limiting the scope of training to fragmentized specialties. Normally, an increase in quantity or quality is accompanied by increasing costs. The desired objective, of course, would be to design learning situations which result in a better product in less time and at reduced cost. It is estimated, for example, that the SNJ trainer produced results which showed that, on a 12-hour syllabus, a group of students;

- a. Required 874 fewer trials - a 62% saving.
- b. Made 1,511 less errors - a 73% saving.
- c. Took 43:36 less air hours - a 62% saving - than the aircraft group.

To cite another example, the Civil Aeronautics Administration reported very substantial savings brought about through the establishment of especially designed course of training. For a description of this program see Appendix "A".

4. It is past time for the Air Force to decide what its peacetime training design is going to be. Costs can no longer be ignored. While the time factor is perhaps less important than during time of war, it is over

present and requires that any design followed by capable of rapid acceleration during mobilization. Postwar quality objectives should aim higher than the fragmented quality produced during World War II.

5. It is considered unnecessary in this report to document the faults and inefficiencies of the technical schools. This has been done previously in various special studies conducted by and for the Individual Training Division (AFPTI) and in the U.S. Office of Education Report on the Schools of the Air Training Command.

6. A review of the reports in the Office of the Inspector General indicates that on base after base of the operational commands, on-the-job training is a major problem. While its effectiveness varies by Air Force specialty as well as by base, it is on the whole extremely unsatisfactory. Of the reasons given, the following appear more frequently:

- a. Lack of leadership,
- b. Lack of personnel capable of giving training,
- c. Failure on the part of responsible individuals to realize its objectives or importance,
- d. Lack of training material and facilities, and
- e. The difficulty of establishing and maintaining it in addition to the regular operational activities.

There is considerable doubt that on-the-job training in the operational commands can be made effective in the next year or so without excessive expenditure of personnel, time, and money. Its overall cost cannot be computed since the results of poor training are frequently hidden in high accident rates, depreciated equipment, and the impact of undue stress on personnel. Appendix "B" presents further remarks concerned with on-the-job training in the Air Force.

7. The Air Force does not now have the capacity to produce qualified craftsmen and artisans through apprentice training methods. It is apparent from a survey of Air Force personnel and training documents that the words "apprentice" and "apprenticeship" have a quite different meaning than they have in industrial and educational circles. In the Air Force the word "apprentice" apparently is limited in significance to that of a learner or beginner. In civilian life much more than this is now implied. According to criteria promulgated by the National Apprenticeship Program, an apprenticeable occupation is one;

- a. Which customarily has been learned in a practical way through training on the job;
- b. Which is clearly identified and commonly recognized throughout the industry;
- c. Which requires 4,000 or more hours of work experience to learn;
- d. Which requires related instruction to supplement the work experience (144 hours of such instruction during each year of the apprenticeship is usually considered the minimum);
- e. Which is not merely part of an occupation already recognized as apprenticeable by the Federal Committee on Apprenticeship;
- f. Which involves the development of skill sufficiently broad to be applicable in like occupations throughout an industry, rather than of restricted application to the products of one company;
- g. Which does not fall in any of the following categories:
 - (1) Selling, retailing or similar occupations in the distributive field.
 - (2) Managerial occupations.
 - (3) Clerical occupations

(4) Professional or semiprofessional occupations (this designation covers occupations for which entrance requirements customarily include education of college level).

(5) Agricultural occupations (this designation includes those engaged in the growing of crops, fruits, nuts, etc., and the raising of livestock, poultry, etc.).

In addition to criteria specified above, apprentice training requires that there be an approved schedule of work processes to be learned on the job, that adequate supervision and instruction be available from journeymen craftsmen, and that detailed records be kept of the complete learning and production process. A file of descriptive data on apprentice training is assembled in Appendix "C". A summary statement on the operation of a sound apprentice training program in the Ford Motor Company is presented in Appendix "D". Without regard to the merits of apprentice training methods, it should be pointed out that this training design has never been used in the Armed Services with military personnel except perhaps in the Navy gun factory. This is not to say that apprentice training methods should not be used for the limited peacetime production of craftsmen customarily trained in this manner in civilian life. Traditionally, however, this is not Armed Service design for training.

8. The Airman Career Program will soon be in effect. In order to become a program in fact instead of a promise, it will be necessary that it be supported by an adequate training program which will do more than provide familiarization training with operational tasks. Inadequately standardized, unsupervised on-the-job training without proper facilities and equipment cannot be effective in training out the deficiencies resulting from the narrow specialization of wartime training. Armed Services training during World War II was the best military training ever accomplished. A further comment on this training is contained in

Appendix "F". Unfortunately, many of the lessons learned as the result of this experience are being forgotten. Wartime training should be critically reviewed and evaluated to preserve the best techniques and principles developed.

9. In civilian life industry's requirement for training is shared with vocational and technical schools and other formal educational institutions for the training of workers. The system is based on a recognized distinction between the acquisition of technical knowledge and the development of physical or motor skill. The former--the acquisition of knowledge--is more the domain of the schools, while the latter--the development of skill--is more the domain of on-the-job training and experience. The above description, naturally, is an oversimplification of what actually takes place. Many skills are learned in schools, and much related information is learned on the job. In any case both types of training are necessary; they tend to supplement each other in practice because neither alone could do the whole job successfully. It is generally agreed by men of experience with the problem of training that a well-rounded program of training will include both formal schooling and on-the-job training. The proportions of each may vary depending upon the nature of the job and the level of the job. Vocations requiring extensive technical knowledge include the scientific professions, engineering, and the technical specialists, while vocations requiring extensive physical and motor skills include those jobs for which actual job experience is traditional. During recent years, supervised and planned on-the-job seasoning has come to be regarded as essential for graduates of formal training. A statement on this problem by President Doherty of the Carnegie Institute of Technology is presented in Appendix "F". Conversely, formal instruction has been found to be quite valuable even in a pickle factory. A statement on this point of view is presented in Appendix "G".

10. Based upon the tradition of training in the Armed Services, the

clear and compelling experience of World War II and the lessons of related civilian experience, it is concluded that the basic training design most suitable for Air Force use is what has come to be known as vocational-technical training. Appendix "H" presents a summary description of this type of training in civilian experience and adapts selected conclusions of the 1943 Vocational-Technical Committee, sponsored by the U. S. Office of Education, to the Air Force Training Program. It is recommended that the Air Force be guided by the principles which have evolved around this type of training in establishing firm training policy and that a comprehensive peacetime master plan be formulated on this training design. Research should, therefore, be directed toward improving, expediting, and reducing the cost of formal training rather than in looking for a substitute for it.

APPENDIX A

CIVIL AERONAUTICS ADMINISTRATION EXPERIENCE WITH FORMAL TRAINING

The program of the CAA is based upon the use of qualified civilians to do an operational job. In company with industry, their experience has demonstrated the value of appropriate courses of training in improving efficiency and reducing the costs of the programs. The statement reproduced below points out the savings to the Government as a result of the Air Traffic Control Training Program:

1. Training of Civil Aeronautics Administration Trainees

Prior to the inauguration of the primary training program in the Air Traffic Control Division of the Civil Aeronautics Administration, a number of years' experience had indicated that it took an average of six months, from the time an employee was entered on duty in an airway traffic control center or an airport traffic control tower, until the employee was able to assume any of the required duties in assisting the experienced controllers in the job of controlling air traffic.

This six months' orientation training period was required because of the fact that the training of new employees on the job was, of necessity, left up to the older, more experienced employees, whenever they could be spared from their regular duties. Orientation training of this type naturally required a longer period of time than the organized, streamlined training program which was initiated early in 1942. It should be noted that this program has reduced the orientation or primary training period from six months required prior to the start of the program, to a period of ten weeks. In addition to a reduction in training time, the employees are much better trained and are able, upon being transferred to an airway traffic control center or

an airport traffic control tower, to immediately assume their proportionate share of the work load.

Records submitted by each of the seven air traffic control training centers show that a total of 1,678 new employees have been trained during the past two years. During the same two year period a total of 271 trainees have been eliminated from the service as being unsuitable.

A direct comparison is made below between what it would have cost to train a total of 1,678 new employees under the old system and what it has cost to train the same number of people under the training program now in effect in the Air Traffic Control Division. A trainee's salary is \$2,160 per annum including overtime for a 48-hour work week.

2. Savings Effected in Salary Costs

Salary costs of 1,678 trainees for 6 months' training period	\$1,812,240
Salary costs of 1,678 trainees for 10 weeks' training period	696,883
Savings in salary costs of 1,678 trainees as a result of a	
reduction in training time from 6 months to 10 weeks	\$1,115,357

3. Savings Effected as a Result of the Elimination of 271 Trainees as Unsuitable During the First Thirty Days of Their Training

Under the old system of training, the 271 trainees would not have been eliminated from the service, as unsuitable, until a great majority of the trainees had completed the average six months of training. By means of improved testing procedures it has been possible, under the system of training now in effect, to eliminate unsuitable trainees during the first thirty days of their training. This has effected a saving of an average of five months' salary on each of the 271 trainees eliminated as indicated below:

Salary costs of 271 trainees for six months' training period	\$292,680
Salary costs of 271 trainees for one month training period	48,780

Savings in salary costs of 271 trainees, eliminated as

unsuitable within thirty days, as a result of improved

training and testing methods

243,900

Total savings to the Government in salary costs of trainees,

as a result of a reduction in training time by the training

program of the Air Traffic Control Division

\$1,359,257

Against the savings effected in salary costs of the 1,678 trainees, must be charged the cost of the training program. There is indicated below a tabulation of the costs of maintaining the training program for the past two years.

4. Salary of Supervisors and Instructors

1 Assistant Chief, Air Traffic Control Division (Training)

for two years at \$4,380 per annum, including overtime \$ 8,760

14 Inspectors (airway and airport) supervising training in

the seven training centers and on the job, for two

years at \$4,080 per annum, including overtime 114,240

10 Airway traffic control instructors for two years at

\$3,480 per annum, including overtime 69,600

11 Airport traffic control instructors for two years at

\$3,120 per annum, including overtime 68,640

Total salary costs of supervisors and instructors for two \$ 261,240

years

5. Cost of Training Center Quarters and Equipment

Cost of rental of quarters for seven training centers for \$ 38,656

two years

Cost of training center equipment and supplies 17,500

6. Recapitulation of Training Costs

Salaries	\$ 261,240
Cost of training center quarters	38,656
Cost of training center equipment and supplies	17,500
<hr/>	
Total cost of training program for two years	\$ 317,396
Savings in salary costs as a result of the training program	\$1,359,257
Cost of training program for two years	317,396
<hr/>	
Total savings to Government as a result of the Air	
Traffic Control Training Program	\$1,041,861

While there seems to be little doubt that a well organized technical training program can cut training time and reduce training costs, the reader is cautioned against drawing generalized inferences for the Air Force upon the basis of oversimplified comparisons.

The relationships among quality, time, and cost factors in Air Force training are exceedingly complex and cannot be demonstrated quite so simply. Further consideration of this problem is contained in "Evaluating Apprentices - Cost of Training and the Value of Production of Apprentices," by O. L. Harvey, a publication available from the Bureau of Apprentice Training, Department of Labor.

APPENDIX B

ON-THE-JOB TRAINING IN THE AIR FORCE

Air Force Regulation 50-23 assigns the responsibility for on-the-job training to Air Force commanders at all levels and specifies that technical assistance as required will be furnished by on-the-job training specialists of the Air Training Command. Since AFR 50-23 has been in effect only since 5 January 1950, it is understood that little has yet been accomplished in achieving the objectives set forth.

A careful scrutiny of AFR 50-23 would lead one to believe that essential elements required for the success of on-the-job training have not been provided. In order that some of these elements may be provided, there is reproduced here pertinent material furnished by the Trade and Industrial Education Division of the U. S. Office of Education.

On-the-job training requires specific planning and attention, including the following:

1. Selecting the workers who will do the training and acquainting them with the job to be done. It is understood that they should be thoroughly skilled in those phases of the trade they are going to teach and that they should be definitely interested in the progress of learners on the job.
2. Listing the jobs that are to be taught.
3. Listing the operations in each job.
4. Analyzing each operation to determine what the learner must do and what he must know.
5. Preparing lesson plans on the basis of the operations each of which may require one or more lessons.

In teaching skills the job instructor will ordinarily proceed about as follows:

1. He will find out what the learner knows about the operation by questions and discussions.
2. He will tell him how the operation is performed and demonstrate slowly at the same time pointing out any dangers or hazards that should be guarded against.
3. He will have the learner perform the operation assisting him if he needs help.
4. He will have the learner repeat the operation several times until satisfied that he can do it safely.
5. The instructor will check occasionally with the learner to see that he is following correct work and safety habits.

On the job training will involve mainly the teaching of skills, however, it is well to remember that there are other recognized teaching situations that will need attention such as imparting necessary technical information and also developing a proper job attitude on the part of the learner. The instructional methods used will, of course, vary with the particular teaching situation faced by the instructor.

It is often assumed that a competent supervisor or a skilled workman who knows his job also knows how to teach the skills of his job to others. This is not the case, as the job of teaching is entirely different from that of doing. The efficient instructor must know not only how to perform the operation to be taught but also how to teach it.

Instructing is similar to any other skilled occupation and the successful job instructor will use those methods and techniques which have been developed and generally accepted as effective.

It may be of further assistance to review the recommended minimum criteria for approval of on-the-job training programs for veterans. In the veterans' training program on-the-job training means any form of training in a job in any industry or occupation which requires a minimum of 500 hours of training, work experience, and related or technical training to attain reasonable competency, and in which there is customarily a differential between the beginning wage and the wage paid a trained worker.

STANDARDS FOR APPROVAL OF VETERANS' ON-THE-JOB TRAINING

The state approving agency should consider for approval only those establishments offering training programs which are submitted in conformity with the above specifications and should approve only those found upon investigation to have met or made provision for meeting the following criteria:

1. The training content of the program is adequate to qualify the veteran for appointment to the job for which he is to be trained.
2. There is reasonable certainty that the job for which the veteran is to be trained will be available to him at the end of the training period as is evidenced by such factors as the ratio of trainees, veteran and non-veteran, to trained workers.
3. The job is not in a standard wage classification, in which progression and appointment to the next higher classification are based upon such factors as length of service and normal turnover, and not upon skills learned through organized training on the job.
4. The wages to be paid the veteran for each successive period of training are not less than those customarily paid in the establishment and the community to a learner in the same job who is not a veteran, and are in conformity with state and federal laws and applicable bargaining agreements.
5. The job customarily requires a period of training which justifies the setting up of a complete program of not less than 500 hours of training.

6. The length of the training period is no longer than that customarily required by the establishment and other establishments in the community to provide the trainee with the required skills, arrange for the acquiring of job knowledge, technical information, and other facts which the trainee will need to learn in order to become competent on the job for which he is being trained.

7. Provision is made for related instruction.

8. There is in the establishment, adequate space, equipment, instructional material, and instructor personnel to provide satisfactory training on the job.

9. Adequate records are kept to show the progress made by the veteran toward his job objective.

10. Appropriate credit is given the veteran for previous job experience, whether in military service or elsewhere, his beginning wage adjusted to the level to which such credit advances him, and his training period shortened accordingly.

11. A copy of the training program as approved by the state agency is provided to the veteran by the employer.

12. Upon completion of the training, the veteran is given a certificate indicating the length and type of training provided and attesting to his competency in the job for which he was trained.

13. Employees of the establishment are advised of the training program.

14. The approving agency should have access to the establishment for the purpose of assisting in the development and improvement of the training program.

It is submitted that a considerable effort will be required before Air Force on-the-job training can meet the standards listed by the U. S. Office of Education or Veterans Administration. Without standard operating procedures and specified training standards, it is not to be expected that a quality product will be produced.

APPENDIX D

APPRENTICE TRAINING IN THE FORD MOTOR COMPANY

**Abstracted from a Talk by
Archie A. Pearson, Manager
Training Department, Ford Motor Company**

Apprenticeship training began in Ford Motor Company in 1915 and has been in continuous operation ever since. The original purpose of the program was to train young men to become journeymen tool and die makers. The needs of the company for more journeymen resulted in the establishment of apprenticeships in many additional trades. At present, we have apprenticeships in 18 trades. They include: tool, die, locomotive machinist, hydraulic maintenance, pyrometry, heat treat, roll turning and grinding, electric maintenance, plumber pipefitting, etc. Enrollment since World War II has averaged 1228 apprentices per month.

Since 1941, the program has operated under the leadership of a Joint Apprenticeship Committee composed of five management representatives and five representatives of the UAW-CIO. This committee meets weekly to consider and approve applications and to hear and decide on apprentice matters according to the standards that have been set up for each of the 18 trades. All of our standards are registered with the Bureau of Apprenticeship of the United States Department of Labor. Local representatives of the Bureau of Apprenticeship attend the meetings of our Joint Apprenticeship Committee and render valuable assistance.

Because of the size and complexity of our operations, it is necessary to provide related training three times each day in each of the ten-week terms of instruction. Apprentices working on the midnight shift attend classes at 8:00 A.M. in the morning; those working on the afternoon shift attend at

1:30 P.M.; while apprentices working on the day shift attend at 3:45 P.M. Each class period is 1 1/4 hours long. Each apprentice gets related instruction two to three times per week throughout his apprenticeship and a comparable amount of outside study is required. All instruction is given the apprentice on his own time. Every effort is made to correlate the classroom instruction with the shop work of the apprentice.

Our experience indicates that sound training in the shop is just as important as organized instruction. During the working day, the apprentice receives instruction in the shop from an apprentice shop instructor. The shop instructor assigns the apprentice to his initial job, sees that he receives progressive training, is transferred from one type of work to another, and that his progress is satisfactory.

For example, if the apprentice is to operate a machine, the instructor assists in setting up the job, sharpening and adjusting the tools, selecting feeds and speeds, and then possibly takes the first cut. After sufficient time has been spent with the apprentice on this machine, which is new to him, the machine is then turned over to the apprentice who proceeds with the operation. The shop instructor remains with the apprentice until he has acquired sufficient skill to work on his own.

Thereafter, jobs are assigned by the line foreman in ascending degrees of difficulty. Constant follow up of each apprentice by the shop instructor takes place throughout the working day. When questions concerning the work at hand arise during the absence of the shop instructor, the job foreman and the journeyman give the required assistance. All initial explanations of manufacturing processes, use of machines, safety regulations, etc., are given by the shop instructor.

Very accurate records are maintained of the apprentice's progress, both in the shop and in the organized instruction. Satisfactory progress

in each, in accordance with the standards that have been established for each trade, is required of every apprentice. If he falls behind, the shop instructor and the classroom instructor are ready to render assistance. If it appears that he is a misfit, his record is carefully reviewed by the Joint Apprenticeship Committee. He is interviewed by members of the committee and either placed on probation or removed from the course.

Since 1923, we have graduated 6,127 apprentices to journeyman status. Each graduate is supplied with a certificate bearing the signatures of management and UAW-CIO representatives, as well as that of the Director of the Bureau of Apprenticeship. That certificate means that every graduate has successfully completed four years of well-rounded training in the trade of his choice. He is a journeyman in every sense of the word.

Skill is essential in American industry. Industry, if it is to survive, must perpetuate that skill. Industry can't escape this responsibility. The development of skill can't be left to chance. Organized programs must exist. It is industry's responsibility along with that of labor and the public to see that such a program is in existence.

Apprenticeship has stood the test of time. It has been proven to be one of the soundest educational devices. It is the product of man's creative pursuits throughout the ages. It has proven itself flexible enough to serve modern industry provided industry will accept its services. History has shown that if we want the best from apprenticeship, we must put the best into apprenticeship.

High standards must be established and followed. A paper program is about as valuable to industry and to labor and to the public as the paper on which it is written. Standards, as I understand them, mean actual day

to day, month in and month out, year in and year out, performance. I refer to standards regarding:

Selection of apprentices,

Rotated work experience essential for future efficient performance,

Organized related instruction of high quality,

Satisfactory job performance, both in the shop and in the related instruction,

Careful selection of work experiences, and

Standards of personal conduct.

APPENDIX B

CHARACTERISTICS OF WARTIME ARMED SERVICES TRAINING PROGRAMS

In March 1946, 256 educators out of 300 receiving inquiries, gave their opinions on the merits of wartime training programs conducted by the Armed Services as contrasted with each respondent's experience as an educator in civil life. The inquiry form was a check list of ten features often mentioned as characteristic of Armed Services training. The ten characteristics and the response regarding the extent to which each respondent had observed each feature in his Armed Service experience are tabulated in the table below:

Characteristics Observed in Armed Services Training Programs

Characteristics	Yes	No	No Response	Order of Frequency of Affirmatives
Clarity and definiteness of aims	224	23	11	2
Eliminating nonessential content	205	36	17	4
More frequent achievement testing	185	59	14	5
Helpful supervision of instruction	142	94	22	10
More in-service teacher training	143	99	16	9
More and better use of visual aids	238	10	10	1
More "learning by performances"	219	27	12	3
Better classroom discipline	177	54	27	6
Small classes and individual work	147	96	15	8
Short intensive courses open to students qualified and wanting them	160	76	22	7

As was pointed out by one of the respondents to the survey, these principles originated in civilian education and were adopted by the Armed Services to the extent indicated in the table. They are simply good principles of training.

SOME FACTORS CONDITIONING WARTIME TRAINING

Men had to be trained to fight under all conditions, everywhere in the world. Technological changes and inventions came so rapidly that weapons

which were up to date when men used them in training often became obsolete by the time those men went into action. Telescopes and radar sets often were out of date before they reached battle. The P-40 was a good fighter plane in 1940, but it was obsolete by 1942, except for training. Little of the finest equipment of 1942 was of much combat worth in 1944. Wartime training naturally had to be geared to the rapidly changing technology. Men were brought up to a point of readiness through formal methods of training and kept ready through continued operational training either on the job or off the job.

DEFINITION OF AIMS

Training aims were nearly always concrete and limited, ad hoc rather than general. The primary object was not to teach men all there was to know about anything. It always was to teach them how to perform a set number of operations or duties as individual members of a disciplined team. The Air Forces were training, not pilots who knew all about the theory of flight, but pilots who could fly planes in combat. The Corps of Engineers trained, not civil engineers, but engineers who were bridge builders or demolition experts. It can be argued with considerable truth that this is not education, but specialized assembly-line technical training.

Jobs were analyzed and divided into component skills. Navigators seldom learned how to pilot planes. In fact, they did not even learn a great many things a navigator ought to know. Riflemen did not receive advanced training in machine guns. Tank drivers did not receive instruction in how to perform major repairs on their own tanks. Each man assigned for instruction in an enlisted man's occupational specialty was given the same more or less standardized training in that specialty. When he completed that training he could perform according to specified standards a certain operation in

a definite way, and he could replace another similarly trained man without great loss to team or unit efficiency.

Time did not permit the development of the well-rounded individual or even of the all-round soldier. Speed, specialization, and standardization were the imperatives.

The Armed Services would have preferred to be more leisurely and to give all trainees a greater variety of training. The Services, however, acted on the premise that time was of the essence. It follows that men had to be taught not what it would be well for them to know, but what they must know in order to survive individually and help the team to win.

Men learned the "how" of an occupational specialty, and training was primarily designed to increase tactical proficiency. The query most often met in training camps of World War II was, "How does it work?" And to this question there usually was added another, "Can you do it under combat conditions?" Training was satisfactory when the answer was "Can do."

LEARNING BY DOING

In the early part of the war there was a tendency to make the instruction too theoretical and to include too little visual demonstration and opportunity for actual manipulation. It was not uncommon to find large classes, in poorly arranged classrooms with poor acoustics and poor lighting, attempting to listen to a lecturer far down in front who scribbled on a small blackboard. These conditions were largely due to the pressure of time and to shortage of facilities and instructional equipment for the rapidly increasing numbers of trainees.

The Commanding General of the AAF Technical Training Command inspected many training installations early in 1942, and was convinced that radical change was needed. His headquarters issued a directive which ordered all

chairs removed from classrooms. Blackboards likewise were to be taken out. Instruction was to be accomplished entirely by the so-called "practical" method. Classrooms were to be equipped with a small table for every six or eight students. On these tables would be placed the particular mechanism to be studied during the instruction of the day, and the students would stand--not sit--around the table, each having an opportunity to handle and manipulate the mechanism. Each small group would have an instructor or an assistant instructor. At times the burden of instruction would be carried by a chief instructor who stood in the center or at the front of the large room. This method of bare realism naturally did not prove to be practical.

One immediate obstacle was the enormous difficulty of acquiring a sufficient supply of equipment to be used in the manner indicated. Another drawback was the fact that there were many technical courses to which this plan could not well be supplied. Training in meteorology and weather observation and forecasting can scarcely be conducted by the methods indicated in the directive. Subsequently supervisors and instructors for the most part interpreted the directive with the latitude dictated by the needs of the particular subject and the local conditions. Before the end of the war, most supervisors in technical training believed that the elimination of lectures and blackboards was not successful. The impression was current that the use of strictly limited lectures of not more than ten or fifteen minutes in length is good practice, and that proper use of blackboards is a substantial aid to learning which should not be entirely dispensed with. Thus, during the course of the war, the technical training courses gradually swung back to a moderate and diversified method of instruction--a middle-of-the-road method which embodied the best features of both extremes.

GENERAL METHODS OF INSTRUCTION

All types of instruction were used in the Armed Services. Those approved by manuals on instruction were: lectures, conferences, demonstrations, group performance, coach-and-pupil. The lecture was preferred only when one instructor presented a subject to a large group or when it was desirable to orient students at the beginning of a course. Although the lecture might be employed frequently in training officers and occasionally non-commissioned officers, it was declared to have limited value for all other training. In conference, the instructor could clear up points he did not understand. A demonstration of most basic subjects, practically all technical subjects, and tactical maneuvers by expert school troops made a lasting impression upon trainees. Group performance, by the slow-motion or step-by-step procedure, which might be used, regardless of class size or organization, was declared to be "excellent for instruction in various technical operations." It was also considered a good method for introductory training in basic subjects, particularly when well-trained instructors were scarce. The coach-and-pupil method was never to be utilized at the introductory stage. Its greatest usefulness was considered "to be found in instructing large groups of individuals" that had passed through other methods of instruction.

Instructors were also supposed to use the following five definite mechanisms of instruction: (1) Preparation by the instructor. "Careful planning is always the first step," and the "instructor must have mastered the subject." (2) Presentation. The instructor explains to the student "what he is to learn and why he is to learn it," and then gives brief explanations which excite interest, followed by graphic step-by-step illustrations to aid the student in remembering points brought out in the explanatory phase.

(3) Application. Through practice the student acquires further knowledge and develops skills. In other words, he learns by doing. (4) Examinations. Tests are given to review essentials and to determine the student's knowledge. (5) Discussion and a critique. At intervals after, as well as before examinations, the instructor sums up and clarifies.

These mechanisms of instruction were, of course, not always correctly employed or always used. Instruction in the Armed Services varied from what the GI characterized as "lousy" to a level equal to that of the finest in America. Instructors occasionally came to classes unprepared. Their explanations at times were long-winded and obscure. Sometimes demonstrations were not given or, if they were, succeeded only in confusing the student. Application, though heavily emphasized in technical training, occasionally was forgotten. Tests were not always of high quality and were not always followed by critiques. And discussions sometimes became weary monologues on the part of the instructor. Nevertheless, the quality of instruction in the Armed Services was at least equivalent to the average of that found in civilian schools and colleges. Occasionally it was outstanding.

As it was with methods, so with training aids. Every conceivable type of training aid was utilized. Films, filmstrips, charts, mockups, cutaways, sand tables, and actual equipment are representative of the myriad varieties. Aids were created for every subject and for every teaching purpose. Training aids--visual, auditory, and olfactory--made realism possible and increased teaching effectiveness in all situations.

Data for the dependable measurement of the success of the training programs do not exist. This is as might be expected. Under the high pressures of necessity of getting jobs done, there was no opportunity to diagnose efficiency in terms of training, or to calculate the cost.

In girding a nation for war, the Armed Services were faced with the vital task of creating a gigantic training structure for millions of men and women. The success of this training lay in the fact that the Services adopted tried and proved civilian educational techniques (there was little time for experimentation) and in the fact that the fighting men and specialists were the product of American education.

In brief, the Armed Services emphasized the following points:

1. Each curriculum should be designed to meet specific needs.
2. A clear identification of the objectives for each course and each lesson is essential.
3. Adequate testing techniques should be utilized to test the effectiveness of the results of instruction.
4. The various techniques of curriculum building and revision should be studied and developed.
5. Cooperative effort between the instructors and users of the products of instruction in the production of lesson materials and teaching aids should prove beneficial.
6. No single method of classroom instruction will apply to all situations; a combination of several methods may be used to advantage in a single lesson.
7. There should be frequent application of the principles learned by actual performance whenever possible.
8. Whenever possible, showmanship and humor should be used to vitalize the instruction.

APPENDIX Y

COORDINATION OF FORMAL AND PRACTICAL TRAINING

It is sometimes naively assumed that graduates of formal training are prepared to begin productive work in the area of their training. Such an assumption is certainly not supported by the best informed opinion in industrial or educational circles.

The Civil Aeronautics Administration recognizes the value of the vestibule school in many of its personnel programs but has resorted to a somewhat more elaborate setup in dealing with electronic maintenance personnel. The CAA like the Air Force has been plagued by a deficiency of capable electronics maintenance men. While they recruit trained personnel exclusively, they recently considered the advisability of setting up a pre-assignment training program for all new employees. The regional representatives of the CAA Maintenance staff were asked for their comments on the need for such a program. A poll showed that the regions unanimously agreed in the necessity of conducting a specific indoctrination course for newly appointed electronics maintenance technicians. The conferees also were unanimous in the opinion that newly appointed technicians participating in such training could be made fully effective within four months, whereas, approximately one year is the average time for the new technicians to become fully effective with on-the-job training only. This program is now in operation and reported to be functioning very well.

The coordination of formal with practical training is coming to be very widely recognized in industry at all job levels. This is even true at the college engineering level. In his 1947 centenary lecture on the "Education and Practical Training of Mechanical Engineers in the United States,"

President E. E. Deherty of the Carnegie Institute of Technology said in part:

"The following question was answered by ten manufacturing companies, representing such industries as steel, aluminium, automotive, electrical, aeronautical, machine, and fabrication: How does the college graduate who comes to the company acquire the practical training and experience necessary to become a mechanical engineer?

"The replies indicate plans that, of course, differ from each other, but there are few common elements. In all, the college graduate must serve an "internship" to acquire the necessary practical training. Most of them have definitely scheduled programmes, and some have highly developed plans involving class work paralleling the shop or drafting room experience. Certainly the trend in large industry is towards a planned programme.

"Another method is the "co-operative" plan between college and industry in which the student spends alternate periods on the campus and in the plant. This plan is on the increase. In 1925 there were sixteen such plans; in 1941, thirty-three.

"The plans of practical training in industry are outlined in the following statements:--(only one example will be quoted)

"Westinghouse Electric Corporation. All young mechanical engineering graduates take the graduate student training course consisting of the following:--

(1) Orientation--one week.

(2) Several six to eight week basic work assignments in Westinghouse plants such as the aviation gas turbine, steam, stoker, and air-conditioning divisions. There the engineer works in production, inspection, and test departments, seeing the steps involved in building and testing equipment.

(3) Eight 40-hour weeks of class work in fundamentals of Westinghouse engineering design and application. Conference leaders for each major type of apparatus under consideration are specialists in the design and application of that apparatus in their respective fields.

(4) Men segregated to engineering department work then attend the Engineering Principles and Procedure School for two weeks. The subjects covered include the functions of an engineer in a division, Westinghouse drawing system, manufacturing information, patents, Westinghouse research department, technical article writing, engineering report writing, engineering technical societies, and application engineering.

(5) A group of these men, selected by competitive examinations, attend the Westinghouse Mechanical Design School for thirteen weeks. Subjects include applied mathematics, theory of elasticity and strength of materials, dynamics and vibrations, fluid mechanics, thermodynamics and heat transfer. They are then given several six to eight week periods in engineering departments leading to final placement.

Further opportunity for advanced technical training is afforded through the Westinghouse Graduate Study Programme, offered in co-operation with several leading universities. Thus, technical men at key Westinghouse locations may take evening engineering courses leading to Master's and Doctor's degrees."

APPENDIX G

FORMAL TRAINING IN INDUSTRY

Elsewhere in this report, the statement has been made that "all Air Force specialties require vocational-technical training in large or small amounts." This statement is believed to be true even with regard to the simplest of jobs. Formal training has been defended for janitors, ditch diggers, machine operators, etc. To illustrate this point let us consider an experience reported in the pickling industry by J. C. Records in his article "In-Plant Training Ups Output and Saves Us Money," published in *FACTORY MANAGEMENT AND MAINTENANCE*, 1949, Vol. 107, No. 12, pp. 98-99. Records points out that what plan personnel don't know will hurt them. He gives the following examples to prove his point and also indicates how training can produce real savings:

1. Increasing Output on Routine Shop Jobs

A study of the cylinder pickling department's operations and production records revealed several unhealthy conditions. Bonus earnings were substandard. We were wasting valuable chemicals. The volume of rework was on the upswing. There was little enthusiasm, and the various shifts did not cooperate.

As soon as these deficiencies had been identified and their cure set up as the objective, a one-month training course was started. Four 1½ hour meetings were held each week, on company time, for the 12 workers in the pickling department.

Our process engineer and our chief time study engineer gave the course. Their "textbook" was a pocket-sized "Pickling Manual" especially prepared by the training section of the industrial relations department.

The manual was inexpensively mimeographed.

Following the sequence outlined in the manual, instruction covered:

- a. Importance of the pickling operation in the sequence of cylinder manufacture.
- b. How cylinders are manufactured, the importance of thorough cleaning before pickling, and the action of the many chemicals used in pickling.
- c. The steps to be followed in pickling. To make these clear, drawings were prepared, showing functional layouts of pickling tanks. Each tank was labeled with a clock symbol and thermometer to show length of time and critical temperatures.
- d. General instructions to operators--responsibilities to the job, company rules, safety standards, and grievance procedure.
- e. The theory and practice of setting production standards through time study, and the need for employee cooperation in the company's work simplification program.

Results. Even before training was completed, noticeable progress had been made toward our original objectives. Time study records showed that bonus earnings for the three-month period preceding training averaged 10%. For a three-month period just after training, earnings went to 16%, in spite of experimentation with chemical process changes which proved unsuccessful. After this experimentation stopped, bonus earnings went up again, to 24%.

The increase in bonus earnings was accompanied by a gratifying rise in output per man-hour. In fact, for the nine-month period following the course, bonus figures kept hitting new highs--proof that the results of the training were not temporary.

But how about our other objectives--the human relations side of the situation? Here, too, results were excellent. Misunderstandings about the rate setup and its fairness were cleared up. Worker attitudes toward the job

and each other were vastly improved. And cooperation blossomed between shifts. The men had acquired a new sense of job pride through better understanding of their duties and the significance of their jobs to overall company operations.

2. Helping Key Men Get the Most Out of a New Process

When induction and dielectric heating was first being applied in industry to a variety of manufacturing operations, we started a training course in its principles and practice. There were 51 trainees--engineers, methods men, and supervisors. Classes were held after regular working hours on the employees' own time.

Results. The program was responsible for substantial production increases. On one item, originally hand-soldered at a rate of less than one a minute, practical knowledge of induction heating pushed production up to 20 a minute, an increase of 2000%. In addition, the quality of the job was greatly improved by the newly developed method.

This was just the beginning of a series of improvements in methods made possible by the induction heating know-how acquired during the training course. The total cost to the company for conducting this course was less than \$400.

3. Increasing Productivity of Automatic Machines

An equally successful program was set up for the teaching of advanced cam design to a mixed group of employees. The following departments were represented--engineering, time study, scheduling, methods, production, and operational. Supervisors also were included in the group.

Employees attended on their own time, two hours a week. Teaching was done by a vocational school instructor.

Results. In terms solely of increased production, success was uniformly good. For example, production of 1400 pieces on one job required 70

hours, and a total labor cost of \$122 before the cam design course was offered. Afterwards, the same production required only 32 hours, at a total labor cost of \$68.

Once again, there were other important benefits in addition to increased production and lowered costs. Those who took the course learned how to spot inefficient cam layouts and substitute new layouts that did the job better. The knowledge of feeds and speeds gained by production scheduling workers enabled them to predict more accurately the backlog of jobs coming through to the manufacturing division. And this, in turn, enabled the production department to schedule machines and manpower better. Previous errors in estimating manufacturing time and coordinating jobs scheduled were greatly reduced.

Knowledge imparted by the course in cam design obviously carried far beyond the initial increase in productivity. It even developed several potential cam designers whose talents had previously not been recognized.

4. In-Plant Training Always Pays Off

There are in our files records of many other training courses, covering a variety of subjects, such as metallurgy, effort rating, shipping and packing, heat treating and annealing, chemistry, hydraulics, and time study procedure. In every case, the results have more than justified the time and effort.

Naturally, we have not lost sight of the fact that ours is a manufacturing plant, and not a vocational school or a university. But we have learned that in-plant training pays off when it has a specific purpose and when it is properly organized for economical administration.

APPENDIX H

VOCATIONAL-TECHNICAL TRAINING

In March 1943, the U. S. Office of Education sponsored a Nation-wide Consulting Committee of 25 members representing the interests of management, labor, and education, including engineering colleges, technical institutes, and vocational education to study the problem of vocational-technical training and to report their findings and recommendations. The findings of the Committee are reported in "Vocational-Technical Training for Industrial Occupations," published by the U. S. Office of Education in 1944. Since most of the training done by the Armed Services is vocational in objective and technical in content, the conclusions of this Committee are herein summarized and adapted to the Air Force training program.

CIVILIAN VOCATIONAL-TECHNICAL TRAINING

Vocational-technical training may be characterized as follows:

1. It has as its objective the training of technicians for, or the upgrading of them in, occupations for which professional engineering school graduation is not required.
2. The jobs for which persons are prepared through vocational-technical training programs include specific technical functions concerned with testing and production, with planning and control, and with supervisory pursuits involved in operation and maintenance.
3. The preemployment curricula and supplementary courses are derived from and geared directly to the current needs of industry.
4. Preemployment programs are organized as terminal programs rather than those preparatory to more advanced study leading to a college degree.
5. Vocational-technical programs are most effective when designed for persons who have found their bearings through previous or collateral

experience in industry, and desire intensive preparation for their chosen work.

6. Students in these programs tend to be mature in their attitudes.

7. Admission and graduation requirements of vocational-technical institutions are usually less formal than those of high schools and colleges, and stress capacity and experience more than academic credits.

8. Vocational-technical programs take the form of supplementary training for employed workers, with unit courses which are frequently combined into integrated curricula; the form of full-time preemployment or preproduction training; and part-time cooperative training.

9. A considerable proportion of vocational-technical training, with respect to numbers of students enrolled and student-hours of instruction, is found in supplementary or extension courses for employed workers, as compared with full-time preemployment training.

10. Vocational-technical training aims for immediate productivity on completion of the training program; and for the attainment of occupational goals sooner than is usually the case with graduates of engineering colleges.

11. Methods of teaching are relatively direct with strong emphasis on doing as distinct from book study. Ordinarily, a high proportion of the work is done during the hours of instruction. Individualized instruction material frequently provides opportunity for considerable home study and independent progress.

12. Teachers for vocational-technical classes are chosen primarily on the basis of practical experience, technical knowledge of industry, knowledge of science pertinent to the field, personal qualities, and ability to teach through programs of orderly experience. For many supplementary programs, teachers are drawn directly from industry on a part-time basis.

13. Vocational-technical training has great diversity of pattern with respect to the type of institution in which it is offered, the range and character of the course content, the length of the program, and admission requirements.

14. Supplementary programs vary from a single unit course of a few days or weeks in length to integrated curricula operating over several years on a part-time basis. Preemployment curricula are commonly 1 to 3 years in length.

15. Vocational-technical training is found at present, on the educational ladder, from grade 10 through grade 14. The more commonly found position is in the upper years of this grade range.

INDUSTRY'S NEED FOR VOCATIONAL-TECHNICAL TRAINING

Information gathered from industrial representatives in 22 states indicates a growing need for technicians, and for training of preemployment and supplementary types. Representatives of both organized labor and management express interest in increased provision for the training of vocational-technical workers. The data obtained from 117 industrial establishments indicate that:

1. College-trained men are used to perform "less than college level" jobs in more than 40 percent of the plants.

2. In more than two-thirds of these plants such jobs could be filled by persons with vocational-technical training.

3. Technological developments in industry are increasing the need for technically trained personnel, in the opinion of nearly 80 percent of the industrial representatives interviewed.

4. Increased need is indicated in such fields as supervision, inspection, technical sales, technical research assistants, technical production assistants, drafting occupations, and operation and maintenance.

5. Definite need is expressed for both supplementary and pre-employment training.

6. Nearly 60 percent of the persons interviewed feel that cooperative training programs, with half time in school and half time on the job, are practical and feasible.

7. Most industries are planning developments in products and services which will require increased numbers of technicians as compared with pre-war years.

The number of technicians required as compared with the number of college-trained engineers, from data gathered in 16 states is reported as follows:

<u>Industry</u>	<u>Ratio of Technicians per Engineer</u>
Automobile manufacturing	4.2
Electric power production and distribution	5.3
Electrical equipment manufacturing	10.0
Hydroelectric development	2.0
Industrial chemistry	2.2
Iron and steel production	6.0
Lumbering and wood processing	20.0
Machine tool manufacturing	5.5
Metal mining	5.2
Metal products manufacturing	8.0
Petroleum and butadiene production	5.3
Pulp and paper manufacturing	10.3
Rail transportation	9.1
Shipbuilding	13.6
Telegraph and telephone communications service	9.7
Textile manufacturing	<u>9.8</u>
All industries	5.2

In addition to the data recorded above for specific industries, a separate study of 99 industrial concerns in New Jersey revealed a ratio of 4.4 technicians to each engineer.

The data obtained from the different industries indicate that the ratio of technicians to engineers required varies greatly from one type of industry

to another. Similar plants in the same industry, however, showed little variation even though located in different parts of the country.

VOCATIONAL-TECHNICAL OCCUPATIONS IN INDUSTRY

Occupations which require more or less training of vocational-technical type may be classified into the following categories:

1. Engineering aides and science aides, such as drafting specialists and laboratory assistants, requiring a year or two of preemployment training.

2. Technical specialists or limited technicians, such as certain types of inspectors, who can be trained in relatively short preemployment courses.

3. Technical production and maintenance supervisors, who must have a background of industrial or trade experience, plus supplementary technical and supervisory training.

4. Semi-technical men, such as technical salesmen or factory accountants, who need technical training in addition to that of some other type.

Several hundred payroll occupations, considered to be of vocational-technical type, were reported in the surveys made of 22 representative industries. Several different payroll designations were found which apparently referred to similar jobs. Some types of jobs were found in several different industries; many were peculiar to one industry. The job groups which appeared most frequently in the surveys included the following:

Analysts	Liaison Men	Specifications Writers
Computers	Maintenance Technicians	Superintendents
Designers	Methods Men	Supervisors
Dispatchers	Operators of Technical	Technical Assistants
Draftsmen	Equipment	Technical Clerks
Engineering Aides	Planners	Technical Illustrators
Estimators	Process Specialists	Technical Salesmen

Foreman	Production Control Men	Technical Writers
Inspectors	Special Equipment	Testers
Laboratory Technicians	Technicians	

FACILITIES AND EQUIPMENT

Vocational-technical schools require considerable laboratory equipment for the teaching of basic principles and technological processes. Instruments of various types are needed for most courses. Some curricula require reasonably heavy expenditures for such laboratory equipment. Careful selection in equipment is desirable. Provision needs to be made for keeping equipment up to date. Flexibility in room sizes through movable partitions is recommended to enable schools to make space adjustments required by curriculum changes.

CONCLUSIONS OF THE VOCATIONAL-TECHNICAL COMMITTEE

Conclusions of the Committee have been lifted from their report and paraphrased to apply to Air Force training. They are summarized as follows:

1. The present situation in the Air Force warrants a large extension of vocational-technical training programs.
2. All Air Force specialties require vocational-technical training in large or small amounts. The greatest need for training includes four groups: Engineering aides and science aids which normally require a year or two of preemployment training; limited technicians requiring relatively short training; production and maintenance supervisors requiring technical experience, plus supplementary technical training; and persons in semi-technical jobs which require combinations of technical and other training.
3. The occupational analyses developed in connection with the Air Force Career Development Program reveal various levels of technical needs of workers, indicated by the range of technical content, amount and quality of underlying science and mathematics needed for the job, and the length of training required to attain competency.

4. Civilian industrial surveys indicate an average need of 5.2 technicians for each engineer, with a range of ratios from 2 to 1 to 20 to 1. Similar ratios of officers to airmen should be developed for each Air Force career field.

5. Although some excellent vocational-technical training is now being provided in civilian technical high schools, a trend appears to be toward the post high school years. This would support the belief that there is need for higher level training in the Air Force.

6. Evening and other part-time programs of supplementary type should constitute an important part of the training offered in the operational commands.

7. It appears that no one type of training can successfully meet all of the needs of all forms of vocational-technical education in all Air Force commands.

8. Correspondence instruction appears to have an important place in the field of vocational-technical training.

9. In the development of vocational-technical training programs, there are certain underlying principles which should be taken into consideration. Among these are:

a. Programs for given career fields should be developed in accordance with the needs of the specific field for both pre-assignment and supplementary training.

b. In planning and establishing vocational-technical training programs, the cooperation of both the Air Training Command and operational commands should be secured.

c. Programs should be developed through cooperative effort of all Air Force leadership concerned; undesirable duplication of services between the Air Training Command and using commands should be avoided.

d. Training programs should be developed and maintained in those commands which are in the best position to render the most effective service, taking into consideration the present facilities and the civilian educational leadership of the area.

10. As the user of the product of vocational-technical training, the operational commands have an important role in this field. They should share the responsibility for providing the narrowly specialized training needed by its workers and applicable only to their mission. Operations should actively cooperate with vocational-technical training installations in helping them to organize their programs on a sound basis, and to maintain them in keeping with changing operating conditions.

11. The use of advisory committees of vocational-technical educators is essential to careful program planning.

12. Preassignment vocational-technical training should be aimed at groups of closely-knit Air Force specialties rather than at narrow specializations or at broad general fields.

13. Since curriculum patterns differ greater in various civilian vocational-technical institutions in accordance with local needs and conditions, care must be exercised in "lifting" curricula from such schools for use in Air Force situations.

14. Certain content is found which is common to many different Air Force specialties of vocational-technical type; such as supervisory skills, basic technical mathematics, and basic applications of physical science. This might be taken into account in the planning of unit curricula in order to reduce costs.

15. The preemployment curriculum for civilian vocational-technical training includes well-planned proportions of vocational-technical

content and essential content of general education character. Present Air Force practices indicate the desirability of fairly high proportions of vocational-technical content.

16. Young persons recruited from vocational-technical programs who are capable of doing advanced work should not be unduly handicapped when seeking advancement.

17. Selection prerequisites for Air Force technical schools should insure adequate preparation necessary for successful work, but should have as much flexibility as is practicable.

18. Educational leadership is greatly needed in the field of vocational-technical training.

19. Teachers of vocational-technical subjects should be required to have adequate basic scientific and technical training, extensive experience, a reasonable amount of appropriate teacher training, and personality traits which meet the needs of teaching situations.

20. Effective programs of vocational-technical training require facilities and equipment suited to technical training and in keeping with current operational practice.

21. In the various war-training programs of the Armed Services numerous new methods and techniques have been developed which improve the efficiency of teaching. It is recommended that Air Force technical schools make every effort to continue these methods and techniques, and utilize, with necessary adaptations, those which have proved their worth.

22. There appears to be need for the continued development of instructional material particularly suited to technical training.

FOREIGN MILITARY

Paul M. A. Linebarger

Prepared for
THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE

Department of Defense
Research and Development Board
Washington 25, D.C.

June 30, 1951

MEMORANDUM TO: WORKING GROUP ON HUMAN BEHAVIOR,
COMMITTEE ON HUMAN RESOURCES.

FROM: PAUL M. A. LINDBERGER,
Consultant to ORO.

THROUGH: ORO, Department of the Army
Fort Lesley J. McNair,
Washington 25, D. C.

SUBJECT: MODIFICATION OF THE CAREER-WISE MASTER PLAN
TO INCLUDE FOREIGN MILIEUX

STATEMENT OF THE PROPOSAL

1. Your consultant has studied the CAREER-WISE MASTER PLAN (revised October 1950) as attached to HEM 9/3.1. He has discussed this chart with Dr. Richard H. Williams of ORO. He has been much impressed by the clarity of the distinctions set up by the chart and by the persuasiveness of the relationship of the lateral topics, the military life, to the vertical topics, fields of research.
2. Realizing that he comes late into contact with the Working Group on Human Behavior, because of his recent return from the Far East he wishes to submit a new column, 8a, to the chart. He proposes that this column be called the FOREIGN MILIEU.
3. Your consultant believes that the column of topics covered by the enclosed memorandum does not duplicate the material otherwise outlined in the CAREER-WISE MASTER PLAN. He has been impressed as a social scientist, as a staff officer, and as an Army officer on overseas duty, by the extraordinary changes which take place in American military behavior in foreign milieux. Some of these scrutinies will necessarily

have to refer to particular milieux, but in many instances they can -- so long as they are considered as a scientific problem -- be evaluated in generalized terms.

4. Attached herewith is a draft chart incorporating the new group of subheads together with memorandum explaining each of the subheads in turn.

5. Your consultant will appreciate the opportunity of reviewing this material with part or all of the Working Group, since he would not be justified in carrying through more specific or technical statements of the attached topics until the group of topics is accepted or rejected as a group.

6. Of the topics now listed your consultant would welcome the opportunity of doing some work on (8) L with reference to psychological warfare.

(S) PAUL M. A. LINEBARGER

Paul M. A. Linebarger
Consultant, ORO

DRAFT CHART TO BE ADDED TO

CAREER-WIDE MASTER PLAN AS SA. FOREIGN MILITARY

	:	<u>FOREIGN MILITARY</u>
	:	
	:	
A. NATIONAL AND ETHNIC ATTITUDES	:	CHANGES IN THE SEMANTIC AND EMOTIONAL ROLE OF NATIONALITY
	:	
B. ANTHROPOMETRIC AND PHYSICAL STANDARDS AND CAPACITIES	:	SUBJECTIVE AND OBJECTIVE REVALUATIONS OF PHYSIQUE
	:	
C. PSYCHOLOGICAL CAPACITIES, APTITUDES AND STANDARDS	:	CONVENTIONALIZED "REACTIONS" TO FOREIGN SOCIAL ENVIRONMENT
	:	
D. SENSORY AND PERCEPTUAL DISCRIMINATION	:	SENSORY MODIFICATIONS AS RESPONSE TO REAL OR IMAGINARY ENVIRONMENT
	:	
E. IDENTIFICATION AND ACQUISITION OF SPECIFIC SKILLS	:	LOCAL SKILLS AND CULTURAL ACCLIMATATION
	:	
F. EDUCATION, INDOC- TRINATION AND CONDITIONING	:	PLANNED AND FORTUITOUS INTERCULTURAL EDUCATION: ATTITUDE CHANGES TO FOREIGN GROUPS
	:	
G. MOTIVATION - BASIC DRIVES, INCENTIVES, REWARDS AND PUNISHMENTS	:	LEARNING OF NEW FOREIGN MOTIVES; LOSS OF TRADITIONAL MOTIVATION
	:	
H. EMOTIONAL REACTIONS ADAPTATION AND MALADJUSTMENT	:	EMOTIONAL PROCESSES AMID UNFAMILIAR SOCIAL SANCTIONS: UPGRADING GROUP EMOTIONAL DETERIORATION
	:	

FOREIGN MILITIA (continued)

**I. ENVIRONMENT AND
PHYSIOLOGICAL
ADAPTATION**

**LEARNING OF PHYSIOLOGICAL
ADAPTATIONS**

**J. PROFICIENCY
MEASUREMENT**

**RETENTION OR LOSS OF
PROFICIENCY: "ENEMY" AS
A FOREIGNER**

**K. GROUP ORGANIZATION
AND DYNAMICS
(INCL. LEADERSHIP, ETC.)**

**THE GROUP UNDER FOREIGN
STRAIN: LEARNING OF LOCAL
GROUP VALUES**

L. COMMUNICATION

**LANGUAGE NEEDS FOR ENEMY
AND ALLIES; INDIRECT P. W.
ROLE OF SOLDIER**

M. HUMAN ENGINEERING

**USE OF INTEGRATED
FOREIGN PERSONNEL**

MEMORANDUM ON THE FOREIGN MILIEU

1. The foreign milieu is a major environmental factor which will be encountered by the American soldier in almost any conflict of our time. To a large degree the American soldier carries the American cultural environment with him. An American army operating in North Africa or in Korea is not so much a new North African or Korean phenomenon as it is a momentary transplantation of a part of the organic social system of the United States, temporarily out of its proper geographic place, functioning in cultural terms which are a modification of the culture known at home.

2. To the degree that this is true -- that American armies fighting overseas are mere transplantation of America without contact with the foreign cultures amid or against which they operate -- a column of topics on THE FOREIGN MILIEU is unnecessary. It will be true in any future conflict, as it was in World War II, that a certain proportion of American troops, both officers and men, never leave the United States even though they may spend years on foreign soil. Their social contacts, their physical substance, their skills and weapons, will undergo no change because of their movement overseas. At an intermediate point a large proportion of American soldiers will continue to operate in an essentially American environment, subject to pressures from two sets of new social stress:

First, the pressure of military life as against the civilian life in which they were reared;

Second, the pressure of foreign environment as against the American environment with which they have been familiar.

3

The pressure of the first group of social and psychological factors involved in military life is felt by all persons in military, naval, or Air service, without exception; the pressure of the foreign environment is felt partially by most military personnel on overseas duty. The highest state of assimilation to a foreign environment is reached only by a very few Americans -- men who penetrate so completely into the foreign environment that they function almost as though they were products of the local area and culture rather than Americans. Notable instances of such personalities are to be found in British experience in the cases of Lawrence of Arabia and Spencer Chapman of Malaya; in American experience some of the men of Admiral Miles' Naval Group in China and some of the naturalized or second-generation Americans re-turning to their ancestral habitats provide instances.

3. Distribution of the impact of the foreign milieu will also differ as between the different branches of service. Although it is true that under peacetime conditions "Join the navy and see the world" is a truer statement than it would be if applied to the army, post-World War II commitments have involved the movement of so much of American fighting strength overseas that all three services receive some pressure from foreign milieux. In general, access to the social, intellectual, and individually-emotional re-stimulation of an individual's return to a wholly American environment, is more nearly feasible with the navy than it is with the air force and more nearly feasible with the air force than with the army. Though naval personnel engage in combat on sea and

at coasts and (in the instance of the marines) often very far inland, most persons in the naval service can return to a purely American environment when they get back to their ships. Since U.S. naval craft are only rarely involved in duty which involves the permanent attachment of foreign personnel and are equally rarely anchored at a fixed foreign spot, the foreign cultural pressures are alternating factors, whereas the American social and cultural pressure is pretty closely to a constant. In the instance of air force personnel, the aircraft itself, even in combat, is a wholly American instrument; the pilot does not have to deal with the enemies whom he is fighting as human beings. The social distance from him to the target or from himself to the enemy aircraft is in most cases almost as great as the distance between a human being and an insect. During World War I there was some transmission of the perceived effect of foreign personality on Americans in terms of the LaFayette Escadrille admiration of specific German aces, but World War II saw the diminution of this almost to the vanishing point. For example, Captain Parsons at Hiroshima had no need for personal contact with the Japanese over whose lives and deaths he exercised so tremendous an effect. But in the instance of ground troops, the involvement with foreign human beings is still a substantial factor in his life as soldier and as a human being. Only rarely do Americans fight entirely without allies or without local contact. This means that the foreign social pressure on the ground soldier is apt to be pouring in on him either directly as an individual or through the responses of his group under conditions of leadership, or both, in two forms:

First, the American soldier finds himself amid friendly, neutral, or unfriendly foreigners who are not his active enemies, but from whom he expects a measure of social co-operation ranging on the one hand from full scale organized military assistance to the relationship of thief and victim (operating either way) on the other;

Second, the American soldier is more or less constantly made aware of the existence as human beings of the actual foreign enemy whom he is fighting, and must behave in the light of his conceptions of this enemy and, to a lesser degree, in the role of the enemy's conception of him.

4. Unless American military forces are considered entirely for their standby value as a "force in being" which must be kept in existence without reference to its actual participation in operations on foreign soil, the impact of the foreign milieu on the human behavior of Americans at war will inevitably crop up. CAREER-WISE MASTER PLAN touches on many of the physical factors and of the formal organized factors involved in the operations of Americans in foreign areas under such headings as L(1), L(3), when referring to foreign areas, K(7), K(8), L(8), and I(10): the chart as it is now organized, however, does not present an organized synthesis of the impact of the foreign milieu considered as a factor in human environment rather than one in purely physical environment.

5. Indeed, the contrast between changes in an environment which amount to the "merely physical" as against those which involve truly

"foreign" adaptations, explain a great deal of the success of Communist forces against the Nazis in World War II and of local Communist forces against the U. N. in Korea, the French in Indochina, the British in Malaya, and the established government in the Philippines. The Communists assimilate their military effort as far as they can to the cultural as well as to the physical terrain over which they are fighting: only in the last month of World War II did the Red Army in Europe pass completely beyond terrain in which it was culturally adaptable and into the air of a higher civilization in which the regular elements of the Russian military establishment appeared as bores, louts, or barbarians -- and even at this point the international Communist movement hastened to reinforce the governmental Soviet military effort by creating local Communist armed forces from within the occupied societies. Thus, the Russians in the Ukraine fought a partisan war and slowly reconquered not only the front lines, but the rear areas through the use of partisans. In the Arctic the Russians were successful in fighting a truly Arctic war, so much so that the German forces advancing on the northern Finnish front were astonished at the "unmenschlich" characteristics of the Russians who lived through the Arctic winter and who brought in reindeer without a modern service of supply in order to fight a better high latitude war with the coming of spring. As soon as the Red Army advanced beyond the cultural frontiers of the Soviet Union and became an object of foreignness and distaste to the conquered people, the Russian high command began a policy of withdrawing the Red troops from human contact with the persons in the foreign environment and of replacing visible Red forces as far as possible with visible satellite forces.

Contrasts between Soviet and American behavior in this respect were never more sharply pointed up than in the case of the Soviet farming squadrons which were in China in 1939-41 and the German units which preceded the Russians, as well as the Chennault AVG which followed the Russians. The Russians went out only in groups, stayed out of cities as much as they could, made few demands on the local economy, and neither affected the Chinese socially and psychologically very much, nor were affected by them. In contrast the German and Chennault groups moved readily through the cities, acquired Chinese girl friends, spent a great deal of money, made themselves conspicuous, and achieved -- as a byproduct to their military effort -- a psychological effect on the Chinese in entire consonance with their military effort of resisting Japan.

The Russians minimized the reciprocal effect of their forces on the foreign milieu and of the foreign milieu on their forces; the Americans and Germans did not. This points up the important fact that a military force has a function in a foreign society even when it is not fighting, and the obvious possibility that this function can either assist its ultimate military purpose or can impair the achievement of the final strategic goal.

6. If the conflicts in Korea, Indochina, and Malaya, are to be taken as at all representative of the cast of Soviet strategic thinking, it is extremely likely that the Russians in years and decades to come will make every possible effort to fight their wars against the United States and the United Nations as local and national wars of liberation against

"foreign" enemies. Every effort will be made to minimize the direct association of actual ethnic Russians with the foreign milieu until Moscow policy finds that the contact would be socio-psychological welcome, rather than the reverse. In this connection it is important to note that there were very few Russians in sight during the Communist conquest of China, but that after Mao Tse-tung's regime had achieved governmental maturity, Russians poured in in large numbers.

7. If it is true that the Russians are going to fight from behind the masks of Indochinese, Chinese, Koreans, Azerbaijani, Germans, or others, and if it is probable that they will try to keep out of sight whenever they can do so, the following psychological strategy can be expected from them:

FIRST, The Russians will conquer in the role of organized military conquerors only where they have to do so, as in the probable instance of their overrunning Western Germany, and even in this case they will try to activate a part of the foreign human milieu to mask the aggressive character of their military operation;

SECOND, the Russians will try to avoid the mistake made by the Nazis of identifying themselves as a permanently separate and permanently superordinate group to the persons whom they have conquered, and will try to frustrate American attempts to liberate foreign societies by military force by means of representing the Americans as "foreign invaders", as "defenders of liberation";

THIRD, wherever possible the Russians will stay completely out of the military picture and will present in line with the historic thesis of the Sixth Congress of the Third Internationale, the aggressive attack against the democracies as a purely localized movement of "liberation" against "foreign attackers";

FOURTH, the Russians will be ready to use any malfunctioning of American military relationships in foreign milieux as a pretext for the interjection of their own armed forces as a corrective factor -- that is, the Americans and their allies will be presented as interventionists, outsiders, and foreigners, as against the Russians who will "merely come to help" a genuinely local undertaking.

8. In a way, the pattern of German military behavior has left an unfortunate residuum in American popular and military thinking. By their arrogance, their self-consciousness, their entire willingness to be taken for Germans, and their pretenses of cultural or racial superiority, the Germans evoked an overt response in the areas they occupied. Americans arriving as the defeaters and suppressors of the Germans, found themselves welcome. The liberated areas felt genuinely liberated. This happened to accord very closely with one of the great American social myths -- the belief that all Americans are inherently a likeable sort of folk who will inevitably get along well with the plain people of any country on earth. German arrogance and American might supplemented

each other. This has not been true of wars in which other nationalities have been involved. American enlisted and officer personnel may not know how to behave in areas where they are genuinely hated, by virtue of the Communists having presented them as conquerors and trespassers. They may not know what to do when they find that American characteristics are not welcomed but despised. Given enough time and given an easy enough process of conquest, this waste effort involved in damaging -- through excessive friction -- American contact with the foreign milieu can always be corrected; even in scientific terms there are grounds for believing that Americans make themselves popular in any country on earth among most of the population.

9. Several factors militate against the assumption that the Americans will have easy wars of liberation to wage against a basically unpopular enemy. The ever-rising damaging capacity of our weapons themselves may mean that the technological effectiveness of our attacks will inevitably antagonize the peoples whom we liberate. In the case of the use of fissionable or radiological weapons this would be especially apt to be true. Unless proper attention is given to the problem of the intercultural aspects of the life of the American fighting man, there is the very real danger that his response to subversion, guerrilla attacker, either manifestations of lateral rather than frontal hostility from the foreign society, will lead him to play into the Communist hands by undertaking counterintimidation tactics so strong as to make Americans the victims of reprisal and atrocity, and so weak as not to parallelize the foreign society with terror: the Germans were not successful in their

Volkssturm and Werewolf campaigns even in their own country; the Russians have shown what they can do by throwing first Koreans and then Chinese Communists against us.

10. There is no evidence that the American advance from Pusan northward was designed to convulse Korean society with a sense that a day of destiny had arrived. Though the regular ROK armed forces amounted to a very substantial part of the United force, there was no plan on the allied side to make the Korean people as a whole believe that their chance had come to fight, all of them, irregularly if not regularly, for survival as a free nation. The Americans did not cast themselves in the role of revolutionary awakeners, but thought of themselves more simply as repellers of aggression. The people of both south and north Korea greeted the Americans in many cases with enthusiasm, but the enthusiasm did not reach so far as to achieve an organic welding of the American, naval, military, and air services with the foreign milieu in which it was a wholesomely symbiotic part -- no leve en masse occurred. When the Americans withdrew the withdrawal was to a very real extent merely the withdrawal of one foreign force and its replacement by another. With the wisdom of hindsight it is possible to observe that if the Koreans had been stimulated into a very high degree of patriotic anti-Communist activity, an American withdrawal could have left, even in North Korea, very substantial volunteer bodies of Korean patriots to harass the Chinese invaders.

11. Much of this problem lies outside the life experience of the individual American in the armed services; much of this must be accomplished by white and black propaganda, by international policies, and by means which have nothing to do with the performance of organized military duty, whether in combat or out. But the role of the American soldier passing through foreign milieu can not be overestimated. The soldier himself, far more than radio broadcasts or political speeches, is an actual walking example of the United States. The relationship of the soldier to the foreign society can be a revolutionary factor or alternatively nothing more than a mild irritant. The margin between successful adaptation to the foreign milieu may in some strategic instances mark a very significant difference in the time or the quantity of forces required for military success.

12. The following headings present elementary descriptions of the topics proposed for study in a column dealing with THE FOREIGN MILIEU. Such descriptions would necessarily be improved by the critical effect of group review and obviously cannot be taken as more than the product of one mind. It would be vain to attribute finality to any one of them and it may be that the proportions between them or the logical relationships of each of these to other items in the lateral columns of the CAREER-WISE MASTER PLAN, will require further evaluation and study. In whatever mechanical fashion it may be arranged, the topic of foreign milieux will certainly show up in the lives of millions of American soldiers, sailors, and air men in the next few years.

A. CHANGES IN THE SEMANTIC AND EMOTIONAL ROLE OF NATIONALITY

1. When the soldier comes into contact with foreign culture, his attitude is modified in the following respects:
 - a. He changes his attitude toward the specific nationalities of his immediate environment.
 - b. He may change his conception of the enemy nationality.
 - c. He modifies his conception of himself as an American man or boy and feels himself to be abroad with the subordinate influence of the particular kind of "abroad" which he encounters.
 - d. He may be affected in his conception of the role of soldier.
 - e. His attitudes toward minorities either of his own group or of others may be modified.
2. The American soldier going abroad finds that his previous semantic structure on the subject of nationality is apt to break down. The white Texan who goes overseas in the company of his American Negro fellow soldier may find that the reaction of the foreigner toward himself and the Negro as "Yankees" involves serious distortions or revaluations of his conception of whites, Negroes and Yankees, all three. Where the nationality is an unfamiliar one, he will supply semantic and emotional stereotypes to fit his own personality structure. For factors in military psychology unknown to the present writer, there has been throughout history an almost universally observable phenomenon by which,

under combat conditions, allies tend to dislike each other more and more, while respecting the enemy; this is not applicable with any high degree of uniformity, but it occurs with enough frequency to warrant further study.

3. Under extreme conditions the soldier's conception of himself as an American and a soldier may begin to break down. Whereas Americans remained American and loyal under prisoner of war conditions in World War I, a substantially greater number turned traitor and behaved as "non-Americans" or "nonsoldiers" in World War II. In the case of the Korean fighting, the Communists had American officers and men broadcasting anti-U.S. propaganda a very short time after the opening of hostilities.

4. In so far as nationality is an unmanageable and largely unconscious complex of factors in any given individual personality, it is, of course, almost ineradicable. But nationality is more than this. In terms of conscious behavior nationality is itself a diffuse, poorly focused, but emotionally powerful symbol which can be subjected to severe distortion by application in unfamiliar milieux. The American who at home never connects his Americanness with his recourse to prostitutes and who thus manages to be a good American (in his conscious mind) at some hours of some days, and a user of prostitutes on occasions wholly unconnected with his sense of "Americanism," may find that upon arrival in India, Italy, or Siam. that his fellow soldiers before him have popularized Americans as prostitute-seeking rowdies, and the prostitutes will be waiting for him precisely because he is an American. It will not take

him long to learn that the local people expect a given kind of behavior from the Americans. Successive waves of troops, one after the other, can be made to respond to the social stimuli engendered by the behavior of the first wave and of its relationship to the local population. The contact of nationality is not attached to automobiles, liquor, peanut butter, gambling, or sexual mores at home; overseas, nationality takes on additional meaning and additional force.

5. The performance of the individual soldier will inevitably be qualified by his kinds of relationships determined by modified national and ethnic attitudes. Under overseas conditions these modifications do not have the predictability of static national and group attitudes which exist in the home community or within the armed services so long as they are under wholly American jurisdiction and in a real or simulated American environment. Transferees out of the United States environment and a violent, rapid process is set up, whereby the preconceptions of the foreigners concerning Americans are applied to the Americans who first arrive, modified in the light of the behavior of the first Americans arriving, and then confirmed by the concrete test of intergroup behavior between the native and the Americans in successive waves.

6. In the last two World Wars American troops were fortunate in that most of them as individuals were not tempted to die for the Kaiser Wilhelm II, for the Nordic superman Adolp Hitler, for the Japanese Sun Goddess. In future conflicts with Communists, the failure of the Communist to adopt their forces to a foreign milieu may make it possible for Americans to fight back with little more emotional ideological

response than the simple national ethnic attitudes which most of them carry into service and which service modifies little, if at all; this is the most hopeful presentation. It is entirely possible that international communism will use every weapon at its disposal, including a simulated Americanism, a simulated democracy, and its own semi-revaluated manipulations of American national and ethnic symbolism to attack American forces in the field. This was already evident in Korea where the Russians were able to present to the Koreans the arrogance of the Americans as white men and outsiders who called the Koreans "gooks" and on the other hand able to reflect the Americans back to themselves, through prisoner of war broadcasts, as simple, bewildered people who were improperly fighting in somebody else's country.

7. If the war starts favorably and proceeds through one success to another to victory, existing American semantic and emotional stereotypes of nationality may suffice. But, however, the war threatens to become a seesaw affair with Americans being thrust from time to time into situations of extreme difficulty or pain, it may be possible to anticipate in part the kinds of attack on our traditional attitude which will be made both by the impact of the foreign milieu itself and by Soviet propaganda designed to attack, modify, and then exploit American nationality and ethnic symbols.

B. SUBJECTIVE AND OBJECTIVE REEVALUATIONS OF PHYSIQUE

1. Objectively the physique of the soldier is modified by the foreign human milieu only insofar as foreign manpower may be plentiful enough to replace actual personal performance on the part of the American soldier. If the native is available to carry his pack or rifle, if local helpers can lend a hand on a specific task, the sheerly physical demands upon the soldier will be modified by the human environment as well as by the geographical and climatic situation.

2. Much more importantly, the soldier's estimate of his own physique may be revalued subjectively. If the country is disease-ridden and dirty by American standards, the soldier may identify the health of the inhabitants with the natural forces surrounding him and may expect himself to be contaminated by the environment. If the native response to tropical or Arctic conditions is such that the American cannot imagine himself accomplishing a parallel performance, he may feel that the environment places too great a demand on his sheer physical capacity. He may expect that only people like the native, not civilized persons like himself, could get along under such conditions. A very definite upgrading or downgrading of performance may be expected from time to time from such subjective reevaluation of physique. The physical environment itself will bring on a variety of physiological disorders, ranging all the way from sunstroke to frostbite, and the individual's response to these will be determined, both negatively and positively, by what he sees the people around him doing.

3. Again the subjective response involved in revaluating physique is shown in esthetic terms affecting morale and self esteem. The American soldier surrounded by puny or diseased-looking people can react by feeling like a healthy giant himself or by dreading that he will become sickly in his turn. Purely esthetic valuations placed upon individual American soldiers can in instances of isolated personnel, modify the individual's performance. The American who is moderately tall in the United States is a giant in China. The American who is obese without being grotesquely fat at home may find that his plumpness is fantastic to the Siamese. The American Negro may discover himself an object of esteem and curiosity precisely because he is chocolate-colored in countries which have never seen Negroes before, or depending on the local situation and the immediate stimuli, he may be dreaded as an ogre. In some cases he may find that the local esthetic valuation of appearance, health, and physical strength, will modify his expectations of performance.

4. The most frequent American response to the physical and human challenge of a foreign environment is to outperform all the local people by the speed and efficiency demonstrated in work or combat. Americans get along well when they can perform "efficiently." Where a given situation calls for isolated Americans living away from artificial projection of the American social environment (by means of large U.S. military forces) and of moving either as individuals or small groups in foreign territory under living conditions not much different from that of the local inhabitants, their estimate of their own physiques may be

seriously and even dangerously low. Chinese coolies in North China who are well acquainted with the way the Chinese paths go, the different devices used to separate fields from one another or to irrigate them, and similar topographic points, can move sure-footedly in total darkness over many more miles of settled country than could Americans. If the American is confronted with the fact that the Chinese appears stunted to him, and the further fact that the Chinese has a food supply which is, in terms of American expectations, very much sub-standard in both quality and quantity, the confidence of the American in his and his companions' physiques may be seriously impaired.

5. This topic inevitably overlaps in part with I (8a), concerning the learning of physiological adaptations from the human environment and J (8a), concerning the retention or loss of proficiency insofar as they may apply to the physique. In many instances effective employment of U.S. combat forces in a thoroughly unfamiliar physical terrain may depend upon the learning of local survival techniques. The Air Force and Naval personnel stand a better chance of being able to operate from vessels or bases which will not cause them to revalue their physiques in the light of the foreigners among whom they are living and against whom they are fighting; in the case of large troop units not much individual revaluation of physique may impinge on those persons who operate within the American group. Inevitably, however, some Americans

must deal outside the American group. The strain to be anticipated in terms of muscular energy and in terms of subjective command of physical capacity can be anticipated for much of the terrain in which the United States might face a Russian enemy. Except for Europe and the coast of the Black Sea, most of the approaches to Russia are across geographical configurations which physically would impose unusual stress upon bodies which have been reared and trained for use within the United States -- the Arctic on the north, the Siberian forests and tundra, the unfamiliar irrigated lands and bare hills of China, the immense mountain ranges of Tibet, Afghanistan, and Iran, and the deserts of Gobi, Karakorum, and the like -- will be difficult enough. If American physiques can be rescaled to make the best of local skills and kept upgraded in terms of reasonable food demands, optimum performance can be sought. The psychological challenge to physique is apt to be strenuous in almost any sector of an American-Russian front.

C. CONVENTIONALIZED "REACTIONS" TO FOREIGN SOCIAL ENVIRONMENT.

1. One of the results of cross cultural movement is the individual's modification of his own estimate of capacities, aptitudes, and standards. The purely physical environment itself provides a fairly steady scale of measurement against which to compare the performance of this American and of that American in the handling of weapons, in the demonstration of initiative, in the showing of intelligence, and the like. Stereotyped reactions to a foreign social environment will in some cases modify the standards so that officers will find it necessary to lower standards of performance in some respects or may demand higher standards in others.

2. The term "reactions" is put in quotation marks because reference is made, not to the unstudied and wholly ingenious response of the individual American to foreign environment, but reference to what he expects of himself while living abroad. Certain kinds of insubordination may be entirely feasible in the United States and impractical abroad, whereas other kinds will appear abroad, although the same men or the same unit had not shown them at home. Insofar as this is derived not from a real change of the group, but from a change in the conventionalized mimicry of a standard reaction to a foreign environment, psychological capacities and standards themselves may show up as being directly modifiable by the foreign milieu.

D. SENSORY MODIFICATIONS AS RESPONSE TO REAL OR IMAGINARY ENVIRONMENT

1. Changes of location and of the human environment can often place pretty severe demands upon the sensory equipment of an individual. In this instance it is necessary to distinguish more sharply than usual between geographic changes in themselves, and movement from one social environment to another.

2. The direct challenge to sensory and perceptual capacities presented by a foreign human environment is most apt to show up if foreign enemy troops demonstrate themselves the superiors of Americans in eyesight, hearing, or distinction of heat and cold. The Chinese often surpass the Japanese in their capacity to get around the countryside at night and to see things when the Japanese simply do not believe that normal human eyesight would permit combat operations.

3. Modification of standards and expectation in sensory and perceptual performance, which may be required by geographic changes, could either be treated as a portion of this topic or could be referred to D (6).

3. LOCAL SKILLS AND CULTURAL ACCLIMATATION

1. During World War II the American armed forces operated to a great extent on the assumption that American skills were for the most part superior to foreign skills of any kind. Personnel were trained in given skills and were then transferred to foreign areas in which they went on performing their duties in a thoroughly American fashion. Only in such peculiar situations as survival requirements for downed air men or prisoners of war were the skills specifically subordinated to the local foreign environment. This may not be true in subsequent wars.

2. Transferability of skill from one form into another may be a major factor in conserving manpower and economic waste. An ability to cannibalize foreign equipment has characterized the Communist attack on the U.S. and other U.N. forces in Korea. While the Americans start out with a higher level of skill in almost every technological direction, they often lack elementary local skills which if properly exploited would make it possible to reduce the numbers of persons assigned to a given military mission. Guerrilla warfare, for example, is a major Communist technique, and one of the few American responses to this will inevitably be reaction in kind. The skills involved in guerrilla movement, fighting, and survival, are radically different from those needed for life in large, well-organized American units. It is significant that the late Brigadier General Evans Carlson, who hit upon the idea of training special raiders, was compelled to borrow not only many of the Chinese Communist skills, but even some of the Chinese Communist slogans and group psychological techniques in order to deal with his men.

3. Apparent American skills which do not exist may prove to be more of a liability than an asset. The number of Americans who are actually capable of leading the life of a Daniel Boone at the present time is probably infinitesimal but the American tradition of hardiness, individual initiative as exemplified in a frontiersman, may mislead Americans badly when it comes to the military problem of scattered bodies of American troops fighting equally scattered and mobile bodies of foreign troops under hazardous climatic and military conditions. The "mountain men" of the Rocky Mountains have been extinct for almost a century. The belief that we have frontiersmen whose universal survival-and-killing skill was noteworthy in their age, may deceive us badly if Americans come up against genuine nomads or nomadized Russians who are not only capable of living without telecommunications, civilized diet, medical service, and the like, but enjoy doing so. The correlation between this topic, E (8a) and E(1) is obvious. The two most critical missions in terms of American skilled requirements for the foreign physical and human milieu will probably prove to be the following:

First, the recognition of adaptability to a foreign human milieu as a skilled factor in itself;

Second, the need for conserving our persons possessing high wilderness survival capacity either for use as direct combat troops or for employment as cadres in training larger numbers of Americans to live under rough and disorganized conditions.

4. In the procurement of officer personnel the elasticization of the officer's own recognition of skills seems to be called for. The officers of Stillwell's headquarters flew canned vegetables into China by plane charging the weight against critically needed hump tonnage, early in 1943 until someone happened to notice that the American forces in Yunnan and Szechuan were living in two of the richest vegetable producing areas in the world. Officer capacity to adapt local skills either in terms of combat, living, or procurement, may mark a critical difference in the over-all needs and the weight on our logistic lines in the future. A demonstration of poor skill is afforded by the Soviet experimental stations in the Arctic: at great pains the Russians have succeeded in raising fat healthy pigs further north than pigs have ever been raised before. This is a very meritorious accomplishment unless one remembers that seal meat is indigenous to the area and that the raising of seals for food purposes might involve far less investment of supplies and manpower. In such a case the Russians are moving a temperate skill to the Arctic instead of learning the Arctic skill themselves. Pig raising could probably be done anywhere given sufficient initiative, but seal raising would place fewer demands upon personnel in terms of physical requirements and larger demands in terms of psychological limitations and cultural inhibitions. If Americans and Russians, both of them, begin to starve in some remote pocket of a possible world war, the ones to win will be the ones most nearly capable of procuring some kind of food in the way that the local people have procured it. All the way from using water buffalo or human coolies as draft animals, to learning how to make houses out of frozen earth, the skilled pattern of troops will be modified very sharply by the imposition across the entirely military unit of a foreign physical and a foreign human environment.

F. PLANNED AND FORTUITOUS INTERCULTURAL EDUCATION;

ATTITUDE CHANGES TO FOREIGN GROUPS

1. One of the most peculiar American educational enterprises in World War II was the ASTP program for the training of Americans in Chinese language skill. Americans learned the Chinese language at such wildly improbable locations as Yale and Ann Arbor. At great cost, Chinese instructors and special textbooks were provided to train a few extremely intelligent and well prepared Americans in the Chinese language. This was done at a time when there was tremendous need in the China theater for Americans who could use Chinese. These Americans, most of them, arrived in China quite late in the war only to find in many instances that the Chinese they had learned in the States did not apply to the particular part of the country to which they were assigned to deal. This is an example of intercultural education of a very expensive and rather unrewarding kind.

2. The ASTP Chinese language training program, quaintly held in the United States, was matched by an almost total absence of training indoctrination facilities for dealing with Chinese persons offered by the China-Burma-India theater in the first two years of its existence. While Americans in America were being trained expensively in the Chinese language, the Americans who were already in China and surrounded by millions of Chinese-speaking Chinese were given neither time, texts, nor opportunity to learn the language. There was not even a language handbook available in the first two years of the China theater. This program matches that of the ASTP. A lack of military coordination required that an artificial human environment, China, be created on American campuses so that Americans

could learn how to deal with Chinese in small numbers and at great expense, while at the same time the real human environment, China, was unexploited as an educational factor.

3. The foreign milieu is itself a profound educational force.

Merely being abroad removes the individual from his familiar distractions, quickens his curiosity, sharpens his perceptions. Facilities for studying foreign cultures are inevitably better in the area of the culture itself than they are when locked up at some far away location. Planned intercultural education was conducted by the armed forces in World War II for selected cadres of officers needed for intelligence and liaison; it was also conducted for the general run of armed services personnel by the intramilitary information facilities. There was a great contrast between these two efforts. The former was highly academic and developed some language and area-teaching programs which have left a lasting imprint on American education as a whole -- a happy instance where a military skill has raised civilian skills permanently. The latter was elementary to the point of naivete. Very significantly little effort was applied to using the actual impact of the real foreign environment as an educational force.

4. Planned intercultural education was therewith radically supplanted by fortuitous intercultural education. Since the armed services did not educate the G.I.'s, sailors, and air men, the men did it for themselves. Wild misinformation, superstition and crude misconceptions concerning foreign life, cheap labels, and cheaper prejudices, fantastic stories about foreign customs and events, hostile and incooperative attitudes toward foreign people in their own countries, very often appeared as a result of American enlisted and officer personnel telling one another about

the foreign areas without access even to such elementary facts as would have been available in that children's classic, The Book of Knowledge. When organized facilities failed to supply basic information to the large numbers of Americans overseas, the Americans filled the gap with misinformation and opportunity for intercultural education, which could have been a highly ameliorating effect on postwar U.S. foreign policy -- in terms of a sophisticated, patriotic, discriminating bloc of veterans as voters and citizens -- was pretty generally lost. Attitude changes which could have been extremely beneficial to both Americans and to some of our prospective allies for future conflicts were lost.

5. Fortuitous intercultural education can spread misinformation, ignorance, and prejudice, very rapidly and very effectively. In critical situations this can give enemy propaganda very real advantages, quite apart from the loss to the armed services and to the nations of the effort made the United States in transporting the millions of citizens overseas.

6. Overseas movement is, whether it is so planned or not, an educational force. The American government which expends millions of dollars in aid to education through grants of money from the Federal authorities to the States, was not prepared in 1941-1945 to seize the opportunity of continuing the education so expensively begun at home. Federal money assisted thousands of French language teachers in American high schools, most of whom had never seen France and many of whom had never talked to a live French man, to teach poor French to American youth. At the same time, American adults moved to France in very large numbers without having their waste time taken up in the learning of correct French

or in the training of selected groups of them to teach the English language to the French.

7. Part of the processing of an individual through the CAREER-WISE MASTER PLAN will necessarily have to envision his being used as a two-way pipeline for intercultural information. The individual, whether he likes it or not, will teach foreigners about the United States. If he does nothing more than to teach the Hindus a few obscenities or teach the population of Kweilin an unprintable jest about an American officer, the coming and going of the Americans will have left very little imprint in terms of our strategic asset of pro-American sentiment and pro-American appetites and interest in foreign populations. If some of the military personnel who are capable by temperament or by background of adding the avocation of teacher or lecturer to their vocation of soldiering can serve as a cadre of disseminating correct information about the United States to foreign populations, they could carry a tremendous psychological warfare load for the armed services at no additional cost in manpower or dollars.

8. Comparably, the utilization of even the most transient contacts with foreign areas for the purpose of reinforcing the education of men, who at the least will remain soldiers for awhile, and who at the best will return home to be citizens again, would do a great deal to make American culture more interesting, more rich, and more flexible. There is no possibility of nothing at all happening: either the information spreads through proper channels and well selected personalities, or the misinformation spreads through the channels of gossip and through the most sensational, grotesque, or obscene members of each individual group.

9. A trip abroad even under combat conditions is worth considerably more than most college courses as an educational force. Few American soldiers express postwar appreciation of what they were able to learn about the world outside. This has not always been true in history. In many cases the movement of troops has served as a major cultural force. For example, the movement of Chinese labor battalions to France in World War I has been one of the motivating factors in the Chinese mass literacy movement and in the arousing of the North China countryside.

10. Research into the economical exploitation of the foreign milieu as an intercultural educational force in itself could do a great deal to reinforce the future effectiveness of American armed forces in the field, to reduce friction with allies, to make the task of occupation easier, and to add to the postwar educational assets of the United States.

G. LEARNING OF NEW FOREIGN MOTIVES: LOSS OF TRADITIONAL MOTIVATION

1. Transplantation to a new human environment itself involves a change in some of the motivation patterns of any individual. The two step process referred to above in which the citizen becomes a soldier and then the soldier becomes a soldier abroad, involves a double re-referral of the individual's appraisal of his own desires. The motivation cannot be carried around the world unchanged. Fortunately for the conduct of modern warfare, most persons have a desire for travel and have a wish for variety. Travel itself offsets the monotony of military living. The change of locale does something to reward the individual for deprivation of his accustomed familiar and sexual associations at home.

2. Communist modification of the motivation of anti-Communist troops has been one of their standard techniques ever since 1917. By now the Russians have successfully subverted troops of almost every known nationality, sometimes directly by Russian conducted propaganda and sometimes by means of Communist propaganda operated by persons of the same nationality. The French sailors of French naval units at Odessa were badly contaminated by the Bolshevik revolution; so too were the very different human beings who made up the imperial German army on the eastern front. Nazis, Americans, Japanese, Chinese -- every nationality has contributed its share of traitors to the Russians. In getting such traitors, Communist propaganda has played on fairly universal human motivations of resentment, envy, disquiet, and a desire to change tradition. In terms of appeals, the Communists often use the verbal appeals of democracy, humanitarianism, and peace.

3. If Americans are going to change their motivation patterns twice over in entering the armed forces and in going abroad, and if the Communists desire to change those motivation patterns a third time by making these men traitors, it seems possible that research could throw light on how to obtain a prophylaxis of personality against Communist subversion under foreign conditions, and how to make sure that either existing motivations or their reasonable equivalence continue.

4. In a few instances foreign motivations will begin to apply in American personalities even when those personalities did not show the motivations before. Officers are in many respects more subject to this, it would seem, than are enlisted personnel. Perceptive officers serving with allies often take on some of the characteristics of the ruling class of the allies; the snob value of a slightly foreign manner was demonstrated by the Americans in Delhi, who wore imitation British bush jackets and carried swagger sticks. In other cultures the motivation pattern is so completely dissimilar that it evokes no response in the Americans. Few Americans wish to imitate the Japanese in the technique of suicide attacks by Banzai charges or Kamikaze planes, and still fewer Americans in the occupation period have demonstrated a propensity for the refined avocation of flower arranging or waterfall viewing; motivations and motivation patterns concerning property or deference may be worthy of research. The office of the President of the Philippines this year issued a release to the effect that even if the Filipino officials were thieves, they were not as good thieves as the American grafters who taught them; the reference was insulting, although broad,

and referred to the postwar property liquidation scandals in which United States service personnel were so regrettably involved. American troops moving into an area with motivation patterns which involve a loosening of American standards may in many instances be affected by these. Often the only effective defense response is that of over-all hostility to the foreigner. The American officers and men in France who swindled everything in sight and sold it on the black market were probably men who would not have done the same thing in the United States. It is certain that American generals and officers would not have spent their time in shady banking transactions at home on quite so wholesale a scale as they did in China during 1944. The foreign milieu has a definite impact on motivation: only rarely is this impact a desirable one in terms of individual performance of individual usefulness.

5. Research along these lines will have to be discriminated into two separate but related topics: first, the scrutiny of particular motivation patterns which may be affected by the immersion of individuals or units of the American services into a foreign human environment; second, enemy manipulation of this motivation pattern, whether real or framed, has a means of conducting propaganda to us or about us to other audiences, all the way to the point of inciting actual mutiny or treason. The demoralization and pro-Bolshevik utterances of many of General Graves' troops who returned from Siberia after our expedition of 1919-1920 indicates that the Russians, crude as they were in the art of revolution thirty years ago, had already learned how to contaminate American troops.

**H. EMOTIONAL PROCESSES AMID UNFAMILIAR SOCIAL SANCTIONS:
UPGRADING GROUP EMOTIONAL DETERIORATION.**

1. Emotional stability depends, it may be assumed, upon the immediate intrapersonal relationships of an individual rather than upon broad casual relationships which the individual bears to any modern national society considered as a whole. Put in another way, this simply means that the ordinary man of our time remains stable and happy more in terms of the people that he sees every day than in terms of the over-all welfare or ill-being of the millions who surround him. Every now and then under conditions of panic or revolution the small units of reciprocal personality relationship and reassurance come crashing inward and a much larger mass of personalities takes over in terms of abnormal or crowd behavior. The impact of the foreign milieu on the individual soldier is apt to be contrary to what popular opinion would expect -- it is more likely to affect his officers than himself, more likely to affect him through his group than directly, and more apt to show up in terms of a change of stability or happiness in his group than in terms of his direct relationships with the actual living personalities in the unfamiliar culture around him. Cultural intellectual contact can be very high without penetrating the tight web of small-group emotional relationships which maintain group morale. A well run ship can call at a hundred different ports and still be well run if the leadership conditions and the personalities of most of the men are in good balance.

2. Indeed, in terms of the emotional stability and psychiatric appraisal of masses of American military personnel, the foreign environment plays a relatively minor role. Here as in 8a above, the challenge is most apt to be from the real or presumed emotional pattern of the enemy personality than from the emotionally transient impact of neutral or allied personalities who flow past the soldier without engaging him in deep emotional commitments. If the enemy is incomprehensible and gives the impression of greater emotional toughness, as well as that of greater physical toughness, to the American soldier, the reaction can be adverse. In World War II this occurred notably in those instances in which Americans confronted Japanese whom the Americans believed to be incomprehensible fanatics or else virtual lunatics: the emotional wear and tear on the Americans may have been higher with such an assumption than it would have been had the Americans had a more matter of fact appraisal of Japanese personalities. On the Nazi-versus-Bolshevik eastern front of World War II, the Hitlerite totalitarians were in some instances almost cowed by what seemed to them to be the greater emotional toughness of the Stalinist totalitarians. The Germans felt themselves to be Kulturmenschen pinned against Untermenschen.

3. It is possible to set up the assumption that the emotional reactions within individual soldier personalities to the foreign human environment are apt to be secondary reactions to the group esprit or demoralization resulting from his group to group contact -- unit to foreign society -- in the foreign physical and human milieu.

In directly individual terms attention might be paid to the anataxic effect of a foreign human environment as a palliative for mild neurotic conditions; by anataxic is meant the imposition of those few elements from the foreign environment which cannot be subsumed within the soldier's personality under emotionally-charged stereotypes to which he can refer most of his everyday life. The wholly unfamiliar almost always has a curative effect in personality disorders; it was not for nothing that the men of the Middle Ages and the Renaissance threw snakes on lunatics. While the impingement of foreign culture will only rarely be a major factor in individual psychiatric problems, it would appear worth while to see whether short range detachment from military conditions into foreign civilian society could be accompanied by reasonable enough sanctions and reassurances to have curative effects on personalities who might otherwise be lost for further overseas service. It might well be that a genuine difference would be found between one foreign society and the next.

I. LEARNING OF LOCAL PHYSIOLOGICAL ADAPTATIONS

1. This topic is a companion to D(8a) concerning the acquisition of local skills and of cultural acclimatizing of Americans. Very often Americans at great expense or with tremendous waste of man hours and effort, obtain a physiological adaptation to a foreign physical environment which they could obtain much more cheaply and much more comfortably by a direct imitation of the foreign human environment. Americans who tried to keep cool in China by drinking iced beer had to get the beer flown across the edge of Tibet, had to distribute the beer, had to procure the ice, had to make sure the ice was sanitary, since cholera could travel even on the water on the outside of a beer can, and then obtained less relief from heat than they would have if they had been psychologically able to assimilate the Chinese habit of drinking scalding hot tea. That amiable Left Winger, Vilhjalmur Stefansson, has spent a lifetime in pointing out that physiological adaptations to a strange environment -- in his case the Arctic -- is better learned by mimicry of the human environment which is already adapted to the physical one than by attempts to simulate a familiar environment and to adapt the entire physical apparatus of one part of the world to another.

2. This topic would add little to the materials already covered in I (7), I(8), I(9), and I(10), but it would appear obvious that "learning how to copy" is itself a skill and that the skill of copying would be more generally exportable than the skill of learning how to deal with the different areas, area by area and season for season, for the span of half the world.

J. RETENTION OR LOSS OF PROFICIENCY: "ENEMY" AS A FOREIGNER

1. In actual combat operations the proficiency of the foreign enemy is a matter of interest to all military personnel. A qualified enemy general like Rommel can become a sort of reverse hero even to the troops whom he is attacking. Particular enemy units can be credited with sustainedly dangerous high performance. Since the foreign milieu comprises the place of residence of the troops overseas, the location of their combat and the foreign persons all around them, it is entirely possible that unit proficiency become a major factor in estimate of the enemy and in the presentation of our own forces. The Soviet use of distinctions between entire units is in this respect worth attention. The contrast between guard divisions and ordinary Red army troops is a very marked one. While individual proficiency records are not apt to become affected by the presence of a fine human environment around the military individual unit, devices for unit recognition can have a marked effect on maintaining the morale of our own forces and on impressing the enemy.

2. A minor program of research into the interaction of proficiency recognition on the one hand and the retention or loss of proficiency in different foreign areas on the other, might reveal some significant contrasts. The selection of one unit for honor above others was met of course in World War II with the Presidential Unit Citation and various other devices, but it never became a major part of the presentation of United States forces to the enemy.

3. The enemy as a foreigner is apt to have different standards of proficiency from those applied by ourselves. In M(8a) below, dealing with the problem of engineering foreign personnel out of one national allegiance to another, it is entirely possible that an accent, placed upon the difference between American proficiency and enemy proficiency, would permit us to select new leaders from enemy enlisted personnel by giving them a recognition under our standards which they could never have achieved within the limitations of the enemy culture of political system.

K. THE GROUP UNDER FOREIGN STRAIN: LEARNING OF LOCAL GROUP VALUES

1. Movement into a foreign area accentuates the group organization which had been started by assimilation to military service at home. The individual has a familiar environment in his group and not much beyond the group. His buddies and officers acquire a heightened importance as the ship pulls away from shore. Under foreign conditions the group carries the weight carried by a variety of group affiliations in civilian life. Outside the army, the American adult can move from his business associates to his circle of friends, to his lodge, to his church, to his political group, and so on around the circle. In military service, and even more so on a ship, the one group is all he sees. The pressure of the foreign human environment on the group is apt to be a special factor only when the individual escapes his constant group contacts in rear areas or under occupation conditions long enough to have out of group contacts. With this there enters a new period of group strain in which the individual detached from his home groups and attached to his military group, finds it possible to assert a limited kind of individuality in terms of his new foreign contacts. Most of the problems arising in this connection are already well taken care of by traditional military thinking and doctrine.

2. In terms of research into new impacts, it would appear that some of our military forces could and should be taught to recognize foreign groups a little more readily so that foreign personalities in a foreign area would not appear as an inchoate succession of undifferentiated individuals. An understanding of the group mechanics of the

foreign society would be of obvious help in waging guerrilla warfare, in controlling occupied areas, in getting along with subordinate or equal allies, and — should the occasion present itself — in subverting the enemy. Foreign group values often appear incomprehensible when a fairly elementary explanation of them would make them not only understandable but exportable in American terms.

3. It may also be suggested that as part of a deception program to keep American order of battle obscured from enemy intelligence, investigation might be made of the possibility of creating a system of group nomenclature which would on the one hand sustain morale and promote better group allegiance, and on the other overload enemy intelligence with a succession and variety of names which it could not penetrate. For example, if instead of numerical designations, certain types of units would be named after the enlisted man in the unit who had done the most thoroughly outstanding job the previous half year, or if the heroic deed of the unit were honored by having their names attached to the unit for a limited period of time, the result both as to morale and security might be desirable. Its effect on our own chain of command could, of course, be adverse.

**I. LANGUAGE NEEDS FOR ENEMY AND ALLIES:
INDIRECT P. V. ROLE OF SOLDIER**

1. The topical heading presenting the general subject of intercultural education in the foreign milieu, of 8a above, implicitly covers the subject of language as well. A knowledge of allied and enemy language is in a limited degree valuable for almost everyone; most of the comments applying to general intercultural education apply a fortiori to language.

2. Research needs to be done on the language habits of our military personnel in terms of their using a deliberate downgrading of communicability and clarity of expression as a means of emotional protection. The use of slang carried to excessive length, the constant overload of obscene terms, and the invention of derogatory slang for almost everything pertaining to military service, to the allies, to the enemy, and to the war in general, may give the soldier a very real emotional relief. Regrettably it has byproducts on the surrounding human environment -- accentuated tensions and misunderstandings between Americans and the people for or among whom they must fight. If language habits were in any way subject to indirect inspiration, it might be possible to salvage some of the waste effort which goes into relatively poor and non-communicating language, as well as to head off some of the more irritating antagonisms engendered by the sheer damage done to language in our recent military speech habits. Apparently every army in the history of the world has developed its own slang to a greater or less degree; this slang has an emotionally

discharging effect, and it cannot be expected or even desired that the role of slang and of language innovations be avoided altogether. Research might show it to be possible however that the slang could be modified by the indirect or covert incitement of fashions in speech which without being pious or tepid could have the effect of deflecting some of the worst channels back into genuine communication. Picturesqueness is desirable. Poor communication and prejudice are not. Is there any remedy for the situation?

3. Finally, there is a very important point indeed that the present demeanor of troops themselves is a major form of communication far more important than most leaflets, radio broadcasts, or posters. The role of the soldier as he is seen by the people whom he passes is a real contributing element in war. In heavily settled areas such as Western Europe or much of East Asia, the soldier plays an indirect psychological warfare role which it is difficult to overestimate. Mao Tse-tung made the behavior of his 8th Route Army troops a byword for fairness, decency, and consideration for the common people throughout China. His propaganda would not have carried very far if he had not let the soldiers know that they were themselves the chief carriers of Communist heroism and the chief demonstrators of a better and new world to the rest of the population. The soldiers appreciated their role and were taught to take pleasure from correct behavior and from the obvious superiority of their everyday actions to those of the Kuomintang armies.

M. USE OF INTEGRATED FOREIGN PERSONNEL

1. Foreign personnel can be integrated into U. S. combat forces in one of two ways:

First, the individuals can be taken in and trained to be imitation Americans sufficiently well to respond to American commands, to American habits, and to use American weapons in conjunction with actual American troops:

Secondly, foreign units can be brought in with their own equipment and be engineered into fighting side by side with Americans.

In the second case if the foreign units are allies, the basic problem for career management is one affecting the foreign government concerned and its military training program. On the other hand, if it is planned, as it perhaps should be, that Americans should be ready to accept foreign soldiers with their foreign uniforms and their enemy weapons, as a part of our military system, it will obviously be very necessary to do research on the subject of "Captive Armies" and their roles in recent warfare.

2. Through the use of integrated foreign personnel the United States can meet its manpower problem. If American manpower capacity is measured entirely by the home-grown product, there is no chance that this country will overtake Communist Russia and Communist China. If the assumption is made that American forces should be essentially the corps d'elite of a U.N. army which would be prepared to accept

defections en masse from Red army or other minor forces, both the physical and human preparations must be made for these forces to be welcomed to our side and to be accommodated. Joseph Stalin has trained a large enough army to conquer Russia -- perhaps the only army in the world large enough to conquer Russia effectively. In the long run it might be wiser for us to learn how to give Russians a chance to fight for their own liberation than it would be to plan to slug them out man for man when their manpower assets are larger than ours to start with.

3. The buddy system adopted in Korea during the northward push in the fall of 1950 showed that non-English speaking Koreans could be assimilated to non-Korean speaking American units in fairly large numbers. The Nazis had already shown this on the eastern front when they used local inhabitants as actual troop replacements for many German units. The human engineering involved in preparing American individuals and units to accept foreign personalities and equipment, or to exchange or replace American equipment with foreign units which may still operate wholly or partially with their original supplies, is not an easy task. Both psychologically and in terms of materiel, it seems reasonable to expect that economy in war would call for the use of every serviceable enemy weapon and of every serviceable enemy man which could be turned around against the hostile force.

DESCRIPTION OF CONVICTED FELONS AS A
MANPOWER RESOURCE IN A NATIONAL EMERGENCY

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**I. DESCRIPTION OF CONVICTED FELONS
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C O N T E N T S

	<u>Page</u>
A. Introduction	1
B. Data and Sources of Information Concerning Convicted Felons as a Manpower Resource	4
C. Number of Felons in all Federal and State Prisons and Reformatories	7
D. Types of Offense of Inmate Population	12
E. Age Distribution of Prisoners in State and Federal Correctional Institutions	19
F. Physical Conditions of Prisoners In State and Federal Correctional Institutions	22
G. Educational Attainments of Prisoners In State and Federal Correctional Institutions	24
H. Psychological and Emotional Defects of the Felon Population	27
I. Criminality of Convicted Felons As Revealed By Previous Incarceration	35
J. Convicted Felons Not Confined to Institutions	42

TABLES

	<u>Page</u>
Table 1 - Prisoners Present at end of Year in Federal and State Prisons and Reformatories, 1940 - 1948	8
Table 2 - Average number of male prisoners in penal institutions of 18 selected states, 1946 - 1950	10
Table 3 - Percentage of Persons Found Guilty of Offense Charged: 1946 - 1949	13
Table 4 - Percentage Distribution of Felony Prisoners Received from Court in Federal and State Institutions, By Offense, 1942 - 1947	14
Table 5 - Estimated Number and Percentage Distribution of Prisoners Currently Incarcerated in Federal and State Correctional Institutions by Offense	16
Table 6 - Number and Percentage Distribution of Male Population in Prisons and Reformatories, by Age: 1940	20
Table 7 - Education for Male Prisoners in Prisons and Reformatories in 1940 and Total Male Population in 1940 for Persons 25 years and over by Years of School Completed	25
Table 8 - Percentage Distribution of Male Offenders Released from Federal and State Prisons and Reformatories by Number of Prior Commitments, 1940, 1945, 1946	36
Table 9 - Prior Commitments of Resident Male Prison Population, California, 1945 - 1950	38
Table 10 - Prior Commitment Record of Male Admissions to California Prisons for Fiscal Years Ending June 30, 1947 - 1950	39
Table 11 - Prior Commitment Record of Male Releases from California Prisons, For Fiscal Years Ending June 30, 1947 - 1950	40
Table 12 - Estimated Number and Percentage Distribution of Convicted Male Felons Sentenced by the Courts in 1950 by Type of Disposition	43

DESCRIPTION OF CONVICTED FELONS AS A MANPOWER RESOURCE IN A NATIONAL
EMERGENCY

A. INTRODUCTION

The nation's manpower is its major national resource. Defense production requirements, as well as military needs, make the utilization of all available manpower at its maximum skills a matter of national necessity. An inventory of our total manpower potential can not fail to direct attention to the role which in the past rehabilitated felons have performed in our national civilian economy, and the services which they have contributed in time of crisis.

Upward of 95 per cent of our penal population is ultimately released and integrated to the free community. Most of these offenders are separated from their home communities for relatively short periods of time, and on their return to society are quickly swallowed up by the normal flow of conventional social life. Nearly two thirds of all convicted offenders successfully rehabilitate themselves after an initial conviction, and do not again appear as serious criminal offenders. The record of those released conditionally, that is, on parole, is even more favorable when the comparison is made on the basis of a subsequent commitment for a new offense while on parole. Only 12 per cent of parolees in Illinois are re-committed for the commission of new crimes. This figure approximates the national experience.

Criminological research and follow-up studies of incarcerated offenders have made it abundantly clear that a criminal record has not necessarily destroyed the social effectiveness and predominantly conventional aspirations of large numbers of men who have been convicted of crime.

During World War II our limited experience with the utilization of convicted offenders in the armed forces appears to have been of a salutary nature. Preliminary findings have indicated that men with criminal records who were afforded an opportunity to identify themselves with the cause and aspiration of the entire nation were even more successful in their readjustment to a law-abiding civilian life than were their fellows who carried into the free community the crippling stigma of their penal servitude.

A comparison of the parole records of men released in Illinois in 1943-1944 to the armed forces with the parole records of those under supervision in the civilian community reveals a violation rate for the civilian parolees nearly four and one half times as great as that for the army parolees. Of a total of 1,307 convicted felons who were inducted into the Army, either directly from the Illinois Penitentiary System, or while on parole, 68 or 5.2 per cent violated to such an extent as to occasion their return to the penitentiary. Of 2,070 men who were simultaneously paroled to civilian life, 468 or 22.6 per cent were returned to the penitentiary during the first year on parole either for the commission of new crimes or the serious violation of the terms of their supervision.¹

During World War II, 2,942 parolees from the Illinois State Penitentiary were inducted into the Armed Forces. Many of these men achieved distinction

1.

Comparison of Illinois Parolees in the Armed Service
with Illinois Parolees to Civilian Life: 1943-1944.

	<u>Total Cases</u>	<u>Violators</u>	<u>Violation Rate</u>
All Parolees	3,377	536	15.8 %
Army Parolees	1,307	68	5.20
Civilian Parolees	2,070	468	22.61

in rank, citations or awards, while others failed to adjust satisfactorily to the conditions of life in the armed service. The present project represents a systematic effort to evaluate the criteria and screening procedures for selecting parolees for armed service, the outcome as to adjustment of parolees in the service, and subsequently in the free community. The situations encountered by parolees in the armed forces contrast sharply with the conditions of life ordinarily experienced by those paroled to civil life. The disciplined atmosphere of the Army, the fact of a secure maintenance situation, the existence of common interests and identification with common goals, the sharing of activities in close relationship with non-delinquents, and the anonymity as regards the background of previous offenders, created a special set of circumstances which contrast with those of offenders released directly to their home communities. Little has been previously known about the terms and conditions of parole under military discipline, under which some succeed and some fail, or about the variable elements among the parolees themselves as to personality makeup and social type as they have been affected by the conditions which prevail in military service.

This study of parolees inducted into the service provides both civil and military authorities with detailed and verified facts on the basis of which past policies of selection and treatment can be evaluated and future policies established. The present report consists of a statistical analysis of the numbers and characteristics of the felon population of the United States with a view to assessing its dimensions and potential value as a manpower resource.

B. DATA AND SOURCES OF INFORMATION CONCERNING CONVICTED FELONS AS A
MANPOWER RESOURCE

A check of all available statistics and sources of information concerning the number of felons in state and federal institutions reveals that at no single place is there to be found a compilation of statistics which are adequate to the problem of assessing the size and characteristics of the present prison population as it may relate to the manpower question. It therefore becomes necessary to combine available statistics from several different sources in order to arrive at a reliable estimate of the number and characteristics of felons in penal institutions at the present time. The statistical sources on which these estimates are based are as follows:

1.

- a. U. S. Department of Commerce, Bureau of the Census, Prisoners in State and Federal Prisons and Reformatories, U.S. Government Printing Office, Washington, D.C. (Annual, 1926 through 1946).
- b. U. S. Department of Justice, Bureau of Prisons, Prisoners in State and Federal Prisons and Reformatories, No. 1, Washington, D.C., May 25, 1950. (mimeographed)

Until 1946 the Annual Census of Prison and Reformatory Population was published by the Bureau of the Census. At that time its publication was taken over by the Bureau of Prisons, and data for 1947 and 1948 have been compiled by that agency. Information on specific points has been made available by that agency for the purposes of this study. These statistics are the most recent available. However, they do not include institutions exclusively for juvenile offenders. It should be noted that these excluded institutions for juvenile offenders contain a large number of prisoners representing a sizeable

manpower pool. These statistics are utilized with a view to determining current trends in the development of the penal population, and its probable dimensions in the immediate future.

2. U. S. Department of Commerce, Bureau of the Census, 16th Census of the United States, 1940, Special Report on Institutional Population, U. S. Government Printing Office, Washington, D.C., 1943.

This source provides the most complete single body of statistics available as to the United States prison population. At the present time, however, the data of the 1950 census as it pertains to the institutional population of the United States remains untabulated. Information secured through the offices of the Population and Housing Division of the Bureau of the Census indicates that this information will not be available until late in 1952 or early in 1953. The tabulated findings of the 1940 census represent the last published and hence, most recent available statistics on prison population in the United States. It has been possible to establish the trends since 1940 by employing certain annual data from 1940 to 1950. This has enhanced the usefulness of the 1940 census data, and makes possible its utilization in estimating the incidence of various characteristics in the present prison population.

3. Office of the General Secretary, American Prison Association, State and National Correctional Institutions of the United States of America, Canada, England and Scotland, 1947-1950, New York, New York

This annual publication of the American Prison Association furnishes statistics on the number of inmates in state and federal correctional institutions during the preceding year. The reported statistics are obtained by circulating questionnaires to state and

federal correctional authorities, and are frequently stated in round numbers which estimate the average institutional population during the year. Consequently, these statistics are not sufficiently accurate or complete to provide bases for a reliable estimate of the total U. S. prison population. However, they are of considerable value in describing prison population trends during the post-war years for selected states in the nine regional census districts of the country.

4. Other Sources of Information.

In addition to examining the aforementioned published material on prison population, inquiries were directed to several persons engaged in compiling statistics on imprisoned offenders. These included contacts with the Bureau of the Census, the Federal Bureau of Prisons, a representative of the American Prison Association, and correctional authorities in California, New York, and New Jersey. The information from these sources¹ supplemented published materials.

1. These sources included the following experts on penology and criminal statistics: Howard G. Brushman, Chief, Population and Housing Division, Bureau of the Census; Sanford Bates, Commissioner, Department of Institutions and Agencies, State of New Jersey; Walter A. Gordon, Chairman, Adult Authority, State of California; Richard A. McGee, Director of Corrections, State of California; Frederick A. Moran, Chairman, New York Board of Parole; Austin H. McCormick, Executive Director, the Osborne Association and member of Board of Directors of the American Prison Association; Henry Coe Lanpher, Chief, Research and Statistics Division, Federal Bureau of Prisons; and Henry D. Sheldon, Institutional Statistics, Bureau of the Census.

C. NUMBER OF FELONS IN ALL FEDERAL AND STATE PRISONS AND REFORMATORIES

Notwithstanding the absence of specific enumerations, statistical sources described above permit a reliable estimate of the prison population today. The basis for this estimate of the number of felons in federal and state prisons and reformatories is taken from the Special Report on Institutional Population of the 1940 census. This tabulation gives a total of 217,919 persons over 14 years of age who were confined in all Federal or State prisons or reformatories, including convict camps, penal farms, training schools and other institutions for juvenile delinquents, and all other penal establishments under Federal or State control.

Some indication of the trend in prison population since 1940 can be secured from the annual report on Prisoners in State and Federal Prisons and Reformatories, prepared by the Bureau of the Census. This report indicates that between 1940 - 1944 there was a continuous decrease in prison population. In 1945 this trend was reversed, and in 1946 the prison population showed a sharp upward trend. Similar statistics for 1947 and 1948 as reported by the Bureau of Prisons show a continuation of this trend, with appreciable increases in prison population during these post-war years. These annual prison population statistics are shown in Table 1, page 8. The census report of 1946 offers the following explanation for the trend to and inclusive of that year:

"The decreases between 1940 - 1944 reflect the fact that during these years millions of males in the age group which contributed most heavily to the prison population were inducted into the Armed Forces. With the large scale return of military personnel to civilian life in the latter part of 1945 and in 1946, the population exposed to the risks of imprisonment in State and Federal prisons increased, with a consequent increase in the prison population and admissions."

1. Bureau of the Census, Prisoners in State and Federal Prisons and Reformatories: 1946, U.S. Government Printing Office, Washington, D.C., pp. 4 - 5.

Table 1

PRISONERS PRESENT AT END OF YEAR IN FEDERAL
AND STATE PRISONS AND REFORMATORIES: 1940-1948

<u>Year</u>	<u>Number</u>
1940 ¹	175,572
1941 ¹	166,939
1942 ¹	152,967
1943 ¹	138,710
1944 ¹	134,326
1945 ¹	134,802
1946 ²	141,404
1947 ²	152,564
1948	157,470

1. U. S. Department of Commerce, Bureau of the Census, Prisoners in State and Federal Prisons and Reformatories, 1946, U. S. Government Printing Office, Washington, D.C., 1948, p. 5.

2. U. S. Department of Justice, Bureau of Prisons, Prisoners in State and Federal Prisons and Reformatories, No. 1, Washington, D.C., May 25, 1950, p. 3 (mimeographed)

This explanation is further documented by statistics for the states of Illinois and California, which show that the proportion of veterans in the prison population increased steadily in post-war years. This trend has been interpreted to mean that, during the period of World War II, the armed services utilized the energies of these young men in a constructive fashion. This salutary effect was not sustained on the return of the men to civilian life. It should further be observed that while in the services these men were, for the most part, not subject to imprisonment by the civil authorities for the commission of crimes, except after waiver by the military authorities. On the return to civilian life, this was no longer the case.

The continuation of this upward trend of the total prison population of the United States during the post-war years is confirmed by the reports on the average annual population of state and national correctional institutions, compiled and published by the American Prison Association. In order to secure a reliable indication of the post-war trend, the average annual population of adult male felons in penal institutions under state control was obtained for 18 states covering the years from 1946 through 1949. From each of the nine regional divisions of the United States,¹ two states were selected which had the highest number of persons in correctional institutions in 1940. The trends in prison population for these 18 states, representing various regions of the United States, served to provide a reliable indication of the general trend for the country as a whole. In all 18 states, there occurred a sizeable growth in prison population from 1946 through 1949. The statistics of annual prison population for the 18 states are shown in Table 2, page 10.

1. The nine regional divisions of the United States employed by the U.S. Bureau of the Census are as follows: New England, Middle Atlantic, E. N. Central, W. N. Central, South Atlantic, E. S. Central, W. S. Central, Mountain, Pacific.

TABLE 2

AVERAGE NUMBER OF MALE PRISONERS IN PENAL INSTITUTIONS

OF 18 SELECTED STATES: 1946 - 1950

<u>State</u>	<u>Years</u>				
	1946	1947	1948	1949	1950
Massachusetts	4,000	4,063	4,373	4,484	--
Connecticut	927	932	924	949	--
New York	18,452	19,860	21,072	21,652	--
Pennsylvania	6,300	6,740	7,018	7,309	--
Illinois	7,673	8,026	8,655	8,700	8,764
Ohio	7,705	8,391	7,899	8,305	--
Missouri	2,818	2,954	3,168	3,130	--
Minnesota	1,516	1,530	1,720	1,783	--
Virginia	4,181	4,276	4,281	4,751	--
Maryland	2,809	3,387	3,454	3,728	--
Kentucky	2,322	2,383	2,900	3,065	--
Tennessee	2,293	2,448	2,716	2,834	--
Texas	3,850	4,991	5,652	5,851	--
Oklahoma	--	2,395	2,255	2,423	--
Colorado	1,267	1,346	1,430	1,338	--
Utah	399	509	483	542	--
California	7,395	8,629	9,624	10,595	11,497
Washington	1,965	2,018	1,982	2,025	--

Source: Office of the General Secretary, American Prison Association, State and National Correctional Institutions of the United States of America, Canada, England and Scotland, 1947 - 1950, New York, New York.

The figures on institutional population as of June 30, 1950, are also provided for Illinois and California. In both instances, the upward trends were continued.

These various statistics make possible a reasonable estimate as to the size of the current prison population. Trend figures indicate that the prison population in 1950 is equivalent to that of the 1940 population. Hence, the total U. S. prison population in 1950 is placed at a round figure of 218,000, of which 202,000 are males and 16,000 are females. It should be noted that these figures include juvenile offenders over 14 years of age who were confined in correctional institutions under state or federal control.

1. The 1940 decennial census of all prisons and reformatories under state or federal control, inclusive of juvenile institutions, reports a total male population of 202,098 prisoners over 14 years of age. However, the annual census of prisoners in state and federal prisons and reformatories for 1940 does not include institutions exclusively for juvenile offenders, and reports a total male population of 165,274 prisoners. A comparison of these figures indicates that upward of 35,000 juvenile offenders in the age group 14 - 21 are confined in institutions exclusively for juvenile offenders.

D. TYPES OF OFFENSE OF INMATE POPULATION

A complete description of the total inmate population of the correctional institutions of the United States in terms of the types of offense for which commitments were made by the courts is unavailable. The 1940 census of the institutional population did not include type of offense as one of the items on which information was reported. Furthermore, the annual census of prisoners in state and federal prisons and reformatories does not furnish this information for the total resident population. However, it does report statistics on types of offense for the total number of offenders received each year from the courts. In addition, the Uniform Crime Reports issued semi-annually by the Federal Bureau of Investigation provide statistics on the types of offense for which persons were found guilty as charged by the courts.

It should be noted that the statistics on offense given in the Uniform Crime Reports are not directly comparable with the figures furnished in the annual census of prisoners, since many persons found guilty by the courts may be given probation, supervision, or suspended sentence, rather than committed to a penal institution. The statistics of the Uniform Crime Reports are not useful in an analysis of the manpower resource represented in penal institutions and on parole, since they include these aforementioned alternative dispositions. Consequently, the statistics of the Uniform Crime Reports on types of offense for the years 1946-1949 were used solely for the purpose of indicating the relative stability of the proportion convicted for each type of offense over the years, as shown in Table 3, page 13. The figures on types of offense from the annual census of prisoners for the years 1942-1947¹ were also used for this purpose, and are shown in Table 4, page 14. Both of these series

1. 1947 is the most recent year for which these statistics on offense categories have been compiled.

Table 3

PERCENTAGE OF PERSONS FOUND GUILTY OF
¹
OFFENSE CHARGE: 1946 - 1949

<u>OFFENSE</u>	<u>YEARS</u>			
	<u>1946</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>
Murder	.08	.08	.08	.08
Manslaughter	.04	.03	.03	.03
Rape	.14	.15	.14	.15
Robbery	.50	.58	.46	.62
Aggravated Assault	.78	.71	.77	.81
Burglary	1.56	1.34	1.40	1.88
Larceny	3.94	3.79	4.16	4.20
Auto Theft	.95	.73	.68	.68
Other Assaults	3.81	3.48	3.42	3.35
Forgery and Counterfeiting	.24	.29	.35	.33
Embezzlement and Fraud	.47	.47	.51	.62
Handling Stolen Property	.21	.14	.14	.14
Carrying or Possessing Weapons	1.05	.100	.94	.88
Sex Offenses	3.01	2.90	2.25	2.48
Offenses Against Family, Children	1.55	1.67	1.44	1.30
Violating Narcotic Drug Laws	.14	.19	.19	.28
Violating Liquor Laws	1.59	1.52	1.37	1.85
Drunkenness, Disorderly Conduct, Vagrancy	74.51	76.12	77.57	76.19
Gambling	5.41	4.79	4.09	4.11

1. Based on statistics in Uniform Crime Reports, Federal Bureau of Investigation, U. S. Department of Justice, Semi-annual Bulletins: 1947, 1948, 1949, 1950.

TABLE 4**PERCENTAGE DISTRIBUTION OF FELONY PRISONERS RECEIVED FROM COURT****IN FEDERAL AND STATE INSTITUTIONS, BY OFFENSE: 1942 - 1947.**

<u>OFFENSE</u>	<u>1942</u> ¹	<u>1943</u> ¹	<u>1944</u> ¹	<u>1945</u> ¹	<u>1946</u> ¹	<u>1947</u> ²
Murder	3.4	3.6	3.2	3.2	3.5	3.4
Manslaughter	2.8	3.0	2.6	2.6	3.1	2.5
Robbery	8.1	8.4	7.4	8.2	9.2	10.5
Aggravated Assault	5.9	5.8	5.4	5.9	6.3	5.7
Burglary	15.6	15.8	15.6	16.8	18.0	19.4
Larceny	17.2	16.3	17.0	17.4	17.2	16.2
Auto Theft	6.7	5.9	6.7	7.3	9.2	9.4
Embezzlement and Fraud	3.3	2.9	2.9	2.8	2.7	3.0
Handling of Stolen Property	1.2	1.0	1.1	1.0	.9	1.0
Forgery	6.2	5.6	5.8	6.1	7.1	8.7
Rape	3.6	4.2	3.9	4.3	4.1	3.9
Commercialized Vice	1.0	1.0	.7	.7	.4	.4
Other Sex Offenses	2.6	3.6	3.0	2.8	2.5	2.4
Violating Drug Laws	2.9	3.0	3.1	2.6	2.5	2.5
Carrying and Possessing Weapons	.4	.4	.4	.5	.7	.8
Nonsupport or Neglect	1.3	1.3	1.4	1.6	1.7	1.4
Violating Liquor Laws	8.5	4.5	4.9	4.8	3.4	2.5
Violating Traffic Laws	.3	.3	.2	.2	.3	.2
Violating National Defense Laws	4.4	8.4	9.4	5.5	2.1	1.1
Other Offenses	4.7	4.9	5.4	5.8	5.2	4.9

1. U. S. Department of Commerce, Bureau of the Census, Prisoners in State and Federal Prisons and Reformatories, 1946, United States Government Printing Office, Washington 1948, p. 44.

2. The figures for 1947 were obtained from the Bureau of Prisons, U. S. Department of Justice (unpublished data).

disclosed a notable stability in relative frequency of the various types of offenses. Furthermore, the annual figures of the Uniform Crime Reports indicate that this stability continued throughout the later post-war years.

In view of this stability in the proportional frequency of various types of offenses, it becomes possible to utilize the figures from the census of prisoners for 1947 to represent the composition of the resident male population of correctional institutions under State or Federal control by offense categories. The actual number of persons in each offense category was calculated by multiplying the total estimated male population of correctional institutions by the percentage characterizing each offense. The number and percentages by offense categories are presented in Table 5, page 16.

It should be noted that the estimated total of the resident male population, 202,000, includes many juvenile offenders who are not represented in the admission figures contained in the annual census of prisoners from which the percentage figures are obtained. Since juvenile offenders generally commit less serious crimes, their omission from these percentages effects an overestimate of the proportion of the more serious offenses. Since the more serious offenders remain longer in the institutions, the percentage figures for admission of prisoners underestimates the proportion of serious offenders in the institutional population.

The net effect is that these two tendencies offset each other, and hence the percentages shown in Table 5 represent a reliable estimate.

It should be noted that offenders convicted for those crimes which resulted in the categorical unacceptability of men to the armed forces during World War II constitute a relatively small proportion of all incarcerated offenders.¹

1. Army regulations during World War II excluded from induction persons convicted of murder, negligent manslaughter, sex offenses, and violation of narcotic laws.

TABLE 5
ESTIMATED NUMBER AND PERCENTAGE DISTRIBUTION
OF PRISONERS CURRENTLY INCARCERATED IN FEDERAL
AND STATE CORRECTIONAL INSTITUTIONS, BY OFFENSE

<u>OFFENSE</u>	<u>NUMBER</u>	<u>PERCENT</u> ¹
Murder	6,868	3.4
Manslaughter	5,050	2.5
Robbery	21,210	10.5
Aggravated Assault	11,514	5.7
Burglary	39,390	19.5
Larceny	32,724	16.2
Auto Theft	18,988	9.4
Embezzlement	6,060	3.0
Stolen Property	2,020	1.0
Forgery	17,574	8.7
Rape	7,878	3.9
Commercialized Vice	808	.4
Other Sex Offenses	4,848	2.4
Violating Drug Laws	5,050	2.5
Carrying and Possessing Weapons	1,616	.8
Nonsupport or Neglect	2,828	1.4
Violating Liquor Laws	5,050	2.5
Violating Traffic Laws	404	.2
Violating National Defense Laws	2,222	1.1
Other Offenses	<u>9,898</u>	<u>4.9</u>
TOTAL	202,000	100.0

1. Percentage figures are for the year 1947 from report of U. S. Department of Justice, Bureau of Prisons, Prisoners in State and Federal Prisons and Reformatories, Number 1, Washington, D.C., May 25, 1950.(mimeographed)

Table 5, page 16, reveals that persons convicted for these offenses represent no more than 15 per cent of the total number of offenders in state and federal correctional institutions.

If these offenders were categorically omitted from the felon manpower potential, it would leave the great bulk of the inmate population, fully 85 per cent, available as a pool from which qualified candidates could be screened. However, it should be emphasized that the categorical exclusion of persons convicted of a sex offense may necessarily reduce the availability of many likely candidates within even the aforementioned 15 per cent of offenders, since approximately one-half of these are sex offenders.

The overwhelming majority of sex offenders are not compulsive by nature, and cannot, in regard to this crime, be distinguished from most of the population. Current studies of American sex behavior have demonstrated that,

"absolute law enforcement /of the sex laws/ would perforce touch about 95 per cent of the total male population. In contrast to the universality of illegal sexual behavior actually only a meager number of persons falls into the law enforcement net to suffer inordinate punishment for the conduct of the many. In one category alone, recent statistical studies bring to light that six million homosexual acts take place each year for every 20 convictions. In the area of extra-marital copulation, the frequency to conviction ratio is nearly 30 to 40 million to 300."¹

Follow-up studies of released offenders have further buttressed these findings. The violation of all Illinois paroled offenders in the years 1940 - 1944 was three times that of the sex offenders.² It is reasonable to conclude

1. Committee on Forensic Psychiatry of the Group for the Advancement of Psychiatry, Psychiatrically Deviated Sex Offenders, Report No. 9, Topeka, Kansas, May 1949, p.2

2. Illinois Division of Correction, Research Studies on Paroled Offenders.
(Unpublished)

that the great majority of such offenders are either indistinguishable from the so-called law-abiding population, or once convicted, refrain from further violation of the law. Appropriate screening techniques can distinguish between the 5 to 10 per cent of convicted sex felons who are compulsive offenders, and the remaining upward of 90 per cent who are not behavioral problems of such a nature as is implied because of their conviction.

E. AGE DISTRIBUTION OF PRISONERS IN STATE AND FEDERAL CORRECTIONAL INSTITUTIONS

The 1940 census provides a breakdown by various age groups for persons 14 years old and over in state and federal correctional institutions. Pending similar tabulations from the 1950 census, these data are the only source of information on the age of all imprisoned offenders. Since the trends in the composition of the prison population are again approaching the 1940 level, the figures provided by this census may be regarded as a reliable estimate of the age distribution of prisoners today. Table 6, page 20, shows the number and percentage distribution of males in state and federal prisons and reformatories by ten age groups.

It is significant to note that the 114,731 offenders in the age group from 18 - 34 constitute 56.7 per cent of the total male population in prisons and reformatories.

These figures represent the age distribution of prisoners at a given point in time. However, they will necessarily underestimate the potential manpower resource for the defense services, since the rate of admissions and release of offenders, that is, the turnover, of the younger age groups is much higher than it is for the older men. The statistics in the Annual Census of Prisoners in State and Federal Prisons and Reformatories disclose that 62.8 per cent of the total male prisoners received from court in 1940 were within the age group 18 - 34. However, as previously noted, during that year of all the men incarcerated in prisons and reformatories at the time of the 1940 decennial census, 56.7 per cent were within the age group 18 - 34. The 6.1 per cent difference between these figures reflects the higher rate of turnover in the younger age group.

1. In view of the fact that the median age of male prisoners received from court remained very stable from 1937 through 1940, this difference of 6.1 per cent can not be attributed to a change in the proportion of men received from the younger age groups.

TABLE 6
NUMBER AND PERCENTAGE DISTRIBUTION OF MALE
POPULATION IN PRISONS AND REFORMATORIES, BY AGE: 1940.

<u>AGE</u>	<u>MALE</u>	<u>PERCENT</u>
14 years	2,733	1.4
15-17 years	15,106	7.5
18-19 years	11,995	5.9
20 years	6,936	3.4
21-24 years	29,482	14.6
25-34 years	66,318	32.8
35-44 years	40,231	19.9
45-54 years	18,855	9.3
55-64 years	7,678	3.8
65 years and over	<u>2,764</u>	<u>1.4</u>
TOTAL	202,098	100.00

Source: U. S. Department of Commerce, Bureau of the Census, 16th Census of the United States 1940, Special Report on Institutional Population, United States Government Printing Office, Washington 1943, p. 10.

It is evident that over a period of time the proportion of convicted felons in the younger age groups is appreciably greater than the proportion of the younger convicted felons who are actually imprisoned at any given time. It follows that as of any particular date, the manpower resource represented in young convicted felons is even greater than can be revealed by an enumeration of the prison population.

P. PHYSICAL CONDITION OF PRISONERS IN STATE AND FEDERAL CORRECTIONAL INSTITUTIONS

The studies of the physical health of convicted offenders do not establish a direct relationship between crime and physical condition. In fact, numerous studies have established that the physical health of convicted offenders does not differ appreciably from that of comparable groups¹ of the general population. A special survey conducted by Selective Service in 1941 of 19,923 registrants aged 21 - 36 disclosed that 20 per cent of the registrants were not qualified for military service by reason of poor² physical condition.

1. Professor Edwin H. Sutherland has generalized the concensus amongst students of crime when, in summarizing the studies which have sought to establish the relationship between physical defects, health condition, and criminality, he noted: "While there is no reason to minimize the importance of good health, it is apparent that the connection between crime and physical ailments is not close or necessary. Many criminals are quite healthy and free from ailments, and many non-criminals are extremely defective from the physical point of view." (E. H. Sutherland, Principles of Criminology, 3rd ed., Lippincott & Co., Chicago, 1939. p. 94)

2. Director of Selective Service, Selective Service in Peacetime, Government Printing Office, Washington, 1942. pp. 211-212.

Correctional authorities have frequently noted that due to uniform availability of medical services, regulated diet and routine living conditions in correctional institutions, the physical health of prisoners is equal or superior to that of comparable groups in the general population. Thus, the percentage of prisoners likely to be disqualified from defense service by reason of poor physical condition is less than the 20 per cent figure established in the Selective Service study cited above.

G. EDUCATIONAL ATTAINMENT OF PRISONERS IN STATE AND FEDERAL CORRECTIONAL INSTITUTIONS

The educational disabilities of the felon population are not of such proportions as to prejudice their utilization as a manpower resource for defense purposes. The 1940 decennial census provides data on the educational achievement of persons 25 years of age and over in correctional institutions and in the total population. A comparison of the educational achievements of male prisoners and the total population is shown in Table 7, page 25.

It may be noted that 73.3 per cent of the male prisoners shown in Table 7 completed 5 years or more of school work. 19.2 per cent completed 1 to 4 years, while 7.5 per cent either did not complete the first grade, or had no schooling at all. The median grade of school completed is 7.4.

In general, the educational level of the total male population of the nation shown in Table 7 is somewhat higher than for male prisoners. 85.2 per cent of the total male population completed 5 years or more of school work, 10.9 per cent completed 1-4 years, while 3.9 per cent either did not complete the first grade, or had no schooling at all. The median grade of school completed was 8.3.

It should be noted that there has been a general upward trend in the educational level of the population of the United States in recent years. As a consequence of this trend, the educational achievement of persons in the age group 18 - 24 will be higher at any given time than that of the persons 25 years old or over. It follows that persons aged 18 years and

TABLE 7
EDUCATION FOR MALE PRISONERS IN PRISONS AND REFORMATORIES IN
1940 AND TOTAL MALE POPULATION IN 1940 FOR PERSONS 25 YEARS
AND OVER, BY YEARS OF SCHOOL COMPLETED.

<u>YEARS OF SCHOOL COMPLETED</u>	<u>GENERAL POP.</u> ¹	<u>PERCENT</u>	<u>PRISON & REFORM</u> ²	<u>PERCENT</u>
No School Years completed	1,471,290	3.9	10,130	7.5
Grade School				
1-4	4,079,100	10.9	26,080	19.2
5-6	4,399,910	11.7	22,521	16.6
7-8	13,239,380	35.3	40,690	29.9
High School				
1-3	5,332,803	14.2	20,606	15.2
4	4,507,244	12.0	7,595	5.6
College				
1-3	1,823,981	4.9	2,968	2.2
4 or more	2,021,228	5.4	1,291	.9
Not Reported	<u>588,151</u>	<u>1.6</u>	<u>3,965</u>	<u>2.9</u>
TOTAL PERSONS 25 YEARS OR OVER	37,463,087	100.0	135,846	100.0
Median School Grade Completed	8.3		7.4	

1. U. S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-20, No. 6.

2. U. S. Department of Commerce, Bureau of the Census, 16th Census of the United States 1940, Special Report on Institutional Population, p. 13.

over in 1950 can be expected to have had more education than a similar age group in 1940.¹

In the light of these considerations it is apparent that the data in Table 7 underestimates the current educational level of the prison and reformatory male population, particularly with reference to persons of military age. The lesser educational attainment of the felon population is not of such proportions as to warrant its disqualification on educational grounds.

1. The upward trend is revealed by the fact that the median years of school completed for persons 25 years and over in the total population was 8.4 in 1940, and 9.0 in 1947. (Source: U.S. Bureau of the Census, Statistical Abstract of the United States: 1948. Sixty-ninth edition. Washington, D. C., 1948. 122 pp.)

The fact that a greater proportion of males 5-24 years of age in the total population are attending school and staying longer is indicated by the following comparison of the school attendance of males 5-24 years in 1940 and 1947.

School Attendance of Males 5 to 24 Years Old: 1940 and 1947

		<u>Percent of Total Male Population Attending School</u>	
		<u>1940</u>	<u>1947</u>
Total	Age		
	5 to 24 years	58.6	60.9
	5 years	17.5	4.0
	6 years	68.2	66.9
	7 to 9 years	94.1	95.8
	10 to 13 years	95.3	97.7
	14 to 17 years	78.9	80.8
	18 to 19 years	30.8	30.8
	20 to 24 years	8.2	17.6

Source: Ibid

H. PSYCHOLOGICAL AND EMOTIONAL DEFECTS OF THE FELON POPULATION

A number of leading criminologists have studied the relationship between crime and psychological defects. The results of this research provide a basis for a general estimation of the prevalence of psychological or emotional defects among felons. In evaluating the available evidence on this problem, the data on the various types of psychological and emotional defects are presented under the following headings: mental deficiency, psychoneurosis, psychosis, and psychopathy.

1. Mental Deficiency

There have been a number of studies of the prevalence of mental deficiency among criminal offenders. Though mental deficiency was at one time regarded as being highly related to criminal behavior, the more extensive and controlled studies of recent years have established that mental deficiency is no more prevalent among convicted offenders than it is in the general population.

Bromberg and Thompson studied 9,958 offenders who were convicted or pleaded¹ guilty in the Court of General Sessions, New York City. The studies were conducted in the Psychiatric Clinic attached to the Court and covered the years 1932 - 1945. Only offenders scoring below "a mental age of 10 years, 6 months, and an intelligence quotient of 66 at the 16 year level" were regarded as being mentally deficient. Of the total cases examined, 240 or 2.4 per cent were classified as mental defectives. This percentage becomes more significant when a comparison is made with the prevalence of mental deficiency in the general population.

1. W. Bromberg and C. B. Thompson, "The Relation of Psychoses, Mental Defects, and Personality Types to Types of Crime," Journal of Criminal Law and Criminology, 1937, Vol. XXVIII, pp. 70-89.

Bromberg and Thompson compared the distribution of intelligence in an unselected sample of 4,396 cases from their total group with the results published by Yerkes and his associates on the intelligence scores of 194,004 white men drafted in World War I. This comparison in terms of the percentage distribution of clinic prisoners and drafted men is as follows:

	<u>Clinic Prisoners</u>	<u>Drafted Men</u>
Very Superior & Superior	2.5 %	12.1 %
High Average	8.7	15.2
Average	42.9	25.0
Low Average	17.1	23.8
Dull Normal and Borderline	26.3	17.0
Mental Defectives	2.2	7.1

It may be noted that the drafted men had a significantly higher proportion of persons in the lower and higher categories, while the clinic prisoners tended to score predominantly in the middle ranges.

The results obtained by Bromberg and Thompson were corroborated in a later study by Schilder of all convicted felons examined in the psychiatric clinic of the Court of General Sessions, New York City, 1937.

The lay belief that the criminal is feeble-minded reflects the lag between the advance of our scientific knowledge and its popular dissemination. The number of criminals who have been diagnosed as feeble-minded has steadily decreased as our psychometric techniques and tests have been refined. In 1931 a major study was made of all available mental tests of criminals. An analysis of 350 reports, including tests of 175,000 criminals and delinquents, established that the proportion of delinquents diagnosed as feeble-minded

1. Bromberg and Thompson, op. cit., p. 73

2. P. Schilder, "The Care of Criminals and Prevention of Crime," Journal of Criminal Psychopathology, 1940-41, Vol. II, p. 152.

decreased from an average of over 50 per cent in the period 1910 - 1914 to 20 per cent in the period 1925 - 1928. The decrease was due mainly to a change in testing techniques and scoring methods. It was finally concluded that the distribution of intelligence scores for the delinquent population is in fact similar to that of the general population.¹ Subsequent studies have confirmed Sutherland's findings to the extent that feeble-mindedness is presently regarded as having a lesser association with the fact of the criminal person than such impersonal factors as age and sex.²

A current comment on the prevalence of mental deficiency among prisoners as compared with the general population is presented by Richard McGee, Director of the California Department of Corrections. He states:³

"The average intelligence of the men in prison is just about the same as the average man in the street. There are fewer people of superior intelligence, and there are fewer people of low grade, feeble-mindedness, idiots and imbeciles, as they are usually institutionalized elsewhere before they can commit a murder, or they are either too smart, they don't get caught, or they don't commit crimes. The average is about the same as it is for you and me."

2. Psychoneurosis

Most of the studies of psychoneurosis as it effects crime have been directed by psychiatrists toward detailed case analyses of the relation between the psychoneurotic condition and criminal behavior. The most reliable statistics on the incidence of psychoneurosis among convicted offenders are contained

1. Edwin H. Sutherland, "Mental Deficiency and Crime," Ch. XV, in Kimball Young (Editor), Social Attitudes, 1931, pp. 357-375.

2. L. D. Zeleny, "Feeble-mindedness and Criminal Conduct," American Journal of Sociology, 38:564-578, January 1933.

Clara F. Chassell, The Relation Between Morality and Intellect, Teachers College, Contributions to Education, No. 607, New York, 1935.

3. R. McGee, "An Analysis of California's Prison Population," Proceedings California State Sheriffs' Association, 1948, p. 69.

in the aforementioned Bromberg-Thompson and Schilder studies.

Out of 7,100 cases which Bromberg and Thompson examined from 1932-1935 to determine the incidence of psychoneurosis, 490 or 6.9 per cent, were classified as psychoneurotic. Schilder's examination of 2,698 cases during 1937, resulted in 114 or 4.2 per cent of the cases being classified as psychoneurotic. Other less reliable studies on the prevalence of psychoneurosis among prisoners report as few as 2 per cent.

3. Psychosis

Psychotic symptoms have been clearly identified and defined by psychiatrists as the result of many years of observation of patients in mental hospitals. As a consequence, the statistics concerning the incidence of psychosis among convicted offenders appear to have greater reliability than other categories of mental disturbance.

As the result of examining 9,958 convicted offenders in the psychiatric clinic of the Court of General Sessions, New York City, between 1932 - 1935, Bromberg and Thompson report that 153 cases, or 1.5 per cent of the total number of offenders were classified as psychotic.

Schilder's examination of 2,698 cases at the same clinic in 1937 resulted in the classification of 1.6 per cent as psychotic.

Some variability in the incidence of psychosis is noted by Sutherland in different states, but in general the figures confirm the results obtained in New York. Sutherland points out that "psychiatric examinations of criminals on admission to state prisons generally show not more than 5 per cent to be psychotic, and in many institutions, less than 1 per cent."¹

1. Edwin H. Sutherland, Principles of Criminology, 3rd ed., J.D. Lippincott & Co., Chicago, 1939, p. 107

4. Psychopathy

In contrast to the rather clearly defined and recognizable symptoms of the severe mental disorders such as psychosis and psychoneurosis, there is little general agreement among psychiatrists or psychologists as to the criteria for classifying persons as psychopathic personalities. As a result of the vagueness with which this concept is defined, the statistics on the incidence of psychopathic personality among convicted offenders show great variation from one state to another. The National Committee for Mental Hygiene summarized surveys made prior to 1931 on the incidence of mental abnormality in correctional institutions in different parts of the country. This survey found that the diagnosis of psychopathic personality varied from 5.5 per cent to 35.3 per cent. An average figure of 16.7 per cent was found¹ for the 9 states on which data were available. Sutherland reports differences as great as 78.3 per centage points between the percent of convicted offenders classified as psychopathic personality types in different states. He concludes that such variations are "clearly due to the difference in the precon-²ception of the psychiatrists rather than to a difference in the criminals". On occasion the application of the concept of psychopathic personality has been made so broadly as to become absurd, including all persons who commit a criminal act.

A much more conservative and objective application of the concept of psychopathic personality is found in the studies conducted at the Psychiatric

1. Morris Ploscowe, Some Causative Factors in Criminality, No. 13, Vol. 1 of the Reports of the National Comm. on Law Observance & Enforcement, GPO, 1931, p. 51

2. In New York and Massachusetts, only 10 per cent were diagnosed as psychopathic personality types, whereas in Illinois 88.3 per cent were so classified.

Sutherland, op. cit., p. 110

Clinic of the Court of General Sessions, New York City. Out of the group of 9,958 convicted offenders examined between 1932-35 by Bromberg and Thompson, 687 cases, or 6.9 per cent, were classified as psychopathic personalities.

Schilder's classification of 2,698 convicted offenders in 1937 resulted in a diagnosis of psychopathic personality in 197 cases, or 7.3 per cent.

To the extent that the concept psychopathic personality refers to a cluster of personality traits, the presence or absence of which can be reliably established, the figure of approximately 7 per cent among convicted offenders has become generally accepted.

Summary and Conclusion

The figures cited in the preceding sections on the incidence of psychological and emotional defects among convicted offenders indicate clearly that the popular conception of offenders as mentally disturbed persons is in error. For example, sex offenders are generally regarded as mentally abnormal. Yet the May 1949 report of the Committee on Forensic Psychiatry of the Group for the Advancement of Psychiatry points out "that only a small proportion of males convicted of sex offenses have been involved in behavior which is materially different than that of most males in the population. This small group, which numbers in the neighborhood of 5 to 10 per cent, is that which engages our attention as psychiatrists. Among them will be found¹ the feeble-minded, psychopathic and psychotic individuals." The conclusion reached by the Committee on Forensic Psychiatry parallels closely the results cited in the previous sections concerning other types of convicted offenders.

Summarizing the results of Bromberg and Thompson's study of convicted offenders in New York between 1932 - 1935, approximately 18 per cent of the

1. Committee on Forensic Psychiatry of the Group for the Advancement of Psychiatry, op. cit., p. 1

offenders were found to evidence some mental deviation while "normal or¹ average individuals comprised the remaining 82 per cent of the prisoners."

Schilder's study of convicted offenders in New York in 1937 confirms the results obtained by Bromberg and Thompson. He concludes that:

"Roughly 20 per cent of the offenders were psychically abnormal according to ordinary standards. It is obvious that the majority of criminals are normal from a psychiatric point of view if one does not consider the repeated crime itself as a sign of mental imbalance."²

For the purposes of the present report, it may be assumed that at most no more than 20 per cent of the felon population are characterized by psychological or emotional defects which may render their suitability for defense service problematic, and in any event would require special screening.

This percentage is especially significant when compared with the incidence of psychological or emotional defect in the general population. The statistics provided by National Selective Service Headquarters as to the reasons for rejection of registrants examined during the course of World War II, indicate that roughly 16 per cent were rejected because of psychological or emotional defect.³ The rate of rejection for mental defect fluctuated markedly during the war, indicating that the armed services were able to relax or tighten the standards for induction in accordance with their manpower needs. This suggests that appropriate screening techniques may make possible the utilization of a number of the men within even the 20 per cent category of psychologically or emotionally defective persons.

Moreover, it should be emphasized that the Selective Service rejection rate is based on men in the military age groups 18 - 37, whereas the corresponding

1. Bromberg and Thompson, op. cit., p. 152

2. Schilder, op. cit., p. 152

3. The calculation of an average rejection rate for reason of mental defect was based on the following reports of the Director of Selective Service: Selective Service as the Tide of War Turns, U. S. Government Printing Office, 1945, and Selective Service and Victory, U. S. Government Printing Office, 1948.

rate for the felon population also includes men in older age groups where the incidence of mental defect is ordinarily higher. Thus it would appear that the frequency of psychological or emotional defect in the felon population compares favorably with that of the general population.

I. CRIMINALITY OF CONVICTED FELONS AS REVEALED BY PREVIOUS INCARCERATION

The absence or presence of a prior criminal record has long been regarded by correctional authorities as a factor of predictive significance in judging the probable character of an offender's post-institutional behavior.

The annual census of Prisoners in State and Federal Prisons and Reformatories provided statistics for the years 1940, 1945 and 1946 on the prior commitment record of prisoners released during 1940, 1945 and 1946. The total number of male offenders released in each of those years and the percentage distribution by prison commitment record is shown in Table 8, page 36.

It is apparent from Table 8 that the proportion of released offenders with a prior prison record increased from 1940 to 1945, but decreased again in 1946. The 1940-1945 trend may be explained by the fact that during the war years service in the Armed Forces removed many persons with no previous prison record from harmful association and exposure to delinquent influences which in normal times may have led to acts of crime, and possible commitment of such persons as first offenders. This reduced the actual number of first offenders and correspondingly this change was reflected in an increase percentage-wise of those with previous prison records. The decrease in the proportion of released offenders in 1946, with a prior prison record reflects a return to the 1940 peacetime rates; that is, an increase in the proportion of first offenders released.

A projection of the 1945-1946 trend would indicate that the the present time approximately 70 per cent of the offenders released from correctional institutions have no prior prison record.

No comparable nationwide figures are available on the prior commitment record of the prison population as such. California is the only state which has compiled and made public such statistics for its prison population.

TABLE 8
PERCENTAGE DISTRIBUTION OF MALE OFFENDERS RELEASED FROM
FEDERAL AND STATE PRISONS AND REFORMATORIES, BY NUMBER
OF PRIOR COMMITMENTS, 1940, 1945, 1946.

	¹ <u>1940</u>	² <u>1945</u>	³ <u>1946</u>
TOTAL NUMBER	61,431	42,326	44,106
PERCENTAGE:	100.0	100.0	100.0
No Prior Commitments	69.9	65.7	68.1
1 Prior Prison Commitment	18.0	19.3	18.6
2 Prior Prison Commitments	7.0	8.1	7.4
3 or more Prior Prison Commitments	5.1	6.9	5.9

1. U. S. Department of Commerce, Bureau of the Census, Prisoners in Federal Prisons and Reformatories, 1940, United States Government Printing Office, Washington 1943, p. 64.

2. _____, Prisoners in Federal Prisons and Reformatories, 1945, United States Government Printing Office, Washington 1947, p. 93.

3. _____, Prisoners in Federal Prisons and Reformatories, 1946, United States Government Printing Office, Washington 1948, p. 94.

Table 9, page 38, shows the prior commitment record for the California male prison population at the end of each fiscal year from 1945 to 1950. It will be noted that there is a tendency for the percentage of prisoners with no prior commitments to decrease from 1945 to 1950. Conversely, there is a slight tendency for the percentages of those with prior commitment records to increase between 1945 and 1950. The explanation for this effect lies in the fact that during these years prisoners with no prior commitment constitute a greater proportion of releases than they do of admissions. Under normal conditions, the number of admissions and releases of such offenders would tend to balance each other. In any event, this group of first offenders constitutes disproportionately the largest single manpower resource in the prison population.

A comparison of the prior commitment records of male offenders admitted to California prisons from 1947 - 1950 with the prior records of those released during this period, underlines the sizeable dimensions of the manpower resource represented in first offenders.

Table 10 shows the total number and percentage distribution of male admissions to California prisons by prior commitment record for each fiscal year 1947 - 1950. Table 11 provides similar information for male prisoners released from the California prisons for the same time period.

A comparison of table 10, page 39 and table 11, page 40 discloses that the proportions of offenders released from prison each year from 1947 to 1950 who had no prior commitment record was consistently higher than the corresponding proportion of offenders admitted during these years. Conversely, offenders with a record of prior prison commitment constituted a greater proportion of the admissions than of the releases.

TABLE 9

PRIOR COMMITMENTS OF RESIDENT MALE PRISON POPULATION,
CALIFORNIA, FOR FISCAL YEARS ENDING JUNE 30.

<u>PRIOR COMMITMENTS</u>	<u>1945</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>
TOTAL NUMBER	5,643	6,405	7,284	8,216	9,160	9,883
PERCENTAGE	100.0	100.0	100.0	100.0	100.0	100.0
No Prior Prison Commitments	52.3	52.6	52.0	51.2	49.8	49.3
1 Prior Prison Commitment	25.4	25.1	25.0	25.4	25.5	26.2
2 Prior Prison Commitments	12.5	12.4	12.5	12.8	13.5	13.5
3 or more Prior Prison Commitments	9.8	9.9	10.5	10.6	11.2	11.0

Source: State of California, Department of Correction, Characteristics of Resident Male Population of California State Prisons, 1945-1950 (mimeographed).

TABLE 10

PRIOR COMMITMENT RECORD OF MALE ADMISSIONS TO CALIFORNIA

PRISONS FOR FISCAL YEARS ENDING JUNE 30, 1947 - 1950.

<u>PRIOR COMMITMENTS</u>	¹ <u>1947</u>	¹ <u>1948</u>	² <u>1949</u>	² <u>1950</u>
TOTAL NUMBER	2,524	2,876	2,698	2,993
PERCENTAGE	100.0	100.0	100.0	100.0
No Prior Prison Commitments	63.5	63.4	61.8	64.0
1 Prior Prison Commitment	20.5	20.2	22.7	19.9
2 Prior Prison Commitments	8.0	9.5	9.0	8.9
3 or more Prior Prison Commitments	8.0	6.9	6.5	7.2

1. State of California, Department of Corrections, Biennial Report 1947-1948,
p. 110.

2. _____, Biennial Report 1949-1950, p. 39.

TABLE 11

PRIOR COMMITMENT RECORD OF MALE RELEASES FROM CALIFORNIA
PRISONS, FOR FISCAL YEARS ENDING JUNE 30, 1947-1950.

<u>PRIOR COMMITMENT</u>	¹ <u>1947</u>	¹ <u>1948</u>	² <u>1949</u>	² <u>1950</u>
TOTAL NUMBER	1,645	1,944	1,754	2,270
PERCENTAGE	100.0	100.0	100.0	100.0
No Prior Prison Commitments	74.3	72.1	74.7	70.8
1 Prior Prison Commitment	16.8	16.2	20.5	14.9
2 Prior Prison Commitments	5.0	6.6	3.8	7.6
3 or more Prior Prison Commitments	3.9	5.1	1.0	6.7

1. Based on: State of California, Department of Corrections, Biennial Report 1947-1948, p. 110: and _____, Characteristics of Resident Male Population of California State Prisons, 1945-1950 (Mimeographed).

2. Based on: _____, _____, Biennial Report 1949-1950, p. 39, and _____, Characteristics of Resident Male Population of California State Prisons (Mimeographed).

It is thus apparent that the decrease noted in Table 9 in the percentage of offenders with no prior commitments reflects the effects of a more tolerant release policy toward first offenders, rather than a general increase in the amount of recidivism among those admitted.

The above comparison of the prior commitment records of offenders admitted, released, or still in prison clearly demonstrates that there is a much more rapid turnover of first offenders than of those with prior prison commitments. This fact is of considerable importance in assessing the possible contribution of the felon population to the manpower pool of the armed forces. Over a period of time the proportion of offenders who may be regarded as less acceptable for defense service by reason of prior prison commitment will be considerably smaller than the actual proportion of this group in the prison population at any one time.

In considering the prior commitment record of convicted offenders in relation to their suitability to defense service, it is important to note that the negative effect of such a record is not necessarily a foregone conclusion. Parole authorities have learned that the predictive value of a criminal record varies in accordance with the kind and quality of the parole situation to which the offender is released. Service in the armed forces may provide a situation for some recidivistic offenders which will make possible a more satisfactory adjustment than may be found for them in civilian life. In such cases, the fact of a prior commitment will not necessarily be an indication that failure will occur.

J. CONVICTED FELONS NOT CONFINED TO INSTITUTIONS

In determining the extent of the defense manpower resource represented by the felon population of the United States, it is important to consider also those men in the military age groups who are not confined in correctional institutions. This group consists of those granted probation or suspended sentence following felony convictions, those released conditionally from correctional institutions, and those released unconditionally, that is, by expiration of sentence.

The exact number of convicted felons granted probation or suspended sentence by the courts each year is not known. The Annual Judicial Statistics published by the Bureau of the Census until 1946, indicate that nearly a third of convicted felons (31.3 per cent) are granted probation or suspended sentence each year by the courts. A slightly larger proportion of convicted felons, (37.8 per cent) are committed to prisons or reformatories. The remainder¹ (30.9 per cent) receive local jail, workhouse or other sentences.

Estimates are given in Table 13, page 43, of the number of convicted male offenders within each of the alternative dispositions carried out by the courts in 1950. The number receiving probation or suspended sentence is estimated at about 58,000 men. While statistics are not available on the composition of the felon population granted probation, the legal restrictions defining eligibility for probation indicate that this group is composed primarily of first offenders and does not include persons convicted of crimes regarded as heinous.

1. U. S. Bureau of the Census, Judicial Criminal Statistics: 1944, Washington, D. C. 1946, p. 7

TABLE 12

ESTIMATED NUMBER AND PERCENTAGE DISTRIBUTION OF CONVICTED MALE
FELONS SENTENCED BY THE COURTS IN 1950, BY TYPE OF DISPOSITION.

<u>DISPOSITION</u>	² <u>NUMBER</u>	¹ <u>PERCENT</u>	
Prison or Reformatory	70,000	37.8	
Probation or Suspended Sentence	57,963	31.3	} 62.2
Local Jail, Workhouse, or other Sentence	57,222	30.9	
	115,185		

1. The percentage figures are taken from the Judicial Criminal Statistics: 1944, U. S. Bureau of Census, Washington, D. C., p. 7. Though these figures are based on returns from only 24 states for 1944, they are the most recent and complete figures of this kind available.

2. Estimates of the number of convicted male felons in each category of disposition are based on the 70,000 male felons sentenced to prisons or reformatories in 1950. This figure is a reliable extrapolation of annual admission figures from 1940 to 1948 given in the Prisoners in State and Federal Prisons and reformatories, U. S. Bureau of the Census, Government Printing Office, Washington, D. C. (1940-1946), and Prisoners in State and Federal Prisons and Reformatories, U. S. Bureau of Prisons, (Mimeographed), 1947-1948.

The statistics providing the basis for an estimate of the number of felons conditionally released from correctional institutions are derived from the annual census of prisoners in state and federal prisons and reformatories. This census furnishes statistics up to 1948 on the number of imprisoned offenders who were released conditionally. Extrapolation of these figures indicates that in the neighborhood of 40,000 male prisoners were conditionally released in 1950.

Parole is the major form of conditional release. It involves an examination and selection by a paroling authority of each case granted parole. As a result of this screening, this group contains a high proportion of the total releases likely to achieve a good adjustment as law abiding citizens.

The annual census of prisoners also furnishes information on the number of prisoners unconditionally released each year from prisons and reformatories. A corresponding extrapolation of the trend for this group of releases indicates that approximately 30,000 men were released in 1950. This group is composed primarily of prisoners released at the expiration of their sentence, and includes those who were pardoned or received a commutation of sentence.

No attempt has ever been made to secure statistics on the number of ex-felons in the general population. However, for the purposes of this report an effort was made to secure an estimate of the number of men in the general population, aged 18 - 35 in 1951, who had served a sentence in a state or federal prison or reformatory. A basis for this estimate was obtained by listing the total number of men released each year between 1931 - 1950 from prisons and reformatories. Since figures were also available on the age composition of released offenders, it is possible to calculate the number of men released each year who are in the age group 18 - 35 at the present time. In order to eliminate the effect of recidivism, an estimate was made of the number of persons in this group who had no previous prison or reformatory commitment at the

time of their release. By eliminating from this figure the number of men in the age group 18 - 35 who had previous prison or reformatory commitments, and are now serving a sentence, a final estimate of 255,000 men was obtained. This estimate thus represents the number of men aged 18 - 35 in the general population who have had one or more prior commitments in a state or federal prison or reformatory, exclusive of correctional institutions for juveniles only.

**POLICIES, REGULATIONS, AND SELECTION
PROCEDURES RELATING TO THE INDUCTION OF FELONS**

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POLICIES, REGULATIONS, AND SELECTION PROCEDURES

RELATING TO THE INDUCTION OF FELONS

Illinois Division of Correction

Contents

	<u>Page</u>
A. Background and History of Current Regulations	1
B. Methods and Procedures in the Induction of Felons	15
Selection and Induction of Felons discharged from Confinement or Civil Supervision	16
Selection and Induction of Released Felons under the Supervision of Civil Authorities	21
Selection and Induction of Felons Undergoing Confinement	23
Evaluation of the Policies and Procedures Developed During World War II for the Selection and Induction of Felons	30
C. Recommended Policies and Procedures for the Selection and Induction of Felons	43

A. BACKGROUND AND HISTORY OF CURRENT REGULATIONS

Introduction

The critical manpower shortage during World War II brought about limited utilization of convicted offenders by the armed forces of the United States. At the outbreak of World War II men with criminal records were completely excluded. Regulations were gradually revised and relaxed as the war progressed, permitting the utilization of some convicted felons in the armed services. In the later months of World War II, the induction of felons had been considerably extended, and emphasis was placed on increasing the efficiency of the methods of selection.

Today we are again faced with a situation which necessitates the maximum utilization of our manpower resources. The events of World War II provided valuable experience on the basis of which it becomes possible to evaluate the effectiveness of various types of regulations. This section of the report will trace the laws and regulations pertaining to the acceptability of convicted offenders by the armed forces of the United States, with a view to affording a basis for assessing the effects of existing regulations in bringing about the optimum conditions for total manpower utilization.

Up to the time of the Selective Training and Service Act of 1940 felons were excluded from military service in accordance with Section 1118 of the Revised Statutes of the U. S. Code which had been in force since 1877. This section provided that no person who had been convicted of a felony "shall be enlisted or mustered into military service."¹

This law was reflected in the Selective Training and Service Act of 1940 which authorized the President to prescribe the rules and regulations for the deferment from training and service of men who are considered physically,² mentally and morally deficient or defective.

On the basis of this authority the President promulgated the executive order³ which placed in Class IV-F "habitual criminals or persons convicted of treason, or any crime which under the laws of the jurisdiction in which they are convicted, is a felony and which the local board determines renders the registrant morally unfit for service."⁴

The above regulation seemingly left some discretion to the Selective Service boards in determining the suitability of a registrant. However, such interpretations were of little consequence since, on the basis of the provision in the Selective Service Act that "No man shall be inducted for training and service under this act unless and until he is acceptable to the land and naval forces",⁵ the military authorities refused to accept any registrants with a felony record. The "Mobilization Regulation" of the Army in November stated:

1. 10 United States Cod. Annotated 622, Section 1118
2. Enforcement of the Selective Service Law, Special Monograph, No. 14, Selective Service System, 1950, p. 68
3. Executive Order No. 8560, October 4, 1940
4. Selective Service Regulations, Vol. 3, Classification and Selection, Section XXIV, paragraph 362.
5. The Selective Training and Service Act of 1940, Public No. 783, 76th Congress, Chapter 720, 3rd Session, S. 4164, Sec. 16(a)

"No registrant will be inducted into the military service who has been.... convicted of any crime which under the law of the jurisdiction of the commission is treason, felony, or infamous crime."¹

This regulation, which precluded the acceptance for induction of any person who had been convicted of a felonious crime, established an absolute barrier against the utilization of all men convicted of felonies, among whom there were many quite capable of becoming good soldiers. The severe and limiting effects of this arbitrary regulation were noted by the military authorities, and in February 1941, the Judge Advocate General advised the Assistant Chief of Staff G-1, that:

"(1) Section 1118 of the Revised Statutes was not applicable to persons selected for induction under the Selective Training and Service Act of 1940, and that the War Department was promulgating a regulation which would permit the induction upon selection by the System of persons who had been convicted of felonies.

"(2) When such regulations were promulgated, enabling legislation should be enacted to permit the regular Army to enlist persons who had been convicted of felonies, since Section 1118 of the Revised Statutes prohibited their enlistment."

As a result of these considerations, in April 1941 Army regulations were changed to distinguish between "heinous" crimes and felony convictions for other crimes.² The new regulation provided that no registrant was to be inducted into military service who had been convicted of a "heinous" crime.³

It also excluded from induction any person who had been convicted of any offense punishable by death or confinement for a term exceeding one year if the person had been convicted more than once for the same offense or of any other offense so punishable. This regulation further excluded from induction any person who was at the time of induction on parole, on probation, or under suspended sentence.

1. Mobilization Regulation 1-7, 1 October 1940, Change 2, 13 November 1940
2. Mobilization Regulation 1-7, 1 October 1940, Change 8, 8 April 1941
3. The following crimes were listed as heinous crimes: treason, murder, rape, kidnapping, arson, pandering, sodomy, any crime involving sex perversion, any illegal dealing in narcotics or other habit forming drugs.

This was a most significant change in Army regulations. For the first time, some men with felony convictions were given the opportunity to join the armed forces. However, this opportunity was still limited to first offenders who had committed other than "heinous" crimes, and who were no longer under supervision of civilian authorities. In the light of well-established knowledge of the characteristics of the felon population, this regulation excluded a large number of persons capable of making successful adjustments to life in the armed forces, and whose services could have proved significant in the furtherance of the war effort.

In July 1941 the enabling legislation recommended by the Judge Advocate General was enacted when Congress passed Public Law 189. This law amended Section 1118 of the revised statutes and stated that:

".... with relation to persons convicted of felonies the Secretary of War may, by regulations or otherwise, authorize exceptions in special meritorious cases."

Thus the legal obstacle which prevented full utilization of the felon population was removed. From that time on the use of felons by the armed forces has been a matter of policy decision and regulation by the departments concerned.

In September 1941 the Army regulations were further changed to permit the induction of certain men who were under the control of civil authorities. The new regulation provided the following:

"However, if the selectee presents at the time of his induction a certified copy of a civil order relinquishing control by civil authority, he may be inducted if he is otherwise qualified. The civil order referred to above may terminate the civil custody (parole, probation or suspended sentence) at the time of induction or may suspend it for the period of military service, either with or without credit for such period."¹

1. Mobilization Regulation 1-7, 1 October 1940, Change 16, 24 September 1941

This meant that the restrictions against the use of men still under civilian supervision were lifted and men on parole, probation or suspended sentence could be considered for induction into the armed forces.

However, the procedure for the induction was difficult and cumbersome. This problem was recognized, and during the fall of 1942 representatives of the War Department, Selective Service, and the Federal Bureau of Prisons of the U. S. Department of Justice, held a series of conferences on this subject. These conferences resulted in further changes in War Department regulations in November 1942.¹

The new regulations of November 1942 still completely excluded registrants undergoing confinement as a result of one conviction for the aforementioned "heinous" crimes.² In the case of registrants, however, who had been convicted of such crimes, but who had been discharged, paroled, conditionally released, or placed on probation or suspended sentence for at least six months, induction was made possible for those considered especially meritorious. These cases had to be approved in each instance by the commanding general of a service command or department prior to the registrants being forwarded to a recruiting or induction station. As a basis for deciding these cases, the commanding general was instructed to take into consideration the time the individual had lived in a civilian community subsequent to his release from confinement, and whether his behavior during this period was above reproach.³

In the case of individuals who were serving sentences in excess of one year for other than "heinous" crimes, induction into the army was made possible

1. Director of Selective Service, Selective Service and Victory, U. S. Government Printing Office, 1948, 202
2. Army Regulation 615-500, 1 September 1942, Change 1, 2 November 1942, 7(b)(2)(a)
3. Ibid, 7(b)(2)(b)

immediately upon conditional release, if the individual cases were specifically approved by the commanding general of a service command or department. This approval was to be based on evidence presented by the Selective Service System and the appropriate paroling authorities. The controlling language was as follows:

"... that the individual is regarded as fit for life in a civilian community; that regardless of acceptability to the Army he is to be placed on parole, conditional release, or discharged contingent only upon development of an adequate means of livelihood; that having been so released he will not be again confined other than for violation of the parole, etc., or commission of another offense."¹

This regulation also gave the Selective Service System the authority to forward for induction, without requesting waivers, those individuals who had been sentenced and convicted for a period in excess of one year for other than "heinous" crimes, provided that the individual had been in a civilian community on parole, conditional release, probation, or suspended sentence, for at least thirty days in the case of first offenders, or ninety days in the case of other than first offenders. The only other requirements were that the conduct of the individual during the period in the civilian community had been above reproach, that the individual had not displayed any criminal tendencies, and that the civilian authority supervising the individual would suspend or terminate such supervision for the period of Army service. If the Selective Service System desired to forward an individual prior to the required period they were permitted to request waivers from the commanding general of a service command or department.

This regulation provided further that: a) regardless of offense committed, registrants who had been in frequent difficulties with law enforcement

1. Ibid 7(b)(3)(a)
2. Ibid 7(b)(3)(b)

authorities, who had displayed criminal tendencies or traits, or who were otherwise of questionable reputation or moral character, were unacceptable¹ for induction; b) in all instances civilian supervision had to be waived.²

Thus these regulations enabled local boards of the Selective Service System to reclassify and arrange for the induction of many thousands of men who had previously been classified in IV-F as morally unfit for service because they had at one time been convicted of a felonious crime.

³
In November 1943 new Army regulations provided that the authority to approve for induction or the authority to grant waivers to registrants who had been convicted of felonies other than "heinous" crimes, could be "delegated by the commanding general of a service command or department to such state or territorial directors of Selective Service as he may select, when after consultation with appropriate State and Federal officials, he feels that procedures have been placed in effect that protect fully the interests of the armed forces and that such action will simplify administration."⁴

Beneficial results on the induction of men with felony convictions had been obtained from the various accumulated changes. However, the procedures continued to exhibit a number of serious imperfections and limitations. Efforts were made by Selective Service and the Federal Bureau of Prisons during the spring and summer of 1944 to overcome the strictures which still remained as to felons⁵ under actual confinement and the serious handicaps of the waiver procedures.

1. Ibid., 7(b)(4)

2. Ibid., 7(b)(6)

3. Army Regulations 615-500, 1 September 1942, Change 8, 15 November 1943

4. Ibid., 7(b)(3)(c)

5. Director of Selective Service, op. cit., p. 202

This objective was partially accomplished when in August 1944 a new regulation pertaining to the induction of persons with criminal records was issued by the Army.¹ This new regulation excluded categorically from induction only one group of offenders, namely, those undergoing confinement as the result of a conviction of one of the enumerated "heinous" crimes.² Certain groups of offenders could be inducted only in especially meritorious cases, and in such cases approval by the commanding general of a service command or department was required. These groups, two in number included the following types of persons:

1. A person convicted of a "heinous" crime who was at the time of induction under suspended sentence, probation, parole, conditional release, or who had been discharged from custody. (A condition of approval was that the person had lived in a civilian community for at least six months subsequent to his release from confinement and that during such period his conduct had been above reproach.)³
2. A person who was found to be in frequent difficulty with law enforcement authorities, or to have displayed criminal tendencies or traits of character which might render him an unfit or undesirable associate of enlisted men, or to have a record which indicated a long history of anti-social behavior, or to be otherwise of questionable reputation or moral character. (Requests for special approval of cases of these types could be forwarded by the Selective Service System if they considered the case to be especially meritorious.)

1. Army Regulations 615-500, 10 August 1944, 13 (b)

2. Ibid, 13 (b)(3)(a)

3. Ibid, 13 (b)(4)(a)

4. Ibid, 13 (b)(4)(b)

This regulation also made provision for the induction of men undergoing confinement in excess of one year as a result of having been convicted of a crime other than "heinous," if the following conditions were met:

1. The local board or special panel board responsible for forwarding the person would furnish a written statement that in its opinion the person would conduct himself in such a manner as not to be a detriment to the armed forces, and would recommend that the person be accepted for induction.¹

2. The authority which was empowered to grant the person parole, pardon,

or conditional release stated that:

"(a) The registrant has been granted a parole, pardon, or conditional release effective on or before the date of his contemplated induction into the armed forces.

"(b) If the registrant is rejected for service in the armed forces, he is suitable for, and will be released to a civilian community.

"(c) It recommends that the registrant be accepted for induction into the armed forces.

"(d) In its opinion, the registrant will conduct himself in such a manner as not to be a detriment to the armed forces.

"(e) If the registrant is accepted, custody of civil authority has been terminated effective upon his entering the armed forces, or has been suspended during the period of his military service."²

This regulation further provided that any person undergoing confinement for a crime other than "heinous," who was within sixty days of being eligible for parole, pardon, or conditional release, could be forwarded for a pre-induction physical examination if the local board or special panel board responsible for forwarding him did the following:

"(a) Complies with 1 above.

"(b) Forwards his institutional and Selective Service records.

1. Ibid., 13 (b)(3)(b)(1)
2. Ibid., 13 (b)(3)(b)(3)

"(c) Forwards with his records a certificate that it has investigated his case and is of the opinion that he warrants consideration for parole to a civilian community if he is not found to be acceptable by the armed forces, and

"(d) States that the board has been advised by the authority which is empowered to grant the registrant parole, pardon, or conditional release, that the determination by the armed forces of the registrant's physical and mental acceptability will not enter into its determination either to release or not to release the registrant on parole, pardon, or conditional release, when he becomes eligible therefor."¹

With reference to persons on parole, conditional release, probation or suspended sentence, the regulation provided that such persons were acceptable for induction into the armed forces providing the proper authority either terminated the civil custody effective upon his being inducted into the armed forces, or suspended civil custody during his period of military service.²

This regulation also included the general rule that all persons with types of criminal records not specifically mentioned above were to be considered morally acceptable for service in the armed forces.³

These regulations marked the extent of the Army's relaxation of its rules and procedures in the induction of felons during World War II. Their effect was of salutary significance in that they clarified certain misleading considerations by eliminating the merely technical distinctions as between first and second offenders. Furthermore, they eliminated purely formal eligibility criteria such as length of sentence, and the variable and cumbersome judgments exercised in securing individual waivers. These regulations made possible the prompt induction of many felons. However, the criteria prescribed for screening the felon population were still crude. They reflected and were based on a priori

1. Ibid, 13 (b)(3)(b)(2)
2. Ibid, 13 (b)(4)(c)
3. Ibid, 13 (b)(1)

assumptions as to what types of felons could make satisfactory adjustments to military life. Furthermore, they were lacking in concreteness, and hence permitted subjective considerations to enter into the induction of felons. As a consequence, it is probable that many felons who offered good prospects for successful adjustment to military life were rejected, while others with less favorable prospects were inducted.

These regulations remained in effect until 1948. However, with the end of hostilities the actual induction of men with criminal records diminished sharply. In December 1946 the Selective Service System had discontinued its¹ Special Panel Boards.

In June of 1948 Congress passed the Selective Service Act of 1948. This act retained the provisions of the 1940 act that:

"No person shall be inducted for training and service under this title unless and until he is acceptable to the armed forces for such training and service, and his physical and mental fitness for such training and service has been satisfactorily determined under standards prescribed by the Secretary of Defense or the Secretary of the Treasury."

It also retained the provision that:

"The President is also authorized, under such rules and regulations as he may prescribe, to provide for the deferment from training and service under this title in the Armed Forces of the United States . . . (2) of any or all categories of those persons found to be physically, mentally, or morally deficient or defective."³

In addition it contains a new section relating to individuals with criminal records which states:

"No person shall be relieved from training and service under this title by reason of conviction of a criminal offense, except where the offense of which he has been convicted may be punished by death, or by imprisonment for a term exceeding one year."⁴

1. Colonel Victor Klobar, A.G.D., Selective Service In Illinois 1940-47, State of Illinois, p. 194
2. The Selective Service Act of 1948 as Amended, Section 4(a)
3. Ibid, Section 6(h)
4. Ibid, Section 6(m)

Thus under the new law the regulations of the services remain the controlling factor in respect to the induction of felons, since as indicated above, every person inducted has to be acceptable to the armed forces.

1
Army regulations issued in 1948¹ returned to a policy of almost complete exclusion of felons from induction. The regulations provided that a person who had been convicted of an offense punishable by death or imprisonment for a term exceeding one year "is morally unacceptable for service in the armed forces unless such disqualification is waived by the respective department."²

Persons who had been convicted for offenses punishable by less than one year imprisonment, could be approved for induction by the commanding general of the army within which the induction station was located.³

These regulations further provided that a person "having frequent difficulties with law enforcement agencies, criminal tendencies, a history of anti-social behavior, alcoholism, drug addiction, sexual misconduct, questionable moral character, or traits of character which render him unfit to associate with other men, is unacceptable. However, the commanding general of each army, after complete investigation through local law enforcement agencies, may waive the disqualification for induction."⁴

Furthermore, men who had criminal charges filed against them but who, as an alternative for further prosecution, indictment, trial or incarceration were granted by a court a release from the charge on the condition that they would apply and were accepted for induction, were classified as unacceptable.⁵

1. Army Regulations 615-500, 10 August 1944, Change 3, 30 December 1948, 13(b)(3)(a)
2. Ibid. 13 (b)(3)(a)
3. Ibid. 13 (b)(3)(b)(2)
4. Ibid. 13 (b)(3)(b)(1)
5. Ibid. 13 (b)(3)(c)

Men on parole, probation, or on conditional release from any term of confinement¹ were also classified as unacceptable.

These essentially restrictive regulations remained in force until² November 1950, when the regulations governing present induction, and which had³ been in practical effect since 27 April 1950, were announced as controlling. However, it should be noted that the spirit and effect of the current regulations do not depart from the regulations which they superseded.

The current regulations are quoted verbatim, and read as follows:

"Par. 10 (d) Moral Standards -- Information concerning court convictions of a registrant and whether he is in custody of the law will be indicated on DD Form 47, under item 14a and b. More specific information concerning such an entry, especially with respect to personal background, the circumstances of the incident or incidents, and final disposition of charges must be obtained from the registrant at the induction station during the pre-induction preliminary interview.

(1) A registrant who has been convicted by a civil court, or who has a record of adjudication by a juvenile court adverse to him for any offense punishable by death or imprisonment for a term exceeding one year, is morally unacceptable for service in the armed forces unless such disqualification is waived by the respective Department.

(2)(a) A registrant having frequent difficulties with law enforcement agencies, criminal tendencies, a history of anti-social behavior, alcoholism, drug addition, sexual misconduct, questionable moral character, or traits of character which render him unfit to associate with other men is unacceptable. However, the commanding general of each army, after complete investigation through local law enforcement agencies, may waive this disqualification for induction. The report of investigation and the authority for induction will be attached to the original DD Form 47.

(b) A registrant who has been convicted by a civil court, or who has a record of adjudication by a juvenile court, adverse to him, for an offense not punishable by death or imprisonment for a term exceeding one year, may be approved for induction by the commanding general of the army within which the induction station is located,

1. Ibid, 13 (b)(3)(d)

2. Department of the Army, Circular 62, Washington, D.C., 1 November 1950

3. Special Regulations 615-180-1, 27 April 1950, 10(d)

if in the opinion of the commanding general such approval is warranted. Induction will not be denied solely on the basis of conviction or adjudication for such offenses, and a record of minor traffic violations is not disqualifying. In determining acceptability, the commanding general will consider the criteria set forth in (a) above.

(3) Men who have criminal charges filed and pending against them alleging a violation of a State, Federal, or Territorial statute, but as an alternative to further prosecution, indictment, trial or incarceration for such violation are granted by a court a release from the charge on the condition that they apply and are accepted for induction into the armed forces, are unacceptable.

(4) Men on parole or probation from any civil court, or on conditional release from any term of confinement are unacceptable."

It is clear that the current regulations reflect an policy of

almost complete exclusion of persons who have ever been convicted of a felony.

The trend toward relaxation of restrictive policies brought about during World War II, and which permitted a large number of felons to join the armed forces has been abruptly reversed.

The practice within the Selective Service System conforms with Defense

Department policies, since in accordance with Section 4(a) of the Selective

Service Law of 1948 quoted above, the Armed Forces regulations determine the

policy of Selective Service in regard to the acceptability of registrants. These

Selective Service regulations provide that:

"In Class IV-F shall be placed any registrant (a) who is found to be physically or mentally unfit for any service in the armed forces; (b) who under the procedures and standards prescribed by the Secretary of Defense is found to be morally unacceptable for any service in the armed forces; (c) who has been convicted of a criminal offense which may be punished by death or by imprisonment for a term exceeding one year, and who is not eligible for classification into a class available for service."

1. Selective Service Regulations 1622.21

B. METHODS AND PROCEDURES EMPLOYED IN THE INDUCTION OF FELONS

As has been pointed out, prior to 1941 felons were categorically excluded from military service. During World War II the pressing need for the full utilization of available manpower directed attention toward the sizeable felon population as a manpower resource. Accordingly, the aforementioned legislation was passed enabling the Armed Service to induct felons in accordance with such rules and regulations as they deemed fit and as their needs required. This change in induction policy created wholly new problems regarding the selection of felons for military service. It proved necessary to develop new procedures capable of selecting out as many qualified men from among the felons as possible. At the same time, the civilian and military authorities experienced difficulty in reaching general agreement on specific criteria for ensuring the selection of the most promising candidates. Initially these criteria were exceedingly strict and excluded large groups of men in accordance with quite arbitrary conceptions as to the acceptability of various classes of offenders. Gradually the increasing pressure of manpower needs and the absence of any apparent difficulty on the part of inducted felons in adjusting to military life led to the gradual removal of a number of the initial restrictions on the types of felons acceptable for induction. The experience gained with these men also led to changes in the regulations which enabled the selection and induction process to develop more rapidly and efficiently.

The present need for a full manpower utilization in the furtherance of the defense effort requires a re-examination and analysis of the methods and criteria developed in World War II for the selection and induction of felons. This is particularly true since under the current regulations governing the induction of felons the Armed Forces have reverted to restrictive measures which take little account of the World War II experience. The analysis of this experience provides

the basis for the examination of current policy and the development of appropriate modifications. Furthermore, this analysis provides information necessary to the possible implementation of new policies, methods, and criteria of selection which can ensure a fuller and more effective use of the felon population as a manpower resource.

The following material describes the methods used for the selection and induction of felons from the onset of World War II to the present time. It also deals with various shortcomings of these methods as they operated to prevent the optimum utilization of the felon population and to handicap the selection of those felons who were the most promising candidates and who were most likely to make a successful adjustment in the armed forces. Finally, this section presents certain specific recommendations and proposals concerning methods and criteria of selection which are likely to bring about the best possible selection and utilization of felons in the Armed Forces.

In developing methods and criteria for the selection and induction of felons during World War II, distinctions were consistently drawn in the regulations between those who had been discharged from confinement or civil supervision, those who were being actively supervised on some form of conditional release, and those who were still undergoing confinement. In the light of these distinctions the development of selection practices will be treated separately for each of these three groups.

Selection and Induction of Felons Discharged from Confinement or Civil Supervision.

The criteria employed by Selective Service and the Armed Forces to determine the acceptability of discharged felons for induction were altered as the pressure of manpower needs increased. Initially the controlling criteria were stated in terms of the type of offense and the extent of the criminal record. Only first offenders and those convicted of other than "heinous" crimes were admitted. Gradually these restrictions were relaxed to permit the induction of

other than first offenders and certain persons who had been convicted of "heinous" crimes. To determine those discharged felons who qualified under these more liberal provisions, two additional criteria were specifically set forth in the regulations. As noted in the previous section, these criteria provided that the discharged offender previously convicted of a "heinous" crime shall have lived six months in the civilian community and that his behavior shall have been above reproach. In applying these criteria considerable discretion was allowed the local selective service boards and the induction station authorities. A general clause provided that, regardless of the offense committed, a registrant who had been in frequent difficulty with law enforcement authorities, or had displayed criminal tendencies or traits of character which might render him an unfit or undesirable associate of enlisted men, or had a record which indicated a long history of anti-social behavior, or who was otherwise of questionable reputation or moral character, could be found unacceptable.

The first indication received by the local selective service board that a registrant had a felony record was provided by a section of the Selective Service Questionnaire (D.S.S. Form 40) which each registrant was required to complete prior to his initial classification. In this section, entitled "Court Record," each registrant was asked whether or not he had been convicted of treason or a felony. Every registrant convicted of such an offense was then required to fill in statements pertaining to the nature of the offense, the approximate date of conviction, and the name and location of the court. Usually misdemeanor convictions were also noted in this section by the registrants or were attached in the form of an appended statement along with additional felony convictions.

In the event that the questionnaire revealed the existence of a past criminal record, an attempt was generally made to secure additional information

on the character of the offense and the criminal history. In some cases the clerk of the local board carried on the investigation by directing letters of inquiry to the appropriate authorities. In other cases the local board requested the State Headquarters of Selective Service to carry out the necessary investigation. The extent to which such an investigation was carried out for all registrants admitting a criminal record can not be established at this time, but the policy of Selective Service called for an investigation of this kind as a routine practice. Where the replies to the questionnaire disclosed no criminal record, investigations were conducted only in those cases in which the board had reason to believe that the past record was being concealed.

The information contained in the questionnaire and such additional information as was secured through investigation provided the evidence on the basis of which the local boards determined classification and applied the criteria of selection for persons with criminal records. Where a given registrant failed to meet the criteria of acceptability as provided by the existing regulations, he was placed in Class IV-F (Moral). As the regulations were relaxed under the pressure of manpower needs, procedures were established by which the local board could direct the attention of the commanding general of the service command to "especially meritorious cases" which would not meet a strict application of the criteria specified in the regulations. In requesting a waiver in such cases, the board was required to forward a statement based on the personal knowledge of the board members or on information which they had received that in its opinion the registrant's case was especially meritorious and that the board recommended that induction be approved.

After the local selective service board had determined that a registrant with a previous criminal record was acceptable within the limits imposed by the existing criteria of selection, the registrant was forwarded to the induction station. All information in the possession of the local board bearing on his

moral qualification for service was forwarded along with his other records. The final decision as to the acceptance or rejection of the registrant was then made by the Army authorities at the induction station in accordance with their interpretation of the existing Army regulations. In the event that the registrant was rejected at the induction station, the reason for rejection was noted on his Certificate of Fitness (D.S.S. Form 218), a copy of which was routinely returned to the local board. If the reason for rejection pertained to the moral acceptability of the registrant and no further action could be taken by the local board to obtain an appropriate waiver, the registrant was classified in Class IV-F.

The current procedures governing the selection and induction of persons with previous criminal records, who had been discharged by civil authorities, differ somewhat from the above practices which were controlling during the wartime period. Under current Army regulations it is possible for all persons with a previous criminal record who are no longer under the supervision of civilian authorities to be considered for a moral waiver. The request for a waiver is made to the appropriate authorities at the time of the pre-induction physical examination at the induction station. Waivers for persons with previous felony convictions are requested by the induction station authorities from the respective Departments of the Armed Services. Waivers for persons having a history of only misdemeanor convictions are requested from the commanding general of the Army within which the induction station is located. Such requests for waivers must be accompanied by a report of an investigation carried out by the induction station authorities concerning the nature of the crime, the previous criminal record, and personal background of the registrant. Induction is postponed until the request for a waiver is approved or rejected. In the event the request is rejected, the local board is informed and classifies the registrant in Class IV-F (Moral). The effect of

this procedure has been to remove the burden of investigation and decision as to moral fitness of persons with criminal records from the local selective service board, and to transfer this responsibility to the military authorities.

A sample check of 41 of the 81 local boards in the Chicago area disclosed that most of the boards conform to the above procedure of forwarding persons with previous criminal records for pre-induction examination except those who are under the active supervision of civilian authorities. However, several of the boards interpreted the regulations in such a way as to classify many discharged felons in Class IV-F without forwarding them to the induction station. This indicates the need for further clarification of the existing regulations as to the proper procedure to be followed by the local boards.

An investigation was also made at the Chicago Induction Station to reveal the effect of these procedures on the actual induction of felons at the present time. Statistics compiled by the Induction Station for this purpose disclose that sixty-five waivers for felons were requested from the Department of the Army in the seven month period from September 1950 to April 1951. Of this number, fifty-two requests for waivers (80%) were denied, and thirteen requests for waivers (20%) were granted. All of the thirteen men accepted were first offenders, and twenty-five of the fifty-two men rejected were also first offenders. No clear-cut evidence could be produced on which the distinction between the first offenders accepted and those denied was based. The information contained in the request for a waiver relates primarily to the nature of the offense, the subsequent disposition and previous criminal record. Limited information is also reported on the employment record subsequent to the offender's release from confinement. Since the results indicate no clear pattern of selection in terms of this information, it is apparent that the decision to approve or deny a request for a moral waiver is determined largely by subjective and informal considerations such as the

personal attitudes and convictions of the reviewing officer. These results suggest the need for more detailed information in each case, and the establishment of uniform criteria of selection which can be objectively related to successful adjustment in the armed forces, in order that even and accurate selections may be made. Informed and relevant decisions require the gathering of detailed information on the merits of the individual case. However, such information is subject to variable interpretations unless it is evaluated in the light of a well-defined set of standards. These standards, in turn, must be fixed on the basis of a careful examination of past experience. It is the purpose of the present research to produce standards of this kind through a case-by-case follow-up and analysis of the experience and adjustment of Illinois felons in the armed forces during World War II.

While a check of the actions in regard to moral waivers for felons disclose little disposition on the part of the authorities to accept felons at the present time, this was not found to be the case for misdemeanants. The statistics on waivers for persons with misdemeanor convictions submitted for approval by the Chicago induction station to the Fifth Army Headquarters revealed that 358 waivers were requested from September 1950 to April 1951. Of this number, 316 requests (91%) were approved, and thirty-two requests (9%) were denied. These results indicate that under current regulations a record of only misdemeanor convictions is not a serious bar to induction.

Selection and Induction of Released Felons Under the Supervision of Civil Authorities

The criteria governing the selection for induction of felons who had been released from confinement, i.e., parolees and other conditional releasees, still under the active supervision of civil authorities, and those under active court supervision (probationers), were the same throughout the war as those

described above for discharged felons. However, two different procedures were applied in providing for the induction of felons in this category.

Before a qualified felon under some form of conditional release from confinement could be inducted into the service, it was necessary for the local selective service board to request from the proper civil authority the issuance of an order terminating or suspending supervision over the registrant. If the civil authority refused to issue such an order, the registrant was classified in Class IV-F (Moral). This provision continued to apply to felons in this category from September 1941, when they first became eligible for induction throughout the period of World War II.

The second distinction as to procedure for accepting felons on conditional release related to an extension of the system of waivers. During the period from November 1942 to August 1944, waivers were required for conditionally released felons, convicted of other than "heinous" crimes. This provision was controlling if they were forwarded for induction within 30 days after release from confinement in the case of first offenders, or ninety days in the case of other than first offenders. This waiver could be requested at the discretion of the Selective Service System from the commanding general of a service command or department, providing the registrant's behavior in the civilian community had been above reproach. After the termination of the thirty or ninety day period, whichever applied in a given case, such a waiver was not required. In August of 1944 a change in the Army regulations eliminated the necessity for a waiver of this type.

Under the current regulations persons on parole or probation from any civil court, or on conditional release from any term of confinement are categorically excluded from induction into the armed service. Following their discharge from the active supervision of civil authorities, they fall into the category of discharged felons and are classified and selected in accordance with the provisions described in the first part of this section.

Selection and Induction of Felons Undergoing Confinement

The relaxation of Army regulations in September 1941 which made possible the induction of first offenders on parole or conditional release who had been convicted of other than "heinous" crimes, created a number of complications for the state and federal paroling authorities. The statutory provisions of nearly all of the states having a system of parole require that a pre-parole investigation by the parole supervision authorities establish the existence of a satisfactory home, job, and sponsor before an offender can be released on parole from institutional confinement. The fact that many of the men eligible for parole were also subject to induction under the existing Army regulations made it increasingly difficult to secure adequate job placements for this group. Prospective employers became reluctant to employ these men since they might be inducted into the armed service shortly after their release from confinement. This created a paradoxical situation in which the difficulty of obtaining temporary parole placements actually delayed the release of those men who were regarded as among the better risks within the penitentiary population. In addition, a considerable amount of effort on the part of civil parole authorities was being needlessly expended in making investigations and arrangements for parole placements which in many instances could only be expected to last a brief time until the parolee had been accepted for induction.

It was thus apparent that some provision was necessary to establish the military acceptability of offenders prior to their release on parole. This led to the establishment of institutional selective service boards, and of procedures for the induction of acceptable felons immediately upon their release from confinement.

The first institutional selective service board was established on an experimental basis at the Federal Penitentiary in Lewisburg, Pennsylvania in

September 1942. This board was organized as a special panel of the local board having jurisdiction over the area in which the penitentiary was located. The special panel board was composed of three members, the associate warden of the penitentiary, a member of the local selective service board, and a prominent citizen of the community. The panel proceeded to classify those prisoners who were eligible for release in the near future and to make recommendations for the induction of those regarded as most acceptable for military service. The immediate induction of these men was made possible by a change in the Army regulations on November 2, 1942. These new regulations provided that registrants undergoing confinement for a period over one year could be approved for induction by obtaining a waiver from the commanding general of a service command or department prior to the registrant's being forwarded to the induction station. Persons undergoing confinement for conviction of a "heinous" crime were specifically excluded from consideration.

The experimental special panel board at Lewisburg Penitentiary was regarded as successful, and served as a demonstration of the desirability of organizing similar boards at other state and federal institutions. In the light of this experience, the Selective Service System in February 1943 authorized the establishment of special panel boards in all penal or correctional institutions for men of draft age. State Directors were asked to submit to National Headquarters specific proposals for the establishment of these boards. With the cooperation of correctional authorities, 106 Special Panel Boards were organized in state institutions and 20 in Federal institutions.

1

Detailed instructions for the organization and functions of the Special Panels drew heavily on the experience obtained with the Special Panel Board at

1. Selective Service Regulations, Second Edition, Part 662, Amendment No. 126, "Special Local Boards in Penal or Correctional Institutions," effective February 8, 1943. See also, State Director Advice (No. 167).

Lewisburg Penitentiary. These instructions recommended that one of the board members be an official of the correctional institution, preferably one of the associate wardens. If possible, one member of the panel was to be drawn from the local selective service board having jurisdiction in the area within which the institution was located. The qualifications for panel members further specified that the third member was to be a person of exemplary character from the local community. The recommendations and appointments of panel members were to be processed in the same manner as provided in the Selective Service Regulations for members of local selective service boards. Clerical help, office space, and furniture were to be provided by the correctional institution, and the necessary forms, stationery, and office supplies by the Selective Service System.

The Special Panel Boards were charged with the duty of gathering complete selective service files on each inmate to provide a proper basis of classification. This involved the registration of those inmates not previously registered, or the transfer of files from local boards in the community if registration had already been completed prior to commitment. The basic Selective Service Questionnaire and occupational questionnaire also were to be completed under the supervision of the Special Panel Boards in all cases where they were not already part of the file. The completed files were to be maintained separate from other institutional records.

On the basis of these completed files, the Special Panel Boards were required to classify in Class IV-F all inmates ineligible for induction under the following criteria:

1. Under 18 years or over 38 years of age,
2. Mentally or physically unfit,
3. Ineligible for release from confinement within three months of the date of classification,

4. Against whom valid detainers have been filed,
5. Convicted of "heinous" crimes,
6. With extensive criminal records,
7. Unwilling to volunteer for service in the armed forces.

All other cases not specifically excluded by the above criteria were to be classified in Class 1-A. In common with other selective service boards, the panel had the authority to reopen and reconsider the classification of a case at any time.

For all cases classified 1-A, the staff of the special panel board had the responsibility of developing, organizing, and supervising procedures up to the point of actual induction. These procedures included the following specific steps:

1. Referral of the case to the chief medical officer for physical examination;
2. Referral of the case to the paroling authorities with an accompanying case summary;
3. Request of the necessary waivers from the Armed forces;
4. Request for a certificate from the civil authorities suspending active supervision in the event of induction.

Following favorable action by the above-mentioned authorities, the cases were turned over to the local selective service board to which the special panel was attached in order to effect the delivery of the registrants to the induction station. In the event of unfavorable action at any point in these procedures, the case was reopened and classified in Class IV-F. Whenever a registrant was released from confinement in the institution or transferred to another institution, his complete selective service file, except for the Cover Sheet (Form 53) and a copy of his Registration Card (Form 1), was to be forwarded to the local board having jurisdiction in the area of his civil residence.

Considerable difficulty was encountered by a number of states in the initial implementation of the organization and functions of Special Panel Boards. The report of the New York Joint Legislative Committee to Study the Use of New York State Prisoners in War Service, submitted to the state legislature in April, 1944, cites the experience of a number of states with the operation of Special Panel Boards as follows:

"Maryland decided to establish one traveling special panel for the penal institutions of the entire state. They are working it successfully.

"In reply to a nation-wide questionnaire: Tennessee reported special panels not needed and not set up; Iowa reported the plan had been tried to no avail; Delaware, no success with the plan; Minnesota reports plan in operation but prefers other method as this way keeps inmates in prison waiting clearance; Michigan and several others with special panels report that it does not result in any additional or quicker inductions; Virginia, New Jersey, Maine, and many, many other states report special panels set up but no progress in inductions as of date of reporting; Ohio and several others replied that there were too many restrictions to make plan effective, so were sending men through their home or local boards; Oregon reports that more men were inducted through various local boards than through special panels. Several states report higher rejections through special panel procedure than through local boards; several states report that men are actually imprisoned longer under special panel procedure; many report hopes that direct induction will be expedited as special panel procedures are simplified and clarified and coordinated."¹

The chief difficulty encountered by the states in the early operation of the Special Panel Boards centered around the requirements of the waiver system. It became quickly apparent that the administrative procedures involved in requesting and obtaining approval of waivers caused considerable delay in the induction of eligible registrants. A further problem was created in those cases in which the request for a waiver was denied. Rejection by the armed forces

1. State of New York, "Final Report and Recommendations of the Joint Legislative Committee to Study the Use of New York State Prisoners in War Service," New York Legislative Documents, 1944, Vol. IX, No. 61, Williams Press, Inc., Albany, New York, 1945, p. 52.

required the formulation of an alternative parole plan, and thus had the effect of subjecting these cases to a longer period of confinement than would have been true had they not volunteered for induction.

This problem was aggravated by the apparent reluctance of the military authorities to approve the induction of men undergoing confinement as compared to those discharged or conditionally released from confinement. The lack of coordination between military and civil authorities in some states appeared to be due to different interpretations of the existing regulations and different conceptions as to the propriety of inducting criminal offenders, and the likelihood that they could successfully adjust to military life.

In an effort to eliminate some of these obstacles to the effective operation of the Special Panel System, changes in the regulations in 1944 abolished¹ the necessity of waivers for men undergoing confinement in all but a few cases. The new regulations also provided for the pre-induction physical examination of those qualified felons eligible for parole, pardon, or conditional release within a period of sixty days. The effect of these new provisions was not only to eliminate the cumbersome waiver system for the vast majority of qualified felons in confinement, but also to permit a determination of acceptability to the armed forces prior to the granting of parole or conditional release. These regulations thus eliminated the delays formerly encountered in forwarding acceptable candidates for induction, or the necessity for continued confinement of those men rejected for military service pending preparation of an alternative parole situation.

The procedures to be followed in implementing these new regulations, organizing the records of the Special Panel Boards, and effectively discharging the functions of the panel boards were carefully outlined in a detailed letter (9-293-1)

1. For a detailed description of those cases in which waivers were still required, see page 8.

from General Hershey, National Director of Selective Service, to all Special Panel Boards in August 1944. The letter urged a substantial increase in the induction of inmates of correctional institutions in the light of the successful adjustment achieved by felons in the armed forces and their valuable contribution to the military effort. The detailed procedures described in this letter marked the high point in the gradual development of the Special Panel Board system during World War II for the induction of felons. With the termination of the war in Europe some nine months later, and the subsequent victory in the Pacific, the pressure of the manpower requirements of the armed forces gradually decreased, with a parallel decline in the induction of felons undergoing confinement. All Special Panel Boards in correctional institutions were deactivated on December 2, 1946.

Under current regulations persons undergoing confinement in correctional institutions are categorically excluded from consideration for induction into the armed forces. The wealth of experience acquired in the utilization of felons directly from correctional institutions during World War II provides substantial data for the development of objective screening devices which can ensure a uniformly high quality among the felons selected for service. If more effective use is to be made of our total manpower resources in the present emergency, it is imperative that we salvage the significant number of men now excluded under existing military regulations. However, their effective employment will depend to a large extent upon the degree of skill exercised in separating the favorable candidates from the less favorable. This can be accomplished by the development of standardized screening procedures which will reflect the experience and information developed during World War II, as well as the accumulated technical knowledge from the field of scientific parole prediction and selection.

Evaluation of the Policies and Procedures Developed During World War II For The Selection and Induction of Felons

The entire program for the selection and induction of felons during World War II represented a significant innovation in the recruitment of military personnel. It made available a hitherto untapped reservoir of men physically and mentally qualified for honorable military service. In the absence of a body of previous experience with the selection and induction of felons, it proved necessary to develop new criteria and new procedures of selection by simple processes of trial and error. The initial policies were highly restrictive due to the expressed fear of military authorities that felons would not adjust successfully to military life and would exert a demoralizing influence on other men. However, as experience with the induction of felons accumulated, these fears were replaced by a feeling of confidence in the ability of felons to adjust successfully. In the light of this experience, the military authorities became more readily disposed to accept the majority of felons on the same basis as non-felons, and to respond to the pressure of manpower needs with a gradual relaxation of the induction policies as they affected felons.

In the present study, data are being gathered which can indicate the extent to which felons were able to adjust successfully to military life. Statistical tabulations are still in progress for the 3,000 parolees who were inducted into the armed forces from Illinois during World War II. The partial results which are available at this time, however, demonstrate clearly that the vast majority of these men did well in the service and justified the confidence implied by the steady liberalization of induction policies.

The parole violation rate of 1,307 men paroled to the armed forces from the Illinois Penitentiary System during 1943 and 1944 has been compared in the

present study to the violation rate of 2,070 parolees to civil life during these two years. Only sixty eight or 5.2% of the military parolees became delinquent prior to discharge from parole, while 468, or 22.6%, of the civilian parolees violated their parole within a comparable period of time. This difference in violation rates may be attributed in part of the effect of the differential selection in operation during World War II. These favorable results appeared despite the lack of adequate procedures and uniform and objective standards of selection. It may also be accounted for in part by the opportunity provided military parolees to reorganize their goals and patterns of behavior in a new and favorable environment, unhampered by the stigma of being continually identified as an ex-felon.

The statistics of parole violation cover only the initial period of military service for the Illinois parolees. Arrangements have been completed with the Records Administration Center in St. Louis, Missouri to obtain data on the actual adjustment of the military parolees through an examination of their service records. Though this information from the service records is not yet available, a check is in progress of the subsequent criminal records of the Illinois parolees to the armed forces through the fingerprint files of the Illinois Bureau of Criminal Identification and Investigation. The records of this Bureau correspond to the files of the Federal Bureau of Investigation in Washington, D.C. for all persons previously committed to the Illinois State Penitentiary System. At the present time this check has been completed for a random sample of 785 cases from the northern part of Illinois. This group represents the sample selected for follow-up interviews and consequently ~~was given priority~~ in the fingerprint

record clearance.

The results show that 49 (6.2%) of the 785 men were arrested during the period of their military service. Of this number, twenty-one were convicted by court martial, eleven were convicted of felonies by civil courts, one was convicted by a civil court for a misdemeanor, and sixteen were arrested without subsequent conviction. Thus of the total number of 785 men, only thirty-three, or 4.2%, were convicted of offenses warranting a fingerprint record and subsequent commitment.

Somewhat comparable figures have been obtained by the New York State Division of Parole. It was discovered that 184, or 5.1% of the 3,565 New York parolees in the armed forces on or prior to February 1, 1946 were convicted of an offense by either a military or civil court during the period of their service.¹ These statistics include a number of convictions for minor military offenses which are not represented in the Illinois figures based upon fingerprint records. At the same time the New York results do not reflect the convictions which may have occurred during the continued military service of men discharged from parole. The net effect of correcting for these two differences would result in a conviction rate closely approximating the 4.2% found in the present study.

These results from Illinois and New York data demonstrate that 95% of the men paroled to the Armed Service in World War II did not constitute a serious problem to either military or civil authorities during the period of their military service.

An accurate evaluation of the performance of felons in military service involves a comparison of the adjustment of felons

¹ David Dressler, Parolees in the Armed Forces, New York State Division of Parole, Albany, New York, p. 14.

and non-felons in the light of some common criteria. Data of this kind have not yet been secured for the felons in the present study or for a comparable sample of non-felons. However, some indication of relative performance is provided by the study of New York parolees in the armed service. Statistics were obtained on the proportion of various types of discharge from the service received by New York parolees up to February 1, 1946 as compared with similar proportions for all discharges granted by the Army from November 1, 1940 to December 31, 1945. These statistics disclosed that 930, or 91.5% of the 1,016 parolees for whom information on type of discharge was available, received honorable discharges from service; seventy-five, or 7.4%, received "other than honorable" discharges; and eleven, or 1.1%, received dishonorable discharges. Corresponding figures from the Adjutant General's Office of the U.S. War Department revealed that of 5,787,403 enlisted men discharged from the Army, 98.6% were honorably discharged, 1.0% received "other than honorable" discharges, and 0.4% were dishonorably discharged.¹ Caution should be exercised in interpreting these statistics since they are somewhat biased against the performance of the parolees. It is reasonable to assume that the sample of parolees released prior to February 1, 1946 was heavily weighted with men whose maladjustment in the service warranted an "other than honorable" or dishonorable discharge. The maladjustment of the poorer risks becomes quickly evident and leads to an earlier separation from service than is true of those who adjust successfully. As a consequence a much higher proportion of honorable discharges may be expected among those parolees released after February 1, 1946. Though the

1. Ibid, p.9

"heinous" crimes are found in parole experience to be counter-balanced by conventional orientations which promise good adjustment. For example, the prognosis for the future adjustment of a person who committed murder in a unique situation under the pressure of severe provocation is far superior to that of the person who committed murder in the pursuit of a professional career of crime. By properly weighting and scoring a complex of factors for a large number of cases in relation to subsequent parole adjustment, considerable success has been achieved in identifying the better risks in the various legal categories. Though person convicted of "heinous" crimes do not represent a sizeable proportion of the felon population, the practice of exclusion in terms of the legal categories of offense serves to reject many men who are capable of successful performance in the military forces. This defect in the operation of selection procedures during World War II and at the present time has not been successfully remedied by the waiver system, and suggests the need for review of cases on the basis of knowledge provided by an objective screening device such as that now being employed for civil paroles.

A second major criterion which has consistently been employed in selecting felons for military service concerns the extent of the criminal record of the offender. This factor has long been given considerable weight by correctional authorities as an indication of the character of the offender's past experiences and associations which serve to shape the offender's conception of himself and the social world of which he is a part. Though the existence of an extensive criminal record suggests the presence of a dominant criminal orientation and developed patterns of criminal

behavior, careful interpretation is required to determine the conditions under which the record was acquired, the implications it provides of the personal and social development of the offender, and the possibilities implied for the reorientation of his behavior. In some instances a limited criminal record may result from the successful evasion of arrest rather than the absence of a developed criminal orientation, while an offender with a more extensive record may have given positive indications of change which would give greater promise of a successful adjustment in the armed forces. This indicates the necessity for relating the criminal record of an offender to various other factors in his personality, background and present situation which are associated with adjustment to military life. An adequate objective screening device would serve to reduce the errors involved in accepting offenders who are unable to adjust to the service and rejecting those who would adjust successfully.

A third major criterion of selection employed for certain classes of offenders involved a consideration of the felon's behavior during a specified period of time in the civilian community after his release from confinement. Studies of parole adjustment in Illinois disclose the fact that parole violations are most likely to occur during the early part of the parole period. However, through the use of objective screening devices it has proved possible to predict the occurrence of these violations with a high degree of accuracy. Though the criterion of time served in the civilian community functions as an automatic screening device and serves to screen out a portion of those unlikely to adjust in the service, it has the effect of delaying the induction of a large number of

qualified felons. When the manpower needs of the armed forces are not pressing, this delay in induction is not a serious problem. When the pressure is great, however, adherence to this criterion of selection reduces the supply of men from the felon population who may be made immediately available for service. The use of objective screening devices to select the better risks for parole demonstrates the feasibility of employing similar techniques to screen out those unsuitable for military service prior to their release from confinement. Such a device would eliminate the necessity for requiring a period of service in the civilian community and would, at the same time, ensure a uniformly high quality among the men selected for induction. Where time has actually been served in the civilian community, the screening device could be designed to give proper weight to this factor in relation to the other relevant items to be scored.

A fourth major criterion of selection which was employed during the early years of World War II, and which is presently in effect, prohibited the induction of offenders under the active supervision of civil authorities. The successful experience with the use of parolees in military service during World War II clearly demonstrates the unsoundness of this provision. It is also very important to recognize that this policy of exclusion runs directly counter to the logic and practice of parole selection. The use of a criterion which excludes offenders on parole from induction and permits the acceptance of those released from confinement at the expiration of their sentence, implies that parolees are less qualified for military service than those persons discharged directly from confinement. Such an implication overlooks the fact that parolees are selected in terms of their ability to adjust on parole,

accept conventional values, and profit from supervisory assistance.

Follow-up studies conducted in Illinois disclose the fact that offenders discharged from confinement at the expiration of their sentence were convicted of new offenses twice as often as were men released on parole. Thus, the current policy of excluding men under the active supervision of civil authorities has the effect of delaying the induction of the offenders best qualified in the light of experience and in the judgment of the parole authorities to accept the responsibilities of law-abiding citizens. Since parole supervision in many states extends over a period of several years, many parolees pass the current age limit for induction before they become morally acceptable for military service. For these men a delay in induction amounts to exclusion.

It is apparent from the foregoing discussion that these four major criteria taken singly or in simple combination do not provide a sufficient basis for excluding a felon from military service, or for declaring him acceptable. Progressive parole selection procedures reflect the necessity for making selection in terms of the pattern which emerges in considering the relevant factors in different cases. Extensive statistical studies of the relation between various factors and parole outcome have made it possible to determine those factors in the background and prison experience of felons which are most highly predictive of parole success. By properly scoring and weighting these factors, objective screening instruments have been devised which have proved of considerable aid to the parole authorities in selecting the better risks for parole. Through a similar determination of the factors significantly related to the adjustment of parolees in the armed forces during

World War II, the present study will develop an objective screening device which will permit the selection of those felons most likely to adjust successfully to military life.

During World War II the armed forces experimented with various methods and procedures in implementing the established criteria for the selection and induction of felons. A critical evaluation of the effectiveness of the various methods used is essential to the further improvement of selection procedures.

The experience in World War II demonstrated clearly the need for specifying in detail the procedures to be followed in implementing any given set of criteria. One of the most serious obstacles to the effective utilization of felons for military service lay in the lack of uniform understanding and interpretation of the existing regulations by correctional authorities, selective service officials, and induction station officers. The New York Joint Legislative Committee to Study the Use of New York State Prisoners in War Service conducted a survey of the problems encountered in the induction of felons in a number of other states as well as New York. The Committee findings disclosed a marked lack of coordination in the selection and induction procedures for felons between the various officials involved. Information received from Connecticut revealed that "Misunderstanding by Selective Service Boards and induction officers has retarded the movement of ex-prisoners into the service in Connecticut as in other states. Too many were classified as IV-F. Too few were told how to obtain waivers by which induction could be obtained."¹ Many correctional officials and special panel board members felt that induction

1. New York State, op. cit., p. 41

station psychiatrists often rejected felons for military service through a disposition to accept a criminal record as evidence of mental unsuitability.

It was discovered that frequent conferences between special panel board members and induction station psychiatrists had a noticeable effect in correcting this tendency and in promoting a greater common understanding of the objectives of the program for the induction of felons.¹ The fact that it proved possible to induct over 3,000 parolees in Illinois during World War II can be attributed to the close cooperation that existed between the officials of the armed forces, selective service and the correctional system. Frequent conferences made it possible to work out the details of the selection and induction program for felons which were not clearly stated in the national directives until the later stages of the war. Though cooperative effort is essential to the effective functioning of such a program at any time, the detailed specification of selection methods and procedures would remove the necessity for relying solely on the cooperative interest of individual officials, promote greater uniformity in the operation of the program in all of the states, and lead to uniform interpretation and common understanding of the criteria and objectives of the selection program for felons.

The experience in World War II with the use of waivers clearly revealed the inherent limitations of this system and the manner in which it impeded the induction of felons. The many obviously cumbersome and impractical aspects of this system led to its gradual elimination in the later stages of the war. The chief function of the waiver system was to permit the armed forces authorities to make a final determination of the acceptability of felons. Initially this was regarded as necessary due to the lack of previous experience with the selection and induction of felons and the fear of the military authorities

1. Selective Service System, Enforcement of the Selective Service Law, Special Monograph No. 14, Government Printing Office, Washington, D.C., 1950, p. 73.

that the service would be used as a "dumping ground" by the courts and correctional authorities. However, it soon became apparent that the waiver system was not only unnecessary, but was more of an obstacle than an aid. The wealth of experience with the successful adjustment of felons in the armed forces by 1944 led to the elimination of the waiver system except for those convicted of "heinous" crimes. Selective Service officials and correctional authorities succeeded in demonstrating their interest in making conscientiously good selections of felons for military service. Furthermore the military authorities came to recognize that a background of experience in the correctional field was essential in order to assess a felon's potentialities for successful adjustment. In many instances the military officers charged with the responsibility of approving waivers did not have this background. As a consequence, their decisions frequently reflected personal bias and preconceptions, and were often unrelated to the actual ability of felons to adjust to military life.

The reversion to the use of waivers under present regulations completely ignores the experience gained in World War II. The use of waivers has been reinstituted despite the demonstrated ineffectiveness of this system in World War II, and represents a renewed reliance on the personal preconceptions of the reviewing officers.

All of the defects discussed in connection with the operation of the waiver system during World War II apply equally well at the present time.

When the restrictions against the induction of offenders under the active supervision of civil authorities were first removed, the Army's insistence on the termination of such supervision prior to induction brought the Army policies into sharp conflict with the

legal requirements of a number of civilian correctional authorities. The statutory provisions of many states do not permit a parolee to be discharged except after specified periods of time. On the other hand, the military authorities refused to accept the restrictions imposed by the continuation of civil supervision over a member of the armed forces. This impasse was finally resolved by a procedure whereby the armed forces officials accepted a certificate from the paroling authorities indicating that active supervision of the case had been suspended for the duration of military service. The procedure proved to be a satisfactory solution to the problem, and it was maintained throughout the remainder of World War II.

The task of screening the population of correctional institutions in order to select eligible and qualified candidates for induction into the military service led to the development of Special Panel Boards. By the end of 1944 the objectives, functions, and methods of operation of Special Panel Boards had become fairly well defined. This system of selection within the correctional institutions, as described in the preceding section of this report, constituted in the later stages of its development a generally satisfactory and effective framework inside of which the problem of the screening of acceptable felons undergoing confinement could go forward. However, one of the major defects of this program was the failure to develop an adequate method for forwarding men for preinduction examination prior to the granting of parole. The procedure recommended by the National Headquarters of Selective Service in August 1944 required the forwarding of acceptable felons to the induction station for the preinduction physical examination within 60 days prior to the date of parole eligibility. This recommended procedure conflicts

with the statutory provisions of many states pertaining to the control and treatment of offenders committed to the state penitentiary system. In Illinois, for example, the statutes forbid such temporary removal of an inmate from prison except by court order. To obtain a court order for every case forwarded for preinduction examination would be administratively cumbersome and subject to possible judicial complications.

An alternative procedure was developed in Illinois involving the use of a special Army Mobile Unit. This mobile unit consisted of a team of psychiatrists, medical doctors, and a morals officer. This unit visited each of the state institutions and made a determination as to the physical, mental and moral acceptability of those inmates whom the Special Panel Board and Institution officials had listed as eligible for induction and for release from confinement within a period of the next 90 days. The Warden of each institution arranged for X-Rays and serological tests prior to the visit of the mobile unit. Following examination, "Each man found physically qualified by the Mobile Unit was furnished a certificate containing a full statement of the examination for the use of the medical examining staff at the armed forces induction station, which was the final authority on acceptance or rejection."¹ The close coordination of the joint efforts of the Illinois Selective Service Headquarters, the local Special Panel Boards, the Wardens of the correctional institutions, the Division of Correction (the paroling authority in Illinois), and the Mobile Unit proved effective.

1. Col. Victor Kleber, A.G.D., Selective Service in Illinois 1940-1947, State of Illinois, 1949, p. 192.

**C. RECOMMENDED POLICIES AND PROCEDURES FOR THE SELECTION
AND INDUCTION OF FELONS**

In the light of the foregoing analysis of the experience with the selection and induction of felons in World War II and the preliminary findings from the present research study, the following modifications of policy and procedure appear to be in order:

1. It is recommended that the present regulation pertaining to the selection and induction of felons be modified in such a way as to permit a determination of the moral acceptability of each case on its merits. This can be effected through the application of objective screening criteria and techniques in the course of pre-induction examination. An objective screening instrument can and should be devised on the basis of the experience of civilian paroling authorities with the conditional release of convicted offenders, and intensive study of the factors related to the actual adjustment (in service) of inducted felons during World War II. This instrument can and should be constructed so as to produce numerical scores which would indicate the probability of the successful adjustment of felons to military life. The scores could be employed in objectively ranking the felons forwarded for pre-induction examination by score groups according to their chances for adjusting successfully in the armed forces. With this system the military authorities could establish an appropriate minimum score of acceptability in accordance with the variations in the manpower needs of the armed service. When manpower needs are light, the minimum acceptable score could be raised to ensure the induction of only those felons who are among the very best qualified for military service by reason of their

extremely high probability of adjustment. Conversely, when the manpower needs become more critical, the minimum acceptable score could be lowered. This procedure would enable the military authorities to establish various classes of acceptability by which they may obtain the best qualified men from the felon population, in accordance with the manpower needs of the time.

Any system for the selection of qualified candidates for induction is, of course, subject to two types of errors. One type of error is represented by the acceptance of a person who will not adjust successfully to military life, while the other involves the rejection of a person who could have adjusted. The use of an objective screening device, based on scores and empirically determined probabilities of violation for the various score groups, will minimize these two types of errors to a much greater extent than is possible under the selection procedures in use at the present time, or those which prevailed during World War II.

However, it has become accepted practice in various types of screening procedure to provide for the individual review of doubtful cases in greater detail. The cases requiring individual review may be selected through the use of specific critical signs or single factors which have been found in themselves to be highly related to success or failure in the predicted type of adjustment. In the study now in progress, two types of critical signs are being isolated; those strongly indicative in themselves of successful adjustment, and those highly related to failure. In actual use as part of the screening procedures, one or more favorable signs of this type in the case of a person scoring less than the minimum acceptable score on the screening instrument would result in

individual review of the case. Similarly the presence of one or more unfavorable signs in the case of a person scoring above the minimum acceptable score would also indicate the need for individual review.¹

2. It is recommended that current regulations be revised to permit the selection and induction of felons who are under the active supervision of civil authorities in their home communities. As indicated previously, the experience with this group in World War II clearly demonstrates that these men are, for the most part, capable of adjusting successfully in the armed forces. Persons placed on probation or parole represent a group of selected cases who are deemed qualified and desirous of the opportunity to participate in free community life. This group will necessarily contain many of the best qualified men for military service. However, their acceptability for military service should be determined in the same manner as discharged felons. This involves the application of the objective screening techniques discussed above to this group.

3. It is recommended that the current regulations be revised to permit a consideration of those undergoing direct confinement for induction into the armed forces. As has already been set forth, the experience in World War II demonstrated the desirability and necessity of establishing this acceptability of offenders prior to their release for induction. Such a program would require the re-establishment of Special Panel Boards to administer the classification of inmates in correctional institutions and to complete the

1. The Army is currently employing a similar technique in its efforts to identify neurotic and psychotic tendencies among all registrants on the occasion of the pre-induction examination. An objective test known as the Neuropsychiatric Screening Adjunct (WD AGO PRT 204) determines the acceptability of all registrants in terms of a minimum acceptable score and certain critical signs. (Special Regulations, No. 615-180-1, 27 April 1950, Paragraph 11c.)

arrangements for preinduction examination. The effective organization and functioning of Special Panel Boards as they became refined in the later stages of World War II provide a tested model which should be followed in re-instituting this system. Their major shortcoming can be corrected by the development and systematic use of the aforementioned screening instrument.

4. In order to include the pre-induction examination in the determination of the acceptability of felons undergoing confinement, it is recommended that a permanent mobile unit of induction station examiners be organized for each of the 48 states or appropriate groups of states. This unit should visit the correctional institutions at periodic intervals and provide a final determination of the physical, mental, and moral acceptability of those eligible felons undergoing confinement. The permanent establishment of complete units of this kind will permit their membership to acquire the necessary background of experience in dealing with convicted offenders; lead to a closer coordination of the activities of the mobile unit, the Special Panel Boards and the correctional authorities; and result in a truly uniform selection of those felons best qualified for service in the armed forces. These units should also be charged with the duty of reviewing the cases of all felons appearing for pre-induction examination, whose cases exhibit the presence of critical signs.

5. With the establishment of the program outlined in the above recommendations, the use of waivers would no longer be necessary. Hence, if and when it is established, it is recommended that the waiver system provided for under the current regulations be eliminated. The objectives of the waiver system would be fully realized under the above program by the reviewing and approval action of the mobile unit.

() In the light of the foregoing analysis of the experience developed in World War II and the preliminary results obtained from the present research study, it is the judgment of the writers that these recommendations would result in greater uniformity and a higher quality of men selected for induction into the military service from among the felon population, than has been true in the past. In order to determine the detailed procedures for the most effective operation of the selection system, to devise a sound screening instrument, and establish discriminating critical signs, it is essential that the intensive follow-up study of the World War II experience, which has already been initiated in Illinois, be actively pursued. Such a study will also contribute a valuable body of data on the actual problems encountered by felons in adjusting to military service. From this material it will be possible to devise not only effective methods of selection, but ways and means of minimizing certain problems and difficulties which may arise as an aspect of the adjustment of men to the service.

THE ROLE OF RELIGION IN HUMAN BEHAVIOR

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THE ROLE OF RELIGION IN HUMAN BEHAVIOR

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ABSTRACT

The function of any institution is the guidance of the individual into modes of behavior that assist in the maintenance of group life. This process of socialization is necessary to the successful operation of any military institution. It will develop only so far as moral and spiritual values become the conduct norm of the individuals who make up that organization.

Religion is the source from which moral and spiritual values derive their support. The importance of religion becomes more evident when one considers the moral decisions of unprecedented variety and complexity which confront the United States in the present struggle.

The purpose of the following paper is to stress the necessity for a character guidance program based upon the religious ideals and principles of the Hebrew-Christian heritage. Character develops only after the individual is committed to a higher loyalty than himself. Human nature cannot achieve its highest potential without religion.

The techniques and skills of both religion and social science must be concentrated on those values which give direction, order and meaning to life in order to strengthen the character of the members of the Armed Forces. The fact that religious teachings are directly related to problems of human behavior is common knowledge and it is generally conceded that religion makes its greatest contribution to moral and spiritual values when it makes a difference in the behavior of the individual or group.

This paper includes a brief discussion of the effects of religious ideals and practices on the men of the Armed Forces who come from every social, cultural and religious background found in America.

Suggestions and recommendations regarding a character guidance program are presented for consideration. The need for further research and empirical investigation in the field of religion and human behavior is presented for consideration.

OUTLINE

Part I Religion and Human Behavior

A. Need for Religious Orientation

1. Religion and the Present Struggle
2. The Basis of Moral and Spiritual Values

B. Social Science and Religious Experience

C. Religion and the Serviceman

1. Religious ideals and practices in the Service
2. Effect of Military Service on Religious attitudes and Practices

D. Character Guidance

1. Self Evaluation and Character Guidance
2. The Social Structure and Character Guidance
3. Religious Motivation and Character Guidance

Part II The Role of the Chaplain in Building Character

A. Performance of Religious Rites and Ceremonies

B. Counseling Process

Part III Appendices

A. Bibliography

B. Definitions

RELIGION AND HUMAN BEHAVIOR

The Executive Order of the President, establishing the Presidential Committee on Religion and Welfare in the Armed Forces, states that it is the

"policy of the Government to encourage and promote the religious, moral, and recreational welfare and character guidance of persons in the Armed Forces."¹

The necessity for such a policy becomes apparent when one considers the nature of the struggle in which we are now engaged. This is an ideological conflict. It is the conflict between a philosophy which repudiates the moral law, the dignity of man and the democratic way of life and the philosophy of our democratic culture. The two approaches are in many ways diametrically opposed.

We are confronted with the need for adequate programs of action and well-formed principles of character guidance. The recognition of this need has turned many thoughtful people to a re-examination of religious traditions. It is one more indication that the era of a sensate culture is drawing to a close. This renewed interest in religion is not merely in terms of technical philosophy; rather it springs from a deep-seated need for a workable orientation toward life.

Religion reaches to the core of our problem. It profoundly influences our morals, our values, and our ideals. It affects every aspect of human life. It profoundly influences the individual's habits, thought processes, and his overt and covert behavior patterns. It modifies

1. "The Military Chaplaincy"

A report to the President by the Presidential Committee on religion and welfare in the Armed Forces; Oct. 1950, P. 1.

attitudes of people toward one another; it stimulates a higher level of citizenship; and it creates a better quality of human society. Religion is not isolated, having its own justifications apart from its effect on the rest of life.

Religion is the source of all our higher motives, values, and ideals.

The roll of the religious man can never be that of the spectator who sits on the periphery of the colosseum watching the struggle which is taking place in the arena and whose basic function is merely to observe what is taking place. Whether he chooses to be or not, he is engaged in the struggle. He is neither the umpire nor the reporter whose function is merely to see that the rules are observed or to describe and record what takes place. The struggle is a religious one. The destiny of our nation will be determined eventually by the seriousness or indifference with which it faces and applies the basic constitution of its religious heritage. When the nation was born, God was recognized as the Saviour of the human race. Religious principles were woven into the framework of the new democracy. The Constitution and Bill of Rights clearly recognize the existence of religious ideals and provide for the most absolute religious freedom—not freedom from religion but freedom of religion.

The task which confronts us is basically a spiritual one with far-reaching, practical implications. It is more than an idealistic struggle. A world in which many of the elementary human rights are denied has thrust upon the American Military a unique responsibility. Its role is a dual one; to employ force, if necessary, to protect human rights and more positively to establish an order of justice in the world. This is not to equate the present struggle with a holy war nor a "Christian cause" but moral and spiritual issues are at stake. There is no escape from the grim reality of

disagreeable police measures which may be necessary to insure the protection of these moral and spiritual values; nor can we overlook the fact that the core of our international difference is a moral issue—a profound and inevitable conflict of standards of human behavior.

"The defence of freedom in the modern world has become in part a problem in military strength and strategy; in part a problem in diplomatic foresight and ingenuity; in part a problem in economic and industrial organization. But it is also, as in the last analysis it always has been, a moral and spiritual development." 2

Our civilization is based on the belief that there is a God, that there is a moral order in the universe and that man is responsible for his individual and social conduct. Man must have some sort of faith by which to live; some cause to which he may relate himself and by which his life may have significance.

The Marxists labelled religion "the opiate of the people". It is clear that they recognized the adherence to religious faith as dangerous to their cause. The importance of religion in the present struggle is more fully appreciated when one considers the crass materialism of the Soviet Doctrine. Among the Russians, morals are relative and the individual is unimportant except as he may serve as the functionary of the state.

The function of religion in the present titanic struggle is not merely to serve the military but it is the function of both to discover and serve the deeper purposes of human existence. No society can survive without a moral order. As social structures become more complex, in a modern military organization, the need for common moral principles becomes more acute. No imposed system of regulations or

2. "Moral and Spiritual Values"
Educational Policies Committee, P. 12.

control, no matter how high its aims, can produce a moral order if personal integrity, honesty, and self-discipline are lacking. The roots of these are to be found in religious faith. An intelligent and fervent loyalty to the moral and spiritual implications of religious faith is essential to the survival of our culture and our nation.

"As a man thinketh in his heart so is he" is no mere, pious platitude. The individual's conduct in society is ultimately the result of his beliefs and attitudes. These attitudes and beliefs are of crucial importance to our civilization.

THE CONTRIBUTION OF SOCIAL SCIENCE

In recent years, the social scientists have made remarkable contributions to the body of knowledge in the field of human behavior. The body of facts and knowledge about ourselves and the world in which we live is steadily growing and is continually being revised. The maturation process induced by the scientific method greatly alters our view of the world as compared to pre-scientific times. It has fostered individual and social progress. It has raised the standard of living in our human society.

The formulation of a character guidance program involves subjective decisions as well as objective ones. The concept of guidance involves an a priori conception of a desired goal. Certain basic questions outside the realm of pure science immediately come to mind. What frame of reference shall we use in determining the scale of values which will serve as a standard of judgment and behavior in the decisions which must be made? What is the aim of the character guidance program? Which character traits do we wish to develop; which ones are desirable and which should be suppressed? The answers to such questions are to be found

through religious experience. Science cannot describe or measure virtue nor is it within the province of a scientist to determine the moral code. The criteria for determining what is good or what is bad cannot be empirically determined. It is a matter of belief and faith. Once these purposes and aims have been determined, the scientist may describe the most effective means of attaining them. The scientific method enters the program the moment it is asked, "How can these particular character traits be developed? What program will tend to encourage the widest acceptance of and conformity to the Hebrew Christian ethical code?"

Both the scientist and the man of religion have an important function to perform in character guidance. Each is dependent upon the other in an area of common interest. The techniques and skills of both religion and science are needed to develop an adequate character guidance program. The two fields of learning are by no means mutually exclusive.

There is a need for the utilization of socio-psychological research techniques to evaluate the effectiveness of religious indoctrination programs in the Armed Forces. The measurements of changes in individual overt behavior may be one criteria by which the effectiveness of the religious program is evaluated. To what extent does a religious orientation change the pattern of human behavior?

The function of religion is to improve human relations. If religion is to effectively perform this mission, we need more and more adequate reports and case studies based on actual experience. Further experience, adequately studied and analysed, can disclose things which we do not now know about the effect of religion on human behavior. The need for controlled experimental methods which could be recorded for statistical purposes is quite evident.

RELIGION AND THE SERVICEMAN

Several surveys indicate that approximately fifty percent of the men who enter the Armed Forces of the United States have never been members of a church.³

Having had little or no training in religion, these men constitute an immediate problem. A program designed to build and strengthen character among these men must begin with very basic and elementary concepts. One must not imply that because these men have had no previous religious experience, they are without character or ethical values. The absence of one does not preclude the absence of the other.

Adding to the complexity of the problem is the fact that the fifty percent of the personnel with church relationships, represent every conceivable religious background. The moral and ethical standards of a rural, southern Baptist are considerably different from those of an urban, Roman Catholic or a member of the Jewish faith. The problem becomes one of defining a common denominator of faith. Certain fundamental beliefs of the Hebrew-Christian tradition provide some basis of agreement from which to begin. Common to these two traditions is the belief in a Personal Supernatural Being with whom the individual may have a personal relationship. Second, there is the common belief in the dignity of man and the worth of the individual human life, expressed through the brotherhood of

3. These surveys may not be entirely reliable but they appear to be supported by the statistics published annually by denomination boards of the churches in the United States and indicate that this is a general cross-section of the American population. The figures for the 1950 Census regarding church affiliation of the general population also support this estimate.

man concept. Third, there is the essential belief that each individual is responsible for his conduct. Fourth, there is a eschatological sense of destiny. These basic concepts find their expression through self-sacrifice, courage, righteousness, loyalty, and a spirit of sharing and doing good.

Coming from every racial, cultural, and social background, the American serviceman immediately presents a great challenge to the military upon his induction. Within the space of a few short weeks, he must become oriented into military life. Away from the normal restraints of home, church, and community, the recruit finds himself in an entirely new environment. He is faced with the realization that his own conscience must be his guide. Traits of character, which had heretofore been imposed upon him by his family, his intimate friends, his community, or by his church may seem to lose some of their significance. His behavior is entirely volitional. Here the maturation process immediately comes into play. The external motivating forces, which might normally hold his conduct within the bounds of that accepted by society, have been removed and new motivating forces must be developed. This involves more than mere adjustment to the new environment.

In a modern military organization, where personal contacts are replaced by a more impersonal relationship, the individual is too easily lost in the complexity of administration and organization.

A character guidance program, designed to indoctrinate moral and spiritual concepts must have a definite religious

orientation. This religious orientation need not be labeled as such. The inductee must be met on the level of his own experience with concepts which he can understand and which are free of theological terminology so that his religious consciousness may be awakened and stimulated. The initial appeal among such men may be on the emotional level more than the intellectual or academic levels. Religious training and character guidance films make a positive contribution toward fostering and developing moral and ethical ideals. Audio-visual aids have already proven their value in the recruit training program.

There immediately arises a need for the establishment of a link between the desirable character traits developed in civilian life prior to his indoctrination with those traits which may be cultivated in his military orientation. As a means of continuing and further developing these traits, the military has long insisted upon the importance of maintaining a strong bond of correspondence between the serviceman and his home. What has not always been so clear is the need for the development of the spiritual bonds through both private devotion and corporate worship. Particularly among Catholics, Episcopalians, and members of other liturgical churches there is an awareness of the continuity of religious expression. A service of worship which is familiar to them and similar to the one which they have used in their churches at home, immediately gives them a feeling of "belonging".

The prayers, collects, the hymns, liturgy, and mass are familiar patterns of worship. The serviceman's previous religious experience suddenly becomes meaningful in his present situation. The God whom he worshiped in his home church is present in his new environment. The ethical and moral code taught in his home church is the same moral and ethical code by which he may guide himself in the service. Here he meets men whose background is similar to his and who hold a similar set of beliefs; each may strengthen and encourage the other. It is a common acceptance of dependence on God. A feeling of rapport has been established in the mind of the recruit. He as an individual, is not standing alone; others share his faith and beliefs that God is their constant guide and companion. These men share a common faith. They are united in a great cause---a cause that is greater than themselves. Religious experience in the service is an immediate unifying force. Men tend to associate with other men of common faith for worship and contemplation.

Among servicemen in general, there exists a common knowledge about the concepts of religion. There is evidence, too, that many of them have an instinctive belief in God---the kind of belief which leads men in service to pray in times of danger or which brings large numbers of them to church on special occasions. In many cases, these inarticulate beliefs are little more than vague generalities about a Supreme Power which controls all things and works for the good of mankind. When it

comes to specific and particular Christian teachings, there is colossal ignorance.

An interesting corollary to the question of the role of religion in character guidance is the question of the effect of military service on religious attitudes and practices.

Studies conducted during World War II indicate that there is a definite relationship between stress and reliance on prayer. There is some evidence that combat men considered prayer as a very important source of support.⁴ Officers and enlisted men from both theatres of the war, regardless of their educational level, agreed that prayer was helpful to them. To what extent it helped them or what degree of comfort it afforded, no one can accurately determine but there was general agreement among combat men that prayer was important. Length of time in combat appears to have had no appreciable effect on this attitude.

In the same survey, an attempt was made to determine to what extent service in the Army had effected faith in God. Those who had the most combat experience, said that their faith in God had been increased. By way of contrast, the combat and non-combat men did not differ in the proportions who thought that their experiences had decreased their faith. Another study⁵ investigated

4. Stouffer and other. "Studies in Social Psychology in World War II", Vol. 2, pp. 172-188.

5. Telford, C. W., "Study of Religious Attitudes", Journal of Social Psychology 1950, Vol. 31, pp. 217-230.

the religious attitudes of veterans as compared with non-veterans. The sample in this case was too small to give the study much scientific validity but it was noted that there was a tendency for the veteran to be less favorable toward the church than the non-veteran.

Numerous questions came to mind immediately. Assuming this small sample is indicative of the attitude of the American veteran of World War II, what brought about this reaction? Did the church fail him or did the military organization change his mind or was there some third factor over which neither had any control? Is the veteran antagonistic toward the church or is he merely impatient because the church's program has been inadequate? Here is an area for intensive study and investigation. What specific effect has military service had on the veteran's attitude toward his home, his country, his church, and the other social institutions? Once that has been demonstrated, the next step is to conduct an investigation to determine what specific factor or group of factors brought about the change, if any is noted. As has been noted by others, there is a possibility that the war experience has had a levelling effect on the attitude of veterans toward the church just as it has had a levelling effect on other attitudes, making those initially favorable to the church less so but making those originally very antagonistic to the church more favorable.

The Recruit Training Centers are the logical places to begin the character education process. Here the raw recruit is tested,

interviewed, processed, classified, and oriented for military service. By the time he has completed his training, the military organization has amassed an impressive array of data about him. His physical qualifications, his mental aptitude, his previous schooling and experience, all of these are carefully recorded but we know very little about what kind of a person he is. We have no means of measuring the mean level of his moral and spiritual standards, no way of knowing what he thinks about, what he believes and how strongly developed is his character. All of these questions are largely unanswered.

One means of overcoming our deficiency would be through the use of personal character rating sheets by which the recruit makes a self-evaluation which would become part of his permanent record. Such character evaluation sheets may serve as a means of approach for the chaplains and others interested in the character guidance program at the Recruit Training Centers. Those who exhibit tendencies toward a social behavior pattern would be made the subject of more intensive study and training. By becoming a part of his permanent record the score sheet would serve as a continual check against his later behavior patterns. Prior to his release from active duty or his discharge, the same test might be given again to determine if there was any noticeable change in his personal evaluation of his own character. The value of attitudinal

studies such as those conducted by the Experimental Section of the Research Branch in the War Department's Information and Educational Division has already been demonstrated.⁶

THE CLASS STRUCTURE

Following the European pattern, it has always been the tradition of the American military organization to regard its officers as "gentlemen". More than anything else, the thing that distinguishes the "gentlemen" from the rank and file is the code of ethics to which he adheres. Because of his education, his breeding, and his background, he is expected to maintain a standard of conduct that will serve as an example to the men who are subordinate to him in the command echelon. Army and Navy Regulations and the Leadership Guides clearly emphasize the importance of maintaining high moral principles, yet many officers overlook their importance in actual practice. In a desire to be a "good Joe", they disassociate themselves with the high moral code idealized in the regulations. What they often forget is the importance of "setting an example". As leaders of men, they have a moral responsibility to those men. They should demonstrate a code of behavior that will win respect and offer a pattern of behavior for the younger men who serve under them and who are likely to be more impressionable. Officers are charged with the moral training of their men as well as with their physical and mental welfare.

6. See "Studies in Social Psychology in World War II" by Stouffer and other, Vol. 3.

The changing structure of our social pattern has had an appreciable effect on the military class structure. It is no longer true that military officers come from the highest income classes in which "breeding" and "proper behavior" were once the keywords. The military officer of today is just as likely to come from a middle class or lower class background. The primary basis of qualification is native intelligence or demonstrated intellectual attainment. Greater stress should be placed on the moral requirements for an officer as a basis of selection. Not only should the officer candidate be intelligent but he must also be a man of moral integrity and character. Intelligence and character are not synonymous. If officers are to set a moral and spiritual example to their men, they must themselves demonstrate a superior code of ethics in their public and personal life. Moral and spiritual values will be woven into the conduct of military personnel only so far as they become the "conduct norm" of the military leaders.

Much of the criticism levelled at the officer class during and after World War II, was in the area of morals and ethics. Officers were criticized not because they were professionally or intellectually incompetent but because of moral laxity. The remedy is not necessarily in the area of reducing the differences between officers and enlisted men in a levelling process. It may

well be that the differences between the two classes need to be reemphasized. Officers are officers because they are men of integrity and they demonstrate a high standard of morals in addition to being physically, mentally, and professionally competent.

The motivating factors influencing a man to join the service during peacetime may be considerably different from those which motivate him to join in time of national emergency. Motives in themselves are a selective factor. There is a qualitative difference as well as a quantitative difference between a peacetime military establishment and a wartime organization, so far as the personnel structure is concerned. The traits of character which are most in evidence and which must be stressed in time of war, may not be those which will motivate the men who choose to serve in peace. During war, idealism, courage, teamwork, and self-sacrifice are the traits which must be fostered and developed. The pressure of events may squeeze other ethical and moral values to the background. Consciously or unconsciously, ethical and moral sensitivities are somewhat distorted.

In time of war, the emotions take over. Men in combat zones are engaged in a struggle for survival. The psychological and emotional stress accompanying combat experience reduces life to very

elementary terms. It becomes a case of each man fighting to keep alive. Food, sleep, and the tissue needs of life are the only things of immediate concern.

On the home front, a carnival like spirit prevails. Men in uniform and civilians seek an escape from a world of bitter reality. Uprooted from the restraining influences of home, church, and community the individual becomes an anonymous transient. In such a mobile population, friendships are likely to be made quickly and have a tendency to remain more casual. As the individual finds himself in a new environment where he is totally unknown, there is a tendency for him to exaggerate his former position. Bank clerks relating their occupations become bankers. People in moderate financial circumstances attempt to give the impression of being wealthy. The end result is that there is a noticeable decline in truthfulness and personal honesty. The mores of sexual activity become more lax and a tendency toward sexual promiscuity is apparent. Expedient conduct is likely to replace proper conduct. One chooses the most expedient thing to do under the circumstances. Whether it is "right" or "wrong" would appear to be of secondary importance because it seemingly makes no difference. No one knows the difference---no one cares, for they are all strangers.

There is another side to the picture, however. In spite of many adverse influences, the fundamental virtues are also noted.

Self-sacrifice, endurance, patriotism and comradeship are quite evident. Durkheim and others⁷ have noted that there is a noticeable decline in the suicide rate during a war. Several reasonable explanations for this phenomena come to mind. There is a psychological basis for the phenomena. Many sensitive people whose lives seem to lack purpose find a useful outlet for their abilities. The petty interests and difficulties of the individual tend to be forgotten in a desire to aid the nation. There is also an economic reason. The spurt in production and money incomes, resulting from an increased demand for goods and services permits a higher standard of living.

The austere pressure of war also fosters the development of other character traits which are demanded by the crisis. A partial list of the positive traits which is intended to be suggestive rather than exhaustive follows:

Courage
Self-control
Loyalty
Dependability
Cooperation
Initiative
Honesty
Love of Work (or interest in Job)
Ambition
Neatness

These traits are deeply rooted in the Hebrew-Christian Faith. Religious ethics insists that these are the elementary

7. Robinson, Victor, "Morale in Wartime"; Publishers Foundation, 1943. This study reported a decline in the suicide rate in Great Britain and the United States during the War. The rate dropped sharply in Great Britain beginning in 1939 and in the United States after 1941.

virtues demanded of every person and offers an idealistic reason for their adoption. These traits are demanded of every good man by God. They are demonstrated in the human life of Jesus and are taught by the prophets. The sacred writings repeatedly teach that individual man is a moral creature and as such is responsible for his personal conduct in the affairs of the world. It is the will of God that he conduct himself in accordance with the principles of virtue. To do so, is to please God. Not to observe them is to sin or to displease God. A sense of "oughtness" motivates the religious person in the choice of his character traits. The religious conscience is the basis for morality.

THE ROLE OF THE CHAPLAIN

The primary function of the military chaplain is to discover and describe what is right; to interpret the will of God, and to be the conscience of the serviceman.

Like his civilian counterpart, he must recruit, train, instruct, and inspire men to accept the eternal truths presented by God to mankind and to direct their application within the framework of modern society. The chaplain's chief role is a religious one and herein lies his greatest contribution. The other functions sometimes performed by chaplains may be done as well or better by other officers. He is neither a social worker, a psychiatrist, nor a welfare officer but may effectively work with those who are trained in these fields in areas in which they may be mutually concerned. The chaplain's contribution here will be in bringing the resources and techniques of religious experience as they may bear upon the topic. His relationship to the command echelon is that of an adviser. There are ethical, moral, and religious aspects to many military questions about which he will be ultimately concerned. The degree of effectiveness with which the chaplain performs his primary function will vary considerably with the ability, personality, character, and faith of the individual chaplain.

The chaplain's primary interest lies in the fields of religion, morals, and character guidance. As an adviser in these areas and as a channel of communication, he is a useful adjunct to the military command.

"Research branch representatives in going from post to post in the United States and overseas met with instances in which a chaplain with a particularly effective personality played an apparently significant role as a channel of communication".⁸

THE CHAPLAIN AND THE PERFORMANCE OF RELIGIOUS RITES AND CEREMONIES

Chaplains are required to minister to men of all faiths but at the same time, they never cease to represent the particular church or denomination from which they come. They perform the rites and ceremonies of that particular church while serving the men of other faiths as well. The rites of the church are sometimes administered to large groups through a corporate worship service or to individuals through a more personal act of devotion such as those frequently desired by men facing combat.

8. Stouffer and others, "Studies in Soc. Psychology, World War II," Vol. I, page 400.

"Protestant Chaplains who went with the first contingents of Air Force personnel overseas immediately found men coming to them to ask for communion prior to a mission---men who in some cases had never attended communion service back in the United States. They may not always have known why and they rarely knew the different doctrines associated with communion but they felt it was something very special and that they needed it when they got into a very special situation".⁹

There is always the possibility that the desire for such religious solace is the result of superstitious misconceptions of the rites of the church as being magic. Through the performance of a religious act, the serviceman may feel that he will be protected from all danger. Having participated in an act of worship, the serviceman at least leaves with a feeling of confidence and assurance even though he may not be fully aware of all the implications of his act of worship.

Regardless of the man's initial motive or his previous religious experience a point of contact has been established. Beginning with the serviceman's immediate interest and concern, the chaplain may interpret the rites in terms of a meaningful experience involving the total personality. "Crisis religion" offers an opportunity for the chaplain to delve deeply into the personality of the serviceman to discover

9. Hiltner, Seward, "Pastoral Counseling" Abington Cokesbury P. 224; 1949.

the basis upon which new and stronger character traits may be developed. The crisis need not be induced only by anticipated combat experience. Men who have been completely devoid of a religious consciousness often turn to religion for strength or peace of mind when suddenly confronted by a personal crisis. "When the devil is sick, the devil a saint would be."

Participation in a religious ceremony or rite offers immediate release from tension but the effect is likely to be short lived. The follow up program must be done through the counseling process through which the man's personality may be changed so that fear gives way to confidence, cowardice is replaced by courage, and unbelief becomes a faith which nothing on earth can shake. The man's attention is diverted from his own self interest to a cause outside himself.

THE CHAPLAIN AS A COUNSELOR

Scarcely has the chaplain donned the uniform before his attention is immediately focused upon the counseling process. He becomes at once the father confessor and the adviser in every conceivable type of personal problem: family and marital trouble, housing, financial worry, disciplinary problems—all are brought to the sympathetic ear of the chaplain. No issue

is too delicate to discuss, no problem too complicated for his understanding. Herein lies perhaps the greatest contribution that the chaplain can make to his men and to his command. Many of the problems may appear trivial and easily solved. When the interviewee desires only a sympathetic listener, usually one or two interviews will suffice so that the man is able to see his problem more clearly and what action he must take to overcome it.

Others bear the deep scar of the guilt complex and they come seeking release from the tensions of a guilty conscience. The feeling of guilt is the feeling of inadequacy that comes from knowing that one is not the person he should be or wants to be. These individuals are aware of their wrong-doing without the chaplain's admonition. The chaplain must not be shocked by what he hears and sees and must give no evidence of moral revulsion. This is perhaps the most difficult part of the chaplain's indoctrination into the service. Coming from the cloistered life of the theological seminary and the proper atmosphere of a church parish where people are likely to be on their best behavior when the clergyman is nearby, he may be somewhat rudely awakened when he sees a more seamy side of the everyday world as it is expressed by men in the barracks. In the service, the chaplain

is more likely to see his men in a somewhat different perspective than the ordinary civilian clergyman. His approach to them is, perhaps, more realistic. He must combine a genuine compassion for people and love for them per se with a keen sense of responsibility for the moral and spiritual strengthening of those given to his pastoral care.

It is important that the chaplain show his understanding of the inner conflicts which confront the serviceman. Through a sympathetic appreciation of his problems, the chaplain may help the man in uniform to solve his own problem and thus, strengthen the man's confidence in himself and develop his own inner resources.

An adequate counseling program must be focused upon the interviewee and his immediate problem in an effort to direct his attention to the moral and ethical issues involved. The counselee is not told the answer to his problem but is helped to find the answer for himself.

Individual counseling is an integral part of the character guidance program. When the counseling process has a religious orientation, the serviceman may be motivated toward a higher level of personal conduct.

The counselee presents a great challenge to the chaplain's ingenuity. Sometimes, he will have to probe deeply to discover

the real problem for the man himself may not be completely aware of his difficulty. Once the interviewee is reminded of the forgiveness of God, he will feel a sense of release from a burdened conscience. An emotional and spiritual catharsis takes place and the interviewee is freed of his tensions and inner-conflicts. The counselee must leave the interview with the awareness that he is not fighting his problem alone. He may not see the immediate solution but it is important that he realize that there are sympathetic friends who are interested in him and that the help of his Heavenly Father is available to him.

Another group which the chaplain will face in the counseling process are those who may be classified as psychotics or those who may be on the borderline of some psychosis. It is not within the province of the chaplain to diagnose or prescribe cures for mental illness but he should be conversant enough with the principles of psychology and psychiatry to readily identify these psychoses and refer them immediately to those who are more fully trained in the technique of psychiatry. The chaplain's interest in such cases does not stop where the psychiatrist takes over but the chaplain may perform a useful function in the psychiatric process because many such cases have deep spiritual roots. Since many of the problems are religious in nature the solution frequently may be found through the media of a more mature religious experience.

All of these men---the physically ill, the alcoholic, the emotionally immature, the psychoneurotic are directed to the

office of the sympathetic chaplain. All of these illnesses are within the field of interest of the chaplain because of the moral and spiritual implications of such sicknesses. Jung maintains that if all his patients, who had passed beyond the turbulence of youth and possessed what the great religions have tried to give its followers, they would not fall sick.¹⁰

The chaplain's interest in the serviceman begins with his concern for the motives and guiding purposes of the man in uniform. These motives and purposes are deeply rooted in the serviceman's conception of his function and destiny. Servicemen frequently exhibit tendencies toward emotional disturbances not only because of immediate frustrations but also because they are ultimately troubled about their meaning and destiny. It is not enough to know that a man feels frustrated or irritable but we must know what caused it----what lies back of his particular frustration or irritability. Seldom is this accomplished in one interview. Frequently, the serviceman must be given an opportunity on several occasions to unburden himself and release his tension before the chaplain begins to function as an adviser. Every area of the man's personality must be explored and the man given complete freedom to express his conflicts and his problems. The chaplain will interrupt

10. See Jung, Carl G., "Modern Man In Search of a Soul"; Harcourt, 1936.

only to probe some area deeper which would appear to him to be significant. Occasionally, a question by the chaplain will assure the interviewee that his story is being heard attentively or may direct the interview toward the basic problem.

In order to carry on an effective counseling program, the chaplain will find it essential to keep written case histories in which are recorded not only the interviewee's observations about himself but the chaplain's remarks as well. Such records will enable the chaplain to refresh himself on his previous contacts with the serviceman prior to each interview and will help him to maintain some continuity in the counseling process for each case. It will be a further means for the chaplain to check his technique and continually improve it. A third value of written case histories is that a large sample or collection may serve as a basis of an over-all study of the problems peculiar to the Armed Forces.

There are two particular dangers in the counseling process. First, that the chaplain refrain from mere advice giving; second, that he not reduce himself to the mere tool of the Socio-Military Organization by which he becomes an instrument for forcing the non-conformist into a pattern of conformity or the reinforcer of the lowest common denominator of the military culture.

Army and Navy Regulations both indicate that Junior and Senior Officers shall be concerned with the individual problems of men

of their command and that they make themselves available to hear these problems. Juniors are instructed to discuss their personal problems with their immediate superiors. The chief value of such a process is that it serves as a means of enabling the Senior to become better acquainted with the capabilities, the temperament, and the peculiarities of the Junior. Men who are unaccustomed to being counselors frequently feel flattered by the intimate confidence revealed by their Juniors and immediately feel it incumbent upon them to offer advice or suggest a remedy. Unfortunately, such advice, however well intended, does not always appreciate the depth and scope of the man's individual personality and at times does violence to a character building program. The aim of any counseling program is to teach self-reliance not merely to build up a clientele of advice-seekers. The success of any counseling program must be measured in terms of its character building effectiveness.

The chaplain's contribution to the character guidance program evolves from his religious orientation. There are deep theological as well as theoretical differences between the chaplain's approach to the counseling process as compared to the secular counselor. His conviction about human nature and its destiny ultimately condition his approach. His aim is to bring the serviceman into an awareness of the presence of God in his life and to help him mold his conduct in conformity with the moral code related to

that belief.

There can be no coercion to force the man to accept an imposed pattern of conduct. Clinical and experimental studies, even among children, have suggested that there are definite limits to human malleability.¹¹ The individual human personality must be respected. The individual can be skillfully led to see the moral or ethical issue at the root of his problem and then led to choose a course of conduct in keeping with the highest ideals he is capable of accepting as the pattern for his conduct.

11. See Gessell, Arnold and other, "Infant Child In the Culture of Today." Harper, 1943.

SUMMARY

Religion is of vital importance in the present struggle for two basic reasons. First, the insidious nature of the Soviet Doctrine demands a clear and precise definition of our moral and spiritual values. To be anti-communist is not enough. There is need for a positive course of action, grounded in religious faith. The basic requirement for citizenship in a democracy is character.

Second, religion is of vital importance because it alone provides the basis for the moral code. Religion describes and motivates "right" conduct.

The power of religious experience to mold character may be briefly summarized as follows:

- I. Religion describes a Power greater than man by which man's destiny is guided. It insists that man live in conformity to the reality of that Power.
- II. Religion motivates purposeful action. It is an aggressive mode of life by which the individual becomes master of his environment and not its passive victim and provides him with a workable orientation toward life.
- III. Religion is creative. It is not a substitute for thought but an incentive to it.
- IV. Religion respects the sacredness of the human personality. It teaches the infinite worth of the personality and the inherent good of the individual made in the image of God.

- V. Religion liberates inner tension and conflicts. It enables man to build confidence—confidence in a Higher Power, confidence in his fellowman, and confidence in his inner resources.
- VI. Religion is a unifying force. It binds men together in a common bond of brotherhood and equality, and blends individual aims in a corporate desire for the common good.
- VII. Religion provides the basis for self-discipline. It inspires man to govern his conduct in accordance with the law of God and insists that each individual is responsible for his own conduct.
- VIII. Religion offers a frame of reference to which the moral order is related. It is the foundation of law, order, and moral standards as the guide to moral conduct and provides a specific definition of right and wrong.
- IX. Religion is the soul of culture. It insists that institutions are the servants of men rather than their masters and that these institutions are associations of free men who are united in common consent.
- X. Religion is grounded in reality. It is concerned not only with ideal and eternal values but with everyday practices and attitudes.

PROCEDURE

To describe the role of religion in human behavior with reference to the Armed Forces, the investigator is confronted with the following procedure:

- I. To define the problem;
 - A. What is the religious heritage of service personnel?
 - 1. The statistical analysis of religious affiliation.
 - 2. A careful analysis and classification of basic tenants of the Jude-Christian Faith.

- B. How well equipped are recruits morally and spiritually to accept their responsibility as members of the Armed Forces?
 - C. What are the naked moral and spiritual needs of service personnel?
 - D. What are the dynamic situational contexts out of which the necessity for a character guidance program arises?
 - E. What kind of climate can the military service create which will most effectively enhance and foster the adoption of moral and spiritual values?
- II. To establish the desired aims of a guidance program;
- A. To determine which behavior patterns are to be fostered and which patterns to be discouraged in order to prepare and educate youth for behavior in a military society.
 - B. To locate weaknesses in behavior patterns and to reduce asocial behavior to a minimum.
 - C. To help the recruit build those character traits in which there is weakness or deficiency.
 - D. To enable the recruit to make good decisions and choices in changing circumstances.
- III. To develop a program designed to achieve the desired aims;
- A. Through the lecture method.
 - B. Through the use of self-evaluation score sheets.
 - C. Through the use of audio visual aids.
 - D. Through the counseling process.
 - E. Through the situational approach.
 - F. Through the use of private and corporate worship.
- IV. To evaluate and improve the techniques used;
- A. What specific effect does a moral or spiritual orientation have upon individual character, group morals, etc.?
 - B. What experiments and further observations are necessary to measure the effectiveness of the program?
 - C. How can man be elevated to a sense of inner-mission which will make military service an ethical or life-giving experience?

OBJECTIONS AND CRITICISMS

Some objections and criticisms toward a program of character guidance based on religious principles is anticipated.

1. Many individuals have an aversion to religious indoctrination. They object not because they are atheistic but simply because they compartmentalize religious experience as though it were unrelated to everyday life. Only as they understand that the religious person is a "real" person, will they appreciate religious experience as the basis of civilization and morality.

2. Another objection arises from the nature of religious experience which makes an empirical evaluation of its effect extremely difficult. The fact that it may be difficult to measure does not preclude the thought that religious experience has no appreciable effect on human behavior. (Heat and the absence of heat are observable phenomena quite independent of the existence of a thermometer to accurately measure the degrees heat). The absence of accurate and completely reliable measuring devices does not invalidate a program of moral guidance based on religious principles. The absence of suitable objective criteria and the difficulty of devising tests to measure the mean level of moral and spiritual standards of conduct is a technical handicap which must and can be overcome.

3. A third difficulty relates to the time element. Building character and inculcating moral ideals is at best a slow process. Results are not immediate. Methods and procedures as in any research project must be tried and proven. Character guidance involves more than setting up a program and then permitting faith, hope and charity to carry on.

4. The fourth objection is related to the two previous ones and arises from the realization that character cannot be transmitted as a bit of learned information. Knowledge is not necessarily virtue. To know the difference between right and wrong is not sufficient. The problem of motivating individuals in a free society to choose the "right", the highest or the best is always difficult.

5. There is a barrier of historical prejudice which has fostered the idea that any military organization is immoral or amoral in both its purpose and practice. Such a misconception can be overcome. A modern military organization, representing a cross-section of the population is neither more moral or less moral than the rank and file of the civilian population. However, if the prevailing atmosphere of the barracks places a premium on self-indulgence and mocks at self-discipline, if military opinion becomes tolerant of evil and pampers human weakness, if bad behavior wins approval because people get away with it, if there is nothing to inspire men to live according to the highest ethical code known to man—then the military organization sinks into inevitable decay and the individual personality declines with it. However, the same military organization which is capable of inspiring idealism, patriotism and courage is capable of fostering other virtues as well.

6. There is a common misconception about the freedom of religion guaranteed in our Constitution and Bill of Rights which leads to the belief that any religious teachings in our schools, military services, and other institutions is a violation of the Constitution; nothing is further from the truth. The framers of the Constitution were not irreligious nor did they intend to prevent the teaching and practice of religion. They desired only to prevent division and controversy over small denominational issues in disrupting the unity of the Country. Religion then, as always, has been a vital issue in the life of our nation. The broad basic issues of the Hebrew-Christian faith are the basis of democratic morality and freedom to teach them and live them is guaranteed by the Constitution. The teaching of religious principles in the military service is in keeping with the highest traditions of our democratic faith. Since we force people to learn to read and write, is it less important that they be taught ethical and moral principles?

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Definitions

APPENDIX B

1. Character The evaluation placed on the actions of an individual in terms of the highest cultural values.
2. Moral and Spiritual Values Those values which when applied in human behavior, exalt and refine life and bring it into accord with the standards of conduct that are approved in our Hebrew-Christian tradition.
3. Moral Conduct Is that behavior which is governed by a sense of right and justice.
4. Morale Condition as affected by or dependent upon such moral or mental factors as zest, spirit, hope, confidence; a mental state which results in courage and endurance in the presence of danger, fatigue, discouragement, etc.
5. Personality The sum total of the acquired behaviors of a human being.
6. Religion By religion, we refer to the Hebrew Christian tradition. Other religious faiths, however high their ideals, have no significance for our democratic faith.

TRAINING INDEPENDENT DUTY TECHNICIANS

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Prepared for

**THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE**

**Department of Defense
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TRAINING INDEPENDENT DUTY TECHNICIANS

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I have previously been assigned to independent duty at an isolated outpost in the arctic, and I am of the opinion that too many men are being sent to outpost stations without proper training. Not enough attention is being paid to the physical and mental fitness of men being sent to these stations. It is necessary that every man going to isolated duty in all services should be carefully screened for physical and mental disability. The reason for this being that outpost duty is rugged at its best and the station is only as strong as its weakest man.

The most important problem for the independent duty man is the task of improvising in the face of an emergency. Without this talent, or acquired skill it is very difficult to fulfill the mission assigned. It should be noted that anyone with normal intelligence can learn the basic principles of medicine; but those principles are useless without the ingenuity to apply them under situations that are far from usual. With this thought in mind the following suggestions are put forth for study:

Included in the course of instruction for outpost duty should be a package survival course. Not for survival alone, but to teach service men self-reliance. The amount of men in the service that have had to live under adverse conditions is surprisingly small. Consequently, at outpost installations the burden of making a smooth running operation falls on a very small group. Whereas, if the men were screened previously

to assignment as to their ability to take care of themselves, the weak ones could be extracted and trained adequately or not be considered for independent duty.

(1) Some of the questions that should be asked of the men going to isolated stations should be as follows:

- a. Is he able to use a map and compass?
- b. Is he able to swim?
- c. Is he able to build a fire?
- d. Is he capable of taking care of sick and wounded outside a well-equipped hospital?
- e. Is he able to hunt, fish and handle water-borne small craft?
- f. Does he possess the knowledge of handling snow shoes and skis?
- g. Does he know how to improvise overland trips and transportation for sick and wounded?
- h. Has he had experience in handling domesticated beasts of burden?
- i. Has he been taught to think fast and handle men under stress.

The reasons for all these questions is that a man on outpost duty as a medic is the potential leader of the base. The rest look to him for guidance. If the men know that the medic can hold up no matter what the emergency, it is a marvelous morale factor.

With a well developed preventive medicine program and a strong

sanitary inspection routine, the clinical work load is lessened considerably. If we can instill these thoughts in all of our independent duty personnel, our toughest job is done. The basic problem is to teach them the principles of preventive medicine and how to use them. Such topics as sanitation, isolation technique, monthly check of personnel, prophylactic medication, outward clinical signs of malaria, mumps, measles, etc. follow-up on all cases of communicable disease, the agents that cause various kinds of infection and where to look for the reservoir of these agents. Therefore, it would be advantageous, in my opinion, that an extensive course in preventive medicine be given to all students enrolled in the various independent duty courses of the United States Armed Services.

The most dangerous course taught in my estimation is surgery. This is just too complicated and fraught with danger for the average student to comprehend. One phase of surgery should be taught, however, and this is minor surgery. It should be stressed that this has its limits and the student should stay strictly within these set limits. One has to be very cautious in teaching this subject. The instructors that teach surgery should be thoroughly briefed on this so as not to get too deep into the study. A little knowledge, and not being aware of possible complications, can be disastrous.

During my tour of independent duty in Greenland, I found that fractures caused a great loss of man hours. In service schools, not enough emphasis is put on orthopedics. I think the student should be impressed with the idea that prevention is more effective than cure. Therefore, the subject of orthopedics should be dealt with in its deepest

sense. In other words, give the student the complete picture. We should endeavor to teach him the physiology of a fracture. He should learn the possible complications, as well as learning each fracture has to be treated individually. No two fractures have the same prognosis. The more complete his knowledge, the more money and man hours he can save the government.

The importance of laboratory work should be emphasized strongly. This course should be as complete as possible, because it is much easier to make a diagnosis by laboratory methods, than by clinical methods. It is a known fact that all diseases show their effects on the circulatory system, feces, urine, sputum and the spinal fluid. (Of course, the later test should be made by a doctor.) I know this because my own knowledge of laboratory processes was lacking at the time of my assignment and it hindered my work considerably.

The study of clinical medicine should be kept at its most basic level. It is a very intricate and confusing subject. The tendency of even doctors to make a wrong diagnosis on sight is great. So this fact alone should show teaching clinical medicine to non-professional men will stand an even greater percent of error. External signs should be taught, such as rash, swellings, and so forth, but the deeper aspects should be foregone in lieu of a more complete basic course.

An absolutely necessary subject taught to independent duty men is X-ray. It is already known how important the X-ray is to the diagnostitian. On independent duty the technician has to be his own diagnostitian. With the X-ray, this is very difficult. I had no training in X-ray and as a result I had to learn the subject by trial and error. Limited knowledge of X-ray can be very dangerous to the patient as well as the technician so this course should be as complete as possible.

-4-

GROUP DYNAMICS OF MILITARY UNITS

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Prepared for
THE WORKING GROUP ON HUMAN BEHAVIOR
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Table of Contents

	Page
I. Statement of Problem	1
1. Group Dynamics	
2. Military Unit	
II. Summary	2
III. Review of Applicable Research Data	4
IV. Appraisal and Summary of Research Data and Principles . .	9
1. General Considerations	
a. Factors Assumed as Constant in Unit	9
b. Relative Importance of Particular Factors	10
2. Factors in Group Behavior	
a. Formal Organization	13
b. Leadership	17
Importance of Effective Leadership	18
Qualities Necessary for Effective Leadership . .	19
Gap Between Leadership Ideal and Reality.	25
Leadership Difficulties of Unit Officers.	28
Leadership Position of Noncommissioned Officers .	31
Diagnostic Value of Attitudes toward Officers. .	35
c. Internal (Informal) Organization	37
Evidence of the Importance of Primary Groups. . .	40
Reasons for the Importance of Primary Groups . .	44
Behavior Patterns and Attitudes of the Primary	
Group	52
How the Primary Group Enforces Its Standards . .	61
Assimilation into the Primary Group	63
Relation of the Primary Group to other Groupings.	66
d. Response to Stress Situations	68
Group Rewards and Punishments	69
Nature of Combat Stress	70
Increased Value of Primary Group under Combat	
Conditions	74
Gradient of Combat Efficiency	76
Sustaining and Impelling Forces	78
Bibliography	83

GROUP DYNAMICS OF MILITARY UNITS

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I. Statement of Problem

1. Group Dynamics.

This study deals with the ways in which the members of a military unit work together and how well they cooperate to accomplish the purposes set by the military command. The problem is to describe how the men get themselves organized within and in addition to the formal modes of organization prescribed by military regulations, to indicate why they so organize themselves, and to show how they respond collectively to conditions of stress. A related problem, which will be discussed in a subsequent paper, has to do with the effects on military performance of some of the major variations in the social composition and in the cultural environment of the unit.

It will be noted that these problems are often discussed as matters of motivation and morale. These terms have not been widely used in this analysis because such wide discrepancies exist in the usages of "motivation" and "morale" that it is best to use them sparingly.

2. Military Unit.

The military unit under discussion is one in which most of the men have some personal acquaintance with each other and in which the men generally work and live together. It corresponds to what is sometimes called the "face to face" group or the primary group. In terms of the military tables of organization it is the company, battery, or squadron. The unit which is of particular interest in this discussion and which is taken as the standard example is the infantry rifle company.

II. Summary

There is not much scientific evidence which bears directly on the ways in which the men of a unit get themselves organized within the formal military organization, but there is a considerable amount of indirect evidence. The principal factors which affect this self-organization are the formal regulations, the effectiveness of leadership, and the patterns of internal, informal organization. The men who participate together in the informal organization make up the primary group.

The importance of any one factor depends on the type of situation in which the unit operates. In this survey, group dynamics (the ways in which the men react as a group to various conditions) are first described mainly as they occur in training and garrison situations; they are then analyzed in situations where the men are under stress, especially combat stress.

The formal organization directs the activity and limits the range of behavior of the men so long as they operate as a military unit. But the men of the unit do not invariably or automatically operate according to the regulations and requirements of the formal organization. This is clearly demonstrated in reviewing the effectiveness of unit leadership.

There is no doubt that good leadership is usually necessary for good unit performance. And the qualities which a good officer-leader should have are a matter of general agreement. But there is a considerable difference between these ideal patterns and the actual behavior of many unit officers. This gap between the ideal, both of the published manuals and of the enlisted man's opinion, and the reality is frequently the result of a lack of identification between an officer and his men.

Some aspects of officer training make it difficult for the officer to establish this relationship. Without establishing identification, an officer cannot readily be an effective leader; without effective officer-leaders a unit does not usually operate effectively. Identification between an officer and his men enhances his leadership largely because the officer can then have the support of the informal organization and of the primary group standards of the men.

The importance of this organization and these standards is attested by many authorities, most vividly by an able student of infantry tactics who observes that American infantrymen in combat will usually fight only in the presence of men whom they know — in the presence of others of their primary group.

The primary group is so important because it is the only face-to-face group to which the soldier can belong and he has an even stronger need to belong to such a group as a soldier than he did as a civilian. It is the only available group because of the cutting off of his previous social affiliations, because of the isolation from other groupings, because of the uniqueness of his experience within the unit, and because of the high degree of mutual dependence and responsibility in the primary group. Membership in a primary group helps the soldier by reducing his anxiety, by giving him a feeling that he counts as a person, and, in general, by enabling him to withstand the strains of army life which he might not otherwise be able to tolerate.

The primary group enforces certain standards in order to accomplish this, and the soldier is the recipient of the group's benefits as well as one of the givers of group benefits to others, he is subject to the group's mandates as well as being one of the administrators of its informal code. This code includes the concept of masculinity, the insistence on group solidarity, and the conferral of status other than that bestowed by external authority. These patterns are enforced by verbal taunts, by the withholding of privileges, and by ostracism. Newcomers are usually very eager to join a primary group and are quickly taken into one. The loyalty to the primary group is expressed as loyalty to the outfit.

In combat, all the factors which make the primary group so important are intensified, and it becomes of crucial importance. The forces which actuate the soldier for long periods while he is in combat are significantly those which rise out of his primary group affiliation.

III. Review of Applicable Research Data.

The scientific data available on this subject are extremely meager. This comes about not from any lack of interest in the subject, for it is a topic which has been considered for as long as there has been interest in the reasons for military success or failure. Thus the classic Battle Studies of Colonel Ardant du Picq, to cite just one among a great many such writings, deals eloquently with some of the central problems formulated here. But du Picq's observations, insightful though they are, were not systematically gathered nor carefully checked. His conclusions may be interpreted in many different ways and cannot well be applied rigorously to a range of military situations differing from that of France in the 1860's when du Picq wrote. In short, such writings offer impressions rather than data, and belong to the field of literature rather than to that of science.

Part of the reason for the paucity of good evidence on this crucial military topic is that the concepts and techniques for the scientific investigation of the problem have been developed relatively recently and have yet to be well perfected. There has been little opportunity to demonstrate the utility of the scientific investigation of group dynamics to military authorities. Hence much of the evidence used in this paper was gathered incidentally, as an ancillary outcome of research directed toward other problems. This is especially true of the first study discussed in the following list of principal sources used.

1. Studies in Social Psychology in World War II. 1949.

The four volumes of this important work are the result of the activities of the Research Branch, Information and Education Division, United States Army during four years of World War II. They represent a high water mark among recent social science achievements, of significance both for the military and for science. The first two volumes, The American Soldier: Adjustment during Army Life and The American Soldier: Combat and its Aftermath (referred to as Stauffer 1949, I and II) are especially useful for our present purposes. An explanation of why this work is not even more useful is best given in the words of the authors.

"The problem of measuring the cooperative effort of a unit was never solved satisfactorily, and it must be set down as one of the subjects which should call for the best efforts of sociologists and psychologists in years ahead.

"Instead of solving the problem of measurement of group morale, the Research Branch, in large part, by-passed it. Faced with the necessity of giving the Army command, quickly and reliably, information which would be useful in policy making, the Research Branch concentrated primarily not on evaluation of the cooperative zeal of groups toward Army goals, but rather on study of personal adjustment. As compared with the concept of morale, it was easier to find nonverbal behavior whose relationships with the verbal behavior could be studied.

"Even though the concept of personal adjustment is an individual and not a group concept, it is nevertheless useful for group comparisons." (Stauffer 1949, I 85)

Not only was the matter of group dynamics difficult to observe and to measure, but the Research Branch did not find it easy to obtain the facilities necessary for the proper experimental study of key concepts in the field of group behavior. Thus the authors say,

"Even more reluctant were the authorities to permit experimental studies to test hypotheses about leadership. The social-psychological and sociological literature on this subject is filled with precepts and stereotypes which embody a great deal of common sense experience, but any substantial advance in the way of proving that if you vary X you will also vary Y depends on experimentation under controller conditions. Not until the war neared the end was authority obtained to begin experimental studies of the effects of leadership (at the noncom level) on troop attitudes. For a few weeks a study preliminary to experimentation was carried out at an Army post in New England, but the end of the war and curtailment of research activities brought this effort to an abrupt end.

"There are few practical problems facing social science more urgent than that of studying leadership experimentally and developing some tested hypotheses to replace the copybook maxims that now fill most manuals on leadership, whether written for the Army, for industry, or for organizations like the Y M C A". (Stauffer 1949, I 363).

Despite these limitations, this work of Stauffer and his associates is the best single source of scientific data for our study.

2. The American Journal of Sociology. Vol. 51, No. 5, March 1946.

This issue of the Journal was entirely devoted to studies of the social psychology of military life. All of the authors of the twenty-one papers in this issue had had direct experience with human behavior under conditions of military service, most of them as officers or as enlisted men in the service. All were professionally trained in one of the social or medical sciences. These studies, and similar studies which have appeared in other issues of this and of comparable journals, have the great advantage of having been done by trained analysts who knew the data by reason of first hand experience. They have the disadvantage of having been written as incidental outcomes of other duties, and so were done without the benefit of coordinated guidance, unified theoretical outlook, or cross-validation.

3. Men Under Stress, by Roy R. Grinker and John P. Spiegel, 1945.

The authors of this work are two psychiatrists whose military duties during World War II gave them wide experience with the problems of group dynamics and also allowed for systematic observation. Another work by the same authors, War Neuroses, and similar psychiatrically-oriented studies provide important evidence on the patterns of unit behavior. But since such observations were made in the course of clinical work, these studies emphasize individual and abnormal cases of maladjustment rather than the normal processes of group adjustment. The evidence presented is mainly that collected in the clinics and in the hospitals, and only incidentally has to do with usual and typical behavior in garrison and on the field of battle.

4. Men Against Fire, by S. L. A. Marshall, 1947.

Written by a military historian, this book offers the conclusions derived by an astute analyst from intensive and first hand studies of leadership and unit performance in some of the major operations of World War II. Colonel Marshall's duties as a member of the Historical Division, War Department Special Staff, gave him the opportunity to make systematic observations; his knowledge of military history enabled him to view his findings in broad perspective. His book is an important document for students of military life not only for its intrinsic merit but also because of the comparative rarity of such empirical studies on the subject of leadership and related aspects of group dynamics.

5

Colonel Marshall puts it well in the opening note to his book,

"One of the deterrents to the adoption of new concepts is that company officers and non-coms rarely write of their combat experiences. Even when they do so they are unlikely to search into the reason and nature of them, usually because the experiences are narrow and personal. Also, they have no way of gauging what things are typical and characteristic.

"In consequence, most of our textbooks and commentaries on leadership and the mastery of the moral problem in battle are written by senior officers who are either wholly lacking in combat experience or have been for long periods so far removed from the reality of small arms action that they have come to forget what were once their most vital convictions and impressions."
(Marshall 1947, 9-10).

These comments apply not only to the memoirs of the High Command, but also to such books as Company Commander by Charles D. MacDonald, a former captain of an infantry company in the Second Division. MacDonald's account, like some of the better novels about World War II, gives a vivid picture of his experiences, but there is no way of knowing from such books to what degree valid generalizations may be formulated from them. And Colonel Marshall's own work is only the product of one man's investigation of a vast and complex subject. Useful as are many of Colonel Marshall's observations for the purposes of this study, his presentation still does not provide evidence carefully collected under controlled conditions and validated according to standard procedures by teams of analysts operating together in terms of a program based on clearly defined theoretical concepts.

5. Psychology for the Armed Services, 1945.

This book was edited by Professor Edwin G. Boring and was prepared by a committee of the National Research Council with the collaboration of a number of scholars. This work and others like it do offer useful concepts for the study of group dynamics. They provide some of the

basic tools for research on the problems here considered. But such writings, for the most part, only indicate how certain concepts of social psychology and other social sciences might be applied to the subject of the group dynamics of a military unit. They do not actually use the conceptual tools on a collection of empirical evidence. Hence they indicate the promise rather than the performance of social science research in a military context.

In addition to these principal sources, some two hundred and fifty books and articles were examined for pertinent data and a considerable proportion of them have been utilized in this survey.

IV. Appraisal and Summary of Research Data and Principles.

1. General Considerations.

a. Factors Assumed as Constant in Unit.

Certain factors which can affect the efficiency of a military unit are not discussed in this paper since it is assumed that they are constant as between one typical unit and another. Thus the relative age, marital condition, and education of the members of a unit have some bearing on the manner in which the group will perform its military tasks. The Research Branch found that favorable responses about willingness for military service were expressed more by younger men, more by unmarried than by married men in corresponding age and educational groups, and more by high school graduates than by others in each age group by marital conditions. (Stauffer 1949, I 124-125). The inference is that, insofar as these responses can be taken as a clue to military performance, a unit composed entirely of younger unmarried men who are high school graduates will give a better account of itself than a group of older married men who are not high school graduates. But since the men of one infantry rifle company show about the same distribution of age, marital conditions, and education as the men in another company, these are not significant variables in the analysis of group dynamics.

Similarly, such matters as the methods of classification and training of Army personnel, the degree of physical and psychiatric fitness of the Army population, and the general cultural background of Americans will all have effect on the level of military performance,

but can be treated as "given" conditions for our present analysis.

Those major variables which are relevant to the present composition of the military services, such as Negro groupings, will be discussed in another paper.

b. Relative Importance of Particular Factors.

The importance of any of the factors described here must be judged in relation to the context of the situation in which it occurs. As the men of a unit undergo different experiences, the relative importance of specific forces which influence their behavior changes. In his discussion of combat motivations among ground troops, Mr. Smith notes, "As a man changes from civilian to front-line soldier, the factors conditioning his behavior change and so do the motives to which he refers to account for his actions A career army, a guerrilla army, or an army fighting in its own homeland may be expected to fight for a quite different cluster of 'reasons' than the American combat man in the recent war." (Stauffer 1949, II 105)

In another chapter of the same work, on the orientation of soldiers toward the war, it is noted that ideology and convictions about cause seem to be of relatively minor importance in the military performance of American soldiers. But the author of the chapter, S. A. Star, is careful to point out that "It would be dangerous to conclude this chapter, however by leaving the inference that convictions about one's cause are of negligible significance given other historical contexts, it is possible, indeed probable, that convictions about a war would play a still greater role than among Americans in World War II." (Stauffer 1949, I 484).

A similar note is struck by Dr. Hans Speier of the Rand Corporation in a discussion of the sociology of military organization. Speier notes that an appreciation of the importance of ". . . participation in small groups for the cohesion of the social fabric, combined with our experience of victory in a war to which large masses contributed without much concern for matters of conviction about the war, should not lead us to assume that the strength and nature of conviction will not matter in a future crisis." (Merton and Lazarsfeld 1950, 120).

These comments stress the relativity of particular factors of primary group behavior to the wider historical and demographic contexts. The same principal of relativity applies in the context of specifically military experience. There will be occasion to note below that the importance of the physical amenities available to a unit generally is of subsidiary importance to other factors. This has been well stated by two medical observers.

"It is amazing what degrees of physical discomfort can be withstood cheerfully, jokingly or philosophically, if the men feel that everything possible is being done for them. Mud, rain, days in wet and cold clothing or intolerable heat, poor food, even lack of water, can be tolerated without too much difficulty. But, if it becomes known or suspected that the poor living conditions are due to someone's stupidity, inefficiency or lack of interest, the men develop intense resentment. Their whole attitude may change, tolerance for the situation is lost, and morale disintegrates." (Grinker and Spiegel 1945, 48).

This is not to say, of course, that the men of a unit can withstand indefinite deprivation in the matter of food, water, or temperature. But it does indicate that the impact of a certain degree of deprivation on the behavior of a group depends on how the men perceive the reasons for the deprivation and their attitudes toward those who do not suffer deprivation.

This concept of relative deprivation was found by the Research Branch authors of The American Soldier to be a useful one in unifying a rather disparate collection of data. The central idea of this concept is simply that the importance of deprivations experienced by a group depends on its standards of comparison. The concept and the data from which it was derived are further examined by Merton and Kitt in an analysis of the contributions of the materials in The American Soldier, to the theory of "reference group behavior." This theory poses the following central question: under which conditions are associates within one's own groups taken as a frame of reference for self-evaluation and attitude-formation, and under which conditions do out-groups or non-membership groups provide the significant frame of reference? (Stauffer, 1949, I 125, 660; Merton and Lazarsfeld 1950, 49).

The principle of relativity emphasized in the present study is broader than both that of relative deprivation and that of the "reference group." It includes them and also takes in more, applying equally to such matters as leadership. For example, the most effective pattern of leadership for a company commander differs according to the situation in which his company is operating. Colonel Marshall puts it in this way.

"All I have said here should make clear that action requires an abrupt change in attitude on the part of the commander. Prior to combat the touchstone of his success is the interior working of the company; it requires the maximum of his attention. He enlarges his ability to command by advancing his knowledge of the character and potential of his men and by encouraging his lieutenants to do likewise. When he fights, he does an about-face. He must depend on his lieutenants to direct in detail the action of the men . . . His own view and action must be directed primarily toward the horizons of operation." (Marshall 1947, 190).

An adequate treatment of the group dynamics of military units, therefore, should (a) state the principal isolatable factors which are involved in the usual contexts of group behavior, (b) specify the typical situations and the typical succession of situations which the unit experiences, and (c) formulate the special constellation and rank order of factors which tend to be most influential in particular situations.

The present state of research data on the topic does not allow such systematic and full treatment. But this design of analysis is followed here by considering first the principal factors in primary group behavior under the headings "Formal Organization," "Leadership," and "Internal (Informal) Organization." Then the major situational shift, from pre-combat to combat, is treated under the heading "Response to Stress Situations." The rank order in importance of factors is not extensively discussed for lack of evidence.

2. Factors in Group Behavior

a. Formal Organization

Whatever analysis is made of the behavior of a military unit, whether in the Army, Navy, or Air Force, it must always be remembered that it is a military grouping. It is designed for a specific set of purposes and its basic organization is developed in order to further these purposes. The culture and social structure of the Army impose limits on the possible range of behavior of the group under all conditions so long as the men operate as a unit.

The specific culture patterns of Army life are more compulsive for most men than those which they enacted as civilians, allow for a smaller range of deviation. And the soldier's interpersonal relations, both in his work and off-work groups, are more strictly circumscribed than social relations usually are in civilian life. For our present purposes we need only point out how Army regulations control both the working and the non-working hours of the individuals in this group. The minutiae of the daily job are prescribed in detailed technical orders, manuals and directives, which are issued by higher headquarters, and reach the individuals in the group through the hierarchical channels of military authority. As one writer in the American Journal of Sociology has noted (vol. 51, 1946, 365-366), these regulations may range over such subjects as specification for the size of the head of the arrow drawn on a map, hours of work, proper dress for work of various kinds, size of working shifts, nature of supervision, punctuation in work reports, courtesies to be shown to visiting officers, and standards of cleanliness.

Perhaps in greatest contrast to normal civilian social controls are the formal regulations governing behavior off-duty. Thus the same writer notes that the army establishes formal control over such matters as hours of sleep, hours of eating, the selection of social acquaintances (viz. directives forbidding off-duty, social relations between officers and enlisted personnel), hours during which the trains may be used, frequency of shaving, and the selection of seats in Army theatres. This writer believes that one of the citizen-soldier's most difficult adjustments in World War II was the fact that his off-duty hours and

so-called free time were not subject to his own control. In all, the Army way of life is felt by the men in an Army unit to be more rigid and constricted than the civilian way of life. This is not to say that all soldiers always resent the restrictions of Army life. To many indeed, its very circumscriptions provide satisfaction and security. But it is to say that the men of a unit understand that being a soldier involves a different outlook and attitude from that of civilians.

All army units share a certain background of experience because of the uniform structure of army society and its typical procedures, rules, and sanctions. The recruit is exposed to this experience immediately upon entering the army. In basic training the fabric of army life, the concrete social situations in which the soldier participates, are first revealed to him. Here all the members of an army unit have learned to adapt to the principal features of army culture.

These patterns of army culture are inculcated early in the military career of all soldiers and set fundamental limitations on the possibilities for the group behavior of an army unit. However, the members of the unit may get themselves organized in addition to the organizational requirements of army regulations, whatever goals and standards they may set for themselves other than the standards and aims of the army command, they still must operate within the hierarchical social structure and the numbered cultural patterns of the army. In his discussion of primary groups in the American Army E. A. Shils comments on the fundamental fact that a large corporate body like an army is more than an assembly of primary groups accidentally-coordinated with one another by primary groups relationships. The Army is an organization in which formally constituted

agencies exercise authority over persons with whom they have no primary group relations whatsoever. (Merton and Lazarsfeld 1950, 19).

These army patterns and structure have developed over a long span of time, have been tested in many historical crucibles, and are not the focus of our analysis in this study. It may be noted in passing that there exists not a single objective description of how the formal requirements of regulations, manuals, directives, and policies are actually transmitted and carried out in the day-to-day operations of a unit. Suffice it to say here that they are transmitted and carried out with enough fidelity to insure a uniformity of basic behavior patterns throughout the military ranks.

The significance of these formally standardized patterns of army culture is highlighted in a chapter on the general characteristics of ground combat by R. M. Williams Jr. and M. B. Smith in The American Soldier. These writers point out that a company composed entirely of individual replacements, none of whom were acquainted prior to the day the unit entered combat, could quickly become a fairly effective fighting organization. This would be possible because the cultural framework of action was known to the men. On the other hand, a group in which the only basis of organization was that of affective ties and common social values among individuals, none of whom were invested with definite formal roles carrying explicit functions, could hardly avoid initial chaos upon meeting the enemy. Eventually, if the group continued to operate as a unit, leaders would arise and a determinate social structure would take form, but this would be a costly procedure.

It is apparent then, that personal motives and relationships are not essential determining factors for group organization in combat. They do not furnish sufficient conditions, and only in a statistical sense are they necessary conditions: officers and men must be motivated to make the organization work, but not all of them have to be similarly motivated, nor must they all agree on details of social philosophy or be bound by ties of personal friendship in order for a functioning organization to exist. "To put it another way, the best single predictor of combat behavior is the simple fact of institutionalized role: knowing that a man is a soldier rather than a civilian. The soldier role is a vehicle for getting a man into the position in which he has to fight or take the institutionally sanctioned consequences." (Stauffer 1949, II 101).

True and important as this is, it is also true and important that the threat of "the consequences" does not always have the same effect on all groups under any conditions, nor does a soldier always fulfill the ideal patterns of the role. If it were so, then the army unit would operate entirely and inevitably according to the published rules. No human group automatically fulfills all the prescribed formal regulations of its culture and there is considerable divergence in actuality between the requirements of the orders, manuals, and directives, and the real behavior of any military unit. As we shall see later, the members of an army unit engaged in combat are simultaneously guided, supported, and coerced by the formal framework of organization, but the principal guidance, support, and coercion in times of combat stress come more from

the primary, informal relationships developed among themselves by the men of the unit than from the corporate formal patterns of the Army social structure. The disparity between formal requirements and actual behavior is well exemplified in the matter of leadership.

b. Leadership

The high importance of competent leadership for an effective military unit is well known. In non-combat situations the leaders of the unit, both officers and noncoms, have the responsibility of enforcing the formal patterns of army culture, of seeing to it that the members of the unit operate and cooperate in military fashion. In combat, the men of the unit expect authoritative direction and unwavering determination from their officers. If these qualities are not forthcoming from their officers, they either seek them elsewhere or suffer disorganization. (Stauffer, 1949, II 117).

But it must be noted that the testimony of the officers themselves about their importance to the unit is not usually a reliable gauge. The Research Branch found that officers usually overestimate the favorable attitude of their men. Studies of overseas infantry veterans showed that if officers felt in rather low spirits they tended to think that enlisted men did also, while if the officers were in high spirits, they tended to think enlisted men were also, even if this were not so. Officers commonly overestimated the propitious attitude of their men, for the reason that the officers' own attitudes generally were more favorable than were those of the men.

Another factor which affected the officers' estimate of their own position was the difficulty of communication between officers and enlisted men, even within the company unit. Officers could be and were easily misled by the rituals of deference exacted from all enlisted men. In the course of time the officers frequently came to mistake these compulsory outward symbols of deference for voluntary respect and failed to perceive underlying hostilities and resentments. "Officers were practically entrapped into assuming that they were symbols of respected authority." (Stauffer 1949, I 393, 396)

Importance of Effective Leadership. Nevertheless, there is little dispute concerning the crucial role of formal leadership in promoting the effectiveness of a unit. Thus a chaplain writes, "No discussion of morale could claim completeness without dealing with the officers, for the morale of the enlisted man usually reflects the morale of his officers." (O'Gara 1945, 49). And an anthropologist, experienced both as an enlisted man and as an officer, observes, "Troops almost without exception reflect the qualities of leadership of their commanding officers. A capable leader will usually have a high performance and high morale unit. If the going gets tough, he will figure ways and means of keeping his men's minds occupied. His men know he is doing his very best for them. In units with poor leaders morale is low, and the men doubt the necessity of the job at hand. It is in such units that one finds race prejudice at its highest." (Hall 1947, L04).

A sociologist, in analyzing the performance of a Negro division, describes the devastating effect which their poor officers had on the morale of the men, and how the relations of the officers to the men further depressed the low efficiency of this division. "It was not only the poor training and incapable officers that led to low morale in the division. There were also numerous 'incidents' which proved to the men that their officers had little regard for them." (Rose 1947, 28)

Two army psychiatrists tell of the great significance of high morale and of the spirit of self-sacrifice among the men of a unit, and say "The principal factor governing the maintenance of this type of spirit is the quality of the leadership. The necessity for good leadership is, of course, obvious, if considered only from the standpoint of the leader's technical ability. Certainly as important as his technical ability is his personality, upon which, in the final analysis, depends his capacity to influence morale." (Grinker and Spiegel 1945, 46).

In similar vein, a military analyst writes, "The fundamental cause of the breakdown of morale and discipline within the Army usually comes of this, that a commander or his subordinates transgresses by treating men as if they were children or serfs instead of showing respect for their adulthood." (Marshall 1947, 115).

Qualities Necessary for Effective Leadership. These quotations give some clue concerning the qualities which a company officer should have if he is to fulfill his formal role, a role which is of such strategic importance to the performance of a unit. From the empirical evidence collected by the Research Branch it is clear that the officer's personal

concern for his men is considered by the men to be very important for effective leadership. A typical comment by an enlisted man, a combat veteran, concerning the best behavior for officers was this, "I'D be as close to the men as possible. Let them know that you are there enduring the same things." (Stauffer 1949, I 385-386).

The officer may be regarded as a figure of authority, by his men, the Research Branch analysts have noted, and reacted to in terms of behavior patterns built up in their past experience from their relations with the father and subsequent authoritative persons. In this role, the officer may be a source of guidance and strength. Secondly, and probably more important, the officer's behavior may be taken as a model by the enlisted men, who identify with him and try to be like him. This identification is most likely to occur when the officer has their respect and admiration. In any case, when the soldier modeled his behavior on the officer's, the role the officer chose for himself became important for its effect on the enlisted men. If the officer shared the dangers and hardships of the men successfully, they would then be more likely to do their part, whereas the officer who held back from taking personal risks invited similar behavior from his men. Both officers and enlisted men made it explicit that in combat, effective leadership had to be from in front. (Stauffer 1949, II 123-124).

In describing the characteristics of the best officer they had known in combat, veteran enlisted infantrymen mentioned the officer's helpfulness toward his men, and his display of personal interest in them and in their problems more than any other single characteristic. Fearlessness and leadership by personal example were mentioned next in order. (stauffer 1949, II 134).

An essential element in the qualities which are noted as being desirable in an officer is the process of identification between the leader and those whom he leads. The individual's capacity to form identification with other people and to feel loyal to them is one of the decisive factors in good motivation for (and good performance in) combat, according to Grinker and Spiegel. These authors define the process of identification in this way.

"By identification is meant the feeling of belonging to, being a part of, or being the same as another person or group of people Two factors of the utmost importance are fused in the process of identification. One is that the person or group with whom the identification takes place is loved or needed to some extent. The other is that this person or group is in a position of authority and in this capacity makes demands upon the individual At times such demands may be resented, but, because of the love and the need to be loved, they are ordinarily accepted by the individual and included within his personality as his superego. As he comes to feel himself a part of the group, such demands are later not felt to be external. They do not seem to be foreign to him or hateful - they seem to exist within himself. Thus a feeling of obligation, a social feeling, is born which, if the identification is strong, is powerful and can overrule all of his selfish, personal interests. The pressure to conform to the demands of the group is almost a compulsion, of which the individual is largely unaware and probably could not explain even to himself." (Grinker and Spiegel 1945, 39-40)

The importance of identification in the performance of a unit can be put in this way. For good companies, there must be good officers. Good officers are generally those who take the initiative in setting up identification between themselves and the men of the group. The process of identification involves giving the men the belief that the officer shares in their fate and in their hopes; cares for their welfare and is willing to deprive himself in order to do so; and is not exempted from the hardships and dangers which they face.

) Thus the Research Branch found that among troops who have not yet entered combat, the proportion who say that they would like to serve under a given company commander in combat varies directly with the proportion who think that he "takes a lot of interest in what his men are thinking." Companies with high morale were characterized by far higher frequency than occurred in other companies of the belief that the officers were "interested" in their men, "understood" them, were "helpful", would "back them up" -- who in other words induced identification and had other qualities of primary group leaders. (Stauffer 1949, Ii 384).

The ways in which an officer can set up identification may be illustrated by two examples from, as it happens, Navy situations. One is by a sociologist who was himself the commander of a small warship. He writes "A commanding officer had to do everything possible to see that the men were getting what they rated, and, what is much more important, show that he was doing it, even if it meant carrying on guerrilla warfare with the rest of the Navy. It was unfortunate that sometimes a sharp remark from his own superior officer helped the skipper prove to his men that he was fighting for them." Similarly a medical officer who had served on a destroyer aboard which the morale of the men was particularly high notes "On very special occasions a can of cold beer was issued to all hands at one meal during the day. The can of beer, though it hit the spot, in itself did not amount to much, but the realization that the Skipper was 'putting his neck out' very far to give his men a little extra pleasure did mean a great deal to them." (Homans 1946, 297; Bassan 1947, 40).

The capacities which enable an officer to establish a bond of identification between himself and his men are not necessarily those which can be spotted by one of the usual aptitude tests. This is illustrated by a series of tests developed at the Marine Corps Pre-Officer Candidate School at Camp LeJeune. The men of a platoon rated each other on various qualities. The research workers found that, of all the various means of predicting successful leadership which were tested, the group opinion of a man as a potential officer yielded about the best single estimate of a candidate's potentialities. The authors note that "An interesting point in these 'buddy ratings' is the fact that they are not related to intelligence as measured by the GCT (Army) or to mechanical aptitude as measured by the MAT (Army). (Williams and Leavitt 1947, 97)."

This is not to say that mechanical and intellectual aptitudes have no relation to the effectiveness of the officer; all observers agree that an efficient officer must be able to perform the technical aspects of his job well. But it is to say that among a number of men who do have the necessary aptitudes, those who will make the more effective leaders cannot be detected by the GCT or MAT tests.

The qualities of character which do make for effective leadership are described in generally similar terms by various observers who have been able to study good and bad leaders in the real context of military action. A few examples of such formulations, by psychiatrists who were able to study this matter at first hand, may be given here.

The leader must be not only technically sound, writes Grinker and Spiegel, but strong in character and decisive. There must be no question of his courage, since the men become so strongly identified with him and from this identification absorb strength. The identification makes all his personal attributes infectious. But the ability to make the men surpass themselves, to stimulate them to rise above their usual level of efficiency and courage, must be wisely used. The good leader is demanding of his men, and gets more out of them not only because he communicates his own strength, but because he asks for and insists upon superior performance. Naturally, he is more likely to get such a performance in combat if he makes the same demands on himself, thus perpetuating the identification. The leader who demands a sacrifice from his men which he is not willing to make for himself is not likely to get a good result. Nothing is worse for morale, these observers testify, than a leader who leads from the rear, where it is safe. This completely destroys the personal basis upon which American soldiers, at any rate, are motivated, and stimulates a resentment which is apt to color the whole future military career of the man and his unit.

At the same time, the leader must have good judgment concerning the limit of tolerance the men have for combat conditions. He must demand results in order to get them, but, if he demands too much and drives the men past their tolerance, their spirit may break. He must also avoid the opposite fault of not demanding enough. A leader may become too strongly identified with his men, be incessantly worried about them and hesitate to ask them to go through the repeated hardships and sacrifices.

The seasoned leader knows how to avoid the twin evils of lack of consideration and overconsideration. . . This entails maintaining a very delicate balance, especially if reverses are met with. Yet it has again and again been demonstrated to what incredible length of sacrifice and effort the men willingly go for a leader who has their confidence and affection. (Grinker and Spiegel 1945, 46-47).

Much the same conclusions are drawn by another psychiatrist who notes that a situation of poor group cohesion arises if a commander is arbitrary, unfair, or inconsistent in his handling of individual problems. If through indifference, he fails to improve the condition of his men when possible; or if he overemphasizes the importance of his own comforts and privileges. This writer also mentions the dangers of overidentification, noting that a commander may go too far in the other direction, identifying himself so closely with the interests of the men, and becoming so involved in personal relationship, that he is unable to lead them into danger, cannot give the group support when its numbers are cut down, and is unable to control his own anxiety and guilt. (Coleman 1946, 223).

In summarizing the qualities desirable for a squadron leader in the Royal Air Force, Air Vice-Marshal Sir Charles P. Symonds and Wing Commander D. J. Williams, both medical officers of great experience, present much the same picture. The efficient squadron leader, they note, must have had operational experience and should quickly show himself to be an efficient operational pilot. He ought occasionally to go on difficult raids, and should also go out when losses are heavy or morale low.

In operations he should always set an example: "He should fly just enough to be one of the lads and to share their hazards." His interests must be centered on his squadron, he must have plenty of initiative and drive. He is expected to have a personal knowledge of all the crews and to mix freely and to be friendly with them. These authors note that it is important that the leader should be accessible to the crews and listen to them when required to do so. But he must not appear too sympathetic and kind and in all matters connected with flying must be fair and exert discipline, not giving an inch where duty is concerned. (Air ministry, 1947, 53).

Gap between Leadership Ideal and Reality. Now it will be noted that all these empirically derived formulations for effective leadership are not really different from the ideal patterns for officer behavior as these are formally prescribed in various manuals and guides for officers. Indeed, even the function of carrying on guerrilla warfare in behalf of his men with the authorities is sanctioned by a time-honored although unwritten tradition for company officers and noncoms called "dog-robbing". But there is a considerable difference between the actual behavior of officers and the ideal patterns of either the manuals or the empirical observers.

This fact is thus stated by the analysts of the Research Branch, "While it can be argued with some justice that army doctrine and especially army tradition and practice are ambivalent and at points self-contradictory on the matter of officer-enlisted man relations and leadership practices, it seems clear that pictures of the ideal officer which can be constructed on the one hand from enlisted men's comments and on the other from official army publications are closely similar. Yet the volume and persistency of volunteered complaints on this subject provide impressive evidence of the

wide gap between the ideal and the performance." (Stauffer 1949, I 388).

This gap was due in part at least, to the kind of leadership training given officers in World War II. The officer candidate was told to be considerate of the men whom he would command, to look after their interests and to identify with them insofar as it was possible to do so, but he was also taught to hold himself apart from them and to consider himself as distinct from them. Both lessons seemed necessary, but they were not easily reconcilable, and the end result was that the company officer tended to operate more often on the basis of self-distinction from his men, rather than on the basis of identification with them, save where circumstances dictated otherwise.

Enlisted men frequently reacted to this as did the soldier in the Persian Gulf Command who wrote on a questionnaire, "Officers have not the training to handle men in the correct way. Here is what they should remember: Men are human beings and not beasts and I expect to be treated like a man." And some observers agree with the sociologist who wrote "In sum, officer-enlisted man relations must be counted as a negative element in the balance sheet of morale in the American Army. American soldiers feel that they are trying to do their job in spite of their officers." (Stauffer 1949, I 388; Rose 1945, 416).

During World War II these relations were particularly bad in relatively inactive overseas theatres, such as the Persian Gulf Command. Identification between officers and men was at a minimum there and surveys revealed the smallest proportion of favorable attitudes toward officers in these theatres.

And the general expression of unfavorable attitudes towards officers meant more than just the customary griping by soldiers. It was an index of those units which were relatively inefficient in the performance of their military tasks.

In these zones there was a great gap between officers and men in opportunities for the enjoyment of scarce privileges; the greater this differential grew the more critical were the enlisted men of the officers. Conversely, where the circumstances of the situation made for more equality of access to privileges, generally because all were equally deprived of them, there the attitude of enlisted men toward their officers was better.

This may be the reason for the unexpected results of a study of four Army posts in the United States. Two of the worst and two of the best posts from the standpoint of general living conditions were selected by the Research Branch for study. It was found that there was remarkably little difference among the four in the morale of the men, in attitudes toward their jobs and toward their officers. The director of this study wrote, "All in all, I would say that the men at Camp D (one of the two worst posts) had better morale than they had any reason to have, purely because of excellent leadership." It may be that the excellent leadership at Camp D was a good result of the bad living conditions, which were bad both for officers and men and so were conducive to equality of deprivation and mutual identification between officers and enlisted men. (Stauffer, 1949, I 364, 181, 354-355)

The identification between the group and its formal leader, so necessary for effective unit performance, was most readily and frequently

established under conditions of combat. There the situation itself enforces the kind of equality which encourages the establishment of patterns of identification among American soldiers. We shall examine this process more closely in a later section of this survey, but it is pertinent to cite here some comments of the Research Branch analysts, "The fact that combat soldiers had more favorable attitudes than others toward their officers could be attributed in part to the opportunity to discharge their aggression directly against the enemy. But this would be much too simple a view of the matter. Among combat troops, whether air or ground, officers and enlisted men shared the common experiences of deprivation, danger, and death. Social differentiations and special privileges were at a minimum." Similar observations are made in another section of the Research Branch report. The analysts note that the combat situation itself fostered a closer solidarity between officers and enlisted men than was usual in the rest of the army. The makeshift character of front-line living arrangements meant that the contrast between provisions for officers and enlisted men was at a minimum. Formalities were largely abandoned in combat. Also, combat exigencies undoubtedly led a larger proportion of officers to try to exercise leadership rather than mere command, which might do well enough in less critical rear assignments. (Stauffer 1949, I 367-368, II 119).

Leadership Difficulties of Unit Officers. But the leveling of privilege and the sharing of hardships between officers and enlisted men do not automatically transform mere commanders into real leaders. Such leveling does foster the establishment of identification, but does not

guarantee that it will come about. And more is involved in effective leadership than good rapport with the men, important though that is. The leader must be motivated to assume the extra responsibilities and special dangers which leadership entails. The rewards of special privilege, extra pay, and pride in official position are the traditional means of enhancing the motivation of men to be leaders. These are undoubtedly necessary in some degree if leaders as well as officers are to be trained and properly motivated. However, the evidence indicates that the training methods used to inculcate a sense of distinction and pride in official position have tended to hamper the effectiveness as leaders of those who became officers.

A useful, though overdrawn, account of the psychological meaning of officer training is provided by one of the Research Branch analysts who had gone through an Officer Candidate School. He says that the candidate is subjected to a nearly catastrophic experience, which breaks down to a large extent his previous personality organization. His former values are no longer valid and in order to find a basis for self-respect, he must adopt new standards or escape from the field. Escape is ruled out because of his high motivation to become an officer. "The catastrophic experience provides a kind of purgatory, a definite demarcation from the candidate's enlisted incarnation that puts a barrier between a new officer and his enlisted memories. It has some of the characteristics of a conversion experience, or the ordeal of a medieval knight."

The attack on the candidate's previous personality structure is coupled with a vigorous buildup of his class consciousness as an officer.

This is attempted by exhortation and by progressive occasions for identification and practice with the officer role. Exhortation is not very effective and seems to be why the principle of "noblesse oblige" which is strongly rooted in official army doctrine, has taken so little effect in practice. Progressive identification with the officer role is most adequately fostered in schools which have graded classes in various stages of training. Upper-class men have high status; they can assume part of the officer role toward lower-class men. The personal degradation of the lower-class man becomes tolerable to the candidate when he sees it as a necessary condition for the existence of a status position he himself will some day occupy. The personal indignity of the lower-class man, and later of enlisted men as a whole, is thus established for him as one of the status rewards of the position toward which he is climbing.

Another mechanism used to form the "officer personality" is the passing-on of aggression. In the course of the ordeal which he undergoes the candidate builds up a fund of repressed aggression. By the time he is an upper-class man, and especially when he has become an officer, he can take advantage of his higher status to express some of this pent-up aggression. To feel himself a man again and to reduce his insecurity, he seeks aggressively to assert his superiority over someone else. Hence he is more likely to assume an autocratic role in accordance with traditional army structure. The new officer, somewhat insecure in his role and perhaps a little guilty at his favored status over his previous colleagues, reactively asserts his status, and finds in the OCS a justification for his new prerogative. In all, this ordeal, with its emphasis on

the distinctiveness and desirability of being an officer, with its attendant anxiety, contribute to making it difficult for the officer, when he must be a leader as well as an officer, to put himself in the enlisted men's role in dealing with their problems. (Stauffer 1949, I 389-391).

The net effect is that communication between the officers and the men of a company is hampered because of this aspect of the officers' training. It may be that the advantages derived from this kind of training are worth the disadvantages which are encouraged by it -- that consideration is not within the scope of this paper. What is within the range of this survey is the well established fact that unit officers found it difficult to know what their men were thinking and many, especially in combat, needed to know. Without such knowledge, an officer does not find it easy to get maximum military effectiveness from his unit. The upward channels of communication which are formally established, such as those provided by chaplains and by the Inspector-General's Department, do not serve the required purpose.

This difficulty of communication is a problem which pervades all the armed services. It has been well formulated by G. D. Homans who grappled with the problem while the commanding officer of a Navy ship. Dr. Homans says that the skipper must take care of the crew in those matters which they consider important and not simply in those which he, or the Navy, considers important. "How can he tell what these matters are? How can he tell what pressures are building up that may threaten the balance of

the organization? To put the matter more simply, I think that an honest commanding officer would be devastated by an effort to answer the question: 'What do I know about the crew?' Without the score, he may play well by ear, but he cannot be sure he is doing a good job in building morale." Dr. Homans goes on to note that it was generally recognized in the Navy that a man who took his troubles to the Chaplain took them, in effect, outside the organization. If a man was irritated by something in his Naval experience, it was a common joke to offer him the Chaplain's address, with the understanding that he would have a good chance to blow off steam but that no other change in the circumstances would ever, by any possible coincidence, be made.

This observer notes that it is not enough for the Captain to announce that his door is always open because the prestige that surrounds him will prevent most sailors from crossing the threshold. "It is essential that at every level of the organization men should be trained to listen with interest and attention, and without interrupting, to everything their subordinates are trying to say, trained also to fit what they hear into some relevant picture which they in turn can communicate. I do not know whether anything of this sort can be built up. I do feel that something of the sort is required if the commanding officer is not simply to play by ear in the matter of morale." (Stauffer 1949, I 397, 400; Homans 1946, 298-299).

Leadership Position of Noncommissioned Officers. According to regulation and tradition both, the noncommissioned officers of a unit are supposed to have access to the ear of the unit commander and to serve as

his means of contact with the men as well as his channel of communication with them. In actuality however, line noncoms more often function to allay or divert friction between the officers and men, than to promote genuine understanding between them.

The basic cleavage between officers and enlisted men, write the Research Branch analysts, is further illuminated by an examination of attitudes of and toward noncommissioned officers whose function it is to bridge the gap between officers and men. The noncom acts as a representative of the enlisted men in presenting their point of view to the officers. Noncoms exercise a great deal of direct authority over their men both as agents of the officer class and in their own right. They share with their officers a good deal of responsibility for the execution of official army policies and for the success of their organization.

These factors would tend to identify the noncommissioned officer with his commissioned officer. "But he was still an enlisted man and was subject to most of the inequalities of enlisted status. Moreover he lived and worked among his men and as a member of the enlisted class was subject to all the continuous informal pressures of other enlisted men - pressures which often were directed against the officer class and official army policies." For the most part the noncommissioned officer reacted to these informal pressures and to his continued membership in the enlisted class by adopting enlisted class attitudes.

Some specific evidence for this type of alignment by noncoms is given in a study made by the Research Branch in which the officers and men of

two combat engineer regiments were given a series of specific questions dealing with the actual behavior of the noncom on the job. The answers clearly showed that officers had a different frame of reference in viewing the noncoms than did the privates. And in most cases the noncom himself appears to identify with the enlisted class position. In this study there were twenty-one patterns of behavior formulated about which there was disagreement between the officers and the privates. In sixteen of them, the noncoms tended to align themselves with the privates, and in five of them with the officers. Thus privates and noncoms were more likely than officers to approve noncom behavior which involved intimate social relations with the men, lenient interpretation of rules, sympathetic indulgent policies in the supervision of their men, and lack of emphasis on formal status differences between themselves and their men.

The noncom is very susceptible, the Research Branch observers conclude, to informal group pressure while the officer is fairly well removed from social pressure on the part of the enlisted man under him. The noncom finds himself in a conflict situation involving official responsibility to his officer on the one hand and unofficial allegiance to the other enlisted men on the other hand. It is probably easier for the noncom to give way to the internal social pressure of the enlisted group and to avoid conflict with his officers by diplomacy and outward obedience than to accept the official point of view and be in continuous conflict with his social group. That most noncoms did follow the demands of their informal group rather than carry out the official army requirements when there was a conflict between the two, is clearly indicated in several studies

made by the Research Branch. This subordination of formal rules to informal pressures by the primary group is a factor of great importance in understanding the behavior of an army unit and we shall consider it at greater length below; (Stauffer, 1949, I 401-410).

It should be noted that these observations apply to line noncoms in a functioning unit and not to drill instructors or cadremen in charge of recruits. In the latter case, there is little need for identification between the veteran noncoms and the new recruits, nor can the recruits exert pressure on the noncoms readily. The importance of such noncoms is described by one writer out of his own experience. "In the marine corps, during boot camp, the DI (drill instructor) is also the recruit's sole contact with discipline, toughness, and power." Their stock remarks, such as "I am not telling you to steal, but no marine ever goes without", made by a man who is "the embodiment of the military oligarchy to a recruit startled into terror and devotion, are taken seriously indeed." (White 1946, 429)

But in a regular company, the noncoms occupied no such lofty and unassailable positions, although the top-ranking ones especially have considerable power over the other enlisted men. The noncom's role of intermediary between two opposing social groups is frequently not an easy one, and there is a study which offers some evidence of the heavier mental strain by noncoms. An Army psychiatrist, in analyzing a series of mental cases among enlisted men, concludes that in his sample the proportion of service-connected psychiatric disability was greater for

sergeants than for other enlisted men. He suggests that situational factors, those connected with being a noncom, rather than historical ones, those having to do with personal background of the patients, were more important causes of psychiatric disability in sergeants than in other enlisted men. (Frank 1946, 103).

Good evidence is lacking which would indicate whether noncoms are more important or less important than officers in bringing about unit effectiveness, or which would indicate under what conditions one set or leaders is of greater importance than the other. But some of the Research Branch data suggests that the officers are generally more important. E. A. Shils has commented on this tentative suggestion by the Research Branch writers that the soldiers' readiness to fight seems to be more dependent on their confidence in their immediate officers than on their noncommissioned officers. Shils says that if this is so, it would be in accord with a working hypothesis which states that in the personal relations of subordinates with two levels of authority, affection and trust will go to the higher level while the more proximate level which is the immediate agent of deprivation (emerging from decisions at remote reaches of the organization) will receive somewhat more negative affect. (Stauffer 1949, II 130; Merton and Lazarsfeld 1950, 34).

It is very clear however, that the attitudes of the men of a unit toward their noncoms are highly correlated with their attitudes toward the company officers. Companies which performed well in and out of combat had more favorable opinions of both their officers and noncoms than did

units which performed poorly. Ample demonstrated by the Research Branch analyses is the fact that the enlisted men's attitudes toward their unit leadership tended toward consistency, and that positive attitudes toward noncoms, like positive attitudes toward officers, were part of the empirical picture of good combat motivation. (Stauffer 1949, II 128-130).

Diagnostic Value of Attitudes Toward Officers. This observation is a highly significant one. The men's attitudes toward their officers -- whatever the cause of the attitudes -- is a key diagnostic feature. Good attitudes mean good unit performance; poor attitudes presage poor unit performance. In their chapter on combat motivations, Williams and Smith point out that these attitudes were undoubtedly shaped by a number of factors in addition to the objective characteristics of the officers themselves. Some of these additional factors were doubtless in turn casually related to the men's willingness for combat. Matters of personality probably entered into the picture. The data merely establish that "good" attitudes towards officers were part of a favorable motivational complex.

And it is likely that the men's attitudes toward their officers had a real importance in determining whether men fought aggressively and stayed in the fight. When unfavorable attitudes toward the unit officers developed -- whether or not the leadership practices of the officers concerned were the main cause of this deterioration -- the formal, authoritative system of controls and the pattern of informal sanctions and values

rooted in the men's attitudes would no longer merge in the person of the unit commander. One source of the ties of individual to group would be impaired and the soldier would be less likely to take extra risks or withstand extra stresses for the sake of his admired leader or in response to his support." (Stauffer, 1949, II 127 - 128).

Just as our discussion of the formal organization of the unit led to a consideration of the informal group, so does the survey of leadership take us back to this nuclear consideration. The leadership relation between officer and enlisted man is highly important in the determination of combat behavior. It is probably only little less important in the determination of unit behavior outside of combat situations. The officer is the representative of impersonal, coercive, institutional authority and yet is also a soldier, a person who can be fitted into the informal group structure.

Because of his powerful institutional role, the officer cannot be ignored in the informal pattern of attitudes which grow up in a unit. These attitudes invariably polarize around him in one way or another. "The officer who commanded the personal respect and loyalty of his men could mobilize the full support of a willing followership; he therefore had at his disposal the resources of both the formal coercive system and the system of informal group controls. If, however, the officer had alienated his men and had to rely primarily on coercion, the informal sanctions of the group might cease to bear primarily on the combat mission." (Stauffer, 1949 II 113) In other words, an officer who is part of and works with the informal grouping of his men can and usually does lead them

in effective performance. An officer who does not have the support of the informal group, has to struggle with his own men as well as with the natural and human obstacles in the way of successful completion of the unit objectives.

To summarize this survey of leadership: the importance of good leadership for good unit performance is a matter of general agreement. There is agreement also on the qualities which a good officer-leader should manifest. But there is a considerable difference between ideal patterns for officer behavior and the actual behavior of many officers. This gap between the rules and reality is frequently the result of a lack of identification between an officer and his men. Some aspects of officer training impede the officer from establishing such identification easily. Without establishing this social relation which is labeled identification, an officer cannot readily be an effective leader; without effective officer-leaders a unit does not usually operate effectively.

Identification between an officer and his men enhances the effectiveness of his leadership because it mobilizes the support of the informal organization of the unit as well as of the formal authority of the Army toward the accomplishment of the tasks performed by the unit. It is apparent that central to an understanding of the group dynamics of an army unit is a consideration of the informal organization of the unit, a consideration to which we now turn.

c. Internal (Informal) Organization

The internal organization of the unit is that method of working together which is developed by the men themselves and which is not prescribed in formal regulations. The men of every functioning unit have certain standards of behavior, ways of accomplishing these standards, and means of enforcing conformity to them which arise out of personal interaction within the unit. These standards are in addition to -- and sometimes in contravention of -- those set by the Army command.

A case example observed by a sociologist at an air force base will illustrate the operation of internal organization in a non-combat situation. A staff sergeant had been noncommissioned officer in charge of a technical ground unit and had been the respected leader of the men in the unit for several months. Then a master sergeant was transferred into the unit and replaced the staff sergeant as noncommissioned officer in charge. The master sergeant proceeded to exercise his privileges and perform his duties according to the letter of the formal regulations but he failed to observe the local standards of the group or to consult with the group. The men of the unit rejected him as a leader and continued to look for leadership to the staff sergeant, even on technical problems which were officially within the jurisdiction of the master sergeant. A good deal of tension developed between the master sergeant and the men and the working efficiency of the unit declined markedly. This is typical; when the informal group does not accept the formally appointed leader and resents his attempts at leadership, the quality of work performance deteriorates. The conflict became so acute that the commanding officer

had the master sergeant transferred to another base and reinstated the staff sergeant as noncommissioned officer in charge.

In this case the commanding officer came to understand the importance for military efficiency of having the official leader accepted by the informal group. When, several months later, another master sergeant was transferred into the unit, the commanding officer permitted the staff sergeant to continue as noncommissioned officer in charge for several weeks while the master sergeant became acquainted with the local situation and a member of the informal group. The subsequent appointment of the master sergeant as noncommissioned officer in charge was accepted by the group.

One of the most highly valued standards of this informal group was the protection and preservation of each individual's right to "off-days" away from the technical work of the unit. When a shortage of trained personnel made it necessary to work more hours, a new official work schedule was posted under which the additional work hours were gained by making work days out of customary "off-days." This was in accordance with official policy, and the new schedule was followed for several weeks, despite grumbling and, again, a noticeable decline in the quality of the work. Then one man drew up a new schedule which retained the customary days off and obtained the needed extra hours of work by assigning each man an occasional double shift as overtime.

At a meeting of the unit called for another purpose, the men complained to the commanding officer that the new schedule was unfair in abolishing customary privileges. One man said that if the men of the group were again given the "old" privileges, "they" would see that the work was done.

The commanding officer, presumably understanding that the level of work performance would rise if the requests of the informal group were met, accepted the new schedule as a replacement for the official schedule. In a similar case the official schedule actually remained posted for the benefit of visiting inspectors, but the real working schedule was drawn up by the men and was kept available at the barracks in one man's foot locker. These instances, minor in themselves, exemplify processes of behavior which have great significance in the behavior of military units. (American Journal of Sociology 1946, 367-369).

Those who participate in such internal or informal organizations make up the informal group, which is also called the primary group or the face-to-face group. An informal group does not often include a larger military unit than a company, and there may be several informal groups within a company. But in general, the men of a company know each other well enough to operate together in terms of some informal organization. Some of the standards of a particular informal group will be shared very widely through a division and even throughout the armed services, but the actual setting and enforcement of these behavior patterns is done by a group of men who work together, live together, know each other, and have come to make similar adjustments to the formal requirements of Army life.

While a set of men must have some experience with each other in order to develop internal organization, no great span of time is necessary for this development. In the example just cited, the observer noted that vitality of the informal groups was evidenced by the fact that they

maintained their continuity despite a rapid turnover in membership. Individual members were transferred in and out of the group at frequent intervals without breaking up the group or radically changing its customs. In one technical unit which was observed for two years, almost the whole membership of the unit turned over about once every two months. Approximately one hundred different individuals belonged to the group during this time, although the maximum size at any one time was twenty. Status relationships and group standards underwent some changes during the two year period, but there was never a sharp break. Only on the few occasions when a large number of men were sent out from the unit at one time was there a period of temporary confusion in the social organization, but the organization was quickly reestablished. (*ibid.*, 367).

Similar observations were made by the Research Branch analysts on a larger scale. They noted that informal controls based on close personal ties and identifications developed among infantry troops in spite of frequent turnover in the membership of informal groups because of the replacement system. "That such ties did develop to the extent observed indicates the strong pressure toward their formation; on the other hand, the fact that such a replacement system could work, with whatever defects, indicates the force of purely institutional controls." (Stauffer 1949, II 104).

In assessing the relative importance of these informal controls as against the institutional controls, we must note here also — as does E. A. Shils in his chapter on the primary group in the American Army — that the goals for the unit's endeavors and the broad patterns of its

functioning are set and controlled by the Army as an institution, but the manner in which these patterns are carried out and the success with which the goals are attained hinges in very considerable degree on the internal organization of the unit. (Merton and Lazarsfeld 1950, 22)

Evidence of the Importance of the Primary Group. The great, sometimes crucial, importance of the primary group for military effectiveness may be seen from various points of view. To the psychiatrist, a typical sign of the militarily useless neurotic or psychotic soldier is the fact that he is not part of a primary group. "The one outstanding trait of all patients admitted to the psychiatric ward was their inability to become part of, and find strength in, the group," writes one Navy psychiatrist. And in another paper it is said that one of the most important factors in the rehabilitation of the patient with emotional disturbances induced by combat or operational duty is" . . . promotion of his reintegration with the group so that he may regain the important controls over untoward emotional reactions which identification with the group affords." (Cohen 1947, 94; Cohen and Delano 1945, 296).

The attitude of a naval officer toward the primary groups or "segments" of his crew is given by the sociologist who had been in command of a ship. "The skipper could not, even if he wished, break down the segments into which his crew is divided, and their corporate strength, enlisted in the common effort, will serve him well. What he must do is take care that no one segment sets itself apart from the rest and against them." And when the soldier or sailor leaves the service, his experience with the comradeship of the primary group is generally remembered as one of the most valued aspects of his military career.

"In fact it is the only feature of the military for which Americans seem to have any nostalgia." (Homans 1946, 296; Schneider 1946, 297).

From the point of view of the analyst of infantry tactics, the primary group is the basic fighting unit and the destruction of the primary group may mean destruction of military strength. This is clearly shown in Colonel Marshall's study of battle stragglers in the Ardennes operation of World War II. It was found that individual stragglers had little combat value when put into a strange organization. Most of them were unwilling to join any intact unit which was still facing the enemy. Some, after being given food and little rest, did go back to a place in the line. But the moment their new unit came under enemy pressure, these individuals quit their ground and ran to the rear, or sought cover somewhere behind the combat line.

Separated from their primary groups, these individuals had no military value or were even impediments to tactical success. "On the other hand, that was not true of gun crews, squad groups, or platoons, which had been routed from their original ground and separated from their parent unit, but had managed in some way to hold together during the fall-back. Upon being inducted into a strange company, they tended to fight as vigorously as any element in the command which they had newly joined, and would frequently set an example of initiative and courageous action beyond what had been asked of them." Colonel Marshall goes on to note that the individual straggler was of such little value that it was hardly worth while attempting to get him back into that battle. But three or four men who hailed from the same small unit and knew one another, would stand and fight if welcomed into a new command.

The difference is that these men were still fighting alongside old friends, and though they were now joined to a different outfit, they were under the same compulsion to keep face and share in the common defense. But the individual stragglers were "simply responding to the first law of nature which began to apply irresistibly the moment they were separated from the company of men whom they knew and who knew them." (Marshall 1947, 150-152).

This was even true of paratroop operations. Since paratroops must always consider the possibility of a bad scramble during the drop, paratroop training seeks to prepare the men for it. And it is far more important in airborne operations than in regular infantry operations to have men who can pick up and go ahead confidently in any fellowship. But despite this training and foreknowledge, the battle morale, willingness, and efficiency of paratroops are in the ratio of their knowledge of the men on whom they are depending for close support.

In a study of some 70 tactical episodes of the airborne phase of Operation Neptune (Normandy), Colonel Marshall found only a minor fraction in which success had been achieved despite the disruption of primary groups during the drop. If an officer or a noncom collected a group of men he had never seen before and tried to lead them into battle, the results were almost uniformly unsuccessful. "The men invariably stalled; the fact that they did not know the others present was to them a sufficient excuse why no action should be attempted . . . They would assemble readily enough under a stranger and they would usually march under him, but they would not fight for him. There were very few exceptions to this rule . . .

) It derives from the same mental block noted in the stragglers of the Ardennes — the inherent unwillingness of the soldier to risk danger on behalf of men with whom he has no social identity. When a soldier is unknown to the men who are around him he has relatively little reason to fear losing the one thing that he is likely to value more highly than life — his reputation as a man among other men. " (Marshall 1947, 152-153).

The importance of the primary group is further indicated, and in more general terms, in a chapter of The American Soldier written by Suchman, Stauffer, and DeVinney. These writers comment that few social institutions have such an elaborate body of formal rules and regulations to anticipate all the minutiae of life as does the Army, with punishment specified for infraction. Yet these rules and regulations can be ineffective unless there is ". . . the development of a social climate in which one's fellows as well as one's superiors serve as checks on a tendency to infraction and, ultimately, the internalization of the controls (is) such that an individual's "conscience" inhibits infraction even when there is no likelihood of detection by either superiors or fellows." Where the formal controls, as represented by the military superior or the military police, are not supported by the informal social pressures of one's fellows, or by internalization which operates even in the absence of one's fellows, there is almost certain to be widespread violation of the rules. (Stauffer 1949, I 410-411).

But more may be involved in the character of primary group relations than even the important matter of obedience to rules and regulations. The Research Branch writers conclude their chapter on orientation toward

the war with the comment that the general picture given in their first volume of men preoccupied with minimizing their discomforts, acquiring higher rank or pay, securing safe jobs which would offer training useful in civilian life, displaying aggressions against the army in many different ways, and in getting out of the army as fast as possible, does not suggest a particularly inspired work performance in the American Army. "But Americans fought, and fought brilliantly and tenaciously when they had to . . ." (Stauffer 1949, I 485).

The data available to the Research Branch analysts gave no direct answer to the question of why it was that American troops fought as well as they did in spite of their negative attitudes. But some of their studies give the hint, as do observations by other analysts, (as in the quotation from Colonel Marshall cited above and in comments by Dr. H. Speier noted in the later discussion of typical attitudes) that one of the . . . significant factors in motivating the American soldier both before and during combat was his relationship with his fellows in the primary group.

Reasons for the Importance of the Primary Group. If all this is so, we must then ask why the informal group is so important. What does it do for the soldier and what does it do to him? The main outlines of what it does for him are clear even from the impressionistic evidence which is all that is now available. It gives the soldier a group to which he can belong; it is the only group in which he can have a satisfactory sense of belonging. And men have a strong need for that sense of belonging.

They have that need simply because they are trained to have it from earliest infancy. Most individuals grow up as members of a family group, are taught what they may expect from the other members of the group, and even though they may reject their own family in later life, they can never totally reject — nor do they normally want to — the comfort, security, and satisfaction of belonging to a cooperating, face-to-face group of people. Within that group, the individual knows what is generally expected of him and what to expect from the other members; The interpersonal relations are structured, they follow known patterns. Now the Army provides the soldier with a ready-made group and with a vast package of structured relations. But the army provision is both too much and too little for the soldier.

It is too much because Army culture instructs the soldier not only to have certain relationships within his own platoon and company, but also to interact with a vast concourse of groupings, reaching from battalion through division to the misty reaches of corps and army. He must not only salute his own captain but any commissioned officer who appears on his horizon; he is supposed to have pride, not only in his division, but also in the United States Army. In some degree he typically does have some feeling of belonging to such macrocosmic entities, but the meaningful pride and loyalty, those sentiments which significantly affect the behavior, cannot usually be distilled beyond the group of men whom he knows personally.

What the Army provides in the way of social relations is too little because the myriad regulations pertaining to the disassembly of a

rifle or to his role as ammunition carrier, still do not provide him with the support he must have if he is to adjust to such deeply felt and commonly felt threats as those presented by his own ambivalent sense of masculinity, or by the sheer uncomfortable anonymity of feeling that he is nothing but a serial number to those who control his destiny.

Not only does the soldier have the need, as do all men, to participate in the life of a primary group, but the soldier's need for such participation is heightened by the special strain of army life. Active duty, even under garrison conditions and sometimes especially under garrison conditions (as in the Persian Gulf Command), often involves stresses and threats to the individual which are greater than those commonly met by civilians. To meet, withstand, and overcome such threats a soldier needs a strength that is more than his own, a strength which he can derive from an informal group whose members together face the same stresses and threats.

And the only primary group available to him must be found within his military unit. Because it is the only possible answer to this dominant need, the typical soldier urgently seeks membership in an informal group, quickly makes this social alliance, and staunchly adheres to the patterns of group conduct.

It is the only group which can fulfil the soldier's need for group participation and identification because of four general conditions of military service. First, the individual's pre-Army social participation is weakened and his non-military social status is abrogated. What has gone before in the life history of the recruit is minimized; his adjustment to

) army society is of maximum importance. Whatever achieved or acquired status positions he may have held as a civilian are of little use for his role as a soldier. Commenting on this effect upon the recruit, one analyst notes that "The essential fact about induction, reception-center, and basic-training experience is the knifing-off of past experience. Nothing in one's past seems relevant unless, possibly, a capacity for adaptation and the ability to assume a new role. . . . The complete severance of accustomed social relations finds compensation in part in the acquiring of 'buddies'." Another sociological analyst writing of his observations in the Air Force points out that "The adjustment of individuals to the squadron results in a social system in which status, leadership, clique participation, and value system are based upon criteria different from those found in civilian communities. Socioeconomic status, commonly a major determinant in the informal organization of civilian communities, has no effect on status within a fighter squadron." (Brotz and Wilson 1946, 374; Stone 1946, 388).

) To be sure, this knifing-off of previous social participation is not felt as drastically by a Chief Warrant Officer handling invoices at an ordnance depot as it is by a recruit in basic training or in boot camp, but a basic condition of all military rank and service is this general minimizing of non-Army participation and achievement. This is so because of the wide scope of military service in the life of the individual, encompassing as it does so many phases and aspects of his life.

Secondly, the men of a unit are isolated from other social groupings. They have no alternative but to make their social alliances within the unit. Not only are their previous social participations of little account, but present possibilities and future prospects for primary group affiliation are largely restricted to their fellows in the unit. Frequently enough, this isolation is sheer geographic isolation. Military installations are usually far enough distant from civilian centers to make impossible interaction of a primary group kind between soldier and civilian. And within the military installation, the soldier must spend so much of his time in the company area or the sailor in his section of the ship, that again he does not have much opportunity to form and maintain primary group ties with men outside his unit. This condition is well stated in the analysis of a fighter squadron. "It must be remembered that a squadron represents the total social, economic, political, and education world for the individual member. Most, if not all, of his time is spent within the physical limits of the squadron 'area'. The squadron status system pervades everything he does, as there is no way to get away from it. All activities are carried on within the limits of one small organization, in contrast to civilian life in which any single individual may belong to many different organizations. Because of this all-enveloping nature of the group, the adjustment of the individual is not a partial one to only one aspect of the man's activities. Rather, adjustment must be made to a 'total social situation'." (Stone 1946, 391)

The isolation is not only one of space and circumstance, it is also an isolation in time. For many soldiers only the here and now is important;

plans or preparations for the future are not very significant. One's present associations are all-important while deferred satisfactions of future participation in civilian primary groupings are not enough to stave off the need for present group identification. One writer has noted that in the Army, time had only a present phase. Thus money had only its immediate goods and services value. It was used or loaned or gambled with considerable abandon. The future could and would take care of itself. (Brotz and Wilson 1946, 375). Similarly future associates and associations, probable and attractive though they may be, cannot substitute for present comrades.

The social insulation of the military unit is pointed up in the analysis of an Air Force technical ground unit. In that case, the informal group included almost every member of the formal unit. "Personal contacts were so frequent that men learned to know each other as well in a few days as they might in a few years as civilians. There were practically no competing or overlapping groups; all significant social circles were coincident with the small group." (American Journal of Sociology 1946, 367). In such military units there are no other groups to distract the individual's attention from his informal group in the unit nor to dilute his loyalty to it.

Thirdly, the soldier's life is so different from that of a civilian that the soldier finds little support and security in civilian primary groups and tends toobar himself from participation in them. This is not to say that the soldier does not identify with his family or is indifferent to rejoining his family. The various satisfactions afforded

within the family are felt to be incomparably greater than those of the informal group within the unit. But the conditions of military service generally preclude normal family life and the primary group of the unit must substitute in part for it. Indeed, it is more than coincidence that several writers refer to the company as the family unit of the army. For the soldier has a good deal of the same identification with the members of his primary group as he has with the members of his family.

The point here is that the common experiences and the common stresses of military service are so pervasive in a life of a soldier and so unique to a soldier's life, that he finds little interest in civilian primary groups or little incentive to join them even if there is some opportunity to do so. The very intensity of interpersonal contacts within the unit fosters firm primary group relations. All members of the primary group live together in the same section of the barracks, eat together, use the same latrine, take physical training and drill together, work together, go to the movies together, and share almost every other aspect of Army life. This closeness may become irksome, and under conditions of stress -- as we shall note below -- may even be a disrupting factor in the unity of the group, but under most military conditions the constancy and intensity of these relations make for group cohesion.

Finally, in this listing of the reasons why the primary groups within the unit is the only one available to the soldier, there is the fact that he is immediately dependent on and responsible for the other men in the unit, and is usually neither directly dependent on nor responsible

for anyone outside the unit. Primary groups exist for personal interaction and because of it. Again, the conditions of military life not only limit a man's personal contacts outside the unit, but they also make the relations within the unit of great importance to the individual. Much of the soldier's work must be done as team work. The success of his own efforts, whether as one of a mortar team or as one of a loading detail, depend in large part on the efforts of his team mates.

Perhaps even more important than dependence as a factor consolidating the individual to the group, is the responsibility the soldier has for the welfare of his comrades. They are dependent on him, just as he is dependent on them. If he does not deliver the mortar rounds regularly, the whole team may fail, if he misreads the wind velocity, the whole forecast can be wrong. The personal security that comes from this sense of responsibility has never been thoroughly defined but it is indicated in a sociologist's account of the experiences which await a new naval officer first setting out to sea. "The isolation of a ship at sea and the consequently heightened desire for acceptance by the social group has never been described (to him). A new man has never been awakened to stand a lonely night watch where the lives of 500-odd men may depend on his alertness." (Berkman 1946, 384). In sum, another reason why the face-to-face group within the unit is the only one available to the soldier is because within it go on the most intensive personal relations which he experiences as a soldier.

This recounting of what the primary group does for the soldier also tells something of what it does to him. It enhances his security, reduces

his fear, helps motivate him to do his job both in garrison and in combat. A psychiatrist has put it in this way, "The company is the family unit of the army, and it is the company which claims the soldier's immediate loyalties and provides the stage for the enactment of his personal drama. The soldier's 'belonging' to his company protects him in the sense of security, increases his span of tolerance for anxiety, and permits the disciplined and directed flow of aggression." (Coleman 1946, 223)

The informal grouping within his company can have this effect on the soldier, partly because within it he can have personal identity, he can "enact a personal drama" rather than be manipulated merely as an anonymous serial number and only as the carrier of an MOS. Being known and treated as a person rather than as a number is a comforting thing for most American men, who tend to feel thwarted and powerless if all their social relations are of a contractual, specific kind. Within the primary group the soldier finds overall emotional support and not merely aid tendered as fulfillment of a formal or reciprocal obligation.

That participation in a primary group reduces fear -- both in training and in combat -- is attested by several of the large-scale studies conducted by the Research Branch. This evidence has been appraised by E. A. Shils who writes that "... one of the important functions of the primary group, as The American Soldier amply testifies, is the reduction of fear. We have already cited the soldier's own conception of the importance of his feeling of responsibility to his comrades in execution of what becomes in a well-led unit, a primary group goal as well as an authoritative command..."

"Primary group relations help the individual soldier to bear threatened injuries and even death by increasing his self-esteem and his conception of his own potency." (Shils in Merton and Lazarsfeld 1950, 26-27)

One Research Branch survey which reflects the importance of his primary group to the soldier was made when the fighting of World War II was over and when the troops overseas were at a relatively low point of personal motivation for military tasks and probably operated at a relatively low level of efficiency. When many of the usual pressures and motivations of military life had thus lost some of their efficacy among the troops, it was clear from this survey that the efficacy of the primary group was not impaired. The troops were asked several questions to find out how important the opinion of the others in his outfit is to the soldier. Nine tenths of the enlisted men agreed that most soldiers care a great deal about what the rest of the men in their outfit think of them. Both officers and enlisted men agreed that the enlisted man is usually more concerned with what other enlisted men think of him than with what his officers think of him. This implies, as the analysts point out, that in any situation in which there is a conflict between the officers and the group, the soldier's identification tends to be with the group, not with the officers. And it also follows that if the group as a whole supports an order, the soldier will be in an untenable position in not obeying. If the group as a whole does not support an order, he will be in a weak position if he is conspicuous in obedience. (Stauffer 1949, I 418)

One of the Research Branch analysts, H. B. Smith, has summarized the functions of the informal group for combat motivation; his formulation applies to noncombat situations as well. He writes of the informal group (the italics are his) that "... it set and enforced group standards of behavior and it supported and sustained the individual in stresses he would otherwise not have been able to withstand. These are related functions: the group enforced its standards principally by offering or withholding recognition, respect, and approval, which were among the supports it had to offer, while the subjective reward of following an internalized group code enhanced an individual's resources for dealing with the situation." (Stauffer 1948, pp 130-131).

We have already considered the support given by the primary group, it is well here to take note of the first-mentioned function, that of setting and enforcing group standards. As a participant in a primary group, the soldier is more than a passive recipient of personal satisfactions, he also helps meet the social needs of the other participants; he both fulfills the patterns of behavior set by the group and helps enforce conformity to them. Another facet then, of what membership in a primary group does to the soldier, is that it directs his behavior to certain typical patterns which are not given by the military command, and induces him to enforce these patterns on any of his fellow soldiers who may violate them.

Behavior Patterns and Attitudes of the Primary Group. The attitudes and patterns sanctioned by such informal groups have not been systematically described or validated, but the literature affords some notion of their

nature. One of these attitudes most general in scope and most pervasively held among troops concerns masculinity. The ideals of manliness involved are those common to American culture, but they acquire special significance under conditions of military service. Be a man: this precept and attitude so impressed on the soldier in manifold ways, and most effectively by his fellows of the primary group.

Concepts of masculinity, as M. B. Smith notes in the chapter of The American Soldier just cited, vary among different American groups, but there is a core that is common to most; courage, endurance, and toughness, lack of squeamishness when confronted with shocking or distasteful stimuli, avoidance of display of weakness in general, reticence about emotional or idealistic matters, and sexual competency.

The conditions under which these notions of manliness are applied have changed as between World War I and World War II. In the later war there was much less community pressure on the young men to get into the Army. The general attitude was that everyone should do what was assigned as well as he could, but it was not considered essential that the individual "stick his neck out." It seems that the test of social manhood began much farther from the actual fighting in World War I than in World War II. Earlier a man was more severely censured for failing to enter the armed services; later, the test was more nearly whether he adequately filled his role once placed in the combat situation. Smith goes on to note that the fear of failure in the role of being a soldier could bring not only fear of social censure on this point as such, but also more central and strongly established fears related to sex-typing.

If a man failed to measure up as a soldier in courage and endurance he risked the charge of not being a man. And this is a dangerous threat to the contemporary American male personality. The general permissive attitude toward expression of fear mitigated the fear of failure in manliness, but did not at all obviate it. A man could show and admit fear without necessarily being labelled as a "weak sister," but only so long as it was clear that he had done his utmost. (Stauffer 1949, II 131-132)

The importance of living up to the standards of masculinity is also described in another chapter of the Research Branch writings in which the psychological state of the recruit is described. "The individual recruit is powerless. He finds solace in the company of his fellows, who are new and bewildered like himself, but who now, with all escapes blocked by fear of formal punishment, further each other's adjustment to the inevitable by supplying sanctions of their own to those who 'can't take it'. The fear of being thought less than a man by one's buddies can be as powerful a control factor as the fear of the guard house." And when the control factor involving masculinity operates to reinforce the purposes of the command, "... the army has begun to succeed in building a soldier -- a process which continues until as much as possible is internalized and automatized in the form of 'conscience'." (Stauffer 1949, I 412).

Much of GI culture and particularly GI language had exactly the function of asserting masculinity, E. A. Shils comments, in a social organization which required it and which aroused two deep and independent sources of anxiety, homosexuality and death. The male character of the

Army accentuated the young soldier's need to prove his masculinity. The formation of primary groups strengthened this tendency since each member feared both the subjective and social consequences of regression to the menacing period of latency. In this way, Shils concludes, primary groups in the Army, by placing a high reaction-formative evaluation on bravery and aggressiveness -- the chief values of masculinity -- serve the goals of the organization. (Shils in Merton and Lazarsfeld 1950, 36)

Many specific patterns are involved in the generic notion of masculinity. Thus there is typically a strong stigma against those soldiers who seem to accept authority too readily. One social scientist notes that such a soldier, one who is not verbally resistive to the demands of authority, is considered disloyal to his friends and is thought to be sacrificing his individuality and self-dignity. There are a number of well-known derogatory terms, widely used in the Army, which are applied to such a person. (Frederick Elkin 1946, 421).

Related to this notion of being at least verbally resistive to authority, is the matter of griping. A psychologist who has written on this subject says that in the Army griping is not a successful technique for eliminating the sources of deprivation. The soldier learns very quickly that by and large there is no real gain to be achieved by it. Moreover, the fact that griping is done playfully rather than seriously indicates that it is not intended to change objective conditions.

On the other hand, griping is indulged in so frequently and so persistently that it seems highly likely, says this analyst, that it affords some psychological satisfaction. It may be that by griping the man avoids

the loss of self-respect by feeling that he is not taking his present life situation without protest. "The illusion that he is doing something about the deprivational state of affairs is based on the expectation built up during many years of his past life that verbal complaints are an effective weapon for improving his situation." (Janis 1945, 176).

Among the component items of the concept of masculinity as they have been listed by M. B. Smith is the matter of reticence about emotional or idealistic matters. In practice this meant that any expression of patriotic or self-sacrificing motives by one of the primary group was immediately quashed by the other members. Smith observes that this taboo against any talk of a flag-waving variety was one of the very strongest parts of the informal group code. This was universal among American combat troops and widespread throughout the Army in World War II. The soldiers believed that any talk that did not subordinate idealistic values and patriotism to the harsher realities of the combat situation was hypocritical, and a person who expressed such ideas a hypocrite. Although the taboo against idealistic or flag-waving talk or heroics was strongest against the outsider, it applied also within the combat group. "One may conjecture that tender-minded expressions of idealism seem incompatible with the role of the proud and tough combat man who drew his pride from what he had been through, and that the latter adjustment was of more crucial importance to most men The nature of the situation as well as the code of masculine tough-mindedness may thus have combined to reduce the expressions of idealistic motivation to a minimum." (Stauffer, 1949, II 150-151)

Not only did the notion of masculinity preclude talk about the general issues relating to the war, but there was actually very little interest in these issues among troops. One sociologist has discussed this indifference in relation to the strength of primary group membership. In a paper on the sociology of military organization, H. Speier notes, as we have had occasion to note before in this survey, that the composite picture which may be derived from The American Soldier leaves no doubt that the soldier had neither any strong beliefs about national war aims nor a highly developed sense of personal commitment to the war effort. "It is indeed exceedingly difficult to understand, on the basis of the research here reviewed, why the American armed forces fought as well as they did. The answer to this puzzling question is probably only in part supplied by the rich evidence contained in The American Soldier pointing to the extraordinary importance of the primary group relations in sustaining the morale. It would be erroneous, I believe, to treat as separate and independent the factor of generalized convictions and that of primary group relations in assessing the causes of high morale The reliance on primary groups for security and comfort may also have been subject to a great many variations; for example, the individual may have become more dependent upon identifications with his group members or with group leaders, as broader convictions and beliefs have faded." (Speier in Merton and Lazarsfeld, 1950, 116-118).

What went on in the larger world beyond the sphere of primary group relations did not usually greatly concern the troops in World War II. The higher commanders and their policies were of comparatively little importance to the rifleman, certainly as compared with the influence his

immediate leaders had on his behavior. "Unless the larger command was personalized by a highly popular individual commander, on the one hand, or unless things were going very badly, on the other, men did not give much concern to what went on above." And even the discomfort of the physical environment seemed to be a factor of small importance. There were only slight differences in attitudes between men stationed in relatively comfortable environments and those in a relatively uncomfortable environment, such as New Guinea." (Stauffer, 1949 I 341-344, II 145).

All these general considerations are made specific and given local reference within a particular primary group. A case example of the specific patterns and attitudes held by an informal group is given in the account of the technical ground unit at an Air Force base which has been referred to previously. (American Journal of Sociology 1946, 367) The author lists five such attitudes; to the quotation of each we add some comments.

"1. Any noncommissioned officer who turns an enlisted man in for punishment for any but the gravest offense is an informer and an undesirable member of the group." The primary group must present a united front toward the external world of authority and no action by a member of the primary group which is interpreted as a breach of group solidarity can be tolerated.

"2. A man's pass privileges are sacred. Other enlisted men should do everything possible to protect and increase them." All the members of the group must protect and defend the rights of any one member. In garrison situations, pass privileges are of high importance because they afford a temporary release from the uncomfortable restraints of garrison life.

"3. Social distinctions between enlisted men by rank are undesirable, and men who claim these distinctions are legitimate targets for abuse." Within the primary group, all are equals whatever rank may be conferred by external authority. The enactment of this pattern often entailed a kind of personal conflict that is widespread both in the Army and in the whole society. The soldier has the belief, as does a civilian, that no great distinction in privilege and prerogative should formally be made among his colleagues. At the same time, he typically has the belief that it is good for him personally to climb the ladder of formal status and so separate himself from his colleagues.

The Research Branch studies reveal the common ambivalence on this score. "Just as there were simultaneous and contrasting strains to criticize the status system in the Army and to rise within it, so also there were contrasting attitudes in the Army toward promotion. On the one hand there was cynicism about promotions as symbolic of real achievement, and on the other hand there was recognition that civilians on the outside -- one's family or friends, in particular -- might view the situation otherwise." There was strong condemnation by the troops of brown-nosing, currying favor, boot-licking, and playing politics. And yet these means of obtaining promotions were widely practiced. It may be that the most severe strains on the affectional ties among the men of a primary group came about when some members of the group were suspected by the others of bucking for promotion, (Stauffer 1946, I 250, 264-271).

The equality generally enforced by the primary group among its members was only in regard to formal Army rank. It meant that one member of a group should not claim or get higher prerogatives merely because he wore

an extra stripe. But the group itself created and acknowledged status differentiation among its members. In describing status positions in combat fighter squadron, one observer writes that the status system both on the ground and in the air is largely determined by the amount of time which has been spent in the squadron and consequently how much combat flying has been done. And status determines the privileges and favors distributed within the group. The use of jeeps, choice of aircraft, and of going to rest camps were some of the matters regulated by the informal group. "No Army regulations state that flight leaders, element leaders, and wing men shall each obey the man one step above them and command the man one step below. Only the squadron commander has truly formalized authority. Yet the status system functions to maintain control over the members to a high degree." (Stone 1946, 389-390)

"4. It is not desirable to set too high a standard of work performance, (At another time, exactly the opposite attitude was held.)" This attitude may be discussed in conjunction with the final one listed.

"5. Men who work together should co-operate in whatever manner necessary to get the job done in the manner easiest for the whole group." Both these patterns have to do with the decisive influence of the primary group on the performance of military tasks. Underlying both is the principle held by the men of the group that they must stand together, achieve together, and together share the same goals. Thus if most of the group disapprove of their military assignments then the whole group will restrict its efforts.

And the collusion necessary for such restriction enhances the rewarding feeling of cooperation among the men of the group. As Stouffer and Deviney write, the practice of "gold bricking" was a form of cooperative action all through the war. This was developed into a fine art by some individuals and enlisted men often participated in this practice as a group, protecting each other loyally with no little skill and shrewdness. It was manifestation of high morale from the standpoint of the participants' goals, of low morale from the standpoint of the Army command.

In another passage of The American Soldier it is noted that the recruit had to learn to curb his desire to do a job exceptionally well, lest he incur the disapproval of his fellows. One of the Research Branch writers noted from his personal experience as a recruit that "sanctions against ambition or manifestations of superiority come from fellow privates. . . . An esprit de corps develops in the group, directed not so much in favor of group achievement -- although there is pride in group achievement which is a hangover from civilian attitudes -- but against the common enemy, viz., the noncoms or the officers, as the case may be." (Stouffer 1949, I 84, 414)

But when the men of the primary unit accept and approve the assignment given by the Army command, then the quality of the work performance rises to maximum heights. This is exemplified in many situations, among them in the technical unit where the five patterns listed above were observed. During one period of several months the membership of the unit was stable and an unusual esprit de corps developed. Under the leadership of the

noncommissioned officer in charge the group took considerable pride in proper performance of duties. Men who showed skill and initiative on the job were then held in esteem by the informal group. Under these conditions the efficiency of the unit was very high.

How the Primary Group Enforces Its Standards. These are some typical patterns and attitudes ~~and~~ enforced by the informal group. How are they enforced? The primary group has no formal authority, its coercive powers are nowhere described or prescribed. For all of that, its enforcement sanctions are as powerful, sometimes even more so, as those backed by the whole panoply of institutional might. The techniques of enforcement are simple and familiar ones: verbal taunts, the withholding of privileges, and ostracism. Because of the intimacy and immediacy of the primary group, the first two techniques are generally highly effective; because of the isolation of the group as described above, ostracism is dire punishment since the individual has little or no opportunity to join other groups.

In The American Soldier there appear excerpts from the diary of an enlisted man which illustrate the process of the enforcement of the primary group taboo on overt friendliness with authority. "Yesterday, I went up to Lt. C during class to ask him questions. Everyone chorused and made loud kissing, sucking noises at him as he walked down the aisle, which made Lt. C laugh, but K seemed not to have heard. This making of sucking noises is quite the custom now, and is directed at K, and S especially . . . These two people were disliked, and few were friendly

toward them, though they were friendly toward each other. This unfriendliness did not go to extreme ostracism, but occasions arose where people avoided their company." (Stouffer 1949, I 66-67). R. K. Merton cites this example to point out that in it one sees the mechanisms of the in-group operating to curb positive orientation to the official mores. And it demonstrates the process through which this orientation develops among those who take these mores as their major frame of reference, considering their ties to the in-group as of only secondary importance. (Merton and Lazarsfeld 1950, 94) Some individuals do tend to reject the attitudes of the informal group, but the number of those who can withstand the pressures of this group is very small indeed.

An excellent illustration of how the informal group enforces the standards it sets is given in the previously cited description of an Air Force technical ground unit. The author writes that the informal group had many ways to express and make effective its dissatisfaction with official regulations or arrangements, and the most effective of these was the control by the group of the noncommissioned officer in charge. Since he was one of the informal group, he was subject to all its pressures. If he failed to act in accordance with the interests of the group he would be subject to the usual name-calling: "Brownnoser," "eager beaver," "chicken," "G.E.".

Generally even mild social ostracism would bring an offending leader in line. This was so because failure to be included in the activities and discussions of the group meant isolation and loneliness, because the offending leader had no other social group to which to turn. The whole basis of his social life and status was in this one informal group.

As we have seen above, the pressures exerted by the informal group also operate to negate or readjust the rights conferred by formal rank, if the formal rank held by an individual does not coincide with his place in the status system set by the group itself. In the instance cited here this is exemplified by the lack of real power in the hands of subordinate noncommissioned officers. Officially, each shift of workers in the unit was under the management of a subordinate non-commissioned officer, who was responsible to the noncommissioned officer in charge. Actually however, these NCOs exercised very little authority. They were on terms of closest intimacy with the men on their shifts, and this intimacy usually precluded any real observance of the official relations of superior-inferior. The analyst notes that leadership on the job was worked out informally and was almost as often in the hands of a dominating private as of a noncommissioned officer. The informal group pressures which influence the noncommissioned officer in charge were even more powerful in controlling the subordinate NCOs because even their official work relations were entirely within the informal group.

Finally, this case example illustrates another of the techniques of enforcement used by the informal group, that of withholding from an offending member the means of enjoying certain privileges. "For example, Charley G. often took advantage of the privilege of taking an extended pass by exchanging duty shifts with another man." But on several occasions Charley returned late from his pass and this disrupted the work routines. This forced another man to work for him and shortened the pass of the next man on leave. By common consent this matter was not brought to the attention

of the commanding officer. Instead, the members of the group punished Charley by refusing to change shifts with him again. This was considered a severe punishment and just retribution. (American Journal of Sociology 1946, 369).

Assimilation into the Primary Group. It is clear that a typical newcomer into a unit very quickly learns about the informal group standards and their enforcement, soon adjusts to the situation, and readily participates in the primary group. The process of assimilation is generally rapid and smooth because the newcomer is eager to form primary group alliances and the men of the group are willing to accept him if he conforms to their standards.

The manner in which this process goes on in a combat fighter squadron has been discussed by R. C. Stone. He says that the most important of all the social devices for teaching the new members the values of the group is the "bull session." In the long and protracted discussions and arguments of the pilots one finds expressed all their prejudices and attitudes. In these sessions the new member must learn the elaborate terminology of flying and combat. Without this vocabulary the new pilot does not become a bonafide member of the group. He learns that the values of the group are formed around combat experience and leadership qualities, that all noncombat officers are looked down on, especially ground officers, who are called "paddle-feet" or "ground-hounds". And civilians are, of course, the lowest of the low.

The matter of equality within the group, mentioned above, is inculcated. "As differences between college graduates and men with no more than high school education are unimportant in carrying out the squadron missions and as the whole society is integrated around the squadron function, one would not expect a college education to be important in the scheme of squadron values. The fact is that college men get along better if they do not talk too much about their education. Any attempt by a pilot to show that he is superior to his squadron-mates because of advantages enjoyed in civilian life is strongly resented." (Stone 1946, 393) A new pilot promptly learned that he must exclude references to his undergraduate days at Princeton from his conversation as well as that he should include the proper group terms for ground officers.

For large-scale studies of the assimilation of newcomers and replacements into primary groups we may again turn to the Research Branch data. These have been reviewed and assessed by E. A. Shils and we may here paraphrase his findings. (Shils in Merton and Lazarsfeld 1950, 29-31; Stouffer 1949, II 242-282)

In 1944 the Research Branch conducted extensive surveys to compare the attitudes of combat veterans with those of replacements in veteran divisions, and with those of troops not yet experienced in combat. Questionnaires were filled out by veterans in two infantry divisions, by the replacements which had arrived in those divisions, and by infantrymen in three inexperienced divisions. Clear differences in attitude among these three classifications were revealed by the

questionnaires. On the matter of willingness to enter combat the replacements in the veteran divisions approximated the attitudes of the veterans. The totally inexperienced men were most willing for combat, the veterans least willing, and the replacements were more than halfway toward the veterans. On the matter of self-confidence as combat leaders, replacements had less confidence in their own ability than either the veterans who had most, or the green men who were less self-confident than the veterans. In respect to their attitudes toward their non-commissioned officers, the replacements were most favorable, the veterans second, and the green men had the least favorable attitudes toward their noncoms. And the replacements were proudest of their company. They were even prouder of their unit than were the veterans, and both were markedly ahead of the green men in this matter.

These results indicate that infantry replacements apparently feel inferior in respect to the established primary group into which they are not yet accepted and which has considerable prestige for them. Prestige accrues to the men of the established groups because they are combat veterans and because they participate in established primary groups and so share intimacies and knowledge. This apparent feeling of inferiority held by the replacements influenced them to value themselves less than did green men in inexperienced divisions and to value their superiors more than these green men did. This high evaluation of the primary group composed of veterans into which they as replacements had not yet been fully assimilated, gave them pride in their membership in

the company in which the veteran primary group was established. Hence they sought to "prove" themselves by taking over the veteran's attitude in such matters as conviction about the war and willingness for combat. On these two issues their attitudes ranked between the other two groups.

These data also show that the newcomers tended to overestimate the degree of solidarity which prevailed in the established group. In units in which the veterans felt relatively little pride, the newcomers were prouder of their company than were the veterans, presumably because they had not yet been allowed to share in the primary group life and so were not familiar with the attitudes of the veterans. Replacements were not usually resentful of their feeling of inferiority to the veterans; they accepted it and were grateful for the help given them by the veterans; In one investigation 82 percent of the replacements thought that the veterans had given them as much help "as they could". (Stouffer 1949, II 278-279)

The general picture afforded by these studies indicates that the replacement was typically eager to enter a primary group, and willing to follow the patterns and attitudes of the group members. If anything, the replacement tended to overestimate the solidarity of the group. The men of the established group, on the other hand, were not reluctant to take in newcomers, unless possibly when replacements threatened to flood the established unit.

Shils presents "a very tentative hypothesis" that the larger the proportion of newcomers, the greater the resistance of the established primary group to their assimilation. In units with larger proportions of replacements, both veterans and newcomers were apt to say that teamwork

in their units was poorer than it was reported to be by both newcomers and veterans in units in which the proportion of replacements was smaller. (Stouffer 1949, II 258-259; Merton and Lazarsfeld 1950, 31). Once assimilated into the group, the newcomer was as thoroughly loyal and devoted to it as were those who had participated in it for longer periods.

Relation of Primary Group to Other Groupings. This loyalty is usually extended beyond the company and includes the regiment and the division within which the primary group exists. This is so partly because the actual primary group has no label and usually no clear cut boundaries. For example, the soldier may actually have the closest bonds with four of his fellows in the platoon, quite close ties with all but two of the other members of his platoon, and feel identified with most of his company. But at any given moment his primary group interaction may include more or fewer men. The shifting membership and changing degree of close interaction do not impair the operation of the group or its importance for the individual, but it does make it difficult for the individual to make clear reference to the object of his loyalty.

The formal group, whether regiment or division, is an enduring and clearly defined entity. Hence the solidarity felt to the informal group is most frequently expressed as the loyalty to the formal entity and such expression is part of the informal group code. M. B. Smith puts it in this way, "Loyalty to one's buddies was another stringent group code. It is allied to the code of masculinity, but independent in the sense that

someone who let his buddies down through irresponsibility, not through cowardice, might not have his social manhood called into question. Loyalty to one's buddies was founded on the fact of vital mutual dependence and supported by a cluster of sentiments grouped under the term 'pride in outfit' While the men's closest personal ties were within their companies, major tactical goals were the achievement of larger units, and the companies in a regiment or division on the whole shared the same experiences." (Stauffer, 1949, II 135-136, 138-139)

The expression of primary group solidarity as loyalty to outfit and pride in it is further encouraged by specific educational devices in training. These devices stress the difference between the social affiliation of the soldier and other sectors of his own society (hardly ever with another society or with enemy groups). The soldier is constantly reminded that he is not a civilian and should not act like one. The infantryman in training told "You're an infantryman; act like one. Don't be sloppin like them air-corps guys." The marine in boot camp hears "You're not in the Army, you're in the marine corps" expressed constantly in a hundred different ways. (American Journal of Sociology 1946, 377; White 1946, 429). And so it goes.

The effect of reiterating the difference and distance between the individual's branch of service and other branches does do something to enhance internal cohesion and so encourages military efficiency, but there are some disadvantages to this procedure also. An analysis of this matter is not within the scope of this paper except for the observation that the

efficacy of such negative devices depends on the positive satisfactions which the men derive from their experience within the primary group.

These positive satisfactions which build and maintain loyalty to outfit are especially derived from the joint achievement of a difficult goal by the outfit. This occurs and can be brought about under garrison conditions but it is most commonly and poignantly experienced in combat. Indeed all the relations within the primary group and the effects of participation in it are intensified under stress conditions, and we can now go on to a consideration of the role of the primary group under combat and other stress conditions.

d. Response to Stress Situations

The preceding section on the internal organization of the army unit has mainly been concerned with the processes of self-organization within the unit in training and garrison situations. What happens to this self-organization in combat is a subject of this section of the survey.

When a group of men experience a stress situation together, whether the reason for the stress is drought, or a drastic drop in sales, or a common enemy, they tend to consolidate their efforts and cooperate more intensively than they did before the common danger appeared. This process is well-known, but the concept which formulates the process remains an impressionistic even though valid one which must be further refined and checked if it is to have an important scientific utility. As E. A. Shils says, "It is of course ancient wisdom that groups are integrated more closely when they are faced with an external threat. The data and

interpretation in The American Soldier have given rise to no fundamentally new hypothesis on this problem and they do not easily help us to refine and make more rigorous the old. But they do bring out certain nuances and point the way toward new research." (Merton and Lazarsfeld 1950, 37) These nuances and research leads which are offered in the Research Branch data and in other sources do frame the problem and tell us something of the content within the frame.

Group Rewards and Punishments. Thus there is an illuminating discussion of group rewards and punishments in The American Soldier which demonstrates that the time-honored Army custom of punishing an entire group for the offense of one of its members frequently does not have the effect desired by the military command, and perhaps more often than not, has the opposite effect. These findings are pertinent to our present analysis because they indicate that a stress situation experienced together by a group does not necessarily make for better discipline or greater military efficiency. Two examples of group punishment are given in a note by T. H. Hall relating his own Army experience. On the train carrying his group to camp the commanding officer threatened that if someone broke a window the entire group would be punished. At the camp the company commander said that the whole company would be denied passes for ten days unless the one who had broken a toilet bowl confessed. (T. H. Hall 1946, 364)

When 2,881 officers were asked in a Research Branch questionnaire whether group punishment was a good idea, 58% replied that it was never a good idea. While such group sanctions are explicitly intended to utilize the informal controls of the group to enforce some formal order, they actually have that effect only in certain kinds of situations. It was found that group punishment tended to fail in situations such as the one in which there was punishment of a group for an individual who went AWOL, or when there was punishment of a group for a barracks theft, or punishment of a whole detachment because one subunit failed to pass inspection. More effective was the punishment, not of a whole detachment, but of one small group of men because quarters or equipment for which they were responsible as a whole failed to pass inspection. If this latter practice were a regular thing it tended to induce the men to react indignantly toward those individuals who failed to do their share in a group task. Group rewards tended to be more effective than group punishments, but group rewards were used much less often.

The Research Branch analysts noted that group punishment was most likely to be effective when at least four conditions were met: that the punishment for the offense was regular and consistent, that the men were able to distinguish clearly between acts which were likely to elicit the punishment and acts which were not likely to elicit it, that the men knew that the punishment would affect the entire group, and that the men were able to identify potential offenders in a group situation so as to apply group pressure. These are not the only conditions listed, but they are the most important ones. (Stauffer 1949, I 423-429)

And these conditions are eminently met in a combat situation. There the group punishment comes at the hands of the enemy. The men realize that punishment for a gross violation of military procedure results in regular, consistent and probable punishment, they know that the entire group rather than just the offenders will suffer, and they are able to identify potential offenders in a group situation and apply group pressure on them. However, in the actual stress of battle, positive motivations are at least as important as the fear of primary group pressures. To understand what happens to men under stress in a unit, we must consider the nature of combat stress.

The Nature of Combat Stress. For the soldier in combat, stress is the normal situation. In other human circumstances, every effort is made to avoid stress or to minimize it. In battle, the stress is continuous and not easily controlled. "Rather, the intent is to increase the stress continually in the furious pursuit of victory. It is man made, it is intended that way, and therefore it cannot be escaped, avoided or controlled, but only endured." The psychiatrist authors of this comment go on to say that the various factors involved in the physical stress of combat cannot be regarded as independent entities since they mutually reinforce each other. Writing of combat air crews particularly, they say that long flights would not be so wearying had there been adequate sleep the night before. Tolerance for monotonous food would not be so low if the men were not so fatigued. On the other hand, sleep would be less elusive after a

full and satisfying meal. The effects of the physical stress are cumulative and gather a momentum that can only be interrupted by removal from combat activity. But the most serious reinforcement of the effects of physical stress is supplied by the emotional stress of combat. This emotional stress is a complex network of unusual strains inherent in the combat situation. The stress is derived from different sources, which again mutually reinforce each other. (Grinker and Spiegel, 1945, 28, 32-33).

The principal sources of stress in combat have been listed by R. M. Williams, Jr. and M. B. Smith in a chapter of The American Soldier. They give twelve such sources and discuss each of them. For our present purposes we need only point out how the primary group helps in some measure to alleviate the emotional stress and make somewhat more endurable the physical pain which derive from each.

Three of these factors have mostly to do with physical hardships -- threats to life and limb and health; physical discomforts of varying kinds; and deprivation of sexual and concomitant social satisfactions. While these are not necessarily mitigated or avoided in sheer physical terms by the soldier if he is one of a closely knit primary group, it is clear that they may be borne with less damage to the individual and for a longer period if the soldier knows that he is not alone in suffering the threats and the hardships.

The next two factors listed have to do with the emotional needs of the soldier -- isolation from accustomed sources of affectional assurance; the loss of comrades, together with the sight and sound of wounded and

dying men. As we have noted before, the individual's isolation from other sources of emotional support, makes the assurance and security which he can derive from his primary group relations all the more precious to him. And it is the continued presence of some of his buddies which generally makes the loss of others supportable.

Restriction of personal movements is another source of stress, whether it is from the restrictions of military law or from the immobility from being pinned down under enemy fire. A good deal of the stress involved in these restrictive situations arises from the drastic limitation of the social horizon. And here again the one saving element from the terrifying feeling of total isolation is the presence of known comrades.

Two other factors involve the individual's structuring of the situation — the continual uncertainty of combat and the sharp conflicts of values it entails. The individual soldier in combat is rarely sure of what has just happened, what is going on at the moment or what is likely to occur next. "This kind of unceasing confusion — the lack of firm constants to which behavior could be oriented — exposed the individual to insidious anxieties. All people need some stability in their environments; it has been repeatedly shown that personality integration and the development of regularized patterns of behavior are strongly conditioned upon the existence of stable referents for activity. One of the prime functions of any sort of social organization is to provide the individual with a dependable set of expectations." (Stauffer 1949, II 33). In the confusion and uncertainty of battle, many of the previously used referents for action become irrelevant, even the formal structure of the Army may seem only a shaky source of assurance. The one rock of certitude which remains

is the presence of one's friends, who will not let the individual down any more than he will let them down.

The conflicts of value in combat are many and varied. The Research Branch authors list four main types, those which involve a choice between the requirements of duty and the individual's impulses toward safety; between military duty and obligations to family at home; between group loyalty and the formal requirements of the military situation which, for example, may sometimes not permit helping a fallen comrade; between the previously accepted moral codes, as against killing, and combat imperatives. Here again, in the situation where former precepts and preceptors are lacking, the value choices made as part of the informal group code are most powerful. For the precepts of this code are daily exemplified to the soldier and the preceptors of these values are with him in the immediate situation.

The next source of stress which is listed entails being treated as a means rather than as an end in oneself -- the seemingly arbitrary and impersonal demands of authority, the sense of not counting as an individual. For Americans this is probably a more dire source of stress than it is for soldiers from most other societies. And, as we have noted above, it is precisely because of the individual soldier's membership in the primary group where he is known as a person and treated as an individual that he can avoid the otherwise destructive sense of feeling that he is nothing but a number.

But the tight relation within the primary group and the relative isolation of the group in themselves generate stress. "Another source

of stress came from the very thing which gave a combat soldier his strongest support; his social group. From the beginning of their Army experience, soldiers learn that they have no privacy, and they learn not to mind this too much. Nevertheless, this source of close in-group living had its disadvantages in the incessant demands and petty irritations it entailed. When in combat everybody was tense anyway, as a result of multiple stresses, the small frictions of intercourse with one's fellows sometimes came to take on an exaggerated importance." (Stauffer 1949, II 87) And as the external pressure became more intense, when the members of the group felt themselves to be close to the limits of their endurance, this factor probably rose in importance as a destructive influence.

The two sources of stress which are noted are the long periods of enforced boredom, mingled with anxiety, between actions and the lack of terminal individual goals. As with the physical factors listed first, membership in a primary group does not avert these types of strain, what it does do is enable the individual to bear this kind of strain with less damage and for longer periods

It must not be assumed from these comments that membership in a primary group is a sovereign remedy for battle stress. It is not and cannot be. What does appear from the evidence is that a soldier who has close friends in a primary group is much more capable of withstanding the stress of battle than is one who does not have such relationships. Under conditions of combat, moreover, when it is crucial that the members of the unit perform effectively as a group, many of the usual techniques

of control (such as individual or group rewards and punishments) are not as effective as they can be in non-combat situations. In these conditions of extreme stress, the internal organization of the group and the informal standards of the group assume even greater importance than they do otherwise.

Increased Value of Primary Group under Combat Conditions. They are more important because the factors which make the primary group important in the general military situation are intensified in combat. More than ever, it is the only available group for the individual; in greater degree the soldier needs a group; the social isolation, the cutting-off of the past, the interdependence and interresponsibility -- all are heightened in battle. Colonel Marshall expresses this succinctly when he writes "In battle, you may draw a small circle around a soldier, including within it only those persons and objects which he sees or which he believes will influence his immediate fortune. These primarily will determine whether he rallies or fails, advances or falls back." (Marshall 1947, 154)

If any of these intensified forces is more important than another, it is the enhanced interdependence and interresponsibility in the battle situation. The Research Branch writers emphasize the fact that the combat situation is one of mutual dependence. A man's life depends literally and immediately upon the action of others; he in turn is responsible in his actions for the safety of others.

We have noted above that responsibility for others may be even a more potent factor for military effectiveness than dependence on others. Both dependence and responsibility are vital and are more close and more crucial in combat than in the average run of human affairs. Mutual dependence is more than a matter of mere survival. "Isolated as he was from contact with the rest of the world, the combat man was thrown back on his outfit to meet the various affectional needs for response, recognition, approval, and in general for appreciation as a significant person rather than a means -- needs which he would normally satisfy in his relations with his family and with friends of his own choosing. Most aspects of combat as a stress situation served only to make these needs the more urgent." (Stauffer 1949, II 98-99)

The soldier coming into the line has defined for him a world that feels itself to be and is, in fact, removed physically and psychologically from all that lies behind it. The rifleman's world shrinks to the tremendous immediacies of staying alive and destroying the enemy. Soldiers at the front strongly feel their mutual dependence, their common loneliness, their separate destiny apart from all who are not at the front.

Again we must note, as do the Research Branch analysts, that it is important to avoid any one-sided interpretation of the social forces that keep men in combat. The various factors in the situation work in interaction. Thus exposure to external threat becomes a unifying force only when escape from the situation is ruled out as it is by formal Army rules and sanctions and by the informal codes enforced by the group.

"Affective ties binding the group together were important in keeping men in combat because, among other reasons, the group through its formal organization was inextricably committed to the fight: anything that tied the individual to the group therefore kept him in combat . . . Considering any single aspect of the social situation of combat separately, the fact that it has been abstracted from a most complicated context must be remembered." (Stauffer 1949, II 100)

Gradient of Combat Efficiency. One of the variables in this complicated context is the duration of exposure to combat. The ability of the individual separately and of the primary group collectively to maintain military effectiveness varies according to the length of combat experience. This gradient of efficiency is especially recognizable in the Air Force. Glinker and Spiegel note that when men join their group in the combat theatre, their eagerness for battle rapidly becomes tempered by the realities of the battle situation. And after a few combat missions, they become increasingly realistic. "At that point a great strain is placed on their individual motivation. As they begin to realize what they have let themselves in for, it is only natural that they should search their souls as to why they ever allowed it to happen to them . . . If the weakening of personal motivation were not counterbalanced by some other force, the desire to fight would rapidly diminish. The additional force necessary to keep the men's determination to continue in combat at a high level stems from the effects of the combat group,

and is recognized as group morale. It is therefore more than the simple sum of the individual motivations found in the men before they came into combat. It is the result of the interpersonal relationships described in the previous chapter, and, specifically, of the intense loyalties stipulated by the close identification with the group. The men are now fighting for each other and develop guilty feelings if they let each other down." (Grinker and Spiegel 1945. 44-45). Identification with the primary group and loyalty to it carries the airman through the first phases of his combat experience, but the greatest strain on this identification and loyalty comes in the later phases of his tour of combat duty.

This has been well described in a study of combat crews in the Royal Air Force. The author of this study writes that immediately after the beginning of a tour of duty there is a perceptible rise in morale. This is due to the feeling of accomplishment now that the long months of training are left behind and to the novelty, excitement, and interest of this final stage of experience and adventure. But by about the fifth sortie this surge in morale has begun to give place to the recognition of the formidable reality of the tour. This tends to continue, in some cases almost subconsciously, until by the twelfth or fifteenth sortie the man has reached the stage in which the full realization of the danger and unpleasantness of the job have been forced upon him, while there stretches in front of him an ominously large succession of repeated sorties before he can achieve the honorable

completion of his tour. Indeed, while seeming more desirable than ever before, this now appears so remote as to be an unprofitable and almost impractical goal on which to pin his hopes. At this point his chances of survival are bound to occupy his mind to greater or less extent, and at that point the airman is passing through the critical phase of his operational tour. It is at this point that the individual needs all possible emotional support from every available source if he is to be able to carry through to the end of his operational tour of flying combat duty. (Stafford-Clark 1945, 19-20).

A similar curve of efficiency has been postulated for infantrymen. From the evidence of questionnaires in which veterans rated the effectiveness of their fellows in combat, the Research Branch analysts found a definite peak in combat efficiency after which the relative likelihood of being rated "best" declines. The proportion of best riflemen reaches its peak among men who have been in combat four to five months, after which it begins to drop. The proportion of best noncoms reaches its highest point somewhat later, after six or eight months of combat, after which it also falls off. In both groups, men who have had more than eight months of combat time are apparently less likely than men with less time in combat to be rated as the best men in their outfits. "The main conclusion warranted by the data is simply that combat efficiency appears to reach a peak after prolonged combat experience, after which it falls off." (Stauffer 1949, Ii 284-289)

Sustaining and Impelling Forces. Some of the forces which sustain the soldier through all his combat experience, as well as in those phases when he is psychologically most vulnerable, have already been considered in this survey. Not to be neglected among these is the basic institutional authority. Its clear and definite structure prescribes a course of action which can be followed when alternative courses are closed or seem undesirable. Although its coercive powers are not a primary consideration among the men in combat, yet the personal and social consequences of undergoing punishment (in the sense of bringing shame upon one's family) are of considerable importance. The drill and training which the group has undergone is essential to effective performance.

Another sustaining force is the use of prayer. This was especially important to those who had experienced greater stress or who felt greater stress. Those who feared more, prayed more. (Stauffer 1949, I 172-188). Other patterns which were adopted by troops in combat as aids in carrying them through the stress periods were various magical practices, attitudes of fatalism and hedonism, and what the Research Branch analysts call "the strategic abandonment of hope". (Stauffer 1949 II 188-191).

One of the most fundamental of these sustaining forces, as we have had to note in every section of this survey, is the power and security which the individual gets from his primary group. This he derives in several ways. On a very practical level, the Research Branch analysts write, the soldier can count on being looked out for by his

buddies if he is in a tough situation. If he is wounded, he can count on both his buddies and the medics to take care of him. While the important security of belonging to a powerful and trusted group is most dramatically seen in the soldier's reciprocal ties to his buddies in his immediate unit, on a different level it extends to his feeling of being on a powerful, winning team. "And at the level of the soldier's immediate combat unit, he was bound to his company for reasons of self-interest in addition to loyalty and pride. The men in his unit were his buddies, whom he had fought beside and learned to trust and depend on, so he felt safer with them." (Stauffer 1949, II 142-143)

This primary group affiliation was not only a sustaining force, but was a most important impelling force. It not only helped keep the men in the combat situation but it also enabled them to press the attack and so expose themselves to further dangers. This is dramatically reflected in the statements of many combat crew members in the Air Force that they suffer more when they are on the ground and their crew is flying without them on a combat mission than they do when they are flying. (Grinker and Spiegel 1945, 36). A medical officer of the Royal Air Force writes in similar vein, "Everyone looked forward to the completion of his tour, but so strong was the crew spirit in bomber command that it was not an uncommon occurrence for a man to volunteer to do as many as ten extra trips so that he and his crew could finish together, if for any reason he had joined them with more to his credit than they had done." (Stafford-Clark 1945, 15).

Such feelings and behavior are a highly specific reaction to leaving one's immediate social group, rather than an expression of a sense of not having done one's share. Thus in the latter case of a pilot who had completed his tour of combat missions, he had done his share both according to official standards and according to the informal code. Furthermore, combat troops are often glad enough to permit some other outfit to have the privilege of making an attack. "The morality lying behind the guilt reactions of men who were removed from combat was much more concretely tied to the closely knit group in which the soldier fought. The formulation tended to be: 'I'm letting my buddies down — some of them are dead, and the others are still in there taking it, while I'm safe. True, I've done my part, but I have no right to be out of it so long as they are still involved.'" (Stauffer 1949, II, 137)

Many other motivating factors may come into play in any specific combat situation. For example, in a winter campaign men sometimes are moved to attack for the simple purpose of taking a town which promises shelter and warmth. A passage in The American Soldier points out that it was no small matter to win a height which deprived the enemy of an artillery observation post, or permitted observation of enemy movements. Indeed anything which gave even temporary and relative safety or comfort, could become a major motivating condition. Tactical victories, those which got something for the unit, rather than the achievement of major strategic objectives are important as impelling forces (Stauffer 1949, II 171)

None of these possible motivating forces is indefinitely good in combat. Prolonged exposure to combat inevitably makes for an attrition of combat motivation. But the motivating force which seems to have been strongest and to have had the longest duration under conditions of stress in World War II was the one relating to primary group allegiance which we have already emphasized. Two brief quotations on this point will serve to summarize the matter. In the passage of The American Soldier just cited, we find this statement, "To the incentives of securing material gain must be added, in some situations, certain more exclusively social factors. A good case in point is the situation of attacking to relieve a unit which had been cut off by enemy forces or attacking to recover wounded men. The relief of the garrison at Bastogne during the Battle of the Bulge in December 1944 is an example from the European war. Uncounted smaller actions of the same pattern took place during World War II, and the historical record of past wars is studded with examples. The special motivational feature of such situations for the relieving force is the reinforcement which was thereby provided to the individual's sense of obligation to, and social solidarity with, his comrades." (Stauffer 1949, II 171-172).

The feeling of responsibility for one's fellows, especially those of the primary group, is a dominating motivating force in combat. This is further evidenced by the extraordinary bravery manifested by medical aid men both in World War II and in the recent Korean campaigns. Although the medics are generally underprivileged in such matters as formal rank, manner of selection for the task of medic, and thoroughness

of training, they typically display degrees of fearlessness and combat initiative not surpassed by combat personnel who are more advantaged in these matters.

The reason for this would seem to lie in the special attraction and favorable challenge which responsibility for others seems to have on the American soldier. This is exemplified by Colonel Marshall's observation that riflemen who fail in combat may frequently be transformed into efficient combat soldiers simply by giving them more responsibility. Colonel Marshall notes that this sounds like a paradox, to expect greater response to come from increased responsibility. "But it works, I have seen many cases where men who have funk'd it badly with a rifle respond heroically when given a flame-thrower or BAR. Self-pride and the ego are the touchstone of most of these remarkable conversions." (Marshall 1947, 76).

Another passage from this book indicates the wider importance of this factor. Colonel Marshall writes that Field Marshall Sir Archibald Wavell once asked this question: "No man wants to die; what induces him to risk his life bravely?" The answer which comes out of Colonel Marshall's considerable experience and close observation is this: "The only answer which occurs to me as supportable in all that I have seen of man on the battlefield is that he will be persuaded largely by the same things which induce him to face life bravely -- friendship, loyalty to responsibility, and knowledge that he is a repository of the faith and confidence of others." (Ibid., 160-161)

Both interresponsibility and interdependence within the primary group are motivating forces of the first magnitude for the American soldier in combat. The political situation of his society and the ideology of his culture bring the individual into the formal Army structure. The formal structure prepares him for combat and brings him there. But the forces which actuate him for long periods while he is actually in combat, are basically those which have to do with his loyalty to and his friendship with his buddies; in other words, with his primary group affiliations.

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121

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SYNTHETIC TRAINING DEVICES

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Prepared for
THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE

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SYNTHETIC TRAINING DEVICES

1. Statement of Problem

The purpose of this paper is to discuss synthetic training devices from the point of view of:

- (1) Psychological and military principles regarding their design, development, and use.
- (2) Reviewing and appraising these presently known principles.
- (3) Comparing these principles with current service policies and practices and recommending action of both an administrative and research nature so that the greatest value can be obtained from synthetic training devices.

2. Summary

Synthetic training is now required as a supplement to and a substitute for conventional methods of military training. The learning of knowledge and skill by synthetic means is a military necessity for both operational and maintenance types of service jobs.

The general acceptance of this view has led to the expenditure of large sums of money for synthetic trainers and simulators. It seems to have been assumed in many instances that satisfactory training would follow automatically if one engineered a fairly complete physical replica of an operational piece of equipment. It has been learned in recent years, however, that consideration of many factors, in addition to the material engineering aspects, is required before one can be assured that the synthetic device will come with the training "built-in". Accessory considerations and activities include: high-level military weapons and operations planning; enumeration of military requirements and training needs in terms of human skills and training program implications; contribution of job analysts, training personnel, psychologists and educationists to the engineering design and development; tryout and evaluation of pilot and production models to determine whether and how much the device really trains; survey and report on general value and usefulness of devices so that they may be better integrated into existing training programs.

A synthetic training device will be effective if it has validity, efficiency, and practicality. The device is valid if practice on it produces an increase in the skill required to operate the real equipment; validity depends, in part, on the psychological and physical similarity

of the trainer to the operational device. A device is efficient if its use saves training time, money, and effort; in order to be efficient a device should give the trainee a measure of the adequacy of his practice performance, there should be a reliable scoring system, the training trials should be adjustable in difficulty, the learner should get moment-to-moment information regarding his performance, and where possible a trainer should give practice to a group rather than to a single individual. A synthetic device must also be practical, that is, acceptable to its prospective users and compatible with on-going training programs; practicality is enhanced if original and operational economy is high, if only minimal maintenance and supporting personnel and material support are required, if it is readily adaptable to changing training demands, and if its demands on such items as space, portability, size, etc. are not excessive.

In the zest for the development and use of synthetic training devices certain general psychological and educational principles should be recognized, as follows:

- (1) A synthetic trainer will not fully replace good instruction.
- (2) The device must be coordinated with an over-all training schedule and program.
- (3) Practice on the device must be supervised in accordance with sound pedagogical procedures.
- (4) Each trainer should have a manual showing how the greatest amount of training can be gotten out of its use.
- (5) Trainees will not learn unless they have motivation to do so.

Recommended action in the field of synthetic training devices is as follows:

- (1) Administrative - each Service Department should establish a single agency to coordinate and administer the many functions, activities, and personnel required to produce synthetic trainers with the greatest training value.
- (2) Research - both basic and applied research is needed to increase our knowledge of the fundamental factors that determine whether practice in one situation is of any use in another situation.

3. Review of Research Data and Principles Relating to Synthetic Training Devices

As military weapons, equipment, tactics and operations become more complex, the problem of providing trained personnel becomes more critical. Modern military personnel operations are coming less and less to require a strong back and more and more an educated mind. Along with the development of society at large, human military operators are providing less of the power which is used to perform their work (e.g., as with hand-held weapons and tools) and are serving more in a guiding or directing capacity of energy which is provided by machines (e.g., piloting an aircraft or conning a submarine). In some military operations the man and the machine are an integral linkage required to perform a particular job; this situation generates the need for operator trainers and training. In other instances, the human individuals have been replaced by computers and pushbuttons; this establishes a training requirement for maintenance trainers and training. Thus, whether we leave the man in or out of military operations, we have a training need of some type in which men must acquire knowledge and skill of a sort ordinarily acquired by only a small percentage of the population (33)*

The present paper is concerned with one segment of this overall military training problem, namely, the enumeration of certain principles and generalizations pertaining to the development and use of synthetic training devices. The use of such devices represents only one method for attaining the

*Numbers in parentheses refer to references listed at the end of this section.

requisite knowledge and skills required by present-day military personnel. A synthetic trainer, in other words, should be considered to be a type of training aid to be used as an adjunct in the process of instruction in the ordinary academic sense. Because of the cost, complexity, and potentiality of synthetic training, however, it is felt that separate treatment of this type of training is warranted.

In order to be worthwhile, a synthetic trainer must meet the following three criteria of effectiveness: validity, efficiency, and practicality (15, 23, 34, 47). By validity we mean that practice on the device must truly be a substitute for practice on the real job; in other words there must be positive transfer of training (31, 41). By efficiency is meant that the improvement in skill must occur with a minimum or reasonable amount of time, effort and expense. Practicality refers to the administrative aspects of trainer utilization and means that the device should fit the over-all training program without excessive demands on supporting material and personnel. The remainder of this section of the present paper will be devoted to an elaboration of those factors which contribute to the fulfillment of these three fundamental criteria of synthetic trainer effectiveness.

Validity

The validity of a synthetic trainer depends on military, psychological and engineering considerations. As military personnel develop new weapons and systems the question as ^{to} the training implications of these new developments must be kept in mind continuously; very early in these developments someone must decide whether there is a training need

and, if so, establish a military training requirement. Psychological considerations enter at this point in estimating the functions, skills and knowledges for which training must be given. Finally, engineering services are required in deciding on the feasibility and cost of various proposed designs for meeting the training need. Only by early and joint coordination of these various types of professional talent can one be assured that trainers of the proper type will be available as new equipments are produced. During World War II many trainers did not become available until their operational prototype was obsolescent.

Having decided that a synthetic trainer is needed, it becomes necessary to specify an engineering design that will produce the optimum transfer of training. Unfortunately, there are very few generalizations available to assist us in this planning stage. Although many hundreds of synthetic trainers have been developed, comparatively few studies have been devoted to finding out how much transfer occurred and why (1, 3, 5, 7, 8, 23, 30, 31, 42, 43, 44, 45, 46, 47).

Because of the difficulties in studying transfer effects in an operational situation, any general rules for predicting transfer will probably first come from laboratory research. At the present time, the results of laboratory investigations are in conflict (17, 35) and much more research is needed before definitive conclusions will be available. Illustrative of contemporary theoretical statements regarding transfer of training are the following:

1. The more similar the stimulus and response elements of Task A are to those of Task B, the greater will be

the transfer to Task B from practice on Task A (2, 17).

2. Greater amounts of transfer may occur if the training task is more difficult than the final task (20).

3. Preliminary training which requires an operator to differentiate the stimuli of a motor task by learning their names (or pictorial representations) will produce positive transfer to the motor task (19).

4. The greatest transfer from a synthetic device will occur if the device reproduces the most difficult discriminations of the real task. (2, 18).

5. If Task A and Task B are identical, the amount of positive transfer decreases with greater degrees of alteration of the similarities of elements within the task. If the stimulus-response relations between Task A and Task B are reversed, the amount of negative transfer decreases with greater degrees of alteration of the similarities of elements within the task (17).

The reader will agree that the amount of transfer (sic!) which these generalizations have to a given practical situation in which the design of a particular trainer must be specified is limited.

It is generally agreed that the more closely the training situation resembles the real task, the greater will be the validity of training. Thus "realism" has become a guiding principle in synthetic trainer development. A point sometimes forgotten, however, is that realism may be psychological as well as physical. Transfer will probably be greatest

when there is psychological realism, that is, where the sensori-motor and mental skills are the same for the trainer and the operational task. Mere static physical resemblance (face validity) of a training device will not insure high positive transfer value (23, 31, 43, 44). On the other hand, face validity is valuable for giving the trainee the attitude that his practice efforts will have real value; thus we can recommend face validity as an aid to trainee motivation. An illustrative device with both psychological and physical realism (and high positive transfer) is the Tufts Director M7 Tracking Trainer (3, 24).

In recent years there seems to be a tendency for the Armed Services to "bet" that physical realism will guarantee satisfactory training returns. Although this is a good bet, the principle is expensive and has led to the expenditure of many millions of dollars. Whether real and significant amounts of training have been produced by practice on some of these devices is unknown. In cases where the trainer is particularly expensive and the job especially important it would appear desirable to conduct psychological utilization and/or evaluation studies (34, 47). A "utilization study" is here defined as a tryout of a trainer in a simulated learning situation; the purpose of such a study is to observe the type of learning curve produced, the extent of skill attained, the optimum spacing and length of practice periods, reliability of the scoring device, and such other information as could be used in writing an instructor's manual. Examples of such studies may be found in References 11, 12, 22, 28, 29. An "evaluation study," in addition to determining those factors which come from a utilization study, seeks to

actually measure the validity (transfer value) which the synthetic practice has for the real situation. Complete studies of this type are usually expensive, time-consuming and difficult, yet they must be conducted in a representative instances in order to determine whether the synthetic training program is worthwhile. As in the case of much other personnel research, one of the major difficulties in the conduct of such studies is the establishment of a suitable criterion of operator proficiency (32, 39). Some success has been achieved recently in developing a rating procedure for the evaluation of training devices; in using this technique, instructors are required to make objective judgments about the many factors which affect the training value of the device. (14).

Efficiency

By training efficiency we mean that the learning which is accomplished by the trainee should occur within a specified and limited period of time and at a reasonable cost. Some of the most frequently cited advantages of synthetic training are that the practice can be done more cheaply, safely, independently of the weather, at any time, and with any amount of repetition. Obviously these represent great advantages over attempts to practice with real equipment under field or fleet conditions. The wide commercial and military use of instrument flight trainers is perhaps the best illustration of these types of advantages which synthetic training offers.

There are certain rules which should be followed, however, before these advantages can be fully exploited.

Among these rules are the following:

1. Trainees should receive knowledge of results during all stages of practice (3, 6, 9, 27, 28, 36, 37, 38). Preferably this knowledge should be an objective score of his degree of skill on each trial; better yet, he should receive a score on each component (e.g., azimuth error and elevation error) of his over-all task (11, 12, 40). If no objective rating can be given, a subjective qualitative score is better than none at all (37, 38).
2. Synthetic training devices should have reliable scoring systems. "Reliability" means that the student will obtain the same score on two successive trials if the trial and his behavior are similar on these successive occasions. Mechanical and electronic variability, aging, backlash, warm-up, etc., are often responsible for unreliable scoring. When the scoring is unreliable the student loses the value of knowledge-of-results practice because he cannot tell whether or not to change or correct his behavior (23, 26, 29).
3. Where possible, the difficulty of the training task should be adjustable to the level of skill of the trainee. Just as in learning many athletic skills, practice is most challenging and fruitful if the

opponent (training task) is more skillful than the learner. By providing graded difficulty of the learning task in the trainer it is possible to avoid the situation of a student obtaining a maximum score in a few trials; on the other hand, the highly skillful operator can still be challenged by the fact that his performance is not yet 100 percent correct. The entire purpose of this rule is to make sure that practice results in an increase in proficiency regardless of the learner's proficiency level. In many instances it is difficult to arrange a full scale of graded difficulty in one trainer, and thus several trainers (e.g., primary, intermediate, advanced) may be required to accomplish the complete training job.

4. The trainee should have success reinforcement (9). This rule merely means that the student should have knowledge of results from moment to moment while he is practicing. Numerous studies have demonstrated that the effectiveness of knowledge-of-results training depends on how quickly the knowledge follows the behavior (5, 25, 36). In providing for instantaneous success reinforcement it is important to arrange the equipment so that the student does not merely "ride" the scoring device when he should be practicing the basic skills of the learning task (27).

5. Train individuals in groups rather than singly if their rate of learning can be made the same under the group conditions. During World War II, aircraft recognition and some types of air navigation training were accomplished in this manner (10, 21). A common and recommended present practice is to feed operational equipments with synthetic inputs to provide very realistic training to groups of personnel. This has been done successfully with both radar and Loran sets. Crew training can also be accomplished in a similar manner. Thus the crew of the Boeing 377 airplane can receive synthetic but realistic practice in the Boeing 377 Electronic Flight Simulator (13, 15).

Practicality

Experience in the use of synthetic training devices has shown that certain practical considerations must be met, in addition to the validity and efficiency factors already mentioned, before we can be assured that training will be successful. The items about to be mentioned briefly are of obvious importance, and yet have occasionally been overlooked, to the detriment of training.

Original economy is important, particularly when relatively large numbers of trainers are required. During World War II, some trainer designs called for strategic materials and specialized personnel, with consequent delays

in their development and use. Economy of operation and maintenance, in terms of costs and supervisory personnel time, are factors which must be considered in a smoothly running training program. A feature of a good trainer that is sometimes forgotten is adaptability...trainers should be readily convertible to meet changing requirements or conditions of training; when possible, the original design should allow for adjustments based on shifts in the goal of training. Some trainers are notorious for their space consumption; the cost of space, portability, size with respect to doorways, weight storage and so forth all should be weighed against the potential training value to be received.

Before concluding this discussion on the contribution of synthetic trainers to the training problem, a few remarks are in order pertaining to the place of such devices in an overall training system. We should be particularly clear in regard to what synthetic devices can and cannot do. Even though a trainer is voted satisfactory in all the desirable characteristics that have been discussed above, it may be unsuccessful simply because it is not used properly (during World War II, some were never uncrated!). Unsupervised or poorly planned use of a trainer may actually be worse than no practice at all.

In using a synthetic trainer the following general principles should be recognized:

1. A synthetic trainer will not replace good instruction.

Even though a good trainer may raise instruction from a poor to a mediocre level, a dynamic instructor, with zest for and knowledge of his subject matter, can often produce the training results expected of the best training devices. Ideally, both the excellent instruction and the synthetic trainer should be available; then proper attention will be given to such factors as the order of drills, frequency and duration of practice periods, types and use of performance scores, motivation of trainees, etc. Incidentally, a synthetic trainer will probably lose much of its value if the instructor does not have faith in its usefulness.

2. The trainer should be coordinated with the over-all training program. Trainers are usually used as part of a general program of education in a particular area of skill or knowledge acquisition. The student should have a full understanding of this training objective and he must see the meaning of the job simulated by the trainer in relation to the whole job. Most trainers are most useful in the early stages of training, although many are designed for advanced or refresher training. Occasionally, it is possible to use a number of trainers in progression, each adding to the skill achieved on the previous one. The coordination required here requires administrative foresight and skill.

3. Practice must be carefully supervised. This should be done so that the principles of learning may take effect. Difficulty

of practice should be controlled, usually with operations proceeding from the simpler to the more complex phases of the task, with the later stages representing what the trainee must do in the real situation. Special effort should be made to vary the content of each drill period; thus the trainee will learn all phases of his job, instead of simply learning how to perform with a selected number of synthetic "programs." When possible, the practice should be distributed over many periods instead of having it concentrated in a few sessions; learning is usually more efficient under conditions of distributed practice. It is usually desirable to have a trained instructor present when the trainee is practicing with the trainer; the instructor can serve as tutor and coach, telling the learner about his mistakes as they occur and suggesting methods for improvement. As a general rule, a synthetic trainer should not be used to fill time or as an amusement device.

4. The trainees should be motivated to learn. Whether a student acquires a skill or not depends, in the last analysis, on whether he wants to. The principles just suggested are important, in part, because their application will increase a trainee's motivation to learn. If a synthetic trainer has both face validity and positive transfer value, an objective and reliable scoring system, graded difficulty, and success reinforcement, it will have a "built-in" motivational appeal to most students. All these features should be played upon

to increase motivation. Posting of the student's learning curves and records of progress will help, as will self-or group-competition. But motivation depends also on the student's understanding, interest, and attitude toward his whole training situation. These factors are affected by the quality of the instruction and the recognition of the trainee's place in the training program.

5. Each trainer should have a training utilization manual.

This manual, in addition to the conventional operational and maintenance manual, should be available at the time when the trainer is first produced to assist the instructor and other users of the trainer in obtaining the greatest educational value from it. This utilization manual would suggest how the principles listed above can be put into effect. After the device has been in use for a period of time it would even be worthwhile to conduct a survey among instructors and other users so as to develop a revised instructor's manual which will reflect actual use experience.

4. Appraisal and Summary of Research Data and Principles

a. Although one can find numerous citations of the belief that the greatest transfer of training will occur if the training situation closely "resembles" the test situation, it is not now possible to specify in advance how a trainer should be designed to fully incorporate this generalization. The meaning of "identical elements", "stimulus and response similarity", and other theoretical concepts regarding learning transfer is not yet reducible to rules that translate directly into engineering design specifications of trainers. Some progress is being made by current research investigations in the area of transfer of training of motor skills.

b. Complete physical simulation by synthetic means is an expensive proposition, particularly if trainers must be made in quantity. More information is needed regarding the extent to which less expensive "psychological" realism can substitute for physical realism. Simulation of the emotional aspects of many jobs is seldom attempted and may also be worthwhile subject for research.

c. The extent to which synthetic trainers have satisfactory validity, reliability, applicability, etc. is seldom determined by experimental investigation. Both "utilization" and "evaluation" studies are needed to determine the worth of particular types of trainers. The preliminary attempts to appraise synthetic trainers by means of objective rating techniques show promise, and should be pursued further. The conduct of such studies should yield information and principles which have use in regard to trainer redesign, modification, and use.

d. Research on synthetic trainers requires the availability of suitable criteria of operator efficiency. Thus research on criteria is an important related topic.

e. It is commonly agreed that synthetic training devices should: provide knowledge of results; have objective or subjective scoring systems; allow variation in task difficulty; give (optionally) success reinforcement; train more than one person at a time if possible.

f. Certain practical (as distinguished from the psychological and engineering) aspects of synthetic trainer design should be given consideration in each case of development, as follows:

original and operational economy of funds, material and personnel; adaptability to changes in training demands; space consumption, portability, simplicity and ruggedness of design, etc.

g. In using a synthetic training device it should be remembered that:

it will not replace good instruction; the practice periods should bear a logical relation to the entire training program; practice must be supervised; instructional manuals reflecting actual use experience should be developed and available; a trainee won't learn unless he wants to.

5. Applicable Service Policies and Practices

The design, development and use of synthetic training devices and systems are functions which are widely practiced by the Navy and Air

Force. The Army is rapidly adopting policies which will lead to an extended use of synthetics and simulators on its part. Due to the nature of modern warfare, the growth of these training methods is desirable and necessary. As has been previously indicated, however, there is more to the implementation of such policies than the availability and expenditure of funds for engineering design and production of synthetic training devices. Training is primarily a psychological phenomenon and cannot be requisitioned, used, or stored like hardware. The production of a synthetic device that will really train its users is dependent on the contribution of many specialists from fields outside of engineering and production. In the past, these accessory skills and talents have not always been available or utilized in the process of design, development and production.

If synthetic devices are here to stay, it would appear to be necessary to make the proper administrative changes so that fully adequate professional skills are brought to bear on all phases in the development and use of such devices. Inasmuch as certain basic data on transfer of training is also needed, another policy would be the expansion of present research efforts in this field.

6. Recommended Action

a. Service policy and practice

Service policy and practice with regard to synthetic training devices assume that a device with face validity automatically has transfer of training "built-in". Fortunately, this very often is true. This need not necessarily follow, however, and in order to provide greater

assurance that such will always be the case, the "flow-chart" for device production and use should consistently provide for the following types of consideration:

- (1) Determination and specification of service needs and requirements with respect to training. This requires the effort of top-level military and civilian personnel who are sensitive to the training implications of planned and anticipated new developments in weapons and operations. Deliberations of this type will establish the military necessity of various training needs in the diverse military fields.
- (2) Translation of the military requirements into psychological needs which are implicit in the requirements. This activity requires detailed job analysis, the proposed integration of this training problem into over-all training programs, a statement of the particular functions of each planned new device (including in as much detail as possible the skills and knowledge which the device should teach), a comparison with other devices and procedures either planned or already in use, and an estimation of how the proposed trainer will modify or fit into the training program for which it was designed.
- (3) Preparation of design specifications in terms of military requirements, psychological components of the job, and engineering feasibility. Here matters of economy must be weighed against military necessity. Every effort should be made to

incorporate those factors mentioned in the summary of research data which contribute to training validity, efficiency and practicality.

(4) Development of a pilot model under direction of engineers with consultation and assistance by psychological, military and training personnel.

(5) Tryout of pilot model. This step involves an engineering evaluation to determine whether the device meets the contract specifications and is free of "bugs". If the device "works" it should then be subjected to psychological utilization and evaluation studies (see definitions of these terms in Section 3). Training personnel should also have an opportunity at this stage to make suggestions before the specifications of production models are frozen.

(6) Production of operational models and preparation of manuals. In addition to the usual maintenance and operation manual, an instructor's manual should also be prepared; this "use" manual should incorporate all information previously gathered and give specific instructions on how to get the greatest amount of training out of the device. In some instances it is recommended that lesson plans be prepared to accompany the instructional manual.

(7) Follow-up on usefulness and manner of use of each synthetic trainer. The results of such surveys can be used in making other installations, revising the "use" manual

and keeping track of device obsolescence.

(8) The accomplishment of any appreciable number of the steps listed under 1-7 above will require administrative consolidation, either at the level of the Service Department or Department of Defense level. Training cuts across all service operations and specialties and the use of synthetic trainers is not confined to, nor is it the prerogative of, any single Corps, Bureau or Command. It would appear necessary, therefore, that some central and single organization be given responsibility and authority to coordinate and administer the many phases of the policy and practice program outlined above.

b. Additional research

With respect to synthetic trainers, additional research is needed on the following general topics.

(1) Basic and applied studies of transfer of training to determine both the minimal and optimal characteristics of situations in which practice on one task affects performance on a subsequent task.

(2) Investigations to determine the need for synthetic trainers and devices. A by-product of such research would be generalizations pertaining to the effectiveness of alternative methods of training and the possibility of substituting psychological and/or symbolic practice for relatively complete physical replication.

(3) The utilization and evaluation of devices to determine

their real training value (validity) as distinct from engineering and maintenance types of evaluation. Attempts to short-cut the traditional validation study by means of rating scale techniques should be encouraged.

(4) Criteria of operator proficiency.

(5) The interaction between the trainer, the trainee, the instructor, and the training situation. Variations in any one of these factors may have a fundamental influence on whether any training occurs or not. The extent to which it is possible and desirable to make a synthetic device "situation-proof" might well be investigated.

(6) Very few trainers ever simulate the emotional and motivational aspects of the operational situation. Research in these areas might yield very fruitful returns.

(7) Applied research is needed on the extent to which one synthetic device can accomplish different training functions. It is of both military and economic importance to know, for example, whether a single flight trainer can teach basic and advanced flying skills and also give practice for such other important training problems as refresher training, training for emergencies, and transition training. Analogous problems exist for other types of equipment.

7. Contributors

Portions of the above sections have come from (or been suggested by):

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- b. Program Guidance, 1951, Joint Panel on Training and Training Devices, Committee on Human Resources, Research and Development Board.

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A REPORT ON NATIONAL CHARACTER

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TABLE OF CONTENTS

List of contributors	3
A. <u>National Character</u>	
M. Mead	
I. <u>The National Character Approach</u>	4
II. <u>The Theoretical Status of the National Character Approach</u>	13
III. <u>Some Criticisms of the National Character Approach</u>	14
B. <u>American National Character Structure</u>	
R. B. Metraux	
I. <u>Introduction: The Army Situation</u>	18
II. <u>The American Family</u>	27
III. <u>American Character Structure: Major Themes</u>	44
1. Relationships to time	44
2. Relationships to things	48
3. Relationships to persons	51
4. Attitudes towards Success: Reward and Punishment	66
5. Attitudes towards the Body: Health, Sickness and Mutilation	73
6. Situationalism: an Adaptation to Change and Heterogeneity	79
C. <u>Ethnic Attitudes of Minority Groups</u>	84
R. B. Metraux	
1. Culturally relevant attitudes derived from child rearing regularities	88
a. Relationship to self and own body	88
b. Relationships to others	89
c. Relationship to the world	92

2. Cultural regularities of special relevance to Army life	94
a. Self-contained organizations	94
b. Self-administered law	95
c. Attitudes towards wholly male organizations	95
d. Attitudes towards hierarchical organization, i.e. attitudes towards authority	97
e. Attitudes towards death	98
f. Attitudes towards the enemy	98
3. Specific problems related to different stages of military service; an outline of considerations in the analysis of relevant attitudes.	99

D. Conceptions of the Soldier in three Contrasting

Cultures:

<u>The Polish Soldier</u>	102
M. Zborowski	
<u>The Jewish Soldier</u>	113
R. Landes and N. F. Joffe	
<u>The Chinese Soldier</u>	133
R. Binzel	

Bibliographies of Selected Publications

<u>A Selected Bibliography on National Character Structure</u>	177
<u>A Selected Bibliography of Critical Articles Related to National Character Structure</u>	186
<u>A Selected Bibliography on American National Character Structure</u>	187

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A. NATIONAL CHARACTER

M. Mead

I. The National Character Approach

The national character approach is based upon the assumption that individuals who live - either from birth, or for any great length of time in later life - within the same nation, exposed to and acting in terms of nationally patterned institutions, such as the same educational system, tax structure, system of military service, using the same language, the same currency, the same systems of communication, transportation, exchange, etc., will show certain regularities in the organization of their characters which can be identified, described and used as a basis for predicting their probable behavior.

The national character approach is one variant of the studies which have been made in the field of personality and culture, based on anthropological studies of small homogeneous societies, clinical studies of the character structure of adult patients and clinical studies of the behavior of children, and studies of learning. On the bases of these three areas of research, a group of hypotheses have been developed concerning the way in which human beings - sharing a common biological nature, growing and living, or living during maturity, within a culture, which has itself been patterned by the nature of human functioning - will show identifiable regularities in their behavior. Such studies, however, have been made on small, relatively homogeneous groups, or upon patients or subjects drawn from certain sectors only of our great heterogeneous population. Differences have been identified in the character structure of members of different social classes and of different regions of the country. A nation such as the United States comprises not only class, regional and occupational differences, but also

caste-like differences between races, and cultural differences among immigrants who still retain part of the cultures of their homelands.

The order of regularity which may be stated about an American which will apply to a middle class white Philadelphia lawyer, a New Mexico sheep rancher of Spanish American descent, a southern Negro sharecropper from Georgia, the son of a Chinese laundryman in New York's Chinatown, a Texas white school teacher and a coast of Maine fisherman, is obviously of a very special sort, and is quite different from the sort of regularity which might be expected to be found among members of an isolated tribe in the South Seas or an isolated mountain community in Switzerland or Tennessee. However, it must be recognized that in certain contexts all of these individuals will be expected to fit into a common framework - as for example when they vote, pay their taxes, attend the public schools, listen to the radio, and serve in the Army, respond, in fact, to demands which are made upon them and opportunities which are given to them as American citizens. The language which they speak in these nationally defined contexts will be English, and, however varying the syntax, vocabulary, and degree of correctness with which it is spoken, it will nevertheless be describable in terms of the recognized structure of English grammar. Bad English is still more like English than it is like some other historically related language, such as German or French. The conceptions of behavior to which ~~their~~ behavior will be adapted will be American conceptions - of the school child, the tax payer, the draftee, the member of a football team or the spectator at a baseball game. The expectations which they meet in those persons who mediate these situations - the teacher, the tax collector, the draft board, the football coach, will again be American expectations which will serve to mould and modulate their behavior: Those children whose families have taught them extreme obsequiousness to adults will become less obsequious in a setting in which teacher or coach or non-commissioned officer expects a more face to face

attitude; those individuals who have been reared in local settings requiring extreme touchiness and a jealous concern for honor, will find this behavior inappropriate. The results of such experiences will be that large crowds of Americans which are genuinely heterogeneous in character and not unduly weighted by one regional or class or ethnic group will show regularities of behavior. Equally, groups of Americans, who can be defined in terms of membership in some sub-classification of the culture, either because they have a common European derivation, a common class identification, or a common regional background, will also show identifiable regularities in behavior.

That is, while it is fairly easy to discriminate the behavior of a group of trade unionists in Birmingham, Alabama, from the behavior of a group of trade unionists in Bangor, Maine, it would not be equally possible to discriminate the behavior of two trade union groups whose membership was drawn from the South as well from the North; however, if the individual members were studied in detail, characteristics which could be attributed to having grown up or lived in Alabama and in Maine would still be present. Similarly, a middle class American group - whether from the south or the east or the far west - will be found to have certain characteristics which differentiate it from other classes whether from the south, the east, or the west, although these characteristic differences will be expressed in regional terms which themselves will differ from one region to another.

These "national" characteristics will not only be most identifiable in mixed groups acting within contexts which have a nation-wide distribution - buying in a drug store, filling out an income tax form, applying for a job, reporting to a draft board, watching a ball game - but will also be most conspicuous when they are contrasted with the behavior of comparable groups from another nation state, such as the United Kingdom or France. Thus, any

American tourist abroad becomes easier to identify as an American than he would be in the United States, and groups of tourists, students, soldiers, a ship's crew, a visiting team, exhibit, in the contrast situation, behavior which is readily identifiable.

As this type of nationally regular behavior occurs most conspicuously in those situations which can be referred to Federal regulation - such as the conduct of the Armed Services, or to nationwide cultural usage - such as speaking English, and accepting a religious framework which regards the world as divided among Catholics, Protestants and Jews; the dollar monogamous marriage, wage labor, compulsory education, etc. - it becomes most useful to take into account national character, in preference to those regularities which may be referred to class, region or ethnic or religious background, when we are dealing with such contexts.

The regulations and practices of the Armed Services are national in character, and, with the exception of the way in which the participation of Negro Americans, or Japanese Americans, was handled in the last war, they present common expectations to all enlisted and drafted men. In all contexts, therefore, when we are concerned with groups of men, and women, in the services "national character" is relevant: in the relations between officers and men, between units, morale considerations during training and combat, behavior on larger and smaller craft, behavior in regard to furlough, discharge, etc.

Sub-categories of culturally patterned character become relevant under the following conditions:

1. Whenever individual, as distinct from group, behavior is to be dealt with:

At the recruiting station where it is important for the examining officer to take into account the differential types of literacy to be found in a boy from the rural southern mountains and from the New York Bowery, and where it

is necessary for the psychiatrist to know something about the differing attitudes towards violence and sex in different parts of the country and in different ethnic groups; in all matters of discipline where the urgency of a stimulus to go AWOL, or to become involved in a bar-room riot, must be related to the class, region, and ethnic background of the individual service man; in selection of individuals for special types of training - for officer training, Commando training, etc.; in the diagnosis and treatment of individuals showing somatic and psychoneurotic symptoms - for a fear of being stabbed in the back or shot by the brother of a girl one has seduced, may be paranoia in an individual of one background, and normal cultural expectation in an individual from a different background.

In all of these situations it is of the utmost importance that the individual who is to be examined, diagnosed, recruited, disciplined, selected for special training, or treated for combat fatigue, etc., should not simply be categorized as an "American", but that all of these other factors should be taken into account.

It may be said categorically that the more regularities in American national character are taken into account in any plans involving groups - such as the modification of naval and military traditional officer-men relationships (which have a long pre-American history in European tradition), or the handling of promotion or demobilization, the smoother the functioning of the Armed Services may be expected to be; and the less such regularities are invoked where any given individual is concerned, the smoother the functioning of the Armed Services may be expected to be.

Americans as a whole will share the same beliefs as to when emergency leave should be given - whether for the death of a close relative, to get married, at the birth of a child, etc. But Americans from the Southern Mountains, Americans of Syrian background, Puerto Rican Americans, etc., will

make highly different individual and personal definitions of whether these general American regulations are relevant, binding, permissive or restrictive, in their particular cases.

2. In planning any structure in which diversification within the nationally set up pattern is possible:

For example, if there are to be special dispensations for holidays, it is possible either to make a standard definition of holidays as national American holidays - such as Thanksgiving, Christmas and Easter - or to provide certain dispensations for religious holidays which will take account of the different holidays of Roman Catholics and Protestants on the one hand, and Jews and Greek Orthodox Catholics on the other. (The widening of the traditional American religious groups to include Mohammedans and Buddhists comes under acts which need to be taken into consideration in the Armed Services primarily because of their repercussions among minority groups in the civilian population or in international relations.) So, for instance, during World War II, point rationing of meats made it possible to take the great regional and ethnic differences in meat preferences into account, without making specific provision for kosher killed meat, or Southern rural preferences. Point rationing was at the same time congruent with the "American" preference for the exercise of individual choice, and proved in actual practice to be congruent with American distribution habits which were such that it is questionable whether the ration could ever have been met if it had been set up on a commodity basis as in Britain.

Analysis of situations of this sort suggest that the systematic provision for cultural differences - ethnic, regional, class, and religious - results in the development of national patterns which are themselves "American", because of the extent to which American culture represents institutionalized adjustment to the great diversity of ethnic stocks which have been and are

now contributing to the American population. An example of such an adjustment is the cafeteria, where different combinations of foods can be made, and condiments are handled separately rather than incorporated in the food. Another example is the wide range of choices of objects within a narrow style range, in such matters as clothing, so that differences among individuals, which can be attributed to their backgrounds, can still be expressed while a high degree of uniformity from coast to coast is obtained. The "American" demand that everyone should be treated the same way, and that there should be no exceptions and no favoritism, combined with the actual circumstances of extreme diversity within the American population was solved by the use of voluntary and local draft boards, a solution which was American in style, but which also made it possible for the local draft boards to deal efficiently with local groups of different national backgrounds, and with local regional differences.

3. In building up special services, such as Commando units, intelligence units, etc., in which specific qualities are desired at a higher degree of concentration than can be expected to be found in any group drawn at random from the general population:

There are several ways in which sub-cultural relevance of this sort can be taken into account: A special branch of the service may be inspected for its historical composition (of Texans, of lumbermen, of Minnesotans of Scandinavian extraction, of steam riveters or miners, etc.). Where there has been marked differential enlistment or inservice selection of this sort, this may be subjected to analysis to find what factors in the regional, occupational or ethnic backgrounds of the group which have historically predominated, were involved. Or, national guard units which had shown markedly different combat characteristics might be subjected to similar analysis. Depending upon the results of such an analysis, a working directive could be developed which

might list the special regional or ethnic or occupational experience element desirable for purposes of special recruitment and reassignment and selection, or some element of behavior which had been found characteristic of this historically selected group - such as "experience with horses" or bilingualism could be included in selecting from the general population.

This latter procedure - that is, of making a final selection from the general population - is safer because special units with narrow regional or ethnic definition are sufficiently discrepant with the general style of the American services to arouse difficulties, in internal morale and in the attitudes towards those units of members of other units. Any type of selective segregation, except that based upon a type of merit which is believed to have been open to all, will be resented within the general American pattern. So the recruiting of intelligence units from those with bilingual ability will not have the same bad effects on morale as selecting Jews in large numbers for such services would have.

4. In public relations with civilians:

The individual serviceman of Czech background may adapt himself so well to the general American pattern that no special allowance need ever be made for him, even at his induction, or for the circumstance that his parents were Czech born and not Americans of several generations standing; nevertheless his parents will in all probability form part of a Czech-American community, who will display very marked behavior patterns which are Czech-American and not general American. There will be responses to a selective service act, methods of recruitment, ways in which the honors and medals are given, handling of the news of death, etc., which will be special to Czech-Americans and which should be taken into account in terms of public relations - when, for example, a Czech-American service man is to be specially honored, especially if the honor involves posthumous presentation to his family group.

5. In international public relations with allies:

Consideration needs to be given to the position of specific ethnic groups in this country as typified by their treatment in the armed services, in terms of segregation, assignment to specially arduous duty (Japanese divisions in Italy in World War II), exclusion from specially desirable branches of the service (rumors about different degrees of anti-Semitism in different services, for example), differential position of special religious groups (rumors about the predominance of Catholics in special branches of foreign service owing to emphasis given to training for foreign service in Catholic institutions), differential treatment of conscientious objectors drawn from religious groups with membership in different countries (e.g. Jehovahs Witnesses), treatment of American citizens who come from an ethnic group whose homeland is now in an enemy or potentially enemy camp (e.g. differential position of Italians in World Wars I and II; and of Chinese in World War II and during the present National Emergency; of Czechs and Poles in all three situations, etc.).

In all of these contexts the primary consideration is one of political and psychological warfare. Moves made within the Armed Services, in conformity with general American patterns - such as keeping intact a national guard unit which was almost entirely composed of some ethnic minority group that was in one of the critically relevant international situations - may well be at variance with the demands of the wider situation.

6. In morale within the services, due to the general American treatment of class as a negative and exclusive concept and of equating less assimilated and identifiably foreign groups as lower class.

In the American class structure one's own position is endangered if the signs of class membership, type of job, place of residence, etc., are shared with others who are thought of as lower class. In such circumstances, the

effectiveness of those who think of themselves as losing status by the association may be lowered, while the effectiveness of those who feel they have made corresponding gains, may be raised. The initial effects therefore of officers from a group who are accorded lower status may be a lowering in morale. However, there is a compensatory element in American culture - the ethic of equalitarianism - which makes all such changes initially feared, especially when not yet consummated, but rather quickly accepted once they have been consummated without any overt incidents.

II. Theoretical status of the "national character" approach

Essential to the "national character" approach is the concept of culture, namely that the traditional learned behavior of a group is systematic, and that the systematic aspect can be referred to the biological nature of the human beings who, in human societies, transmit, borrow, change, and innovate in terms of an historical tradition. Those disciplines or approaches which do not integrate their treatment of society or history with the nature of its biological carriers, find it difficult to follow the national character approach.

Within the theoretical structure which allows for this common biological nature of human beings, there are certain other assumptions which are essential

(1) All known forms of cultural behavior can be learned by non-defective members of any race, and differences between different cultures and between different societies at different periods are not to be attributed to the race of their members.

(2) Human growth follows certain regular patterns within which individuals differ only within defined ranges, so that understanding of growth gained from the study of development, maturation and involution in one culture can be used as part of our theoretical equipment in interpreting behavior in other cultures.

(3) Each group of human beings shows wide individual differences, many of which must be attributed to heredity, but there is no evidence that this range of individual differences differs significantly as between societies, except to the extent that it is effected by sheer population size (e. g. the chances of either very high or very low hereditary endowment will differ significantly as between groups in which n equals 500 and n equals 5000.)

(4) Human behavior is patterned and explanations are to be found in comparisons between patterns and not between single items.

(5) Cultural behavior is learned and unlearned, and experimental studies of learning which have been found applicable to human learning may be used in interpreting cultural behavior.

(6) Human personality is persistent throughout the life history as an individual so that previous experience will condition - in some fashion - later experience.

(7) In the course of growing up within a society certain experiences are excluded from consciousness - and are not accessible by the same means of exploration as others, and the theoretical framework of psychoanalysis as applied to the symbolic productions of individuals, may, with suitable modifications, be applied to an interpretation of the symbolic productions of whole cultures, e.g., folklore, literature, films, ceremonials, etc.

III. Some Criticisms of the National Character Approach

Theoretical discussion and criticism of the approach may take off from a refusal to accept any one of these bodies of theory; the disallowance of any one is in effect a disallowance of the method, although historians and sociologists who make no systematic allowance for man's biological make-up, except in gross or inexplicit ways, may often come to very similar conclusions about the emphases of a culture or a period - because they are using essentially

the same materials.

Criticism of the approach takes the following forms. In addition to the rejection of the working assumptions of cultural anthropology, studies of human development, and psychoanalytic psychiatry:

(1) The statement that the culture and personality approach derives cultural institutions from childhood experience. (This is a point of view which is principally associated with Kardiner's work. Some anthropologists have given heavy weight to an understanding of the early developmental years as a clue to the cultural emphases, but the national character approach does not regard the early years of childhood as the source of the cultural forms, but rather as an essential and revealing aspect of the whole process of cultural transmission.)

(2) The statement that there is no experimental evidence that single elements in the pattern of learning which students of national character have used in their delineations produce the specified effects, for example that swaddling (Olansky and Kenneth Little*), weaning, and harsh eliminative training invariably have certain effects in adult life. There are students in this field who are attempting to show such systematic one-to-one relationships (Whiting*). However, the national character approach as used in this memorandum is based upon an interpretation of learning as a patterned experience in which each item must be evaluated as part of a whole. For example, the proponents of this one-to-one effect would insist that the practice of swaddling Russian infants could not be made part of the theoretical apparatus for the interpretation of Great Russian character unless it could be shown that swaddling always, everywhere, produced comparable effects. But the approach of this memorandum is based simply upon the analysis of swaddling as one particular way in which Russian infants learn to be Russians, assuming that they could learn in other ways and that swaddling, administered in other

*See bibliography

contexts would have different effects.

(3) The statement that the national character approach is a reduction device by which the historical complexities of great and diverse cultures are given a false simplification. To the extent that the emphasis of national character studies is upon the delineation of a limited set of dynamics, this is true, just as the description of an individual in psychiatric terms does not make allowance for the rich content of his life, or of a language in terms of its grammar gives no hint of the richness or poverty of the vocabulary. It is this aspect of the approach which makes necessary the following caution: the prediction value of a national character statement increases with the number of members of a culture involved and the length of time over which some event takes place. While the special capacities of any given individual, or the special nature of some event - such as a riot or a purge or a rebellion - should fall within the regularities of the national character, it should not be expected that they can be derived from them.

(4) That this approach is appropriate in the understanding of homogeneous and relatively slowly changing communities but is inadequate to any understanding of complex modern rapidly changing communities. While it has been possible to demonstrate that there are class, caste, regional and occupational differences, and differences among members of different generations, within these larger cultures, no convincing demonstration of a deviance which can not be systematically related to the regularities of the wider culture, of which the sub-culture is a part, has yet been made.

The principal methodological criticism with which proponents of the national character approach themselves identify, is that the only means which have been available to date for validating their findings have been historical predictions, such as the predictions which were made about the Japanese people if the Emperor was preserved, which necessarily can not be experimentally

tested by reversing the conditions. In the preparation of this memorandum, the findings in the four volumes of Studies in Social Psychology in World War II, which were empirical studies pursued without any national character assumptions, have been used as a cross check on those propositions which are presented here about the American character. Only such propositions as are not called in question by any empirical material known to the authors have been included.

The study of national character and findings concerning the national character of Americans, Englishmen, Frenchmen, Chinese or Great Russians, must be recognized as an applied science, pursued because human societies are at present organized as nations, and therefore the regularities within the characters of all their members are relevant to the conduct of all nationwide and international enterprises.

B. American National Character Structure

R. Metraux

I. Introduction: The Army Situation

This section will present in brief outline aspects of American character structure that are especially relevant to problems of adjustment in the Armed Services, particularly the Army, in order to provide a framework for discussion of the material on other ethnic groups. Wherever possible, illustrations will be taken from recently published and unpublished sources on American servicemen.¹

Discussions of the problems of servicemen and the statements of the servicemen themselves continually refer to differences between civilian and Army life - especially to those institutional arrangements that require contrasting types of adjustment. Explicitly and implicitly, such discussions emphasize the contrast between those who at any given time are inside or outside either group. Explicit contrast is indicated in the content of behavior analyzed by those who have made formal studies of servicemen. The contrasts are implicit in servicemen's comments about "shot talk" and soldier vocabulary - which it is assumed may be partly incomprehensible, partly too tough for the civilian to take. Acid comment on the susceptibilities of civilians is the theme of at least one soldier song:

Civilian ears are tender
And soldier songs are crude
And if some woman heard you sing
She'd think the Army rude.
So button up your lips, my lads,
And trudge along unheard;
A soldier's just a bloody brute,
He's not a goddam bird.(2)

¹See pp. 210-13 for selected bibliographies on American Character Structure and on American Servicemen used for purposes of this study.

²Edgar A. Palmer (editor). G. I. Songs, New York, Sheridan House, 1944. p.66. This collection makes constant reference to verses or words deleted from songs for reasons of civilian censorship. Likewise in the introduction to The Best From Yank there is reference to the incomprehensibility of soldier talk and soldier thought to the civilian.

Frederick Elkin, in his article on "The Soldier's Language"³, comments on the difference between the popular idea of soldier language and "the real thing", and suggests that the special language of the soldier (like that of other masculine groups in American Society) tends to support group solidarity, setting the men apart and exaggerating this separation from a world that includes women and the standards of behavior taught by women.

In The American Soldier, contrasting institutions in the Army are summarized as follows. The Army differs from civilian life in

1. Its authoritarian organization, demanding rigid obedience.
2. Its highly stratified social system, in which hierarchies of deference were formally and minutely established by official regulation, subject to penalties for infraction, on and off duty.
3. Its emphasis on traditional ways of doing things and its discouragement of initiative. (4)

and furthermore

...within white civilian American society, there is no yawning social chasm as that separating enlisted men and officers in the Army.

...The nearest analogy in civilian life would be that of the social relations of whites and Negroes, especially in the South...witness the often used phrase "caste system" to describe the Army. (4)

And Henry Elkin writes:

...As soldiers, they entered a peculiar social organization which required them to alter radically the images they had of themselves and the values by which they lived and which imposed restraints, and offered occasions for the release of impulses and feeling, very different from any they had previously known. (5)

One reaction was a tremendous emphasis on values associated with the ideal

³ Frederick Elkin. "The Soldier's Language". American Journal of Sociology, 51-5, March 1946 (414-422), p. 414.

(4) Studies in Social Psychology in World War II, 4 volumes. Princeton University Press, 1949-1950. Vol. I, The American Soldier, pp. 55, 56. In footnotes in this study, we shall hereafter refer to the volumes by the title of the particular volume.

(5) Henry Elkin.American Journal of Sociology, 51-5, March 1946 (408-413), p. 408.

of virility, e. g. toughness, defensive irritability, aggressiveness, self-assertion, impudence, drinking, profanity, the use of "dirty" words that reflected the absence of "Mom and teacher"⁶.

We're the lusty sons of the Seventy-Ninth,
We love to drink and we love to fight,
We love our arms around a skirt
And pity the guy who does us dirt.
We're rough and rugged, plenty of guts,
We'll drive those Nazi bastards nuts,
We're a bunch of cussin' heels,
We take rat poison with our meals.
We like our gin and plenty of gash,
To hell with Sargie's corned beef hash...

We'll win this war in two minutes flat,
To hell with you if you think that's crap,
'Cause we know what's right and we've got the night.⁷

Included in this emphasis upon virility there was considerable anxiety about and rejection (often explicitly expressed) of over-passivity, on the one hand, and sycophantism, on the other - any inability to take it and lack of solidarity with the group both being phrased in passive homosexual terms. In The American Soldier, the point is made that a man could admit and show fear (a point which is stressed continually in the accounts appearing in Yank) without being branded as a "weak sister", but only "so long as it was clear that he had done his utmost". A soldier is quoted as asking: "Whatsa matter, bud - got lace on your drawers?" And a veteran of North Africa contrasts the failure with the real soldier:

...but he never was a soldier - did typewriting, ran errands for officers. He was a suck-ass for a colonel, not a real soldier. A real soldier is a guy - he'll drink and swear - but he relies on himself; a guy that can take care of himself.⁽⁸⁾

A diary is quoted in which the writer describes how climbers were sometimes

6

Ibid. pp. 410-411.

7

GI Songs, Op. cit. pp. 156-157

(8) The American Soldier, Volume II, p. 132

publicly treated, e. g. "Everyone chorused and made loud kissing, sucking noises at him as he walked down the aisle, which made Lt. C laugh, but K seemed not to have heard."⁹ And again, in regard to promotions, the farewell editorial of Yank is quoted:

... and let's put an end to the ridiculous sight of capable young officers prancing around their CO like so many newly rich women around a reigning dowager... (10)

At the same time, a whole vocabulary developed during the war that reflected the attitude that the soldier was someone acted upon (e. g. selectee, draftee, returnee, etc.)¹¹

and Elkin comments that

American men ... did not think of themselves as "toughboys", "Tommys", "Poilus", or even as "soldiers" - terms which imply individual human qualities and positive values - but as "G.I.s", i. e. Government Issue, each with a "dog tag" around his neck. The individual soldier thus saw himself as an item of mass production along with G. I. clothing, rations, and other materiel". (12)

So, in a song listing various G. I. objects:

Tie us neatly in red ribbons
Wrap us well in Christmas tissue
'Cause we're Uncle Sammy's pride and joy!
Strictly Government Issue! (13)

Yet "G. I." was said "with a sense of pride" and indicated a feeling of solidarity among those to whom it applied.¹⁴ Accounts of combat all over the world, wherever the services took the men and wherever reporters followed them, are full of the names of individual men -- each with his name, his rank, his nickname, some incident about him and the hometown from which he came. Wherever he was, the individual kept his identity intact - with his double relationship to his unit and to his home implicitly acknowledged. The diversity of the men

⁹The American Soldier, Volume I, p. 266.

(10) Ibid. p. 275

¹¹ George Herzog, unpublished lectures, 1947.

(12) Henry Elkin, op. cit. p. 408

(13) G. I. Songs, op. cit. p. 40

¹⁴ Frederick Elkin, op. cit. pp. 418-420.

who collectively were "G.I." was apparent to the most casual reader.¹⁵

As reported in the American Soldier the endless and continually growing volume of griping among soldiers, enlisted men and officers alike, centered on the slowness of promotions, on the manner in which promotions were (and were thought to be) given - (this in spite of the fact that between July 1940 and June 1945, 857,767 men were commissioned as officers¹⁶ and by VE Day "nearly three and a half million enlisted men - half the enlisted strength - had acquired non-commissioned officers' chevrons)¹⁶; on the relatively privileged position of officers vis-a-vis enlisted men, of white servicemen vis-a-vis Negroes; on the relatively deprived position of a whole series of groups, etc. The authors of The American Soldier developed a theory of "relative deprivation"¹⁷ --summing up the outspoken tendency of men, in whatever position, to feel that they were worse off than others (e. g. the married man who had made "greater sacrifices" in induction than either the single man in the Services or the married man who was not inducted) or that others were better off than they. The enlisted man - officer contrast was typically stated by the enlisted man:

[officers are entitled to] respect and privileges, but not jeeps, gas, whiskey, women...

[officers] can do no wrong...

whereas the Negro - white contrast is typically stated by the Negro:

Why aren't Negro soldiers given the same chance of advancement...

Why can't Negroes have fine things like the white boys...

giving a reverse-coin view of the deprivation picture (i. e. why should others have more vs. why shouldn't we have the same.)

But the two are linked in statements that

15 The Best From Yank the Army Weekly. Selected by the Editors of Yank. New York, E. P. Dutton and Co., 1945. Passim.

16 The American Soldier, op. cit., Volume I, pp. 232, 243.

17 Ibid. pp. 125, 172, 215, 250 and 256, 257, et passim.

[officers] treat enlisted men like slaves

the enlisted man is just a man to clean up his dirt and take what's left over (and from a Negro soldier) Why are we in it - we don't have any rights.(18)

It is significant that when officers were asked whether enlisted men's promotions went to the men who were most deserving, 81% (sample of Infantry divisions training in the United States in 1944) thought that they did. (In these same divisions only 36% of the enlisted men thought that enlisted men's promotions went to the most deserving.) But when officers were asked about officers' promotions only 54% thought they went to the most deserving.

...The evidence accumulated shows that when officers were appraising their own promotion situation, they were very nearly as likely to be critical as were enlisted men viewing their own chances...(19)

And in the same manner, white soldiers tended to think that Negro soldiers were satisfied with their situation in the Army (which is in sharp contrast to both the white soldiers' opinion of their own situation and the Negro soldiers' opinion about their own situation). Thus, it would appear that the usual emphasis is upon own relative deprivation, within a group less privileged than oneself.

Thus in making comparative ratings, there was a tendency to see oneself worse off than someone else - to be relatively deprived. But the whole comparative position was succinctly stated by a Navy veteran when he said:

When we were in back of the combat zone we used to think we were better off than the men up in front of us and worse off than the men behind us. (20)

And in a poem, a sergeant in Australia uses the double comparative to state a dramatic reversal:

18 Both groups of quotations from The American Soldier, op. cit. Volume I, pp. 213, 505.

19 Ibid. pp. 280-281

20 The Best From Yank, op. cit., p. 84

...We're a motley, rugged, crumbly lot,
 No subjects for a Sunday supplement:
 But somehow, I don't think a man of us,
 Deep down within his heart, would trade his place
 With fortune's darlings in the Stevens lounge.
 We're "in" the thing, you see - not quite as much
 But something like - our buddies at Bataan,
 Corregidor, the Solomons, and Wake;
 And because we walk in shabbiness - unkempt,
 Ungroomed - and live with pests, and breathe
 red dust
 And thirst and bake in searing heat, and drown
 In tropic rains - like them - we're fiercely
 proud...(21)

Thus the full position is a comparative one, but one that includes relative
privilege as well as relative deprivation - at least as a possibility. For
 instance, a veteran, both of whose legs had been amputated (and who is married
 to a nurse who had lost her arms), is quoted as saying:

Don't sympathize with me. At least I've got my arms. You
 should see those guys in the hospital - lying there without
 any legs or arms. (20)

The tendency to dichotomize groups, to polarize attitudes - in this case
 to form contrasting "we-they" groups, to set up identical contrasts between
 "us" and "them", is a characteristic trait of Americans, no less in the Army
 than in politics, in labor situations (the AFL vs. the CIO, business vs.
 labor, etc.), in relation to Government (Congress vs. the President, Govern-
 ment vs. the public, etc.), in sports, and so on - pitting against each other
 groups - different hierarchical levels as consistently as groups of near equals.

The Infantry, the Infantry,
 With dirt behind their ears,
 They can whip their weight in wildcats
 And drink their weight in beers.
The Cavalry, the Artillery,
The lousy Engineers,
They couldn't lick the Infantry
In a hundred thousand years!

And the editors' comment to this song is: "By switching the names of the

20 Unpublished interview

21 The Best From Yank, op. cit., p. 84.

services around a bit, this noble ditty serves almost any branch.²²

Though disgruntlement characterized every group, griping was in certain respects most vehement among those who, in terms of performance, were the most satisfactory soldiers, i. e.

...the better educated tended to become the most successful in the Army, as measured by promotions, and were least likely to be found among deviants such as AWOL's or psychoneurotics, but, though high in personal esprit and personal commitment, they were - at a verbal level - low in satisfaction with their job and status and in approval of the Army. (23)

The relevance of childhood and young adult experience to adjustment to Army life is stressed throughout formal discussions of the serviceman. Thus, summarizing a study of reported childhood experiences, it is said:

...stable home background, a healthy childhood, good work habits in school, and association with other boys and girls, including participation in sports, were assets. (24)

And again, the factors of marriage and fatherhood were found to be significant factors in morale:

...The married men were low, relative to the unmarried, on personal esprit and personal commitment,...

✓The relative differences in response between married and unmarried men tended to remain the same overseas and at home. Fathers, with other variables constant, tended to be somewhat less favorable on personal commitment than other married men. At the end of the war, however, fathers had somewhat more favorable attitudes towards the Army than either married men without children or single men. (25)

The relevance of educational achievement - especially the differences between those men who had only grade school education and those who had completed high school or more - is continually emphasized in analyses of adjustment to Army life. (But, according to one survey, education was not considered to be one of the deciding factors in promotion by the men themselves - irrespective of the educational level of the individual respondent.)²⁶ There can be

22 G. I. Songs, op. cit. p. 129

23 The American Soldier, op. cit. Volume I, p. 102 and passim.

(24) Ibid. pp. 133-144.

(25) Ibid. p. 108-110.

(26) Ibid. p. 270

little doubt that in the American Army of World War II, those who were most able to conform to contemporary educational standards of preparation for civilian life, by and large, were also those who were most successful in (though on occasion most critical of) the Army. The myth of Sergeant York, like the myth of the happy-go-lucky Negro, was shattered when the man himself was appraised. The myths live on, however, in the minds of the men - in their songs about themselves and their beliefs about others.

In another context, it was found "that the men whose attitudes were most conformist were the ones most likely to be promoted subsequently...the same consistency appears...for high school graduates and college men and in two of the three samples for other men."²⁷ But the desire to gain status - to become officers - was directly related to the educational level achieved,²⁸

Including the picture of the contrast between Army life and civilian life itself, the characterizations of the American soldier briefly mentioned here, and the ways in which the Army handled its problems (e. g. the steadily increasing number of men who were promoted in the course of World War II, the constant sampling of the men to learn their own opinion, etc.) are to be referred back to more general American attitudes - expectations about behavior - that reflect American character structure.

Because - in spite of regional, class and ethnic differences - expectations about the family and the experiences of children are those most commonly shared by Americans, and also because the presentation of the material in this form will highlight likenesses and differences between the expectations of Americans and other ethnic groups, the data on American character structure will be stated largely in terms of child rearing in the family, followed by some more general statements of themes relevant to American character structure.

27 Ibid. p. 263.

28 Ibid. Table 5, p. 240.

II. The American Family¹

The following propositions represent a series of expectations about the families in which Americans grow up. Individually, there are large and small families, families who live doubled up with relatives and others with broken homes, progressive parents and conservative ones, strict and lenient mothers, fathers who are tough and others who are good guys, children who get along with each other the way kids ought to and some who are always fighting. The characteristics that matter (e. g. the composition of the family, who is present or absent) and the descriptive terms that cluster around them (e. g. large-small, progressive-conservative, strict-lenient) are ways of describing what the expectations are and the extent to which a particular family conforms to the expectations.

1. The American family consists of a two generation group: a married couple and their growing children, commonly pictured as a boy and a girl, of whom the latter may be slightly the elder.

These are the relatives who appear in soldiers' songs, e. g.

My My sister, she works in a laundry,
My father, he fiddles for gin.
My mother, she takes in washing --
My God, how the money rolls in! (2)

and

...A visit with Ma, with sister and Pa,
A soldier boy's dream of heaven... (2)

and

Perhaps you have a mother,
likewise a sister too,
And maybe you have a sweetheart
to weep and mourn for you... (2)

¹For a bibliography of published materials on American character structure, see pp. 210-213. Except where an author is directly quoted, the detailed points in this section are not footnoted. There are, however, footnote references to unpublished reports, some prepared for the purpose of this memorandum, and to related materials.

(2) G. I. Songs, pp. 161, 33, 133.

2. The family lives by itself - in an urban apartment, a suburban or rural house of its own - apart from parents-in-law and other relatives - in a different neighborhood, in another town or region of the country.

Relatives are welcome visitors in one another's homes, but homes do not provide living space for long-time guests (the guest-room may serve a double purpose, or the guest-bed may be a convertible couch in the family living room) or for such outsiders as servants.

3. The family is expected to be economically independent with the main responsibility for support falling upon the man, and for home-making and the rearing of the children upon the women. The family group is not expected to receive assistance from parents-in-law or other relatives nor is it expected to make financial contributions to the living of kin.

Common exceptions to this situation are elderly widows who may live with and help or be helped by a child and widows and divorcees with young children who may move in with some other relative. (3)

The stress upon having separate living arrangements and upon economic independence have important repercussions upon attitudes towards military service among both men and women. In a recent qualitative study of attitudes towards "drafting everyone" and another of attitudes towards setting up "different criteria for drafting different groups", men and women interviewed stated that special consideration should be given to fathers (family men, fathers with large families, men supporting large families) as against single men; those who thought that women should be drafted now or "in an emergency" said that mothers should be exempted because "their children need them" or that only single women should be drafted or allowed to volunteer.⁴ The relationship between marriage and fatherhood and personal morale and personal commitment among servicemen in World War II has already been referred to (see above p. 25).

(3) Margaret Mead. Male and Female, New York, William Morrow and Co., 1949, p. 326. For an extended statement of the implications of this style of family living, see Chapter XVI, "Each Family in a Home of Its Own".

⁴ Unpublished study based on approximately 500 interviews and written statements collected between mid-December and mid-February 1951, analyzed by Rhoda Métraux.

4. Both parent are regarded as necessary to the upbringing of the children, but while marriage is entered into "for life" it is also (except among certain religious groups) regarded as terminable by either partner. As divorce may involve the re-marriage of one or both parents, children of divorced parents may have "two homes" rather than a "broken home".

Problems related to the family - to the fidelity of husband or wife or sweetheart, to illness and death in the family, to the care of the children - were a major source of concern to servicemen and civilians alike during World War II. They have been widely reported in a great variety of sources.

Data in The American Soldier from servicemen's reports of their own childhood experience indicate that "of the high school graduates 16% came from homes broken by death or separation before the respondent was 16 years old; among the non-high school graduates, 25%. The data here suggest that "broken homes" was not a factor in adjustment to the army, for there was a negligible difference in the percent of those from broken homes between those men regarded as Best Adjusted (21%) and the Psychoneurotics (27%) and the AWOL's (24%)⁵.

5

The American Soldier, op cit. Volume I, Chart VI, p. 133, 134.

Theodore Lidz ("Psychiatric Casualties from Guadalcanal: A Study of Reactions to Extreme Stress" in Psychiatry, IX: 3, August 1946, pp. 193-213) in his discussion of the breakdown of Marines who had had excellent adjustment to combat conditions until they were subjected to extreme and very prolonged deprivation and stress, found that two-thirds of the initial cases eventually said that they came "from homes that were disrupted by separation of parents, marred by the death of a parent, or by severe alcoholism or insanity of a parent."

This is a more inclusive list than that in The American Soldier material, and refers not to a larger population but to statements made only by those who were casualties - and casualties in a specific situation. The data therefore are not necessarily as contradictory as it would at first appear. A number of different studies have demonstrated how historically disparate factors, united in the same person, result in a variety of syndromes, see for instance

Hilde Bruch and Grace Touraine. "Obesity in Childhood, V. The Family Frame of Reference." Psychosomatic Medicine, Vol. II:2, April 1940 (141-206).

Sheldon Glueck and Eleanor T. Glueck. Criminal Careers in Retrospect. New York, Commonwealth Fund, 1943.

David Levy. Maternal Overprotection. New York, Columbia University Press, 1943.

5. In the family it is chiefly the mother who is responsible for insisting upon a styl of acceptable behavior, who is the disciplinarian and the arbiter of who and what is right and wrong, good and bad for the children. It is the mother who decides upon the duties, accords privileges and metes out rewards and punishments. Thus it is the mother who chiefly cares for the infant, teaches the small child regularity, self-control and will power, initiative and self-assurance as it learns to eat properly, is toilet trained, learns to walk and fend for itself in a room full of objects and a playground full of other children; it is the mother who makes demands upon the children - that they progress in the right direction, that they respond, that they succeed in meeting the demands upon them made by the school, the neighborhood and their age mates; it is she who punishes by withdrawal of affection and rewards by giving affection, by her satisfaction and praise, by the privileges she accords.

6. The father is rather a capricious punisher and admirer of his children - in relation to his sons poking them towards assertive maleness and sometimes fraternally allying himself with them against the mother on the side of maleness (which becomes defined as escape from women and woman set standards into sloppiness, relaxation to lower class standards, enjoyment of stag parties and so on, as well as appreciation of toughness and touchy aggressiveness, etc.). In relation to his daughters the father rather enjoys being affectionately pushed around (being made a sucker in a good cause, giving in to the daughter against the mother); he hopes his daughter will work at being attractive and will display qualities of "leadership" and "initiative" - but not too much.

This means that good behavior and the desirable states that go with it (good health, efficiency, respectability, etc.) and the rewards that come with success - affection and regard and privilege - are regularly linked with women-taught standards of propriety and well being for both men and women.

For the boy it means that standards of behavior are set without specific content (so the mother teaches him when to fight, but not how to fight: that sports are good, but not how to play games). The specific content learned from the father may be at variance

with the standards set by the mother. It means that there is ambivalence between "good" behavior that is related to "ethical" behavior and "responsibility", on the one hand, and "good" behavior that is related to maleness and a sort of conspiracy against women, on the other. So he must find ways of striking an acceptable balance between virile behavior and the behavior on which success is based in his own and others' estimation.

For the girl it means that there is congruence between feminine and "good" behavior; from her mother she learns that it is she who sets the style and from her father she learns that it is she who sets the pace and the limitations upon his indulgence. (6)

It is evident that, for the boy, the Army is expressive of male standards backed by the father. The principal expectations of the father, expressed in such phrases as "Be tough and do tough things" or "Show them you can take it" or "Stand up to him and fight" or "Don't be a sissy" or "Roll up your sleeves and show them" are the qualities that, among others, make a good fighting man and are expressly admired by other soldiers. Goldbricking (when it does not adversely affect the welfare of the group) is acceptable; "sloppiness" is a virtue applied to one's own group (but a vice applied to others). There is rueful sympathy for the man who tries and cannot quite make the grade (Sad Sack), but contempt for the one who won't try or who lets his pals down (the man with "no guts", the one who is "yellow") and for the sycophant (the "apple polisher", the "bootlicker", the "brown nose", the man who "sucks up" to superiors or subordinates). From their songs, it appears that the men in branches of the services that are regarded as less masculine turn the accusation into a chip-on-the-shoulder - daring anyone else to say what they themselves have said:

Here we go into the file case yonder,
Diving deep into the drawer
Here it is, buried away down under
That snafued stuff we've been searching for.
Off we go into the C.O.'s office
Where we get one heluva roar.
We live in miles of paper files
But nothing will stop the Army Chair Corps. (7)

(6) For a discussion of the theme of the good-bad girl in American culture, cf. Nathan Leites and Martha Wolfenstein: Movies, A Psychological Study. Glencoe, Illinois, The Free Press, 1950.

(7) G.I. Songs, op. cit. pp. 137, 118.

or

What would the Army do without the Engineers?
Can anyone tell me what they would do? (7)

The defensive challenge - as well as the wry humor - is clearly related to the more obvious statements:

Oh, we're the boys from Co. A,
We're not so very neat,
We seldom wash our hands,
We never wash our feet;
We're nuts about the women
We're crazy about the booze.
Oh, we're the boys from Co. A,
Now, who the hell are youse? (8)

Current attitudes towards drafting women, among men and women, reflect expectations of good behavior ("It isn't necessary to draft women, they will volunteer") as well as the demand that women should not be classed with men as "fighters" but should keep to their own sex role -- or at most should replace men in industry or in the "Army Chair Corps". The dangers of women infiltrating the male world of the Army is rationalized as protection of women.⁹ The obvious implication of references to women in the services is that the men are driven to an even more drastic assertion of masculinity, and the non-fighting jobs carried on by men become even more suspect, e. g.

The WACS and WAVES are winning the war
So what the hell are we fighting for? (10)

and

Take down your service flag, mother,
Your son is in A.S.T.P.,
Releasing a WAC for duty
On battle fronts over the sea. (10)

And a writer, describing Infantrymen's pride in themselves, refers to a group who were given a chance to go into the Army service forces and refused to do so because "they were not interested in 'replacing WAC's for active duty'". They looked upon noncombat men as "male WAC's" and "chairborne troops". (11)

(8) Ibid. p. 157.

⁹ Unpublished report on attitudes toward drafting everyone, op. cit.

(10) G.I. Songs, op. cit. "Mademoiselle from Armentiers", pp. 72-77, and p. 89.

(11) Anonymous. "The Making of an Infantryman". American Journal of Sociology, 51:5, March 1946 (376-379), p. 376.

7. The standards in terms of which parents train their children and judge their children's success and in terms of which the children are urged to judge their own progress are set outside the home: the approved model for the child is its own peer group. As the child of immigrant parents turned to teachers and age mates to learn how a child like itself ought to act - telling the mother what these explanations were; as the modern mother turns to the experts to tell her how to care for and what to expect from children born at the same time as her child, compares other children to her own, and her child to these others, it becomes more difficult to judge siblings in terms of each other (especially if they are far apart in age). The child's success in comparison to others close to his age (his peer group) is a validation both of the mother's efforts and of the child's. Hence, mother's love is given or withdrawn, privileges are extended or withheld in terms of the way a child continually measures up to these age mates. Failure to meet the standards not only brings down mother's disapproval, but also creates anxiety lest one be rejected from the very group against whom one should be judged, on whose approval one depends for a sense of well-being, and for whom one is also legitimately a critic and admirer. One sees here one source of the contempt for the man who will not measure up and the empathy for the man who cannot quite make the grade. At the same time, the child who outstrips the group entirely is put in the awkward position (and its parents are put in the awkward position) of possible being given (and of giving) rewards for deserting the group of legitimate judgment. (This is, in soldier terms, likely to be the brown-noser.)

The introjected parental image involves a constant sensitivity to the reactions of those like oneself - which Riesman has insightfully called the "radar conscience" of the "other-directed personality",¹² and which Fromm,

12

David Riesman. The Lonely Crowd. New Haven, Yale University Press, 1950.

looking at Americans from the vantage point of European psychoanalysis, has termed "the marketing orientation" in which, he writes, "the concept of self shifted from 'I am what I possess' to 'I am as you desire me'". About this personality, he writes: "... he is interested in himself, immensely interested in his success on the market, but 'he' is the manager, the employer, the seller -- and the commodity".¹³ What the child learns, under the guidance of the mother, is to find itself and to set its pace and style by a series of approximations made by itself as a member of a group tuned to its members reactions.

The Congressman "with his ear to the ground", the committee "feeling its way", the report of the opinion survey, the advertisement telling "you" what people like you are wearing, eating, making themselves attractive with, each in their way reflect this internalized sensitivity.

Just as the mother is expected to keep up with the times, adjusting her techniques to the newest findings of the experts, so also the business executive, the Army, etc. should be prepared to scrap one style of management for a more effective one:

In a discussion of Marine Corps contributions to the war and particularly the importance of amphibious operations, the following statement is quoted: "My military education and experience in the first World War has all been based on roads, rivers and railroads", General Marshall confessed in 1943. "During the last two years, however, I have been acquiring an education based on oceans..." (14)

Similarly, two reversals in the style of training are referred to in the following quotation:

"The Army has shucked the quaint idea, highly publicized in 1950, of using the polite and gentle approach in making new soldiers. It is back to the service's traditional chewing out technique. The soldier-makers' language is almost three dimensional and generously salted... Recalls - officers and non-coms of World War II - say it is a vital ingredient in soldier processing. Certainly it gets results..." And the writer finishes the article with the statement: "They will be better soldiers, in the opinion of the men who trained them, than the peacetime Army that was rushed into Korea... You will be proud of them". (15)

13

Erich Fromm, Man for Himself. New York, Rinehart and Co., 1947, pp. 136, 77.

(14) Quoted in a review by George McMillan of Jeter A. Isely and Philip A.

Crowl: THE US MARINES AND AMPHIBIOUS WAR. New York Times Book Reviews, February 18, 1951

(15) Meyer Berger. "The Making of an American Soldier." New York Times Magazine, February 18, 1951, pp. 7, 34-38.

8. With the emphasis upon achievement - in which success is rewarded by affection and admiration, so that the child is constantly pushed to the limits of its capacities, and with the emphasis upon own age group as the standard makers, as the pace setters, for oneself (as one hopes to become a pace setter within the group oneself), the permanent focus of attention is upon near equals.

In these terms, near age siblings and age mates among friends are both the rivals to be outdistanced and the group from which one should not move. This means that fighting must be fair and it is better when now one and now the other "wins" - so that each one has some successes to his account. It means that no victory should put one member of the group at a decided advantage - but also that opponents should be evenly matched ("pick on someone your own size" is both a comment to the big boy who fights the small one and a comment by the big one who is attacked by the small one). In these terms, it means that in the rivalry of elder and younger siblings, there is a constant matching up of unlikenesses, comparisons of differences that measure success and determine reward.

So, for instance, in working out a point system of discharge from the Army in World War II, a whole series of different situations were made commensurable with one another - and servicemen argued about such things as how many campaigns argued about such things as how many campaigns ought to be equal to a child, or, on the other hand, whether or not having been in a combat area ought to be equal to having been in actual battle, etc.

It is significant that the point system of discharge was very favorably received on the whole (at the beginning 69% of the men sampled thought it was "very good" or "fairly good", and only 9% thought it was "no good at all"), and the criticisms that gradually accumulated had to do with the way it was carried out (not in terms of "fairness" but in terms of doing a "good job"). It is also significant that own status had considerable effect upon the weight given any one factor (fathers giving preference to fatherhood, those in the services a longer period emphasizing longevity, etc.). The fact that the point system was based upon the expressed preferences of the servicemen themselves (and was supported against the demands of various lobbies and some groups within the Armed Forces) is itself illustrative of the weight of the "peer group" in making decisions acceptable. (16)

(16) The American Soldier, op. cit. Volume I, Chapter XI, pp. 520-543.

Keeping a balance within the peer group puts heavy emphasis upon "doing one's share" - neither more nor less. Doing more than one's share (and so exposing others to the accusation that perhaps they are not acting up to capacity, maybe ought to be doing more) can be accepted and excused in the man who defines himself as a sucker - "I was a sucker, I asked for it" or "I'm always a goat for work..." He is excused in terms of being something of a fool (as sucker is also used for the man who "buys the Brooklyn Bridge") - but he deserves what he gets, if it can be defined as a punishment. Doing more than one's share is inexcusable if the intention is to curry favor or special favors or to expose the others in the group (so the man who stood out in a group in the Army by parading his knowledge in front of officers, as much as the one who was especially obsequious, was accused of "brown-nosing" and "ass sucking", etc.); the punishment in this situation comes from within the group itself. Doing one's share also means not letting the group down - having pride in the group to a sufficient extent and being sufficiently related to the group that "getting a job done" by the group carried one through in spite of personal disinclination.

So, for instance, it was found that generally speaking men were able to resist the physical and nervous strain of heavy bomber duty (signs of which increased with the number of flights) up to the completion of the number of required flights, but there was no feeling that there ought to be willingness to serve after that on the same sort of duty. (17)

Similarly, there was a very rapid alteration of feeling expressed by men in the European Theater of Operations between April 1945 and August 1945. So, in April, 16% of the men sampled stated that they had not yet done their share, and 62% stated that they had done their share but were willing to do more. In August, 81% of the men stated that they had done their share and ought to be discharged and only 16% that they had done their share but were willing to do more. In April the majority of men felt they had done their share - but were willing to acknowledge that the job was not finished; in August they felt the job itself was done. (18)

17 Ibid. pp. 362-387

18 Ibid. p. 561.

The anxiety lest one exploit others in the group (by doing more or less than one's own share) or that one may be exploited by others (who set the pace too high by doing more than their share or who do not make an adequate contribution) keeps the members of the group eternally watchful that no one will "get away with something". In the same way this anxiety about being exploited keeps groups watchful of one another. This is a negative sanction for keeping the members of a group "in line" and different groups going at a like pace.

But as the peer group is the principal validating group of the successes of all who belong within it, there is also a premium upon sociability and the mutual recognition of achievement. This means that the "lone wolf", the "rugged individualist" or the "solitary dreamer" - those who will not or cannot join in - not only may be left without recognition for their own achievements, whatever they are, but that the absence of these individuals - their unwillingness to share, to judge and to be judged - detracts from the achievements of others.

In analyzing reported childhood experiences of servicemen, it was found that "going around in a bunch" was a diagnostic sign of good adjustment to the Army and that going around mostly "by yourself" a diagnostic sign of poor adjustment. (Going around with "one or two" others was not indicative though the largest percentage of the men in the cross section, 52%, fell into this group.) So in the Best Adjusted Group 48% went around in a bunch and only 6% by themselves; in the Psychoneurotic group 18% and in the AWOLs 25% went around in a bunch, but 31% and 34% respectively went around by themselves. (19)

Furthermore it was found upon investigation that Psychoneurotics reported less interest in "body contact" sports - football, baseball, etc. - than the Best Adjusted group, slightly (but not significantly) more interest in the non-body contact sports only - tennis, etc., and a singularly higher proportion of them were little interested in or were disinterested in sports. (The majority of the men in the Best Adjusted group played both body and non-body contact sports). (20)

(19) The American Soldier, op. cit. Volume I, Chart VI, p. 133

(20) Ibid. p. 143

Again, among the same groups, in regard to "dating", the majority of the Best Adjusted group (62%) reported that they went out with girls about as much as other boys did (26% thought they dated less often, and 12% more often than other boys). Less than half the Psychoneurotic group and the AWOLs (42% in each case) thought they dated about the same as other boys, but whereas a high proportion of the Psychoneurotic group (41%) reported that they dated less often, the AWOLs reported going out more often (30%). So one gets a spread, with the Best Adjusted group keeping in pace and the poorly adjusted groups falling out of pace with their age mated in their dating behavior. (21) It is perhaps noteworthy in this connection that a relatively large proportion of the Psychoneurotic group were married before entering the Army. (21)

In these reports and others, one sees a reflection of the adjusted individual as one who has at least one or two friends but who is also likely to go around in a crowd, who can stand physical contact with others like himself, who sets his standards of cross sex relations more or less by the group (with perhaps some feeling that he isn't quite as successful as the others in his relations to girls or cares less about them). He can compete with individuals and play as a member of a team.

9. Children, when they have completed their formal education, are expected to leave home to take a job (girls to an increasing extent as well as boys) and/or marry. This leaving home is phrased neither as rebellion against the home nor as a triumphant end of tutelage, but as the automatically accepted next step: the ability to take the next step has been achieved, but once achieved the promotion is automatic (as the child who has completed grade school automatically goes on to high school and then perhaps to college - each a step away from "guided" towards "elected" activities). In these terms, each success, each successfully completed stage - eagerly looked forward to before it is achieved, afterwards becomes a stepping stone, not a resting place.

The feeling that each step follows smoothly upon the other and the importance of completing each unit as one goes along is reflected in current comment on the draft - namely that boys should be permitted to complete a unit

(21) Ibid. Chart VI, p. 133, Chart II, p. 114.

(the school year, high school, college, their professional training, as the case may be) before starting something else - with special consideration to those who are almost finished.

The common Army gripes about always "being told what to do", about the absence of opportunities for initiative, should be seen partly in the light of the expectation that the individual will rise from one step to the next as he is able to take initiative - whereas initiative at any level is necessarily of a specially limited sort in the Army. The weight of constantly being told what to do (and of not having anything else to do but tell) is satirized in a song, where the point is made:

The captain told the lieutenant
To polish up the floor;
The lieutenant told the sergeant,
And, gee, but he got sore!
The sergeant told the corporal
Who got mad as he could be.
I've just talked to the corporal,
So I guess it's up to me! (22)

10. Parents of adult children are expected to self-sufficient as well as economically independent of them and to follow their own pursuits. With the tie up between independence and achievement and relating oneself to one's own peers so strong, the loss of any one of these symbols of maturity may mean the loss of maturity in one's own and others' eyes. This means that at all ages, from early childhood to old age, it is necessary to assert one's ability to stand on one's own feet, to adjust oneself to the changing circumstances of one's progress from one stage to the next, to see familiarity in a context or situation rather than in specific content. This also means that responsibility revolves around those who are not yet mature for whom one is responsible and the peer group to whom one is responsible, but responsibility is not turned upward towards those who are older, who are ahead of one in the line - for to assume responsibility for them is to denegate their independence and maturity.

(22) G. I. Songs, op. cit. p. 22

So, for instance, the American attitude towards the "old" European countries includes a mixture of admiration for achievements (with a concomitant need to say they have not achieved so much, have fallen behind), anxiety lest with their greater experience they try to put something over on us, and a feeling that they ought to be able to look out for themselves. In contrast, the "younger" countries - who may be backward (not yet mature) - are easier to help though this ought to lead to self-help (so we bring thousands of students, technicians and business men, etc. to learn how to do American things for themselves), and we are troubled by the uneasy feeling that, on the one hand, we may be acting to them in authoritarian ways or may be teaching them dependency. (23)

This is one of the attitudes that makes the officers fair game for the enlisted man and non-commissioned officer. For in discussions of officer - enlisted man problems, officers are not only accused of having and making unwarranted use of extra "privileges", or of acting in an authoritarian way to their subordinates, but also of being "irresponsible" - ("He is in a better position to look out for Number One" one writer comments).²⁴ With the absence of feelings of responsibility towards those in higher echelons (so that every man must have an individual and personal commitment to the job that has to get done) sniping at those above is a safe activity and the most likely accusations are that the officers are dominating (treating an adult as if he were a dependent, or treating him like a thing - non-human) or are irresponsible (are concerned only with their own adult independence). Songs like "I'll tell you where they were" illustrate the theme of irresponsibility that increases with rank:

...If you want to know where the privates were,
I'll tell you where they were:
Up to their necks in mud!...

If you want to know where the corporals were
I'll tell you where they were:
Cutting up that old barbed wire!...

(23) Unpublished report on American attitudes towards older and younger countries, prepared by Rhoda Metraux, 1949.

²⁴ Arnold Rose, "The Social Structure of the Army." American Journal of Sociology, 51:5, March 1946. (361-364). p. 362.

...If you want to know where the sergeants were,
I'll tell you where they were:
Drinking up the privates' rum...

...If you want to know where the captains were
I'll tell you where they were:
Down in the deep dugout!...

...If you want to know where the majors were
I'll tell you where they were:
Playing with the mademoiselles...

...If you want to know where the colonels were
I'll tell you where they were:
Way behind the lines...(25)

From the enlisted man's point of view the effective officer is the one who is tough with himself and tough in teaching his men to look out for themselves, e. g.

Finding the right officer was not so easy...
In brute strength Thompson was as rough a customer as the men he was to lead...Today there isn't a man among the scouts who wouldn't crawl on his stomach to hell with a sack of hand grenades if Captain Thompson or Lt. Earl C. Acuff suggested it. (26)

who can take it with the best of his men and better, e. g.

Uncle Joe (Stilwell) can usually be found where the fighting is thickest...

who identifies with the men, e. g.

What goes for General Stilwell goes for his men. They wear clothes best adapted for jungle fighting, without fear of being eaten out by some very GI superior.

whose objectives are the same as his men's:

Uncle Joe's one ambition is to win the war and get the hell home as quickly as possible. He has no personal post-war political or business aspirations. When peace comes, he plans to retire from the Army and settle down with his family. (27)

(25) G. I. Songs, p. 232-234.

(26) The Best From Yank. An account of "The Alaska Scouts", p. 190.

(27) Quotations about General Stilwell from Ed Cunningham: "Stilwell: the GIs' Favorite." The Best From Yank,

and who then can maintain his privileged position in which the enlisted man can identify with him:

I want a life
Just like the life
That Colonel Griffith leads.
He has a jeep,
All we have is feet,
And, boy, do we use them.²⁸

In fact, for the American, a solution to the problem of superordination - subordination is to turn the situation into one rather of the relationship between elder and younger members of fraternal groups - in which the elder is a step ahead, has more experience and may have had different experience from the younger which he can teach him, in which the younger is eager to learn in order to find his own way, but in which both maintain their independence and remain related to their own peer group, and in so doing are able to identify with each other.

11. "Home" is situationally defined. "Home" has the double meaning of (a) the place where one grew up and (b) the place where one now lives - with the expectation that these will be different places. As a variant, "home" may be the last place one lived, before one has settled down in a new place. One is expected to have nostalgic memories of the "home" one has left behind one ("back home" - for better or worse is a place where things are done differently from here and now), but it is having a home, - not a particular and single home immovably defined - that matters. "Why don't you go back where you came from!" is the retort to the individual who extolls a past over a present home.

So, traditionally, home has been both the settled town in the East from which the family started out and the homestead which they built at the frontier. For the immigrant, home has been in another country and is in this one. (So, for instance, a Puerto Rican informant, who was asked to help locate other Puerto Ricans to be interviewed - among some 20 Puerto Rican born persons

in a room, answered: "There are no Puerto Ricans here, there are Puerto Ricans at home", that is, in Puerto Rico.) (29)

"Home town friends" or "the people back home" are those with whom one grew up or who live where one once lived a longer time - they are not necessarily current friends. Depending upon the context of the situation, "people from home" may refer to those from a town, from a state, from a region, or - for Americans abroad - anyone from the United States. Reversing the direction, American soldiers on occupation duty in Germany and elsewhere visited the homes from which their grandparents and parents had set out for the United States - for the most part assuring themselves that they had done a good thing too.

For a person on the move, nostalgia may be for the last place he has spent any length of time - as when it was reported in the press that American troops on occupation duty in Japan were homesick for the United States, but when they got to Korea were nostalgic for life in Japan, of which they then sometimes spoke as "home". The rapid alteration of American soldier attitudes when they came into contact with German civilians after VE Day has been remarked upon in many sources. One study comparing servicemen's attitudes in April and August 1945 indicated an increasingly sympathetic attitude towards Germans and their individual and personal problems - coupled with continued support of a tough policy towards Germany. (30)

(29) Unpublished interviews on drafting everyone, op. cit.

(30) The American Soldier, op. cit. Volume II, pp. 561-573.

III. American Character Structure: Major Themes¹

1. Relationships to Time

For Americans the major time orientation is to the future: the Golden Age is ahead and can be achieved: "if you work hard" or "if you get a lucky break". Phrased as an optimistic commitment to change (progress), this reflects an acceptance of discontinuity as a basic premise.

In these terms "living in the past" and "living in the future" are escapes from present reality permitted the old and the young (providing it is not a total preoccupation) but disallowed in the active adult except as a leisure time activity (pleasures, but not serious programs can be "Out of this world"). Common contrast figures are the conservative (or "die hard") and the idealist (sometimes "starry eyes") between whom the realist, the experimenter, the progressive walks a wary path hoping to succeed, fearing to fail.

a. The past is important as a source of precedent related to means, not goals. (And precedents also can be broken.)

i. So the Puritan ethic of work and reward is explicitly invoked as an approved means of achieving goals that continually change.

ii. So the Frontier represents a situation within which the exercise of individual initiative was essential and was rewarded.

The living quality of the frontier image in entirely new circumstances is illustrated in a recent statement that foundations must "act boldly and creatively at the frontiers of knowledge, especially at those strategic segments of the frontier where free action is most urgently needed" before the Government can be interested in contributing funds to a particular program.

Or again, Americans discussed heatedly during World War II and during the Berlin air lift - both occasions when determination and great effort were needed to reach the desired goals - where in Europe American boundaries should be located.

iii. The American Revolution is regarded as a rejection of authority by the people as a whole, repeated individually by the children of immigrants as they rejected their fathers "both as a model and as a source of authority". (2)

¹For a bibliography of published materials on American character structure, see pp. 187-190.

²Geoffrey Gorer. The American People. New York, W. W. Norton & Company, 1948, p. 27. "The individual rejection of the European father as a model and a moral authority, which every second-generation American had to perform, was given significance and emphasis by its similarity to the rejection of England by which America became an independent nation."

iv. As a development of the foregoing, the model of male adulthood presented to the boy includes a positive valuation of discontinuity: the successful father who has broken away from parental authority, includes in his teaching the expectation that his son will also break away from him - that his goals will be different, that he will go further. Models whom father and son may admire together may be men who have "broken records", who have adventured to the ends of the earth, etc. (3) (It is significant that "Momism" - not the struggle with the father - is the recurrent anxiety.) Margaret Mead has indicated that Americans are, typically, "third generation" -that is, the children of those who have successfully revolted against parental values and standards. (4)

b. In the absence of the grandparents from the family, with the acceptance of discontinuity, and with the emphasis upon individual initiative and achievement, the career line is an open one.

i. Education is a "preparation" related to goals projected into unknown situations in the future, not a means of fitting the young into established patterns.

So, for instance, college women writing retrospectively about their own educations said enthusiastically that college "opened doors" or showed them "wider horizons" and "new vistas", etc. (5)

Clyde Kluckhohn, writing about American character, has suggested that "education has supplanted the frontier as a favorite means of social mobility". (6)

Education as preparation may leave a break between factual knowledge and its implications. That is, one can learn the "facts" for whatever use they may be in the future, disregarding their immediate implications, or one may pick up "the drift" without attending to "the details".

This is particularly well illustrated in studies of the American soldier. So, for instance, reporting on the effect of an orientation film (The Battle for Britain), it was found to be highly effective in teaching facts but had "very few effects on opinion

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- (3) Erik N. Erikson. Childhood and Society. New York, W. W. Norton, 1950.
 - (4) Margaret Mead. And Keep Your Powder Dry. New York, William Morrow, 1943. Chapter III, "We Are All Third Generation".
 - (5) Patricia W. Cautley. AAUW Members Look at College Education. A Preliminary Report, 1949.
 - (6) Clyde Kluckhohn. Mirror For Man. New York, McGraw Hill Book Company, 1949, p. 246.
 - (7) Studies in Social Psychology in World War II, op. cit. Volume III (Experiments in Mass Communications), pp. 254-255.

items of a more general nature" and (so far as could be judged) none whatsoever on the soldiers' motivation to serve. (7)

Or again, in a study of men who had read the Army talks pamphlet "Two Down and One to Go" twice as many of the men who had read it as of the men who had not had a clear idea of the redeployment plan, but reading had no measurable effect in the proportion of those who said they had already done their share - though one of the purposes of the pamphlet was to alter motivation. (8)

ii. Hierarchical structures, requiring for their maintenance an unbroken chain of command and also ability to take over positions in which activity is fixed by tradition and regulation, are not congenial to Americans at the same time that recognition for the need for organization may be ever-present.

So we continually prepare organizational charts (which we assume are difficult to understand) and work out ways of getting around them, until they are altered; we regulate procedure and complain about the red tape that keeps things from getting done; we worry about two way communication lines (issue directives and gather suggestions) and ignore what comes through channels ("the people back in Washington just don't know what is going on out here" or "the guys out there forget the big problem").

Insistence that the Army is fostering the "medieval tradition of rigid separation of castes", as one writer put it, is a complaint not only against unequal privilege but also against the fixity of a system which is out of date (medieval) in the eyes of critics. (9)

The relative popularity of the Air Force as against the Ground Forces is certainly related to its comparative newness. It is significant that in numerous samples, Air Corps morale was higher than that of the Ground Forces, and Air Corps men had more favorable attitudes than others towards status and job, but were very critical in their attitudes towards the Army and (though their proportion of ratings was high) were especially critical of promotions. (10)

c. Congruent with a commitment to the future, is the anxiety that occurs when the future appears to be blocked and/or when effort appears to be vain.

i. Americans differentiate between a blow struck as a challenge and a defeat - to the one they rise fighting, but a defeat may indicate that one is on the wrong track. (In this there is an essential difference to the British who fight best in a tight spot.)

(8) The American Soldier, op. cit. Volume II, p. 582.

(9) Arnold Rose, op. cit. p. 361

(10) The American Soldier, op. cit. Volume I, p. 103 et passim.

ii. A hidden corollary to the statement "You can't get a good man down" is that once he's down, he's out - so there is always the question after a defeat: can he make a comeback:

iii. One way of handling defeat is by treating it as a part of the learning process of trial and error (learning the hard way). It then becomes necessary to prove that one is "not a sissy", that one can "take it and dish it out".

So, for example, near defeat is treated as an instance of high morale during a learning process in the following quotation:

"...When all else failed, when the Navy left Marines on Guadalcanal, when only a few Marines got ashore at Tarawa, those men held, stood their ground, fought with their backs to the sea un-
der the mistakes could be corrected, the lessons learned...(11)

iv. The difficulty of constantly needing to push ahead may give a specially nostalgic value to "the good old days" when "children didn't have the advantages they do now" but had a good time and success was more assured. "You had it easier" is a statement that is reversible between father and son; it is also one of the bitter complaints between siblings. It is a state of reciprocal fraternal rivalry in which time makes the difference.

d. As Americans tend to include the future in their thinking about the present, emphasis is upon movement rather than upon structure - upon gradients rather than upon fixed points or levels. Anxieties tend to focus upon blocks to movement, upon cessation of movement (i.e. blocks to distribution) and upon the possibility of a downward rather than an upward gradient (i.e. maturity can be lost).

The American vocabulary is full of imagery of motion and of contexts within which motion occurs:

So we go places and do things, we keep up with the Jones, we go full

(11) From a review by George McMillan of The U. S. Marines and Amphibious Warfare, op. cit.

steam ahead, we swim along with the stream, we log along or speed it up, and time marches on. Highways with and without cars, buildings in the making, the moving assembly line, etc. are common visual images. Mechanical movement and construction toys -- from pull-toys and walkers and hammer sets to elaborate models -- are graded to the capabilities of thier users.

Simply by standing still a person finds himself in a rut or discovers that he has been by-passed or left behind, or a man can be kicked upstairs to a top ranking position where he is not expected to be active. He may level off.

Likewise, the gradient may be up or down. An individual may be a coming man, or a rising one; he may have uphill going; he may arrive at the peak of his career. On the other hand, he may be slipping or may find himself on the downgrade.

Our images of restraint and closure are likely to have a negative tone: tied down, hemmed in, penned in, all spangled up, bogged down; things that are damped up or pent up demand release. We like open doors, and the wide open spaces, viewpoints and horizons, and the sky's the limit.

Writing about the relationship of management and labor in the United States, Tannenbaum remarks: "The disputes at any moment are over a temporary delin-
quency of a roving line." In this he sums up one aspect of the gradient. (12)

2. Relationships to Things

The American view of the material world is one in which man is dominant and in which he is limited by the material environment only to the extent that he has not yet mastered it. The mechanized world is tangible evidence of man's determination and initiative - qualities for which the child was rewarded in gaining control over his own body, and each new invention or use of materials validates his mastery. The American preoccupation with materials is with their use - with production and consumption (in our terms "conservation" is related to improving production and is not valued for its own sake).

a. Typically, American anxieties center not around problems of raw materials ("new" materials - rather than substitutes - can be invented), nor around production ("the difficult we do at once, the impossible may take a little longer"), but upon the blocks that can occur between production and consumption. This means that the insufficient production of wanted goods may

(12) Frank Tannenbaum. A Philosophy of Labor. New York, Alfred A. Knopf, 1951, p, 161

be regarded as somehow having been engineered willfully, and actual shortages, whether of raw materials or goods, may be met with panicky disbelief.

So the organization of the American distribution system is unique in the world from sales' campaigns to credit buying, from the mail order houses to the drug store, etc. So bootleggers, black marketeers and under-the-counter sellers flourish when there are shortages, and Americans prefer to destroy food to admitting there is a glut on the market.

Early in World War II, rumors of shortages cleared shelves to hoarders (some of whom later tried to return their overstocks of goods) and the government itself was accused of hoarding "to make people aware of the war", etc.; the demand for rationing, so that each one would get an equal share", was regarded publicly primarily as a solution to a distribution problem. (13)

In a poem in Yank, a disgruntled sergeant stated his view:

...Oh, post-war planners, men of science
Though I applaud your each appliance,
Permit this note of loud defiance.
Your genius I will gladly bow to
even curtsy and kowtow to -
but not until you've figured how to
send a female
via V-Mail. (14)

b. With this view of the world it is essential to Americans to have and to know that they have the best equipment (or at least "better" equipment) and to know how to use it well - the techniques for using it and for keeping it in working order. We tend to believe that our own machines and techniques are superior to anyone else's.

It is significant that, on the one hand, American soldiers in World War II did rate their equipment very highly (15) and that a very systematic effort seems to have been made to play down overtly the sheer power of materiel. So, for instance, in a sketch glorifying a gun the following phrases occur:

The Gun, just a typical Field Artillery piece, is completely unheroic and absolutely necessary. So is the crew.

...But the Gun fired every time they wanted it to fire, and that was practically all the time. And it fired rapidly; hundreds of the German prisoners here in Sicily keep asking to see those "automatic" howitzers the Americans have.

(13) Unpublished reports prepared for the Committee on Food Habits, National Research Council, 1942.

(14) The Best From Yank, op. cit., p. 97

(15) The American Soldier, op. cit., II, p. 146.

...The Gun is still working and will continue to work until it is put out of action or retired after the war in front of an armory or in a public square. (16)

In current accounts of the war in Korea, there has been mounting stress upon the equalization of enemy troops and American equipment, with daily estimates of the enormous enemy casualties (a stress that characterized many accounts of fighting in the Pacific too). This pitting of machines against men (when they are the enemy) is related to the whole American tendency to de-humanize the enemy - in a sense to regard the man without a machine as somehow less than a man.

c. The body and the personality are also, basically, regarded alternatively as raw materials to be developed and (especially the body) as machines that must be kept in order.

So food is fuel for the body and we speak euphemistically of body products. Good looks and attractiveness (if not beauty) can be acquired and therefore are expected of everyone (so that Americans are embarrassed by downright ugliness and shocked by disfigurement). We inquire whether a man is good or poor material, and praise or blame him to the extent we feel he has made the most of himself as well as of his opportunities. Training turns the raw recruit into the finished soldier. And, believing that a man can in all essentials transform himself in his lifetime, we ask the foreigner to begin his formal Americanization by a statement of intention.

The view of the body as a machine that can be kept in working order is congruent with the importance given to health and to quasi-automatic means of maintaining health (e.g. eating food that is "good for you", "keeping regular", etc.). It is significant that a small number of somatic symptoms, together with expressed anxiety about own health, were highly indicative of future psychoneurotics in the Army. (17)

d. Americans make interchangeable use of vocabulary primarily related to persons and machines. So, for instance, we build calculators and electric eyes and electric brains. Speaking of a man, we may say that he is a smooth operator, that he gets all steamed up, that he shifts into high gear, or, on the contrary, as he grows older he may slow down and under some circumstances break or collapse under strain. The repudiation of exploitation, manipulation and other behavior properly related to the treatment of materials when it is instead applied to persons, reflects anxiety lest people be treated like things.

(16) Walter Bernstein, "The Gun", The Best from Yank, pp. 32-33.

(17) See below pp. 74-79 for development of the points related to the body.

(So the European vocabulary of dominance and submission - which applies basically to relations between persons - is a distortion when it is used in an American context where domination applies first and legitimately to control over objects and is misapplied when people are dominated. That is, for instance, German authoritarianism is essentially an exaggeration of an accepted relationship, between two persons, overemphasizing and thereby distorting the relationship both of the superordinate and the subordinate partner.

3. Relationships to persons

In keeping with the reciprocal attentiveness of the peer group to one another, American inter-personal and inter-group relations are oriented towards symmetry. Together with the explicit preference for relations with persons who are at least potentially equals (whether like or symmetrically opposite to oneself), there is a more implicit difficulty in handling the lack of equality (and therefore in handling comfortably any kind of complementary relations between persons and groups). The team - whose leader is an intensified version of the members - is the highest group ideal we have. The umpire is both the trustee of the rules agreed upon by the members of symmetrically rivalrous teams and a safe target.

a. Americans tend to regard all expressions of "authority" (dominating or power seeking behavior directed towards persons) as bad - as well as expressions of bootlicking or of passive acceptance. All extension of "authority" is inadmissible and enjoyment of the exercise of "authority" whether one's own or someone else's, is wrong. With the by-passing of the father as a figure of authority and with the open career line (the unimportance of following in father's footsteps as an idea), on the one hand, and with the linking of domination to the material world, on the other, "authoritative" behavior becomes incongruent. (Here it is significant that American parents are the audience of their children and umpires between them; also, father and son may be allies against mother and against woman set standards. These are two possible ways of shifting the emphasis in the complementary parent-child relationship.)

1. Hence domination is incongruent with good government:
good government means having as little government as possible, means
keeping close to the country (reflecting the reactions that are current
but willing to go ahead in acceptable directions), means readiness to
act as an umpire between factions. As a corollary, this means that
government must be committed - but not over-committed to any specific
course of action. (The expected mid-term swings of voting can be
related, among other things, to reactions to over-commitment.)

In contrast to expanding "big" business, which - while it may be
suspected of the misuse of power - is also regarded pridefully,
expanding government in general is associated with "bureaucracy" and
"red tape", with "confusion" and "duplication" and all the multitude
of faults of inefficiency that not only keep it from exercising as
much power as it might if it were good (in the sense of effective)
government. (It is significant that good government is associated
rather with those aspects of it concerned with setting standards of
health, etc.)

In its capacity as umpire, government is sometimes a rules committee,
setting the limits within which the competitors can play (e.g. in the
administration of such things as the Pure Food and Drug Act whose
provisions may be fought in detail by any of the players but which
are also regarded as affording everyone valuable protection); govern-
ment is also a negotiator whose role is dramatized in terms of the
rivalry of the disputants, their almost equal strength, etc. As
umpire, government is continually accused of partiality; it is goaded
into making threats (demands for strong action), and is denounced for
making threats, but sympathy tends to swing over to the government when
the violence or recalcitrance of one or both of the disputants forces
the government into a position where it has to carry out the threats.

With the lack of emphasis upon authority, the American administrator
is regarded rather as someone who keeps the machinery running smoothly
(sometimes the details of this aspect of good management are referred
to as "good housekeeping"), with the making and carrying out of policy,
which involves both initiative and awareness of the "team" all along
the line, as well as some degree of personal commitment, both by those
who make the policy and those who carry it out in detail. (So it is
significant, for instance, that those soldiers who were good performers
- in terms of promotions, etc. - combined great criticalness with a
high degree of commitment to goals.)

11. So in the Army there is great admiration for the officer who
is tough, etc. (in various ways very efficient at his job in Army terms)
and a man will be permitted very great latitude, providing he can coach

and lead a victorious team (so among many soldiers in the theatre - as against civilians - General Patton was regarded with enormous admiration). The higher the rank of the officer the more he is likely to be admired for being able to take it and dish it out and for being able to share the conditions of the ordinary soldier's life. Within the limited military situation it is overbearing behavior on the part of unqualified officers (often characterized as the "shavetails" and "the officers who haven't been in combat" and so on) that is resented, behavior that is characterized as "throwing rank around" or "throwing weight around" without reference to the job at hand. Here the accusation centers on the substitution of goals - valuing position for its own sake, showing strength by pushing people around instead of by getting things done, etc. (18)

That substitution of distance (lack of intimacy) for the virtues of toughness and the ability to share cuts no ice with American soldiers, is illustrated by the following excerpts from a series of letters printed in Yank:

A company commander, a lieutenant in the Regular Army, wrote in part:

...Those leaders, whom enlisted men would always have followed through thick and thin, all conform to pretty much of a pattern - friendly, able, fair to all, kind, decent of mind and speech. But there's something else - a little secret of theirs. This is the secret: they never become intimate with their men. An enlisted man's respect and admiration for officers would soon have vanished had the officers become familiar enough to call them "Joe"...

and raised a storm of protest;

-
- (18) So in teaching the historical precedent of correct reaction to being pushed around - the revolt of the American colonies against England - American school children are made aware not only of the fact that the colonists were being unjustifiably pushed around, but also of the fact that the tyrannical George III was a weak outsider who tried to make up in coercive behavior what he lacked in leadership ability. Edmund Burke's denunciation of George III and his ministers is part of the picture for American children.

...We have officers over here that I, and I'm sure most of my buddies, would gladly go to hell for. I've lain in the same fox-hole with a brigadier general and two lieutenant colonels. They were just as scared as I was, and they weren't bitching because there were EM in the same hole. These officers ate out of a mess kit and sweated out the same chow line I did. We respected them because they were men as well as officers...

...The officers who haven't been in combat are usually the ones who throw their rank around, while the officers who have been through hell with their men are content to sweat out the line with the boys. I know a major who was loved and respected by every man in his unit; it certainly wasn't because he pulled his rank...

...I'm sure the men on the Cassino and Anzio fronts would lose their respect and admiration for their officers if they had not called them "Joe". For the good officers are the ones who go partying with the men...When your officers call you "Joe", you know that even though you are a private that word "Joe" means a buddy...

...He stated that if the officers would go on parties with the enlisted men and also live with them, the enlisted men would soon lose respect for the officers. I would like to ask this lieutenant if he has lost his respect for his father? He lived with him and sat beside him in the shows...(19)

As this exchange vividly illustrates, respect for officers (like respect for father) does not include recognition of him as a dominating person, but, as Erikson so aptly puts it, admiration for him as someone who is "Quite a man".²⁰ It is in terms of masculinity that father and son, officer and enlisted man, are potential friends and/or "equals".

(19) The Best From Yank, p. 216 (italics mine).

²⁰

Erik H. Erikson (Childhood and Society, New York, Norton, 1950, p. 273) writes in part about the father and son relationship: "...the father is potentially quite a man, but he shows it more away from home, in business, on camping trips, and in his club. As the son becomes aware of this, a new, almost astonished respect is added to his affection. There are real friendships between fathers and sons...Fathers and sons are unconsciously working on the development of a fraternal pattern which will forestall the reactionary return of more patriarchal oedipus patterns without, on the other hand, leading to a general impoverishment of the father-son relationship."

Substituting "Army" for other places outside the home, the ideal relationship between officers and enlisted men - as it is reflected both in statements about officers who are liked and those who are disliked - has much in common with this "fraternal" image of father and son.

b. The American "egalitarian" attitude is not so much a positive attitude, as an inability to handle a lack of potential equality in relationships. (Unless I can treat others as my potential equals, the relationship is likely to be regarded as an exploitive or a manipulative one - in which there is the danger that I may be treated as a tool or a thing, or in which I may be accused of treating others so.) This is another way of stating the difficulty we have in handling complementary relationships.

1. The resentment of officers' privileges by enlisted men and by non-commissioned officers may be seen most clearly within this context: In the view of those less privileged, the Army (the standard setter) by fostering the "caste system" is giving its assent to exploitive, manipulative and irresponsible attitudes and behavior in those who are more privileged; in other words, in terms of giving privileges is rewarding those who "throw their weight around" and "pull rank" and therefore is encouraging them to enjoy doing so. Meanwhile the enlisted men, who do all the "real" work, feel that - instead of being rewarded - they are being treated like "slaves" or like "dirt".

One defensive reaction to this situation on the part of officers has already been illustrated in the statement that an officer, in order to be a good leader on duty, must maintain social distance off duty - thus turning "privilege" into restrictive duty. The enlisted men's answer to this is to praise as good officers those who are able to share under all circumstances, placing the emphasis upon identicalness - the good officer is like his men only more so. (See above p. 53-54)

In this connection, it is suggestive that resentment against officers' privileges was somewhat lower in the more isolated posts than in the less isolated posts: 40% of the enlisted men in the former as against 46% in the latter thought that officers enjoyed "far too many privileges and breaks." (21)

(21) The American Soldier, op. cit. II, p. 131.

A second defensive reaction to disparity is for the advantaged person to disregard the advantage. So, for instance, when staff and line officers (in both the European and the Pacific theatres) were asked whether one or the other had a better chance for promotion, line officers stated that staff officers had a better chance, but staff officers stated that both had the same chance. (22)

A third defensive reaction to disparity is for the disadvantaged person to include a statement of his own real superiority in his attack - thus turning the picture upside down, at least in fantasy. So, for instance, a teacher at a preflight pilot training school stated that teachers were not allowed to administer their own program and that their activities "were minutely regulated by men who were generally unqualified and who frequently openly expressed their contempt for teachers..." These administrators "constituted the elite in terms of privileges and promotions" and "college and university professors and deans and high school superintendents, principals, and teachers...were not allowed to break into the elite administrative groups." (23)

ii. Comparing the statements made by white enlisted men about officers to statements made by Negroes about white men in the Army, the terms of comparison used by each are asymmetrical:

Typically the statement made by the enlisted man is:

"Just because he is..., why should he have...?"
or
"Who the hell does he think he is...?"
or
"He is exceeding his rights when he..."

Whereas the typical statement made by the Negro Soldier is:

"Just because we are...why shouldn't we have...?"
or
"Who the hell does he think I am anyhow...?"
or
"We have no rights..."

Taken together, these are paired and reversible statements, both of which place the onus for lack of possible equality upon the person opposite to oneself.

(22) The American Soldier, op. cit. I, p. 279.

(23) A. R. Lindesmith. "Teachers in the Army Air Forces."
American Journal of Sociology, 51:5, March 1946
(404-407), pp. 404-405.

iii. By treating parallel situations as if they were wholly disparate, it is quite possible for one individual to blame both those who "push other people around" (as when a captain objects to running around for a major) and those who "won't do you a favor even if it's no trouble" (as when the same captain objects when a lieutenant refuses to run around for him). Logically, this works all three entirely out of the system.

iv. Americans characteristically identify and sympathize with those who "get pushed around" (the underdog, the have-nots, the man with a handicap, Caspar Milquetoast and Sad Sack) - providing, especially if we are to help him, he doesn't take it lying down. We reject identification with those who do the pushing (the bully), repressing in ourselves a strong desire to push.

The point about the bully for Americans is that he is strong and therefore is behaving incongruently - "he takes advantage of the smaller ones; he doesn't get away with bullying if he isn't really stronger. (In comic strip terms, this then is the situation into which "Superman" steps to set the balance right again.) American sympathy goes out to the "kid who needs a break" and our admiration is for the "little guy who made the grade." Especially we identify with the little guy who pushes back when he is shoved - because then we can push along with him. We tend to have sympathy too for the helpless little guy (Caspar Milquetoast), but contempt for the sniveler.

It is significant that the "Superman" characters in comic strips are usually like everyone else in their daily appearance and that they do their most daring deeds to help the little fighters at the moment when the odds have turned hopelessly against them. They are not heroes in the sense of doing deeds for the sake of their own vainglory - but for the sake of others who are deserving (so the Lone Ranger vanishes from the scene as soon as the wrongs have been righted).

Nevertheless, a soldier allows the Army to put even Superman in his place: [Superman has just shown the interviewer at the induction center what he can do in the way of marvels.]

The interviewer took a drag on his cigarette and looked unhappy. "Listen, wise guy," he said. "We don't like rookies coming in here and telling us how to run things. We have plenty of good fighting men, our equipment is of the best, but we don't have enough clerks. So that's what you're gonna be." "Have a heart," pleaded Superman. "Make me an MP, anything, but gimme action." "Next," yelled the interviewer. That was a long time ago. The other day I got a letter from Kent. He's working at Camp Dix with a chaplain. He runs a mimeograph machine, turns out a daily sheet about the post chapels and he's sweating out pfc. Damn nice guy. (24)

v. With our preference for situations involving near equals, Americans tend to dichotomize the most varied types of relationships, starting from the position of the self ("from where I sit" or "as I see it") in symmetrical terms, so that there is a continuous development of related We - They groups.

This is congruent with the position of one's peers in relation to oneself in that our tendency is to treat the "other" group -- any other group -- as if it ought to fit into the peer group pattern. The dichotomy of enlisted men - officers is but one illustration of the We - They groups. The number of possibilities is almost endless, e.g. center - outpost, capitol ships - dungaree navy, Army - Navy, Regular Army - National Guard, volunteers - draftees, etc. This means that, starting from the self, there is a tendency to regard all others - whether a child, a woman, a superordinate or subordinate branch or bureau or echelon - as a possible equal and to expect our opposite number to behave to us as if this were the case also.

(24) The Best From Yank, op. cit., p. 166. As a comment one might add that the writer has placed Superman in an excellent situation to come to the assistance of the chaplain!

c. The strength of these peer group oriented relationships among Americans is that differences can be handled positively whe.. the individuals or the groups involved can be defined as at least potential equals. This means not only that variation is included within the definition, but also that equality need not be immediately realisable. As a corollary to this: It is necessary to find common measures by which the differences characterizing the individuals or groups involved can be equated. (Where such common measures are lacking, the groups may be defined as different and unequal.)

i. The model for this type of relationship is essentially that between siblings where brothers and sisters of different ages, with unlike characteristics, and perhaps with somewhat differently styled training, regard one another as near equals. It has been pointed out that the father-son relationship appears to be moving towards a fraternally defined relationship (see above p.) and that this is the enlisted man's ideal of the officer - enlisted man relationship. It seems likely that, in the Army, the relationship between enlisted man and non-commissioned officer has also moved far in this direction in recent years. At the beginning of World War II,

The sergeants had the lowest educational level in the division (studied). Only 27% had finished high school as compared with 45% among corporals and 35% among privates. A third of the sergeants had not been educated beyond grammar school...The total result was to place the top enlisted leadership in the hands of men who, on the average, had less education than the men they were trying to teach. Army wide tabulations...showed the situation portrayed in this division was quite general throughout the Army with the exception of the Air Corps. (25)

(25) The American Soldier, op. cit. I, p. 63

So at this time it was the old-time "tough" and bullying sergeant who trained the new inductees. But with the enormous increase in the number of new non-commissioned officers (as of Pearl Harbor 20% of the enlisted men were non-commissioned officers, and by VE Day nearly 50%) who rose from the ranks, the situation was very much altered. Asked what he thought about non-commissioned officers, a veteran of World War II replied,

They were ourselves just one step ahead of us. They got into the Army a little sooner and had been promoted.

Here again one gets reflections of the fraternal situation. The newly promoted non-coms had better morale than those who had not yet been promoted, they were more satisfied with job and status for the time being; they were as critical of officers as ever. By definition they were still "tougher" than the newer privates and also more experienced.

ii. In the context of the Armed Services, the "buddy" relationship is the illustration par excellence of this relationship among near-equals. By the common definition of themselves as "G.I." and by contrasting themselves as an entire group with officers, on the one hand, and civilians, on the other, it was possible for men with the most diverse backgrounds to identify with one another, to move relatively easily from one unit to another, and to make friends - to find buddies - with great rapidity. Common identification with an arm of the service and with a particular branch and, transitorily at least, with a unit (e.g. with others as also in the Marine Corps, as belonging to submarines or to the infantry, etc., as being part of a particular division, as of a crew or combat team, etc.) further facilitated making and keeping buddies. The importance of having a common vocabulary - different from that of other people - has already been referred to (see above p.).

In general the Army's policy of handling the training of recruits, placement, transfers, replacements, etc., placed emphasis upon the development of situational relationships among the men who were

thrown together. (26) This is illustrated in the endless enumeration of individual men of different background in accounts of service situations, (27) living and fighting side by side. In such situations it was important in making a total adjustment to be able to make friends quickly and easily and also to be able to detach oneself from those friends without too great feelings of deep loss (paralleling the situations in civilian life of those serving together on a committee, of working together on the job, of belonging to the same local of a union, of playing on the same team - and later on going from one job or local or committee, etc. to another).

In some types of units - for instance, in the National Guard - a somewhat different situation obtained in that many of the men had a common background - came from one town or one locality in the country - and had served together for a longer period, thus intensifying the closeness of the relationships among those who regarded one another as buddies. There is evidence that in such a set up, the experience of losing a buddy, whether by separation or death, could be far more traumatic than in units where men came and went in the normal course of events.

The effect of the loss of a really close friend is described in the case of a marine psychiatric casualty who had had the following history of closeness to his buddy: "...He had been sitting in the emplacement with his life-long 'Buddy' with whom he had gone to school, college and into the marines. His 'Buddy' had yelled, 'Look out'. In the next moment he had seen his friend blown to bits. The episode had not been forgotten, but he had avoided mention of the friend as being too painful for discussion. Subsequent discussion revealed that they had been inseparable since early childhood...They had patterned their lives together for many years. Now all plans had disintegrated and the patient was facing the future alone for the first time..." (28)

(26) "The methods used by the Army in assigning men to companies were in most cases essentially random." Experiments in Mass Communications, op. cit. p. 251. Cf. also The American Soldier, op. cit. II, Chapter V, pp. 242-290, on combat replacements.

(27) Cf. The Best From Yank, op. cit. passim.

(28) Lidz, "Psychiatric Casualties from Guadalcanal", op. cit. p. 202.

A sergeant describes what has happened to his old outfit, a Tennessee National Guard unit and a very homogeneous group who "started out together at Fort Jackson back in the States and fought their way across Europe until the faces were no longer familiar and you could count the old men on the fingers of one hand." Two buddies, members of the original group are discussing what happened to the other men. The tone of their discussion is summed up in this sentence: "The outfit had deteriorated slowly in the natural process of transfers and discharges, like an eroded hillside gradually falling away." And in the comment of another of the buddies as he looks at a passing patrol: "Was that some of us? I asked Parker. 'Doggone,' said Herman, 'I don't know. I don't know anybody in the company anymore.'" (29)

On the other hand, the men's ability to identify with one another in the context of a particular situation is undoubtedly one of the stabilizing factors in the maintenance of esprit and personal commitment in the group and therefore in the ability of the group to withstand the strain of boredom during periods of inactivity, and of fatigue and fear and physical hardship in combat. This is too well known to require illustration.

iii. Within the peer group - whose members are in general regarded as near equals - a gap in the continuum (for instance a disparity in size - the boy who is unusually tall or short or fat or thin, or in ability as between most of the group and an outstanding one or two who may be the pace setters) can be handled not as a difference that destroys the equality, but as something that is special and is accepted simply as being outside the normal range (as in measuring success "luck" can be used to explain unusual success). As long as in certain respects the potential equality of the individuals or groups remains clear, peculiarities that characterize one or the other can be incorporated

(29) Mack Morriss, "My Old Outfit" in The Best From Yank, op. cit. pp. 242-245. Italics mine.

into the whole and may, in fact, be treated as an asset to everyone.

So, for instance, the fact of rank can be an asset to a whole group, where it can be demonstrated that the officer in his relations to his men is able to share fully in at least the more important of their experiences, some of their aspirations, etc. (See above *passim*.)

The value of certain groups as pace setters and as foci for admiration, and the development of esprit among other units as well as the individual service man, was enhanced in World War II by the care with which, in some instances at least, these groups were handled in descriptions as having special characteristics while at the same time emphasizing how like their members were to everyone else (such groups as the Rangers in Europe, the Alaska Scouts, the Raiders in the Pacific, etc.)

So, for instance, an account of the Alaska Scouts includes the following:

You can't bring the war in the Aleutians into a bull session up here without someone mentioning the Alaska Scouts. But that's not hard to explain. They led the way... The Scouts are not supermen and they're not a band of bloodthirsty thugs who eat raw meat. They're especially adapted to their assignment, sure. But that's because most of them are sour-dough trappers and miners and fishermen who know how to get around in Alaska and on the Aleutian chain. Several of them are Eskimos, Indians and Aleuts. A few more of them are old-line dogfaces with years of service at the Territory's old Chilkoot Barracks...(And the account ends with the statement) All the Scouts resent the nickname "Castner's Cutthroats", which someone pinned on them more than a year ago. They insist they're just a bunch of peaceable guys...(30)

Again, these special groups may be characterized not only as especially good, but also as especially bad. They have characteristics that fit them into positions at both ends of the continuum. (Just as the brilliant student in a group is not a grind and can be excused for going through school with "straight A's" if his record is marred by one resounding "F".) They are pictured not only as leading the way in accomplishments but also as indifferent to such things as own rank, or as particularly wild and undisciplined in some circumstances, etc.

For instance, in an account of a group of Merrill's Marauders, known to themselves as the Dead End Kids, details of the following sort are given:

(30) George Meyers, "The Alaska Scouts" in The Best From Yank, op. cit. pp. 190-193. Italics mine.

The Dead End Kids wound up in India for training instead of the United States. /One of them had stated that they had volunteered not "because we were itching to fight the Japs again but because they might be sent home for training. / At Christmas time they went AWOL in droves, popping up in several Indian cities to spend wads of dough that had been useless during their months in the Pacific jungles. When they returned to camp, broke but happy, they were reduced to privates. But they didn't give a damn. They hated the GI routine of garrison life - standing in formations and inspections, shooting on the ranges and going on field problems. They broke the monotony by disappearing alone into the woods and shooting deer, then bringing back the venison for a change of chow...

Following this characterization of them there is a description of a long and rearing action in which they took an especially courageous part. (30a)

One of the points that comes out in such accounts, as well as in other types of articles and in interviews, is that, at least in the Army context where virility is especially stressed, the outstanding man is in reality both good and bad. (Here there appears to be a real sex contrast in that the American girl should only appear to be bad, and must in reality be good.)(31)

The ability to include diversity within the self - as also within the group - is regarded as a strength (in another context this is the "jack of all trades" position, where versatility has a positive value; or the American emphasis upon learning skills that can be applied in varied circumstances - the expert mechanic who "knows machines.")

d. The type of interpersonal relationship which Americans find it most difficult to handle is that in which either or both individuals or groups involved regard each other not only as different but also as unequal. In such situations "differences" cannot be handled either as part of a continuum or as being in a special relationship to the

(30a) The Best from Yark, op. cit. pp. 91-94

(31) Nathan Leites and Martha Wolfenstein, op. cit.

continuum, nor can the "inequality" be regarded as a special kind of difference in an otherwise symmetrical relationship. In such situations - where difference and inequality are invoked - the two reinforce each other continuously and it is difficult to reverse the movement apart.

i. In these terms, one can understand the American feeling that the bully really is strong - so that it is not only the fact that the bully is different that has to be taken into account - (e.g. that he tries to dominate people instead of things, that he picks on those smaller or weaker than himself instead of finding an opponent in his own class), but also that there is real inequality between himself and those he tries to control or to injure.

Similarly, at the other end of the scale, the sniveler gets no sympathy for like reasons: he is not only weak (so that there is inequality) but also he refuses to try to push back when he is shoved (and therefore) he is different from others.) It is this double definition of "different" that differentiates the man who shows fear openly but goes on fighting (because he has good spirit, etc.) from the "yellow rat" who deserts his buddies in a tight spot.

ii. It is also the double characterization of inequality and difference that makes it so difficult for Americans to deal with racial differences and ethnic differences and with religious differences where the persons involved as "opposites" are also described as being "more than..." or "less than" what our expectations are about ourselves in other respects. A necessary corollary to this is that we tend, when confronted with people having visible or audible differences from ourselves (e.g. of a different color, speaking a different language, or having another accent), almost automatically to look for and to impute differences of the order of "more than" or "less than" ourselves in other respects. (32)

e. American attitudes towards the enemy tend to develop along two fundamentally related though opposed lines: (1) the enemy is regarded

(32) See below, Section C, p. and following, for a more extended discussion of this point. 65

as a near equal and the symmetrical opposite of ourselves - having differences from ourselves but a near equal in strength, etc. and having also characteristics in common with ourselves.

(2) the enemy is diabolized and is treated as essentially non-human.

The first way of visualizing the enemy is basically a special development of our way of handling our relationship to the "other team" or the "other gang" or the "business competitor", etc. etc.

The second way of managing the enemy relationship is a special development of our handling of the "unequal and different" position.

In general, there is a likelihood that we may swing from one to the other of these views and that we will incorporate some of the thinking and emotion appropriate to each into our total view of the enemy.

In World War I, we tended to treat the Germans as if they belonged to the second category, that is were somehow non-human, as long as hostilities continued (e.g. picturing the Kaiser as "the beast of Berlin", etc. - using images that converged with similar images congenial to French thinking). In World War II - despite our knowledge of atrocities that had occurred in Germany under the Nazi regime - there was a greater tendency to think of the Germans as rivals to ourselves and to regard the Japanese as the diabolized, non-human enemy. So, in that instance, the enemies themselves were dichotomized.

In the present situation, it is our general tendency to treat Russia as a near-equal rival (a position which again is probably reinforced not only by Russian attitudes towards us, but also by various European attitudes towards both Russia and ourselves). (33)

4. Attitudes towards Success: Reward and Punishment

In the American view, normal success is a reward and should be earned, by initiative, ability, and effort. This means that each job to be done must be difficult enough to be worth doing, and, in order that success may be continually rewarding, there must be a rising

(33) Based especially on work done by graduate students in Teachers College, Columbia University (Ed 206 An) in 1950 (unpublished documents).

gradient of difficulty. As there is, theoretically, no final stopping place, each success becomes in turn the base for the next operation and the gradient of successes is more important than absolute position. Everyone deserves a break now and then, but the individual need be given no credit for the success he wins through luck. Luck is the safe explanation of any incommensurable success - success that takes a man out of the normal competitive range of his peers. As success should be earned, punishment should be deserved. As failure tends to be regarded as its own punishment, the mere fact of having not done wrong deserves some measure of tangible reward.

a. The attitudes towards achievement of officers, non-commissioned officers and enlisted men alike illustrate the importance to Americans of the idea of gradient and indicate how previous experience and achievement and present level of aspiration are interrelated.

1. The main differences among men in the level of their aspirations - in terms of promotions - was related to their educational level of achievements:

...the proportion wanting to be officers was highest among college men and diminished steadily as one went down the educational ladder. The desire to become a non-com was high in all educational groups, but tended to be lowest at the top and at the bottom. Some college men, especially in the Air Corps, wanted to be officers but not non-coms, and many of the grade school men did not want to be either officers or non-coms. (34)

11. Also the relative rate of advancement varied in terms of the educational level of achievement, so that, for example:

...a grade school man who became a corporal after a year of service would have had a more rapid rate of promotion

(34) The American Soldier, op. cit. I, p. 245. (Note the image of the ladder which is used in this passage.)

as compared with most of his friends at the same educational level than would a college man who rose to the same grade in a year. (35)

This is in keeping with the various findings that the better educated a man was, the more likely he was to be critical of the Army (even though he was a good performer). In keeping with this it was found that

For a given rank and longevity, the less educated the more favorable a man tended to be in his opinion about promotions. (36)

b. That success should be an earned reward is illustrated in the officers' and enlisted men's very consistent attitudes towards promotions, as well as in their reactions to earned rewards, and in their agreement that discharge on the point system ought to be related to achievement - that length of service was only one factor in such situations. In fact, one of the major sources of griping on such subjects as promotion was that it was not based on merit, i. e. was not earned.

So, for instance, it was found that beliefs that promotion was based upon either ability on the job or upon conscientious hard work dropped with the educational level (that is, the most educated believed this least, the least educated the most). That promotion was given simply in terms of time in the Army rose with the educational level.

Though education was so closely correlated to the individual's beliefs and achievements, education as a factor in getting promoted was disregarded by all groups. (37)

After the end of the way, 60% of the officers and 80% of the enlisted men agreed with the statement: "Promotion is based on who you know, not what you know," (38)

The relationship between promotions and feelings of satisfaction and dissatisfaction was a close one. So, for instance, it was found:

-
- (35) Ibid. p. 250.
 - (36) Ibid. P. 250.
 - (37) Ibid. p. 270.
 - (38) Ibid. p. 264

...data...indicate a sharp deterioration in attitudes during the first year of Army life among men who did not rise in that year to non-commissioned rank...Among the minority who were promoted to non-commissioned status in their first year, the picture is the reverse... The only exceptions on individual questions were in attitudes toward officers. Although those non-commissioned officers who won their promotion early were in relatively good spirits and were, relatively very well satisfied with their status and job, they were no less critical of officers than were the privates newer in the Army...(39)

It was found, further, that the better attitudes of the promoted men came after promotion; they did not necessarily have better attitudes than their fellows beforehand. (40)

In general it would appear that seniority and longevity and ability to "conform" played very important parts in determining promotions (with educational background as an added factor - i.e. 67% of the men in the Army who were officers were college graduates, but these men comprised only 40% of all college graduates in the Army). The writers in The American Soldier point out that there were no performance tests by which enlisted men could be judged for promotion and that the officers did not know the men well enough to make judgments about individuals. (41) Similarly, the rating system for officers failed as an accurate device, except that "...since the overwhelming majority of officers were rated as superior or excellent even the rating of very satisfactory was likely to be a bar to promotion." 41 Since neither the enlisted men nor the officers could see that there was a clear reason why one man rather than another should have been selected for promotion, it is not surprising that, among the enlisted men and officers there was a consistent drop in references to ability and a consistent increase

(39) Ibid. p. 204
(40) Ibid. p. 260
(41) Ibid. pp. 259, 271

1
in the references to bootlicking, favoritism and "bucking" in connection with promotions as time went on. 42

In contrast to this, in the point system of discharge, where the men had been consulted about the criteria and knew what the criteria were, there was a great deal of griping about relative weighting of factors, but the typical complaints that developed had to do with "the way the Army is carrying it out" or men said that "the Army's way of deciding when a man with enough points for discharge can be released is not fair." However, "criticism of favoritism or partiality on the part of unit commanders is almost non existent." 43

Also in contrast to the promotions situation, was the effect upon morale of the Expert Infantryman's Badge - which had to be earned by passing a difficult test. 44

c. Congruent with the American conception of success as a reward that has been earned, is the belief that the difficult job is the one that is worth doing and the demand that the goal towards which one is working be a worthwhile one; for Americans, the good fight in the good cause is the unbeatable combination ("...conquer we must/ For our cause it is just..."). The "chip" on the American shoulder is strength and moral worth.

i. So, while we may have a dubious admiration for the smart guy who gets himself an easy berth and have no condemnation for goldbricking where effort doesn't matter, we tend to condemn the man who loafs on the job where it does matter and de-value the "easy victory." The boast "I can do that with one hand tied behind my back" is a statement of capacity to meet difficulties, not a statement about victory; in the same way we place a handicap upon the man who is competing somewhat out of his class - we tie a hand behind his back, so to speak, to equalize the situation. Likewise the moral support which ought to be given the little guy who is fighting back to some extent at least supplements his strength and skill, putting

(42) Ibid. pp. 268, 273

(43) Ibid., pp. 234, 235.

(44) Ibid., pp. 310-311.

him into a more equal position with his opponent.

ii. So also, while we watch with endless fascination the exhibitions of strength and skill of the strong- but-wrong guys, we teach our children and in our fantasy productions (crime stories, detective stories, gangster films, etc.) we insistently demonstrate that "crime doesn't pay." On the other hand (in keeping with our belief that people can change with circumstances and with their own decision), we have some tendency to think that the bad man who switches his goals to acceptable ones is also a winner (but not the man who turns about only to save his own neck).

iii. It is suggestive that The American Soldier material on reported childhood experience brings out the fact that a relatively larger proportion of the AWOL's really "liked" fighting as boys (in contrast to the Psychoneurotics more than 50% of whom really "disliked" fighting, and to the Best Adjusted group, more than 50% of whom could take it or leave it: didn't like or dislike fighting). Like the Psychoneurotics, the AWOL's tended to be lone wolves, but unlike them and unlike the Best Adjusted they played hockey "very often". So apparently they combined (though no interview material is given to confirm this) admiration for the capacity to exhibit strength beyond others with a lesser attachment to good social behavior (detached from people) and a lower orientation to accepted goals (poor school attendance). (45)

The good-bad boys already referred to (illustrated by the behavior of the men in some of the special units of the services - see above pp.) appear to be those who are strong always and who are able to shift their goal orientation in keeping with the specific situation; that is they have a situational orientation to goals. The two sets of characteristics are constantly linked in soldier songs about themselves (See above, passim.)

Congruent with the American conception that mastery should be directed towards things not persons, and that the individual should resist all attempts to dominate him, we can "go all out" either (1) when the focus of attention is on the game, not on the persons (as in sports where by further definition the competitors

45 The American Soldier, op. cit. I, Chart VI, p. 133, pp. 134 ff. It is interesting that only the less adjusted men (Psychoneurotics and AWOL's) admitted getting lower than average grades in school, p.

ought to be well matched), or when (2) we have been attacked in our persons or can go to the defense of someone who has been so attacked - it is in this situation that people ought to get "fighting mad."

In the course of a sporting competition the participants may shift over to the second position - and spectators eagerly wait for the point when the team or the fighters warm up and put their best skills at the service of their roused tempers; some men are characterized as good fighters when they are using "cold calculation" but others only when they get angry ("cold fury" appears to be some combination of the two), but there is a tendency to feel that an enraged fighter will lose control and fight wildly. And in sports, we insist that when the fight is over the participants go back to the original position - they must be able to shake hands whether they have lost or won.

Hence it is very important for Americans to feel that they have been attacked before they are able to fight well in a war. (And at present the euphemism for "all out war" is "emergency" or "if it is necessary" - reflecting the idea that a fight is one of those "special" situations and not part of the continuum.) 46 Hence our daring someone to attack us (of which the negative statement is "planned to get us into the war") includes not only a dare to try our strength, but also a dare to say we are not in the right. This carries with it the necessity of demonstrating to Americans that we are both prepared in terms of skills and materials, and also that we are right in our convictions.

So we are continuously sensitive to those who, we feel, are undermining our moral convictions, and link undermining morality with undermining strength, e.g. the spy is a communist, the communist is a spy.

It is partly for such reasons also that it is so important for us to understand the conscientious objector as a person with especially strong moral convictions (which we share with him) and for him to demonstrate continuously that he is willing to do some kind of work well without special reward for himself.

46 Unpublished report on attitudes towards "drafting everyone", op. cit.

Once Americans get into a fighting war, the focus of attention shifts from the issues involved to the skills and tools with which the fighting is carried on and to care for the men who do the fighting - moral issues are no longer a problem that need discussion. This does not mean that the issues are irrelevant or that those who are doing the fighting do not need reassurance that the goals are as stated, but rather that moral issues are not a subject for discussion - they are taken for granted.

(This is not incongruent with the position many Americans take against "patriotic speeches" and Fourth of July oratory" or with a common American objection that issues should not be framed in moral terms - i.e. the spite of criticism of Gunnar Myrdal for stating the Negro-white problem in these terms (47). The point for them is not how to state an issue, but how to solve problems in practical terms.)

The focus of attention of the soldier is majorly on "getting the job done" and in demonstrating that he has the toughness and know-how to dish it out. It is the civilian rather who is expected to keep up the moral side of things (without making speeches to the soldier about it); it is in this light that one can understand in part soldiers' ambivalent attitudes towards civilians and their criticisms of civilians, e.g. that they are profiteering, that they are blackmarketing, that they are individually and personally immoral, that they are not upholding their side of things. And yet even the most savage criticism may include the hope that after all civilians are better than one expected. So, for instance, a song describing in detail the physical failings of Four-F Charlie, ends with the words:

Now he's taking a body-tone
So he can be a blood bank-doner.
Poor Four-F Charlie. (48)

5. Attitudes towards the Body: Health, Sickness and Mutilation

Americans regard the human body in much the same way as they

47 Gunnar Myrdal. An American Dilemma. New York and London, Harper, 1944. A special position with regard to the problem of moral issues is taken by Frank Tannenbaum in his review of this book (in Political Science Quarterly, LIX, No. 3, September 1944, pp. 321-340) in which he completely accepts the moral problem but insists it is necessary to deal with it in terms of practical solutions to economic and other social problems. He differs from some others only in specifically stating both aspects - the moral and the practical - of the picture.

48 G. I. Songs, op. cit., pp. 80-81.

do a good machine: it needs to be broken in carefully - with attention to timing and bringing it into action under careful control to get the best results: it has to be given the proper fuel in the proper amounts: it runs well when it is kept in good repair and should be inspected from time to time for hidden troubles: it gets run down when neglected and wears out when used too hard - but it can be jacked up: it runs less well as time goes on: some parts, accidentally lost or worn out in use, can be replaced more or less satisfactorily. Major repairs ought to be done by experts, but tinkering can be done at home.

The American attitude towards health is a positive one. Health is linked to normality and goodness and can always be improved - though health is generally taken for granted: anything less than health is abnormal and ought to be improved. Sickness is regarded as accidental and externally caused - though people who let themselves get run down are recognized as likely to get sick and therefore must build themselves up again.

In these terms, over-concern with health and particularly concern with one's "health problems" are signs of abnormality.

a. The various studies in The American Soldier indicate the very close correlation, for Americans, between hypochondria and mal-adjustment:

1. So, for instance, it was found that the subjectively experienced incidence of psychosomatic complaints (as evidenced in the Anxiety Symptom Index, the Psychosomatic Symptom Index, and the Neuropsychiatric Screening Adjunct - in which men were asked questions about such things as sweaty hands, stomach disturbances, sick headaches, accelerated heart beat, shortness of breath, etc.,) as reported by the men was highly indicative of later poor

adjustment to Army life. (49)

ii. In a study of new recruits, among 73 who were later diagnosed as psychoneurotics, 32% gave reasons why they should not have been inducted, and "health" was the predominant "reason" given why they felt they should have been deferred. (In contrast in a sample of 730 normal recruits, only 12% gave reasons why they should have been deferred, and health was not an important reason.) It was found in another study of psychoneurotics that of 47% giving reasons for deferment, 37% gave health problems as the reason; whereas in a cross-section of the whole, only 26% gave reasons for deferment - and only 9% for reasons of health. (50)

iii. Among childhood experiences reported on by a group of men, it was found that a report of poor health in childhood was characteristic of the psychoneurotic group (in contrast to the Best Adjusted group and a cross section 50% or more of whom reported that they had been "very healthy" as children, 47% of the psychoneurotics reported that they had been only "fairly healthy" and 32% that they had been "rather sickly." (51)

Furthermore it was found that as far as the home was concerned, the "most discriminating item...was that dealing with nervous breakdown in the family." That is, a report of illness in the family was a psychoneurotic indicator - where a report of a broken home was not. (51)

iv. In response to the question: Do you have any particular health problem? in the cross section of the group, 35% answered yes; but 56% of the AWOL's and 82% of the Psychoneurotics answered yes that they did. Here again reported health situation of the individual was an indicator. (52)

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- (49) The American Soldier, op. cit. II, pp. 415-416. The authors make the following qualification of their findings: "...when we refer to the demographic characteristics of psychoneurotics in the Army...we are not describing all the men whose personalities psychiatrists would diagnose as poor, but rather we are limited to those types who found it impossible to go on functioning in the Army environment."
- (50) The American Soldier, op. cit. I, pp. 123-124. Italics mine.
- (51) Ibid, pp. 133, 134-137. Italics mine.
- (52) Ibid. p. 128. Italics mine. It was found additionally that reports of ill health rose with age and declined with education - more older men and fewer men with better education reported health problems, which is what one would expect when the general indications were that older men tended to be less well adjusted in other respects, and less educated men also (though it is also true that both the older and the less educated men were more satisfied with their status and job than were the others who, better performers, were more critical of the Army and, in their own estimation, healthy).

v. The normal American reaction to injury is to dissociate oneself from it - to keep the agent of injury external to the self and to repudiate the injured body part. e. g.

So, the American workman who has just hit his leg with a hammer is likely to say, angrily: "Look what the darned hammer just did!" And to comment to the doctor: "Look at that leg. It won't move." The hypochondriac's statements of the same points are: "Look what I did to my leg." And "Look at my leg. I can't move it."

vi. The soldiers' own estimate of the hypochondriac is summed up in the person of Four-F Charlie:

...Men won't sing of his wild daring,
Girls won't praise his martial bearing;
Instead they're all whispering!

...
He is sick and always ailing
And his health is always failing,
He's Four-F Charlie!
He can never be a trooper,
Got no super in his duper,
He's Four-F Charlie!

...
He is stout and always wheezing
And his breath is quite unpleasing,
He's Four-F Charlie!
And his blood is thin as water,
He can never be a father,
Poor Four-F Charlie! ... (53)

b. The general American attitude towards body parts is that they ought to be cared for and repaired as long as it is possible to do so (the
54
high development of American dentistry is an illustration of this).

This is in keeping with the whole attitude towards the

53 G. I. Songs, op. cit. pp. 80-81. The editors comment that the song "has many other amusing but unfortunately unprintable verses."

54 In contrast, the English position about the treatment of teeth formerly (not nowadays) was to pull out teeth - especially in the treatment of the lower class patient. It is necessary to see the current British preoccupation with "free dental plates" against this background. The American position is rather to repair the teeth until they can no longer be repaired, with a more modern emphasis upon the prevention of dental decay - which is in keeping with the general attitude toward improving health rather than dealing with sickness.

body that it is something that can be manipulated and arranged
and altered freely. This means that loss of a body part is not
in itself tragic, nor necessarily irreparable, i.e.

I'd rather have fingers than toes,
I'd rather have eyes than a nose,
And as for my hair,
I'm glad it's still there;
I'll be sorry as hell when it goes. (55)

The emphasis for Americans is on getting the body part replaced
as soon and as efficiently as possible. (So the period of extreme
difficulty for a man is while he is lying down, before he gets a
new face grafted on, before he gets the prosthetic device that
enables him to get into motion again -- to use his artificial arm or
leg, to drive his special car, etc., when all the sanctions of
applying skill help in re-adjustment.) ⁵⁶

55 G. I. Songs, op. cit., p. 93

56 Americans are continually shocked when they go to countries where
there are armless and legless men in view and feel that "something
should be done" -- and are the more horrified when body deformation
and crippling and loss of body parts are used exhibitionistically, as
they are in some other cultures.

In France, for instance, it is not common to see armless and legless
persons on the streets (though special provision is made in the
Paris subway for the seating of war wounded -- the highest category
among those for whom others are obliged to give up seats according
to rules posted in each car). On the other hand, protesting veteran
groups call out hundreds of men on wooden stumps, in little handcars,
led by miserable women or children. The expectation of individuals
interviewed about this point was that most of these people ordinarily
either stayed home or had perfectly good artificial limbs which they
used on ordinary occasions. Exhibiting their crippled state was a
punishment to the Government that was depriving them in some other
way (e.g. too low pensions, etc.)

This means that, for the man, the genitals are the one body part that is, in fact, irreplaceable. Hence, fear of loss of the genitals is, for Americans, an exceedingly realistic fear by comparison to the fear of loss of any other limb or feature.

c. Just as health is real, the loss of health is also real - illness and suffering are real and the individual requires care and treatment to bring him back to health.

It is essential to differentiate here between illness and chronic reporting of health problems past and present and foreseen. (We also regard the hypochondriac as someone who is not-healthy, but not sick with the illnesses about which he reports.)

One of the diagnostic differences between organic and functional cardiac conditions appears to be unwillingness on the part of the patient with an organic failing and willingness - in fact insistence on the part of the patient with a functional ailment to save himself - to take it easy, etc.

d. American attitudes towards death vary considerably in accordance with religious beliefs held or discarded, but Americans have in common a tendency to dodge the whole issue of death (as the use of the word itself is dodged in such phrases as "passed away" or "passed over" or "no longer with us" or "gone to the great beyond", etc.). Likewise the simple fact of death is hidden away in the elaboration of the more ceremonial aspects of the funeral, the burial place, etc. (It is unusual in an American urban setting for a person to be buried from his own home; the dead body is turned over to experts; simpler terms have been replaced by elaborate ones like "crematorium" or "mortician". The body is either destroyed as completely as possible or is preserved for all "eternity" in a coffin "guaranteed to last 100 years.")⁵⁷ The important thing is for the body, which could be altered in so many respects during lifetime, in one form or another to remain intact after death.

57 Quoted from an advertisement about coffins.

Dedating the issue of death, nevertheless the expected adjustment of the living is to keep going; prolonged mourning - especially publicly exhibited mourning is not an American expectation. So a soldier writes:

From pen to rifle
It was a long way,
From Greenwich Village to New Guinea
Yet it was the same.

Mourn for the dead who died in vain,
But not for him.

When the poems gave out,
When it wasn't enough
To sing of freedom,
He fought for what he wrote for
He died for what he lived for.

Mourn for the dead who died in vain,
But fight for him. (58)

6. Situationalism: an Adaptation to Change and Heterogeneity

adaptability and acceptance of the idea of continuous change and heterogeneity run like leit motive through discussions of contemporary American character structure, American culture and social organisation.

So various European writers and writers with a primarily European orientation have stressed "youthful" aspects of American culture and character structure (where, for them, "maturity" is defined as a final adjustment to a stable universe), or have reacted against American insistence upon "conformity" - seeing it as a permanent restriction rather than a series of adaptations to changing styles (where for them "individualism" has meant either a rebellious rejection of a model conceived as permanent, e.g. in German culture; or infinite variety based on an accepted model, e.g. in French culture), etc. Similarly, the description of American character structure in terms of the marketing orientation (which Fromm describes in part as "the lack of any specific quality which could not be subject to change" (59) - thus stating what it is in terms of what it is not) is basically a European phrasing.

Writers thinking explicitly in terms of at least two cultures or of culture change over time, have described this aspect of American character structure in terms of tentativeness versus rootedness (Erikson) or as derived from a rejection of authority (Gorer, who, it is important to add was writing in this instance primarily for a British audience), or - describing it in terms of source of sanctions - as other directed

58 "In Memoriam" in The Best From Yank, op. cit., p. 152.

59 Erich Fromm, op. cit., p. 77.

(Riesman), or - describing social structure rather than character structure - have spoken of us as having an open society (Kluckhohn). Each of these, as well as other writers not mentioned, have tried to define some facets of what has also been called situationalism (Mead).

For Americans, adaptability to change and the acceptance of diversity are incorporated into the adult character structure, so that our problems, as we see them, focus rather upon questions of controlling timing and sequence than upon the specific desirability of change, upon ways of keeping uncommitted resources rather than upon making one or another final commitment, upon means of achieving limited objectives without "blueprinting" the future, etc. What we are working on, in fact, in American culture are ways of treating various kinds of discontinuities in terms of continuity. Other cultures have dealt with these discontinuities in other ways, or have focussed on other discontinuities altogether. (60)

In this paper I have discussed situationalism in relationship to the home (e.g. the importance of having a home, but the unimportance of attachment to a specific home throughout life), in relation to the family (e.g. the two generation family unit that is stable only during the time the children are being brought up; the possibility of the child belonging to two families - having two homes; the open career line, etc.), in relation to learning (e.g. learning as a general rather than a specific preparation, with emphasis upon learning skills or "facts" rather than specific applications), in relation to time and movement (e.g. emphasizing the future rather than the past, emphasizing gradient rather than absolute position) in relation to persons (e.g. the ability to see people as potential, as against actually like oneself, the ability to form attachments easily and to detach oneself from particular individuals without suffering deep feelings of loss), in relation to sanctions (e.g. the peer group as model and judge of own and other's behavior, as competitors for success and as validators of own success, etc.)

The illustrative material on American servicemen has shown also various ways in which situationalism is important in adjustment to

60 Cf. Ruth Benedict: "Continuities and Discontinuities in Cultural Conditioning." Reprinted in Personality in Nature, Society, and Culture, edited by Clyde Kluckhohn and Henry A. Murray. New York, Alfred A. Knopf, 1948, pp. 414-423. 60

Army life in particular: the ability to form and to pick up new vocabularies that make for adequate communication among the most diverse groups, to perform adequately in a situation that is on the whole uncongenial by focussing on details of relationships (good and bad) without deep commitment to particular persons - attachment to temporary buddies, like and dislike of particular officers coupled with a dislike of "officers" as a generalization, and by focussing on details of activities rather than whole courses of action, and by directing major criticisms towards such impersonalized groups as "the Army" or "the civilians", etc.

a. Shared space - the acceptance of the location one finds oneself in and the people one finds there is an important factor in situationalism. Contiguity, especially if it is patterned in any way, can be important in the selection of the people one will spend time with, whose immediate interests one is likely to share. So, for instance, the people with whom one is travelling across country in a bus assume, for the time, primary importance - and a man will go to considerable trouble to help someone he has never seen before and never expects to see again (though they may exchange addresses and discuss the most intimate problems of family life), if he happens to be sitting by him in a bus or train.

b. Shared work of any kind - working together in any sort of defined unit - is another important way of relating oneself to other people. So one sometimes is told of a "gang" or a "crowd" of men who stuck together in an Army unit for a long period - even though it may turn out that there was a very large turnover in the actual members over a period of a year or so. What persisted was a group-style of behavior that was communicated to each new man as he came, so that there was a feeling of continuity even though the

individuals came and went.

c. By and large, morality tends to be situationally defined by the group in which one finds oneself - so that a man in two different sets of circumstances may behave in quite different ways. One of the somewhat unexpected examples of this on a mass scale was the alteration of G. I. behavior when soldiers were taken to Switzerland on leave. With minor exceptions, Swiss and Americans interviewed by myself in 1947 described the servicemen as uniformly well behaved, in sharp contrast to descriptions of servicemen in some other places. Another example was the ability of American white and colored or American white and Japanese (Nisei) soldiers to get along together well in rather special circumstances where it was possible for them to share like experiences in small groups. The opposite situation was also just as likely to occur: Negro and white soldiers found themselves in closed groups and violently opposed each other in the places where they met, largely because this was the general expectation of how each one - and the other - would behave. Most important were the loyalties and pride in one's own group that developed, particularly under combat conditions - which included a willingness to stick it out with one-another, but had little relationship to the individual's willingness to do more than his share beyond his commitment to his buddies. ⁶¹

As a last illustration from Yank, the following is taken from the account of an American soldier with the Fifth Army in Italy who was captured and escaped and made his way to an Italian farmhouse looking for help:

Then an old Italian with proud, graying mustache entered the door. "Gooda de mornin'!" "Good morning!" I shouted. I jumped up and grabbed him by the arm and started shaking hands as though I were an Elk meeting a fellow Elk in Amarillo. "But where in hell did you learn to speak English?" "I work 17 years for the New York

⁶¹ The American Soldier, op. cit., II, 136-141.

subway system," he said. And from that moment I was a firm believer in the New York subway. We sat down and talked a long time. I got rid of my GI clothes and got into a ragged civilian shirt and trousers. I felt like going out and grabbing a hoe and going to work on the farm right away... (62)

⁶² Newton H. Fulbright. "The New York Subway System on the Italian Front" in The Best From Yank, op. cit., pp. 11-12. Italics mine.

C. Ethnic Attitudes of Minority Groups

R. Metranx

A major consideration in the handling of the problems of ethnic sub-groups and minority groups in general in the services as elsewhere in American national contexts is that these are two-way problems of communication and inter-action. On the one hand, men and women — members of a particular ethnic sub-group — see themselves both as Americans who want to be treated "like everyone else" and as individuals or groups who have a somewhat special orientation to being American. On the other hand, those reacting to them with ordinary expectations of what people — i.e. Americans — behave like, are likely to accept or disallow differences according to the degree of communication. When we focus upon those differences and attempt to state what they are and to solve the problems involved it is necessary to take the double position into account: what is done and the way it is phrased must be acceptable to Americans and to Americans who come, as the case may be, of a Polish or Czech or Chinese background. In order to be able to do this, it is necessary to have explicit understanding of the main emphases of both American character structure and of the group in question. For this reason it is worthwhile to look not only at Jewish Americans or Puerto Rican Americans but more particularly at the culture of their background, to see how specific behavior and attitudes are integrated into a whole, in the national culture of origin.

One of the points that individuals of different sub-ethnic groups have in common is their insistence that in contexts in which they are involved as members of a larger group they should be treated the same as everyone else. In such situations the individual is

likely to dissociate himself from membership in a special group, saying: They are no different from anybody else. (This was the statement of a Puerto Rican American.) This is an American response, made with the knowledge that "different from" can also mean "less than" — as it has in certain respects for American Negroes, American Indians and, from time to time, other minority groups in the population.

For those who are visually distinguishable from white Americans by reason of membership in another racial group this is especially important. But the reactions of all groups are by no means the same. Arnold Rose, in The Negro's Morale, has documented the growth of conscious and directed "group identification" among American Negroes: "The Negroes' aim is full achievement of democracy and its concomitants — liberty, equality and fraternity — or, in negative terms, the elimination of the terror and of discrimination and segregation... One of the Negroes' chief supports in this battle is a feeling of strength and pride in their group and its cause."⁽¹⁾

On the other hand, Puerto Ricans who were asked in interviews whether they thought they should receive some sort of special consideration in the event of a total draft, consistently replied that there was "no Puerto Rican problem" or that there were "no Puerto Ricans" in the United States, but only in Puerto Rico. (In their case, the recent attempt on the President's life, obviously made them peculiarly sensitive on this point.) But it was illuminating that in free interviewing, informants spontaneously commented upon the differences in the treatment of Negroes in the United States and in Puerto Rico and directly or indirectly expressed fears that they might be treated discriminatorily if they were drafted in special units. At the same

(1) Arnold Rose. The Negro's Morale: Group Identification and Protest. Minneapolis, The University of Minnesota Press, 1949, p. 144.

time, within the context of equal treatment, there was a recognition of special problems: As when one Puerto Rican born informant, having stated that there should be no special units but that everyone should be scattered, went on to say that perhaps it might be well for young Puerto Rican boys (at least in Puerto Rico) to be given their basic training as a group so that "they could get used to getting commands in English and things like that."⁽²⁾

Again, Chinese Americans, who view their differences from other Americans in cultural terms, are today somewhat anxious about the possibility of "incidents" and wonder whether they are likely to be treated in the same ways that Japanese Americans were in World War II, particularly in the early days of the war, as enemy aliens distinguishable because of their color. (See below, The Chinese Soldier.)

Members of European ethnic sub-groups, not having the problem of color to contend with, have also one less anxiety, or rather state the problems and their solutions in different terms. So, for instance, an interviewer who worked with Czech Americans, made the following statement about Czechs:

In this country the Czechs, at least the first and often the second generation, have tried to keep their loyalties to both countries, to the old and the new. And so far there has never been a conflict between these two loyalties. We were told continually by parents that they would like to "give the best of both countries" to their children. The young generation seems to be resentful of being reminded that they are supposed to be Czech-Americans; they feel that they are one hundred percent Americans...

[And from one interview:] One woman told us that she and her husband, who were both about 50 years old, were born in Czechoslovakia and had been in the United States over 30 years. They have two sons, both of whom served in the American army in World War II. The mother is very proud of her sons... She explained... with tears in her eyes that she had resolved they would be good Czechs and good Americans, but that they were really

(2) From an unpublished series of interviews on the attitudes of some Puerto Ricans in New York City towards the draft, prepared by J. R. Jackson, for the purposes of this report.

"more than one hundred per cent Americans...They are good boys really; they understand Czech but they get mad if I tell them they are Czechs too." Her husband interrupted her patiently and told her, "Look, how often should I explain to you they were both young when they joined the Army, there were no Czech boys around, they could not talk Czech. And anyway, they told me themselves they could not have been promoted if they had insisted they are Czech. The promotion would have gone maybe to some Irish..." (3)

The statement of unconflicting loyalty to both countries reflects the Czech tendency consciously to balance double possibilities in symmetrical fashion in their minds — like or opposite. In the parents it took the form of trying to give "the best of both countries" to their children, in the children to oppose the two, stating their position in American form. This is characteristic of Czechs not only in political problems, but generally, so that even though the children are Americanized, it is a type of reaction one may expect of them in other situations.

So, in many different phrasings, these Americans belonging to ethnic, racial or religious minorities, echo the American feeling that it is possible to be comfortably different from others only when at least potential equality, when likeness is fully recognized.

Hence, except in those cases where separate units are maintained in the armed forces — as in the Negro divisions, the special Japanese American units in World War II, or National Guard divisions, which draw heavily on the population of a single area — considerations of the problems of ethnic sub-groups are relevant to the on-going functions of the services, generally speaking, only in certain situations. These have already been discussed. (See above, Section A, pp. 4-15.)

In this report, we have provided data on American character structure, illustrating it with material by and about American men in

(3) From a report on Czech attitudes towards military service, prepared by Edith Lauer for the purposes of this report.

the armed forces to indicate how American attitudes are reflected in this particular context. In addition, we have provided a small amount of background material on three ethnic sub-groups (Chinese, Poles, and Eastern European and other Jews -- see below, section D) and here we have, again, focussed on the military question. In the following pages I shall outline some areas where information about the national character structure of ethnic sub-groups may be relevant. The intention here is to list the kinds of information it would be valuable to have in order to be able to cope adequately with the variety of problems that may occur. As in this report it is not practical to describe the character structure of different groups in detail, as also it is not possible to consider specific problems, brief statements will be made simply of the kinds of problems to which the information would be related and illustrations will be given, as far as relevant material is available, from the several cultures examined for this purpose. (4) These illustrations have been selected in part to indicate contrast points to American character structure, in part to give a sense of the variation among the several cultures considered.

1.

The following information about culturally relevant attitudes can be ascertained most readily by an analysis of the child rearing regularities of a particular group: the handling of the child, the relations between parents and children, and among siblings, etc.

a. Relationship to the self and own body

(4) The cultures from which the illustrations are taken, are among those studied by Columbia University Research in Contemporary Cultures, or by members of the project in other contexts.

(5) The principal outline points of this section of the report were organized by M. Mead and illustrated by R. Metraux.

Information about the relationship to the self and own body is relevant to problems concerning types of uniforms, hardening in training and combat, problems of exposure, reactions to dangers of mutilation, qualifications for various types of risk-taking assignments (e.g. airborne troops, etc.)

i. The Poles in their child rearing lay stress upon the child's acquiring autonomy and hardening itself. Endurance of pain is consciously cultivated, especially by exhibitionism to age mates. A reiterative Polish phrase of challenge is: "The eyes of the world are upon you." These childhood experiences have adult parallels in the extent to which Poles emphasize pain and hardship, and then endure them bravely, (in contrast to the American habit of minimizing pain as a way of showing bravery).

ii. The Chinese infant is handled warmly and indulgently, with considerable body contact between mother and child. Stress is laid upon protecting the child's body from injury: as an infant it is encouraged to look but is discouraged from touching objects. The young boy may be punished for injuring himself in a game — his responsibility is to the family for the preservation of his body (that he too may have sons and continue the family). In adult life the double responsibility to protect oneself and to fulfill adequately one's role is reflected in the way in which Chinese soldiers will face danger willingly and courageously and endure privation without complaint when such action is required in the fulfillment of duty, but they will not court danger, nor do they value bravery for its own sake. Chinese anxieties about mutilation are related to the general cautiousness about the body and fear lest its functions be impaired.

b. Relationships to others

The customary handling of personal relationships in the family are especially relevant to matters of discipline, obedience, autonomy, responsibility, leadership and followership, initiative, buckpassing, etc.

i. The Polish infant is often left alone and as soon as the child can walk, it is expected to learn to care for its own needs without followup or supervision by parents or siblings. The children are taught not to interfere with one another and never to act beneath their own dignity ("never strike the younger one back"), but the one who cries is told: "Don't you have hands to give it back to him?" The play group is taught to resent interference from outsiders. So there is a consistent stress upon differences within a group, but unity in the face of an outside intruder. In its activities, the child is constantly pushed to the limits of

endurance without specific guidance. Likewise adult Polish attitudes emphasize both the worth and the independence of the individual. Poles prefer to take responsibility for a whole task, where they can work independently of others. They admire most the leader who is outstanding for his singlehanded bravery and who, even when he is deserted by his followers, stands firm until — if at all — they return to him. So also, when Poles form a unit among several (and if they are defined as Poles, this is their preferred form), they act best in situations when they can display dash and courage independently of the other units — stressing the deeds they themselves have performed in the cause. (So, for instance, Poles are exceedingly proud of their assault on Cassino in World War II.) For Poles it is the responsible or the brave act itself rather than the outcome of it that counts.

ii. In contrast to the Polish infant, the French infant is expected to be passive but it is thought that it would suffer if it were left alone or neglected. Good parents talk continuously to their infants and expect the child to respond. The French family in the foyer is a closed system and the relationships of the family members to one another take the form of a series of dyads — each pair sharing a partial relationship not shared with the others. The father is relatively distant from the children and the main upbringing is in the hands of the mother, as far as discipline and the details of care are concerned. The parents together take decisions about the child's future, with the final word resting with the father. Childish preferences are not considered, though the child may be argued with, as it is not yet equipped to make sensible choices. Until death or senility intervene, the father continues the right to make or to be consulted about the major decisions regarding his son, so that a man only achieves full maturity upon the death of the father. However, the father, ideally, is regarded as succoring, protective and undestructive in his relationship to his children. Within the foyer it is assumed that family members will have the correct emotions towards one another — though it is recognized that individually this may not be so. The chief danger to the foyer is intrusion from without; as long as the foyer remains a closed circle, its members are secure within it.

French adult relationships are characterized by very considerable compartmentalization. Relationships formed outside the foyer are not expected to intrude upon it, nor are such relationships expected to be shared. Protective father figures, in whose hands rests final decision, are exceedingly important in France as leaders, but not as innovators — who are regarded primarily as sons acting outside the foyer (as the Left Bank in Paris is regarded as being outside the conventions accepted in the rest of the city, but related to it). Stable French leadership tends to remain in the hands of the elderly, the high ranking, those with long tenure (in contrast to the constantly altering cabinet, the principal civil servants in all departments tend to hold office for many years). It is significant, however, that the French president is a man almost without power, carrying the prestige but not the authority of the state.

iii. In the German family, the father is the main authority, the mother acting in a sense as his agent, sometimes allying herself with the children in his absence, sometimes betraying them to him. (This is in most marked contrast to the French mother, who may threaten to tell the father of the children's misdeeds, but who, in fact, protects the confidences she shares with them.) Of the German father, Bertram Schaffner writes: "The German father lays so much stress upon respect for his authority that he actually may sacrifice other familial values in order to maintain it... The German father ... fights to maintain his authority for its own sake and in order to assert and retain this role, may force the family to accept decisions which are later proved unwise. He conceives himself as responsible for maintaining the tradition of abstract authority ... The father is actually somewhat afraid of lowering his status and authority by being "familiar" with his children." (6) The child is trained early and strictly to self-control and obedience and to accept the discipline that comes from without. On the other hand, there is an expectation that the child will revolt against parental authority during adolescence, will suffer defeat of its ambitions and then will settle down, keeping its independence — if any — at an intellectual and symbolic level. At the same time, while it was growing up, the child saw the mother — powerful in the father's absence or gentle and affectionate — made subordinate in his presence and saw the authoritative father, in his turn, submit to authoritative persons more important than himself, grumbling and taking out his resentments on his own subordinates, including his wife and children. (Here again there is a marked contrast to the French position, where the father's role in the home and the father's role outside the home are separated. Furthermore in the home, the father tends to keep his position of prestige by maintaining a mild distance, especially from his sons; and, in terms of her relationship to him as wife, the mother supports and upholds the father rather than using him as a bogey and subordinating herself to him.)

So the traditional German hierarchy is conceived of as one involving endless reversals of authority and submission, endlessly insecure and subject to the whims, the betrayals and the resentments of those above (who also in their turn submit) — who are at the same time the sources of strength and protection. This means that the subordinate person can always throw responsibility upon the superordinate one and feel that he has fulfilled his duty and responsibility by carrying out exactly what he is expected to do. It means that, in turn, the super-ordinate person can find a scapegoat outside a particular relationship for what he obliges the subordinate to do. (Ambivalent feelings towards the scapegoat were illustrated tragically during the Nazi regime, where the Jews were treated simultaneously as very strong and dangerous e.g. "international Jewry" etc., and as less than human and therefore beneath contempt, etc. Those ambivalent images are themselves reversible — sometimes appearing as figures of great strength and purity, etc.)

(6) Bertram Schaffner. Father Land. New York, 1948, pp. 15-16.

iv. The Chinese man sees himself as constituting one member of an on-going family line. He is, to use the Chinese phrase, "one bead in a chain." Identification of the individual with the family is symbolized in many beliefs and practices, such as the belief in reincarnation within the family line, the system of selecting personal names, the rituals of ancestor veneration. In these ceremonies the living parents are venerated along with ancestors long dead. In traditional China the authority of parents is lifelong and is based on the fact of fatherhood, not on the individual's superior strength, wisdom, or control of economic resources. This the child sees dramatized in the ceremonies of ancestor veneration when his father kowtows to his grandfather. In taking his place behind his father and participating in these ceremonies, he experiences an enhancement of his self-esteem through his identification with a continuing force... To the extent that Chinese are able to feel themselves identified with a permanent organization, they will take pride in all the outward symbols of their participation — uniforms, insignia of rank which demonstrate the individual's place in a hierarchy, saluting and other rituals. (See The Chinese Soldier, below.)

c. Relationship to the world

Here one would include data on expectations of reward and punishment, degree of responsibility for own life in a wider setting — in the family, town, nation, political party, religious group, accepted ideologies and the relevance of such abstractions as freedom, democracy, and of such sanctions as patriotism, service to God, duty.

1. For a society within the framework of the Western cultural tradition, East European Jewish culture exhibits a minimum of reciprocal behavior. Wealth, learning, and other tangible and intangible possessions are fluid and are channelled so that in the main, they flow down from the strong or rich or learned or older to those who are weaker, or poorer, or ignorant, or younger. Therefore all giving is downward. This mechanism is conceived of as a way of perpetuating the community and of maintaining the status quo — the society never being thrown out of balance through internal crises. All higher status, with the exception of that which is sex-typed, is achieved and achievable, and even sex-typed statuses (father-husband, mother-wife) are achieved categories additional to the ascribed one of sex... It is shameful to receive succor of any sort from those who are inferior to one in any status; it implies that one is in a position to be controlled, for the reciprocal of the downward-giving is deference. Children must defer to adults, young to old, ignorant to learned, women to men. To accept things means that one is inferior to the donor, which may explain in part the contempt the Jews have for those who take bribes, because by the acceptance, they become "sub-adult." It is not shameful to accept from one's equals — it is preferred; this may cast light on the fact that the old prefer to live in squalor where they can be "their own bosses" rather than with children who can supply creature comforts, or to favor living in a home for the aged, rather than to be beholden to an individual. (7)

(7) N.F. Joffe. Unpublished document, RCC J-128.

In the light of this one can better understand the striving for intellectual achievement, for social mobility among young second generation Jewish Americans, their desire to be excellent — as well as the confusions when such striving is interpreted by peer group members sheerly as competitive behavior. Similarly one can understand better the mixture of pride and embarrassment with which older relatives looked upon the young service men and women. In Israel, deference has come the full round — now given by the old for the young who there are the supporters of and fighters for the community which has been identified with the state.

ii. In the Czech household, the father is the head but the mother, as often as she may praise the father may also tear down his prestige. All relationships in the Czech home tend towards symmetrical reciprocity: if the mothers are good, the children ought to turn out well also; if the mothers are bad, it is likely that the children will turn out badly. But it is recognized that this is not always so; people can change, a good woman can rescue a bad man, etc. The expectation, however, is that good, responsible behavior on the part of the mother will be followed by good behavior on the part of the child, and this in turn by conditional praising of the child by the mother ("but I think you should have done even better...") The presents and pleasures a child is given are regarded as the things that are provided by good parents: in the normal course of event; to give a material "reward" would be to give a bribe. Yet the praise which is the reward is never given unstintingly; there is always a partial withdrawal even in the giving. On the other hand, punishment consists in withdrawing whatever the child wants most at the moment; thus, while praise is related to the specific situation, punishment can deprive the child of anything it might have expected to receive from a good parent, and also of the praise it would have received for good behavior. By implication, a link is established between deprivation and praise-worthiness — though it is never certain this will be forthcoming and it is seldom fully given.

Thus, the Czech goes through life with a double expectation that he may be deprived and is unlikely to be rewarded (a very different position from the American Puritan one, for though in both cases reward must be earned, our expectation is that the rewards should be tangible and given in the same measure as they are deserved; the Czech takes "things" for granted but lives somewhat in doubt whether he will be appreciated). If one does not make the positive statement to the Czech, he is likely to assume the negative one.

iii. The world of the Chinese child is divided between home, which is safe and protecting and where he has obligations, and "outside" which is indifferent and potentially hostile; and where he has no obligations. Chinese groups are formed on the basis of personal ties between the members. Allegiance is owed to family, friends, school-mates, etc. Those who do not belong to recognized groups can claim no allegiance; they are outsiders or enemies. The Chinese image of the enemy is personal, i.e. the Japanese invader, the American imperialist, the Communist bandits (not fascism, or imperialism, or Communism). In fighting them, the Chinese is fighting against individuals — "like myself" — but committed to evil and hostile aims. Except for a few devout Buddhists, who believe that all life is sacred and who are vegetarians by conviction, Chinese do not believe in the "sacredness

of human life." Life is good, but it is not sacred; there is no conscious guild connected with killing an enemy. Consequently, the Chinese soldier does not have to deal with the problem of conflict between his religious conviction and his duty as a citizen. Related to this is the fact that an enemy who has renounced his hostile aims can be welcomed as a friend.

iv. For the French everybody is believed to be completely safe in the circle of the home, in the foyer. For the young child this is the only safe place. The dangers that lurk outside are gradually pushed back until, for most Frenchman, they exist outside the national frontiers. This expanding area, between the foyer and the dangerous outside, can be considered a neutral area where one is safe if one is prudent, exercises control, and follows the rules established through educational disciplines. This neutral area is, on the one hand, more or less directly under the control of the state, through its representatives; on the other hand, it is the area where friendships, love relationships and other associations are formed. In contrast to the foyer, in the neutral area the ties formed are largely voluntary and represent deliberate choice.

The French regard the outsider in their midst with considerable ambivalence. Depending upon the context, he may be someone from another family, another neighborhood, another village or town, another part of France, from outside metropolitan France, or from another nation. He is not the person who is unknown (l'inconnu); on the contrary he is someone who is known and identified, but who does not belong. Doubts about the outsider center not so much on his known characteristics, which may be liked or disliked, as on his possible reactions, which the French feel cannot be easily defined. It is difficult for people to judge whether he behaves as he does because he does not know the rules, because he is in some way different, or because he is hostile.

Completely outside the neutral area is the enemy. Nowadays the term enemy (l'ennemi) may be applied to a person in France whose political convictions are believed to be a threat to the state and to French civilization in general — who the enemy is depends upon the political views of the speaker. The enemy has all the qualities of the loup-garou, etc. that children hear about in their small childhood.

2.

Cultural regularities of special relevance to Army life: Information fitting into the following categories appears to be relevant to service in the Army (or other of the armed services) and should be available for each ethnic sub-group.

a. Self-contained organizations

As the services are self-contained organizations, it would be important to know how members of a particular ethnic sub-group dealt with

(1) self-contained organizations; (2) self-contained organizations containing members of other nationals, other religious groups, only members of one sex, etc.

i. Self-contained organizations are a normal Polish form of social organization. The Polish peasant house was surrounded by a fence. The family units were independent. When the elderly father retired, he divided his land among his children and lived with one of them. The misery of the retired old man, unwanted by his children, is a common theme in Polish literature.

Poles, however much they were divided amongst themselves in the past, and in spite of the fact that their country was politically divided, pride themselves on their unity in the eyes of the world.

When the Pole became a soldier, he broke all his civilian ties; he was with a regiment that belonged to a particular town and stayed with this regiment. The regiments had enormous esprit de corps, and men resented being transferred to other regiments. Men who had fought together felt a special bond of unity and continued as a named group. When a man's fighting days were over and he returned to his home, he became a perpetual veteran.

Poles have fought frequently in other armies, but prefer to fight as a unit under their own commanding officers.

Women have not, in the past, fought or served as women in Polish armies; a few traditional figures of women who fought disguised as men are known but it is then emphasized that they were virgins and that their sex was discovered only when they died. The Polish Army is a wholly male army.

ii. The Chinese family is a structure in which each individual has a special place. The family looks after the needs of the child without the interposition of other authorities. The family is practically autonomous and it enters into negotiations through intermediaries with other families on behalf of its members. A large part of a person's life is determined by the family to which he belongs and by his position in it.

When a Chinese emigrates to the United States, he affiliates himself with a pseudo-family, family association, or locality association which takes over many of the functions of a family, exercising control and providing protection to the individual in a strange environment.

The army can be seen by the Chinese soldier as another family association, which regulates his conduct, provides his livelihood, sends his remittances home, determines his relations to outsiders. In the American Army he can become an American with needing to exert himself.

b. Self-administered law

It would be important to know the attitudes of members of the ethnic sub-group towards self-administered law (that is, outside civil law), including ideas of internal and external authority, the corruptibility of

authority, etc.

c. Attitudes towards wholly male organisations

The following kinds of information are relevant to this point: attitudes towards siblings of the same sex, types of association permitted to them (i.e. sleeping in the same bed, in the same room hunting and fishing trips, physical contact, work associations, etc.); friendships within the male sex; standard attitudes towards homosexuality (whether the terms of abuse which are most frequently used are passive or active, etc.); attitudes towards school friends, room mates, "old friends"; with how much ease are friendships made or broken.

1. In early childhood and usually through early adolescence the relationships between brothers in France is likely to be friendly and companionable, without overt rivalry. Brothers whose age difference is great, may have little to do with each other, or the relationship may be closer to that of father and son, though with less distance between them. As adults, brothers tend to be less close to one another unless they have a family business, they keep their business affairs apart; they are unlikely to go to the brothel together and in general they keep their sexual lives rigidly apart.

For the Frenchman there are two major sorts of masculine relationships; those with whom he comes in contact in the ordinary course of his life — school companions, fellow students, fellow workers on the job, men in the same profession, the men with whom he does his military duty and the soldiers with whom he has fought, etc.; and, secondly, his chosen friends — outside his family the most important relationships of his life. His friends will be chosen from among the others as well, sometimes, among men older or younger than he. His relations with the men he meets through circumstances are formal or casual ("copain" is a slang term for such pals), as the case may be; they may be long lasting; but they are not intimate. Friendships between men are formed around common interests which the pair share in complete intimacy. As in other French dyadic relations, it is not necessary for the two men to share the whole of each other's life; on the contrary, delicacy demands the keeping of privacy outside the specific area of common interest. Such friendships are entered into slowly, can reach a high degree of intensity, and are generally very long lasting. Quarrels between two such friends can be bitter; a broken friendship of many years standing can lead to deep mourning unless the two men have lost their common interest.

It is assumed by the French that, at least among young boys, living apart from normal social life will foster homosexual relations. Such sexual partners are not sought among friends and usually do not become friends.

d. Attitudes towards hierarchical organization, i.e. attitudes towards authority.

Information on attitudes towards authority can generally be obtained in connection with other information about child-rearing since the focal point is the parent-child relationship and the patterning of parent-child-sibling expectations of behavior. Included under this would be such questions as the following: Is parental authority ascribed (simply because they are parents) or does it have to be maintained by demonstrations of worthiness, use of sanctions, etc. What are the expectations of punishment, reward, recognition or being taken for granted. Is the concept of authority a narrow one, limited to a particular type of situation? Are there objections to persons in authority who overstep their role; do they ever step down and in what ways?

Several quite different types of father-son relationship have been described in foregoing illustrations:

- i. the authoritative Polish father who is forced to step down from his position when his children are adult,
- ii. the German father who rules his own house, but exhibits submission to persons of greater importance than himself, whose son is expected to rebel against him in some form during adolescence, etc.
- iii. the Chinese father who is the next man in the long line of those who are venerated by all those below as sons;
- iv. the French father who holds his authority by reason of his position as parent and maintains it by maintaining distance and acting protectively to his son; whose position is supported by the mother;
- v. the Czech father whose role is constantly built up and broken down by the mother;

in addition, parallel material would be needed on the relationship of mother and child, husband and wife, parents to children as siblings, i.e. are they treated alike, in age order, is the eldest child or eldest male or youngest child or youngest male favored, etc. This material would give one the configuration of relationships around authority.

e. Attitudes towards death

Death is the only one of the major rites de passage related to service in the armed forces. In considering attitudes to death one would want to know whether it was regarded fatalistically, whether it was related to one's own behavior at all; it would include information about luck, ways of obtaining luck or good fortune, etc. Also ideas about dying — dying nobly, as befits one's sex, class, nationality, rank, etc. Attitudes towards suicide, towards forms of self-mutilation permitted, if any, permissiveness towards actions by which one escapes danger. Also attitudes towards desertion of a unit, of one's comrade. It would be important to know about the types of bravery that were recognized — what is and what is not brave; and what are the attitudes towards recklessness or foolhardiness. What other kinds of behavior are associated with bravery, i.e. rape, pillage, bravado, hard drinking, quietness. What other emotions are associated with bravery. i.e. pride, love of country or comrades, shame, expiation for the death of others, exhibitionism (before whom), "making good," hatred of enemies or of evil, class or caste pride (e.g. fighting like a gentleman not expected of a peasant, etc.). What are the expectations about burial, about posthumous recognition or lack of it.

f. Attitudes towards the enemy

In assessing attitudes towards the enemy it would be important to know how the enemy is characterized, whether as a rival, a human like oneself, as non-human, as an impersonal force, etc. How is fighting regarded, i.e. when is it right to get into a fight — when attacked, to defend persons, a place, or values — what are the expectations of the opponent's behavior. When is clean fighting or dirty fighting, if any, permitted or obligatory or disallowed? How is a wounded enemy treated, and a captured enemy. What is the concept of treason and how is it handled: by the statement of

a new loyalty, by a change in ideology, by disillusion with the old, by the assertion that the old loyalty was unreal, by revelation of a new truth, by enlarging the group to whom one owe's allegiance (the human race), by shrinking it to a small revolutionary cell, etc.

3.

In addition to the basic information about the national character structure of the ethnic sub-group — as outlined above — it would be desirable to obtain data of the following sort on specific problems related to different stages of military service; both traditional attitudes and the known modifications of such attitudes would be taken into consideration (as, for instance, in the case of Eastern European Jews in Europe, in the United States and in Israel — see below, The Jewish Soldier.) Problems of the following sort would be taken into consideration:

a. The way in which the possibility of armed service is handled:

Will this be taken as a threat from the outside, or a possible demand for activity? How are draft versus voluntary enlistment handled? Are marriages accelerated or postponed, is property acquired or dissipated, are children conceived, are job decisions accelerated or postponed, money borrowed or lent, new clothes bought or old clothes worn? Or are all such question irrelevant?

Who is involved in decisions about enlistment versus draft: parents, siblings, extended family members, close friends, wife, sweetheart, pastor, employer, political associates, gang, teachers?

Is military service seen as an interruption, an adventure, a piece of terribly bad luck, "the end of everything", being more male, being less male (especially for enlisted men who will be "under officers"), being "in things" or being "out of things" etc.?

b. The moment of entry

Is this handled with apprehension or greeted with relief; that is, how are final irretrievable decisions accepted — with some cathartic activity, with passivity, with panic, etc.?

c. Induction

The relevant information here would concern attitudes towards initiation (hazing in school groups, treatment of the "rookie"), handling of initiates in age grades, expectation of teasing, of needless

cruelty, exposure, etc. In addition it would be important to know the cultural devices for adaptation to new situations in general — by denial, by disassociation, by protective coloring, taking on the ways of a new world, etc.

d. Attitudes towards training.

This would include data on how learning occurs, what constitutes practice, example, learning by doing, status definition of self as a learner or as a person able to learn to do a given thing. Who teaches? What is the order of learning — in parts or wholes, groundplan first or detail first? Types of visual, auditory or kinesthetic learning that are customary? Does the pupil identify with other learners or with the teacher? Use of such devices as competition and rivalry, etc.

e. Attitudes towards rank.

General attitudes towards status, age and responsibility. Attitudes towards promotions, and preferences for staying with age mates or for acting alone would be important. Attitudes towards privileges and deprivations.

f. Attitudes towards embarkation.

How final is a journey? Attitudes towards strange terrain, savage or civilized. Is there fear of distance? How is homesickness defined and how is it alleviated?

g. Action

Here it would be important to have information about attitudes towards comrades and towards the "enemy," as well as about abilities to mobilize for a goal, ability to tolerate waiting and frustration, responses to defeat and victories, tension spans, etc.

i. Attitudes towards sickness and towards mutilation

One would include here data on dependency, demands on others for attention, anxieties or other reactions to isolation, etc. How is good health phrased? What is recovery? In relation to mutilation it would be most important to have insight into the way in which the body was conceived — what is the body image? Attitudes towards potency, towards pain, towards awareness of others in like or contrasting situations would be relevant.

j. Leave

What are the accepted attitudes towards rest, contrast, how are civilians related to the serviceman?

k. Attitudes towards being taken prisoner

How strong or slight is the sense of identity with own unit, once a man is separated from it? What would be the grounds on which collaboration will be acceptable, or refused? Attitudes towards the possibility of physical and psychological torture?

How would defenses be maintained during long imprisonment — by sullenness, by nominal efficient cooperation combined with day dreaming (a type of behavior that characterized Czechs in concentration camps), by continuous attempts to escape, by insolence (Germans in World War I), by apathy, by heavy demands upon kin at home (Germans in World War II), by mere activity of any sort, by betting and gambling, by dissension?

1. Attitudes towards discharge

This would involve information about the capacity to shift role and status, and ways of handling past status in relation to present status, attitudes to past and future. What is the conception of what (if anything) society owes the soldier; what does it mean (if it is relevant) to have been "robbed of" or to "have given" the best years of one's life to the Army? Is discharge a complete break, a new beginning, or does past experience carry over into a new situation?

While it would be desirable, in so far as possible, to be able to phrase the questions and the answers in terms of Army life, it is clear that what is involved here as in any other specific situation is the characteristic outlook of the individual according to which he adjusts himself whenever he comes into new situations and is thrown into contact with new people, whether these are the sorts of men (and women) with whom he has been familiar in the past or appear to him to be strange as well as strangers.

For this reason it is the basic attitudes that one must try to get at; it should be possible, with sufficient comparative material to work out a brief list of questions that would be most relevant cross-culturally, and which could be used to obtain insight into the problems of the individuals and groups that must be met. The presentation of the illustrations about military service given in connection with the section on American character structure indicates how particular themes can be followed through a single context of experience. The following sketches suggest likeness and contrast in three other cultures.

The Polish Soldier

M. Zborowski

Values which are often associated with military qualities — courage, bravery, endurance, tenacity, stubbornness, self-reliance, contempt for death — are values which are inherent in Polish culture, and which are transmitted to the Polish child "with his mother's milk." In the interviews as in the literature there is stress upon "hardening" the child for his future life as an adult; this is often conceived as a struggle for ideals against evil and opposing forces. In the process of hardening, the mother tries to develop in the child a contempt for the "body" and an adoration for the "spirit." In material collected in Poland, Dr. Benet describes children who refused to stop playing a game to bind up a bleeding cut. (1) In history and literature children are described who fought and died in various battles for Polish independence, for instance, the "Children of Lvov." In the relationship between parents and children there is a manifest contempt for sentimentality which may spoil the child by softening his spirit. The departing Polish father does not kiss his boy, he shakes hands with him; they are two men who know their duties as fighters. When the father has gone, the son takes over the fighting duties (2) of defending his mother and sisters.

When a Polish boy holds his finger over a lighted candle in front of his friends, in order to show his contempt for physical pain and to harden his spirit, this is a step toward the hard life of the Army where military training is regarded as a series of endurance tests. Even military parades are endurance tests. An informant says:

(1) Dr. S la Benet, unpublished fieldnotes. RCC documents on Poland.

(2) See, for instance, the treatment of this theme in Border Street, a film made in Poland, 1950.

The Military parades which were held on national holidays were used as endurance tests. We had to stand and wait in the burning sun for hours, but we were expected to look fresh and relaxed.

When a boy is told by his mother to fight for his rights even against a stronger boy, when in school he memorises the famous Ode to the Youth by Mitakievics:

Measure your forces according to the goals, not our goals according to your forces...

He acquires the necessary readiness to fight as an adult "for your freedom and ours" on all the battlefields of the world. School textbooks, historical novels, national songs are all recitals of heroic deeds of knights, kings, underground leaders, officers and soldiers who fought and died bravely and with honor "while the whole world was looking at them" defending Christianity, civilization, freedom, or revelation — depending upon the historical situation.

It is certainly not accidental that military experts speak of the Polish soldier as "the best soldier in the world" (though I have never heard the Polish Army described as the best), for the Polish Army is first of all an army of individual fighters — individual heroes, generals or soldiers, and it is always the name and deed of the individual that is emphasized. (Contrary to the Russian concept of the army as an anonymous mass.)

In history and literature, we find exaltation of the individual hero who "with a handful of men" performed miracles. Historical instances when the task of defending the country was entrusted to masses are rare, and even then they are failures — the pospolite ruszenie, i.e., the complete mobilization of the total population levee en masse in situations of extreme emergency. The great Russian epic of war — Tolstoy's War and Peace — is the epic of the heroic Russian people; the Polish epic of war —

Sienkiewicz's Flood -- is the epic of the Polish individual fighters, Podbielniak, Wolodvjowski, Kmiecic, who represent the Polish people. The Russian generals -- Kutuzov or Suvorov -- were strong because they had a mass of Russian people behind them. The Polish people were great because they had great generals -- Poniatowski, Sulkowski, Dombrowski, Pilsudski.

The Pole does not worship war; on the contrary, he loves peace. But war is inevitable because there is always somebody, some evil force which threatens his freedom, his land, his independence, and therefore a war must be fought. Everybody threatens Poland and its people: Tartars, Musulmans, Russians, Communism (and now probably American imperialism). And, therefore, the Pole must always stay "on the watch."

The Polish soldier is convinced that the issue of the battle depends upon him individually. The fatherland depends on him, the "eyes of the world" are directed toward him. Therefore he has to "show" his bravery, his courage, his heroism. Strategy, military art, adequate weapons are, no doubt, important elements in the battle, but the most important and decisive element is the "spirit" -- the will to fight. The Polish word for courage -- walecznosc -- derives from the root "to fight" (walczyć). When one has the spirit, one can charge a motorized tank division on a horse and armed with a lance (actual event). And only spirit -- not military logic -- can explain those occasions when a fighting unit has died to the last man, defending a single spot when the whole country has already been submerged by the enemy (e.g. the defense of the plateau in Danzig in 1939):

Let the whole world see that a Polish soldier knows how to die with honor on his post.

To die in a fight means that the soldier's name goes down in history as one who fought for freedom, independence, Christianity, or whatever the slogan was in a given war. The Polish soldier does not die anonymously, as a number in the regiment. He will get an individual grave, his name will be on the roll call of those who "fell on the field of glory". An informant, a former soldier in World War II, said:

When I was in the Polish Army it was the custom for the soldiers never to leave their dead or wounded behind. The point is that the dead soldiers should get a proper funeral. As a matter of fact, it was considered so important that even in the rush evacuations, when time was extremely limited, proper care was taken ... [Did you observe the Russians and Germans doing the same thing?] No. The Germans took care of their wounded and carried them along, but when a soldier was killed he was left behind. The Russians were worse. [Here the informant made a gesture of condemnation.] They didn't bother. The idea was that there were so many of them. It is only recently that the Russians started to bury their soldiers more carefully, but even so, they were buried at any spot, on the street or roadside, anywhere it happened to be convenient....The Poles... dislike the idea of a common grave. During the Warsaw uprising, when a great number of people were

killed and it was impossible to attend to each one separately, common burials took place. But this is exceptional...It was extremely important to give the dead soldiers a military burial and most of the time the impossible was done. [Why was it so important?] It was specifically important to give them a military burial, [military means ceremonial] because they earned it. Of course, it is more important to carry away the wounded, but a military burial is extremely important. I myself served for some time in the first regiment of Hussars which was very select and exclusive, and had very old traditions. This regiment celebrated every year a special anniversary with everyone present, at which the names of all the members who died at war were read aloud. The name was called out and those present would follow in unison with the words: "Died on the field of glory." For some of the soldiers it wasn't actually so bad, because at least they would be remembered at these special occasions, while in case of natural death their relatives would forget them after two years or so. I'm not sure, however, whether all the regiments had this tradition. (3)

The best thing is to die and be buried in Polish soil, defending it from the invader. But one can defend Poland and Polish rights and values abroad also. As a matter of fact, the Poles are proud that:

the bones of the Polish fighters are scattered all over the world -- France, Spain, Santo Domingo, Siberia, Monte Cassino.

The Poles are proud of participating in every war for freedom and justice, that everywhere they have fought for "Your freedom and ours". This was the slogan on the barricades in the Paris Commune (Dombrowski), in the American Civil War (Kosciuszko), in Italy, and on the fields of Normandy. This slogan was also used by the Polish brigade in the Spanish Civil War in 1934-6. But everywhere the Poles have fought in separate Polish units under Polish generals and officers, and many commanders-in-chief complained about the "spirit of independence" of the Polish units.

Though often complaining of the unfair treatment they get in the armies in which they have participated, Poles boast of always being loyal to their allies. Poles like to tell how unfair the French, the Russians, the English, etc. are in dealing with them; they also like to stress the fact that they are always chosen for the most dangerous missions, and that if it had not been for them, the war or the battle would have been lost. But whatever is the relationship with their allies, Poles state proudly that they never have betrayed them. Their main complaint, however, is that the Poles never get the just and fair compensation for their share in the war, though "the whole world knows that they had the biggest share in blood and sacrifice."

It is only natural that the Pole who emphasizes so strongly the role of the individual in the Army is much concerned with the overall picture of the war: with the general strategy and with the conduct of the operations. The Pole makes a point of being

well-informed about all aspects of the war, he feels free to criticize the leadership, and to choose scapegoats for defeats and deceptions.

Life in the Army is a complete breaking off from "civil life", and many values must be reconsidered. The Pole joins the Army reluctantly -- one should not forget that pre-war Poland was mainly an agricultural country, and for a peasant military service means a worker gone from the land. But once in the Army he becomes a soldier: a member of a new society with new values. Even such a social phenomenon as prejudice may sometimes disappear. Post-war American novels "The Naked and the Dead, The Young Lions") written by Jews emphasize the carry-over of the same racial discrimination as exists in civil life. A Jewish informant who served for quite a long time in the Polish Army stressed the fact that the most ardent anti-Semites lost their anti-Jewish feelings in relationship toward their Jewish comrades, "when facing death together". Once in the Army they were all "comrades in arms".

There is a definite distinction made between the "volunteer" and the one who is "drafted". The first is a hero to begin with; the other is a passive inductee, who may or may not become a hero. A volunteer who has once joined the Army is a member of his military organization for life, even when the war is stopped, or the cause for which he fought has become obsolete. A great part of the male population of pre-war Poland was composed of members of different military organizations identified with a name of a leader. There were "Dowborczycy" - the former soldiers of the brigade of General Dowbor-Musnicki; there were "Hallerzczy" - former soldiers of General Haller's brigade; "Pilsudczycy", also

called "byli legionerzy" - former soldiers of the "legions" of Marshal Pilsudski. There were also organizations of former participants in various famous wars, battles or defenses of cities; "The Children of Lvov", "former participants of the war between the Poles and the Soviet in 1919-1921", etc. Members of these various organizations felt a kind of kinship derived from the "brotherhood of weapons" (braterstwo broni), who had together endured the "baptism of fire". They felt they deserved the gratitude of the nation because they were instrumental in the regaining of its independence. They actually had a great many privileges -- similar to the privileges granted veterans in the United States, but much broader. For instance they had the right to certain monopolized licences in commerce; even Jews, who were normally excluded from whole areas of business such as tobacco, or liquor, could get a licence if they proved that they were former volunteers.

A former soldier is proud of his military past, boasts about his deeds, and uses every opportunity to tell about his days in the Army under a given leader. The association of military experience with individual names of officers or leaders is always present in those stories. Titles and rewards acquired in the Army are displayed on solemn occasions. Veterans' insignia are always displayed, and, in many houses, military certificates are framed and hung on the walls.

War is a male business. The woman's role is to inspire the fighter, to pray for him, and to take care of the wounded. Those women who joined the Army as actual fighters did it by disguising their femininity, and, as is often told in stories, their identity

as women was discovered only after their death. Participation of women in military life is regarded as disgraceful and probably as immoral. I quote from a "letter to the editor" in a Polish newspaper of 1945, when a feminine military organization was proposed:

I'm asking if our military authorities accept and agree to it? [to the draft of women into the Army] We have already a name for those military girls [the officers' mistresses]; isn't that horrible? Is that why our mothers did bring up in blood their daughters during the occupation?...Is our Polish government accepting these ideas of other nations? It is a shame and desolation...

In a recent commemoration of the Warsaw uprising on the Polish language broadcast in New York, the "handful of fighters" fought the unequal battle against the German Army in the streets of Warsaw, under the leadership of General Komorowski, while the women were praying in the churches or playing Chopin's music to inspire the fighters. (These pictures were actually reconstructed in the broadcast.)

Not being an actual fighter, the ideal Polish woman is, however, extremely courageous, and is ready to share with the men (her husband and brother) the hardships, sacrifices, and miseries of war. As a matter of fact it seems that the men (as described in literature) were more subject to weakness than women; the woman's role was to strengthen the man's morale. The Polish woman fights not with weapons but with her heart and spirit. Just as a man -- and maybe more so -- she knows how to die with honor for her land, people, and ideals.

The above picture is necessarily an ideal one, presenting the ideal image of the Polish soldier. It is pertinent chiefly to pre-war Poland, and does not take into consideration the

possible changes undergone by Poland in its position of a "satellite". It is also important to know what is the place of this picture in the American scene under the influence of American values and experiences in American military life. I have not included in this discussion data on Polish Americans who have served in the American armed services.

THE POLISH SOLDIER

Summary

1. For Poles the "hardening of the spirit" is a major aspect of learning, and for the Pole to have a "hard spirit" means contempt for the body and the will to overcome all obstacles. For the Pole it is the act itself -- the heroic fight -- rather than the outcome that is central.
2. For the Pole it is above all the individual -- the individual leader, the individual fighter, the individual identified even in death -- who is important. This means that individuals are willing to take responsibility and perform best those tasks that are defined as dependent upon themselves alone.
3. The Pole is challenged to action by his audience -- when the "eyes of the world are upon ~~him~~" he feels obliged to show his hard spirit; the world then owes him admiration and praise for his acts.

Sources

1. Recorded interviews and other documentary material of Columbia University Research in Contemporary Cultures.
2. Sula Benet: Not by Bread Alone, New York, Roy Company, 1951.

The Jewish Soldier

R. Landes and N. F. Joffe

1.

It is not possible to discuss "Jewish" character structure on the assumption of a universal set of cultural values, as one might discuss German or French national character. The situation is comparable to the confusions and errors that would result if one were to speak of "Catholic" character structure. The data gathered in Columbia University Research in Contemporary Cultures show that values cherished by Jews vary strikingly as one moves west around the globe from Yemen and Syria to Eastern Europe, then western Europe and Spain, the United States, and back to Israel. The main body of these data are from Eastern Europe, with some from Central Europe and none that is more than suggestive from other areas.

Since this report is focussed upon American military uses of human resources of Jewish ancestry, it should be kept in mind that the larger part of the American Jewish population is of Eastern European origin, although its prestige sector is of German origin, either directly or through cultural borrowing (e.g. Reform Judaism). On the other hand, the extraordinary achievement in Israel with young Jews of many cultural origins gives evidence of the plasticity of young Jews and, in turn, has affected the attitudes of young and older Jews over the world.

2. The European Background

In Europe, East European and some Central European Jews have traditionally regarded themselves as living "in exile" and upon sufferance. Military service held no appeal for them; it was regarded as punitive in Eastern Europe, and humiliating in

Germany (where Jews virtually were excluded from officer ranks), A rationale of peace was substituted for the despised and deplored military draft.

The historic attitude in the shtetl -- the Jewish community -- in Eastern Europe was one of horror. Jews were permitted to play no part in public life, and they did not want to serve in the Czar's army. Memories of the cantonist period of the mid-nineteenth century were green and vivid. But young men were "taken" (this is the word almost invariably used for entrance into army life) and were forced to serve for a period of twenty-five years. In this way they became dissociated from their Jewish ways and habits. Even when the period of service was considerably reduced, all kinds of ruses and stratagems were resorted to in order to circumvent the conscriptions that so impoverished the Jewish communities. Young children were married off; families without sons "adopted" boys; names and dates of birth were falsified; mutilations -- induced hernias, perforated eardrums, removal of finger joints, etc. -- were common occurrences. Illegal emigration was another way of escape and is often cited in life histories as the reason for leaving the shtetl. Because of the horror with which life in the army was viewed, it was extremely difficult to raise the quotas of recruits, for the problem of recruiting had been turned over to the local Jewish communities. Bands of khappers (literally "catchers") would pounce on the orphaned, the helpless, the idiots, and the friendless in neighboring towns to furnish the necessary recruits.

The lack of customary Jewish food is perhaps mentioned most often by informants when they speak of the miseries of army life in those times. However, when parties of soldiers passed through

a town or were billeted there, Jewish women would supply Jewish food to the Jewish soldiers. One informant, now a man of 82 years, was in the Russian army in the Ukraine circa 1890; whenever he could, he ate in the home of a Jewish family even though he personally had no feeling about observing customary dietary laws.

Another informant explained why it was the Jews did not want to go into the army, as follows:

There were a number of reasons. I can tell you my own experiences in the Russo-Japanese war because I was drafted into the army then. And I think they hold for most of the boys who were in the army. First of all, there was a tremendous amount of anti-Semitism in the army; if the word "Zhid" wasn't thrown at you a hundred times a day, it wasn't said once. They -- the Goyim -- made a great deal of fun of the Jewish soldiers; they used to laugh at them and call them names... Then there was no chance to get ahead in the army. A Jew was never raised to a higher position there, even though many were good soldiers and deserved a rank. For example, I was the only one in our whole battalion who could write (Russian). So I became the Shraiber (clerk) for the outfit. But the official writer was a Russian who couldn't even make a cross. And that was because headquarters was not supposed to know that a Jew was given a better job than a Russian soldier. And then there was another reason why the Jewish boys didn't want to go into the army. During the Russo-Japanese war there was no reason for the Jews to fight.

Conditions were not so wonderful for them in the country they they should not fight for Russia. And Russia's political policies did not interest them. They got nothing for fighting a war for their "motherland." They didn't get political rights, they didn't get any more economic privileges; and while they were away fighting, their families were being slaughtered in pogroms at home. So, can I give me one good reason why the Jews should fight for Russia? I can't see any....

[Would you say that the Jews were afraid to fight?] No, certainly they were not. They made good soldiers, but they had no reason to fight. There was nothing to fight for! (1)

In Germany, where conditions were different, Jews were debarred from the officer ranks as a rule (and these ranks carried great prestige); but there was no characteristic evasion of army service.

(1) Unpublished interview; RCC document, J-R 341

Notable exceptions to the generally anti-militaristic attitude were those where the objectives were Jewish. The Biblical defense of Palestine was part of Jewish tradition. In the underground resistance in all countries in World War II, Partisans fought consciously for their freedom, as they have also both in the underground and open warfare for the independence of Israel. That is, the historical evidence is that, in the Old World, military draft service was presented to Jews under the most onerous conditions. Jews threw themselves into military activity only when it was clearly in their interest as a group. (Similarly, Spanish and German (?) Jews fought gladly in the American Revolution and in the Civil War, where the "causes" for which they were fighting were clear.)

East European Jews regarded two kinds of behavior as treason: (1) apostasy and (2) informing. Jewish informers in Czarist eastern Europe were ostracized by their communities, but some informing was practiced even under the Nazi regime. Informing was regarded as worse than apostasy (from a secular point of view) for it endangered the very life of the Jewish community. In the United States and Israel, the notion of treachery is oriented to the national state; it can be said that in Israel the Jewish community has become the state.

3. The American Jewish Serviceman

In the United States before World War II it was often a matter of surprise and discomfort, if not scorn, to find Jews in the regular Army or on the police force of a city (though New York City has many Jews on the force).

American Jewish families wept in World Wars I and II when their young men were drafted; the young men and their families

February, 1951

were regarded as doomed. This may have been more marked in World War I, when anti-Semitism was no battle issue. In World War I, Jewish (and general American) pacifism was so strong that soldiers are reported to have shot into the air rather than at the (human) enemy. However, the members of the American Jewish Legion and the Jewish War Veterans are very proud of their Americanism. In World War II, many Jewish men and women enlisted voluntarily, partly because they were clear about the fascist and anti-Semitic issues. At this time there were other changes in the direction of American secularization, i.e. heavy drinking vs. the traditional sobriety, and considerable sexual freedom for both sexes. In World War II there was also a return to religion, which was characteristic of the whole American military.

In terms of physical appearance, young Jews who have grown up in the orange juice and codliver oil tradition are no longer undersized, underweight or stooped-shouldered in the stereotype manner of fifty years ago. There is very little affect attached to circumcision in branding a man as a Jew. Rather it has become a class point in America and most middle class men under the age of forty have been routinely circumcised in infancy. Physical prowess is valued among American Jews as it is among other Americans. Even the facial configuration has undergone an apparent change. Jews who are sensitive about "prominent" noses are apt to be men with other psychoneurotic problems.

In World War II, Jews were the only non-Christian religious group to be accorded formal recognition, i.e. chaplains were Protestant, Roman Catholic and Jewish. Special foods for Passover were made available insofar as this was possible. All American

February, 1951

soldiers were furnished, again as far as it was possible, with Thanksgiving and Christmas dinners, but Jewish soldiers got an "extra." (Perhaps the most telling single instance of symbolic religious use of food that was reported to us was the seder that was held in Goering's castle in the spring of 1945, in which Jewish and Gentile American Soldiers participated.) It is of interest to note that it was through food that religion was majorly recognized. Though in the United States Jewish soldiers were granted leave for the fall High Holy Days or for Passover, they did not in combat areas observe the Sabbath or the Day of Atonement in such terms. (It would be of interest to know whether, when leaves were granted, there was any form of exchange between the Jewish holidays and the Christian ones.) Jewish veterans sometimes said that in the Army they had a "dispensation" that permitted them to disregard customary dietary laws; asked how the dispensation had been granted, they replied that they did not know or that they supposed it was "like the Catholics." (Here one notes a religious practice spreading -- at least as an assumption -- from one to another group living under similar conditions.)

American Jewish families in World War II were somewhat confused about how to treat their young relatives in uniform; there was a mixture of pride and embarrassment. A soldier's service and distinction were claimed boastfully by his family and friends; WACs and WAVES were difficult to get accustomed to (though not in Israel -- see below). Yet no true vainglory was expressed until Jews joined partisan groups or the Israeli army. However, attitudes varied. One business man known to the writer was

immensely proud of his colonel's eagles and later of his general's star; this American (Jewish) tycoon had left Russia for the United States at the age of eight. His sons also were in World War II but no particular fuss was made over them. Another general, a very distinguished lawyer of German Jewish ancestry, was also very proud; these men, like many other Americans, enjoy keeping their military titles in peacetime.

Jews were accused by the prejudice of finding "safe" positions in wartime; World War I and II records show them to have been as "brave" as other groups. Many American Jews do not seem to care about these records, although they may stress partisan, Palestine Brigade and Israeli activity; some Revolutionary and Confederate families differ, as do the individual top officers mentioned above. I met no stress on acts of bravado, such as Siegfried Sassoon describes in his World War I British autobiography.

Conversations with young middle-class American-Jewish draftees of World War II and the present reveal considerable distaste for Army life. One young man (22), waiting to be "taken" in a month, told me of a young friend of his already "taken" who had been sent from New York to a California camp, and he empathized powerfully and self-pityingly with the soldier's loneliness for his family, friends and girl in New York, and for the good food he had at home. My informant's elder brother, a young veteran (26) of World War II, had suffered greatly in the army from the shift of food habits, and anticipated the same difficulties for his younger brother who would eat only meat three times a day instead of eggs, etc. These young men conducted a flourishing jewelry business with their ailing father, and hated to leave it. The

Army was regarded as an impersonal, non-human elemental force, entirely opposed to the warmth and known character of the indulgent family; uniforms, travel, other new experiences connected with it meant nothing: it was an arbitrary force, to be evaded if possible, and otherwise to be submitted to. The father, aged 50, on the other hand boasted to me of his own hair-raising and retrospectively amusing experiences as an interpreter in the Czarist Russian army, and was impatient of his sons' softness.

Many young American Jewish draftees think of the Army as an irresistible might and fate, others think of it as an institution like others within which they may find their way. This latter attitude may reflect the Jewish experience of social mobility, which has been extraordinary in the history of Europe, both within the Jewish community and in the general national-cultural-political community. Thus, professional men and those with special bends seek related placement in the military. Promotion is not to be relied on (they realize) but is not unexpected when it comes, and may be striven for.

I have heard American Jews speak of Army friendships as the British Sassoon did, i.e. as close affectionate relationships that might be wiped out some terrible day "when your number comes up". The fatalistic aspect is consistent with other attitudes reported above. It led Sassoon to defy the British Army even after winning several decorations for bravery.

All variations of physical contact have been reported; gregariousness is good.

In civilian life, Jewish men and women often have separate

February, 1951

organizations, the extreme being found among orthodox religious groups. But there is no insistence on wholly male organizations, especially in the secularized population. For example, the powerful American HISTADRUT (Labor Federation for Israel, which is the private backbone of the Israeli government) includes members of both sexes; one of its woman members is also Israeli Minister of Labor.

Many Jews in World War felt lonely, or experienced anti-Semitism, and these segregated themselves socially with other Jews in the army -- a practice enforced upon Negroes, but opposite to the experiences of many Mexican-Americans. I never heard of a Jew who regarded the Army or fighting either lightly or too earnestly; it was a duty to be gone through, and he might get by. In World War II the clear enemy was the Nazis, and Jews of various national origins felt that they were needed in that battle, and that the battle was theirs. This resembles behavior in civilian life where endless Jewish organizations defend Jewish interests against outside threats, as well as all-Jewish fraternal and social organizations.

The autobiographies at YIVO suggest that World War experience sent many young American Jews (close to the East European background) back to a traditional fold of religion and of Jewish separateness, out of desperate fear and loneliness. This did not preclude associating with Gentiles at the front but it seemed linked with some clarification of identity. That is, the green soldiers were originally confused and unhappy about their American and/or Jewish identity, and the terrors of war so set their perspective that they were able to accept being Jews in the United

February, 1951

States. In other words, certain basic conflicts -- even tragedies of civilian life -- broke through under military pressures, and were often resolved anew and satisfactorily. For these young Jews, possibly, the "enemy" to be vanquished was not so much the Germans or Japanese, as the American social vacuum in which they had been living heretofore. (Mexican-Americans revealed similar orientations, and the more joyfully attacked Japanese when they discovered the possibility of solidarity with Anglo-American soldiers.)

Attitudes towards authority are generally said to be predicated on performance. As T. Bienenstok points out in his article on authority in the shtetl², East Europeans feel that authority can be disputed, for it operates by advice and reason instead of by command, and must always be validated by performance; there can be no regimentation, but there is egalitarianism and recognition of individual differences. One individual tends to regard another as only an individual (in contrast to the Catholic separation of the individual from the office he holds), and often uses this as an avenue to intimacy that can be undermining (e.g. malicious gossip, etc.). Warding off such intimacy by various devices of aloofness is found unforgivable by an East European Jew, and is often attacked in devious ways. European parents -- or elders of European family background -- are treated with consideration and/or esteem because of their generation-status, and no demonstrations of virtue are

(2) Theodore Bienenstok, "Social Life and Authority in the Eastern European Jewish Shtetl Community", The Southwestern Journal of Anthropology, Vol. 6, No. 3, Autumn 1950, pp. 238-254.

February, 1951

required; children are similarly accepted but are expected to justify this by some show of regard as respecting parental opinions or life-ways.

I never heard of Jewish conflicts with KP's (in contrast with Mexican-Americans, who boasted of it); this is consistent with the stress on being law-abiding. The New York City Jewish community maintains its own court of law for civil cases, and operates under the authority of the New York State Arbitration law; its personnel is drawn from the general community. Jewish tradition enjoins the people to observe the law of the land, except for certain religious commandments (dietary, Sabbath, monotheism).

Death is an occasion for displaying immense sorrow, and is regarded as an irreparable tragedy, a final one, no matter how it happens. Success in life is supposed to be a result of categorical virtues, like hard work, honesty, charity, etc., as failure is the obverse on the part of the individual or of his forebears. But easy acceptance of death is not usually provided for emotionally, although one noted East European Jewish figure ("assimilated") named in his will the man who was to say the eulogy at this funeral! Suicide is not well regarded, and is not a traditional act, and there seems no pull towards it (but rather all kinds of "realistic" rationalizations away from it). However, there were individual Jewish suicides in Nazi Germany and in the United States depression of the 30's. On the contrary, Jewish psychic viability has been noted by many, as well as a tremendous rise in morale when danger confronts the community (as in the Warsaw ghetto fighting). Yet relatives tolerate devices for avoiding danger. Thus, one American Jewish man was allowed to leave New York for California with his

February 1951

wife and children to avoid penalties for sums owing his wife's American and East European Jewish relatives. I think such permissiveness can be generalized, for the emphasis is on survival.

The Jewish underground was powerful in Europe in World War II, even within the concentration camps where Jews showed astoundingly high morale; various volumes deal with this subject. Jews stood up well under Nazi torture, feeling one with Jewry all over the world (this point is always made clear). Famous study groups were developed in the concentration camps; and escapes were always planned with the anonymous underground organization. I think it is a safe generalization to make that where danger has threatened the Jewish community as a community in historical times, its morale has soared; the creation of Israel out of World War II debris is simply the latest instance.

Treatment of a wounded enemy by the Israeli national forces (the first Jewish nationalist army in modern times) has been reported everywhere to conform to the Geneva conventions. This does not necessarily cover "terrorist" underground activities. (There were Jews also among the Russian "Terrorists" of Czarist times; and we had Murder Inc. in Brooklyn, New York.)

4. The Israeli Soldier

The Israeli Army has shown endless instances of the most reckless bravery, where human bodies were pitted against tanks and won; but this is a well indoctrinated army of young crusaders who know exactly their objectives and their risks. Violence was forbidden them in their occupation of enemy territory; on the contrary they were taught to build up the land for community use.

February, 1951

This army, and all the young Israelis, are indoctrinated with a fierce pride of country and confidence in themselves. The bearing of the Israeli military and MP's is the same as that of the civilian population, and the uniform is the casual one of shorts and open shirt; hence military and civilians do not feel separate from each other. There is considerable boasting of and by young military heroes; and much adulation of youth. Both men and women compose the military (drafted at 18), and wear the same uniforms, except for the women's skirts; but the women are in separate divisions.

In the Israeli Army all risks are expected and taken by men and women, as in World War II undergrounds. Except for individuals, this is not so regarding Jewish participation in other armies. In general, practices of the Israeli Army reveal the positive lengths to which Jews will go under a given set of circumstances, i.e., belief in the redemption of their homeland. This is so marked that Jews and Gentiles alike say that Israelis no longer look like Jews! Certain European Jewish values seem to be minimized in Israel. Thus, Israeli youth are treasured above the aged; fighting and other non-intellectual activities are cultivated before the old-time book-learning; the martial spirit (and sports) rivals or supersedes the pacifist. Israeli youth are hardened physically in the agricultural collectives (Kibbutzim) and in military training, in contrast to European and American Jewish children, who are cherished also, but who are pampered physically, food and health being stressed; the ambitions instilled in them are for accomplishments in business and learning. Everywhere among Jews individualism

February, 1951

and resourcefulness are stressed in various ways, with emphasis upon humanitarianism, freedom and equality, and preservation of Jewish identity, however this is defined locally. East European Jews used to publicize their collective and individual sufferings in demonstration of their human worth; the opposite is stressed in Israel among the young, and hardness of all kinds is cultivated. (Even a young pregnant bride forbids herself to cry when she is brought news of her soldier-husband's death.)

In Eastern Europe, the possibility of armed service was dreaded and evaded; in Germany it was dreaded but not evaded; and in the United States it seems to be regarded as a not-happy inevitability (the same response is also given by Gentiles of English and German origins in New York). In Israeli, on the contrary, young Jews accept military service as a normal condition of their pioneering life. In Israeli there is a universal draft of young men and women. At eighteen both must go through one year of military duty and subsequently do a yearly month's service in the reserve (cf. New York Herald Tribune special feature, January 16, 1951). These draftees thoroughly accept the necessity as part of building up their infant country. Israeli military service is in fact bound up with civilian life since it includes agricultural work as part of the military training. In the United States, with our traditional bias against military life as a career, Jews like others have regarded military service as a liability and a break with preferred civilian objectives. In the United States military service is viewed as antithetical to peace; in Israel it is regarded as a condition for peace. In Europe and the United States, Jews have tended to make critical civilian

February, 1951

decisions in connection with military service, e.g. contract marriage, start family, conclude business, etc.

In the United States close relatives are often considered in connection with enlistment and draft, and are relied upon for comfort. This is not so in Israel. In Europe, military service was a male activity (either glorious for the non-Jews, or shameful for the Jews, in the eyes of all sectors of the community). The attitudes carried over to the United States, with much modification. In Israel it is a great opportunity for both sexes. In Israel service is regarded as an adult pioneering responsibility of men and women alike. (No data on Yemen or Syria or Morocco or Egypt, but I think -- as do informants -- that Israel would continue to stand out as the great contrast.)

In Europe and the United States the mother's despair and panic often confuse the son's sense of adulthood. In Israel, however, the young draftee is one with the whole adult community, who idolize him-her. In Europe and the United States, the Jewish family (even strangers in another community) will always comfort the young soldier, lost away from home -- in Israel, national glory is offered him instead. The American Jewish soldier who enjoys his role as a soldier -- apart from the anti-Semitic justifications of World War II -- is anomalous as a Jew (and as an American, except for many Mexican-Americans, southerners, and some westerners). The Jewish contribution to the American's traditional distast for professional soldiering is his reminder that military values are opposed to intellectual, humanistic and spiritual values. Even the American Jew who has learned to enjoy athletics does not enjoy

RCC - WQHB

February, 1951

soldiering, which he in no way equates with sports. Also, military regimentation violates the Jew's sense of himself as a self-directing individual.

February, 1951

Appendix: Women in the Armed Services

For the first time in history, Jewish women serve equally with men in the Israeli forces. Evidently the adaptation was easy, met no objections, although the personnel were drawn from all over the globe. The women are ~~s~~ equal and independent -- in theory, and slowly but growingly in practice -- in other spheres of Israeli life; they compose ten per cent of the Parliament. Where Americans generally resist the idea of women serving on any but a voluntary and limited basis, Israeli women accept the obligation of serving out their designated military period, for to them the motivation and the pressure are unmistakable.

American Jewish women joined the United States military in World War II gladly, but many refused to remain in the reserves, and do not wish to volunteer again unless all-out war is declared. Single and married women both volunteered; a married woman did so if her husband was in service and they had no children. Jewish tradition in Europe and the United States has always allowed women to work quite independently outside of the home (except among the upper bourgeoisie), especially when the family needed financial help. However, a woman was always expected to consult with others of the family, especially her father or husband (and adult son?) Jewish women have always been self-reliant in all ways, and in general are considered to be more so than their men, but it is always under the over-all moral (i.e. talmudic-supported) supervision of male kin. At times in Europe, as in the United States, they have assumed more material responsibility than their husbands; in the United States, however, they tend to assume these responsibilities equally with brothers and husbands, as well as

February, 1951

intellectual and professional opportunities.

Biblical figures of heroic women find no models in subsequent Jewish history until the creation of the Palestinian Jewish Brigade and then of the Israel Army (and of the national Sports organization that, under the British mandate, functioned as an unacknowledged Home Guard against Arab attack). It is instructive that this Army is composed of young Jewish men and women of Asiatic, European, African and American proveniences; it demonstrates the adaptability of young Jews to new and given radically altered ideologies, from which their parents often shrink. In this Army, men and women are regarded alike as soldiers, except for maternal responsibilities. Women are not regarded as liabilities or as temptations to the Israeli Army, though they often are to Jews of other national armies.

February, 1951

The Jewish SoldierSummary

1. It is extremely important for Jews to be able to identify personally with a cause for which they are asked to fight. They fight well when provided with motivations specific to their situation and interest as well as the general ones.
2. Jewish attitudes towards military service and fighting have been directly related to the conditions of their life and to the extent to which they have been able to identify the cause with their own interests. In Eastern Europe, where they were ostracized from social participation, military service was dreaded and evaded if possible; in Germany, where they were not permitted to rise to prestige positions in the services, military service was dreaded but accepted. In the United States, young Jews tend to accept military service on much the same terms with other Americans -- though they are affected by anti-Semitic attitudes. In Israel, as in Partisan and underground fighting during World War II, both men and women have enthusiastically accepted their roles as soldiers.
3. Potentially, both men and women are willing to serve. Jewish women are accustomed to accepting responsibility; in the United States they tend to assume economic responsibilities as well as intellectual and professional opportunities equally with brothers and husbands. (Even segregated, sheltered, brow-beaten Yemenite girls have been trained to soldiering.)

February, 1951

Sources of Information

1. Recorded interviews and other documentary material of Columbia University Research in Contemporary Cultures.

2. Publications prepared in Connection with Columbia University Research in Contemporary Cultures:

Bienenstok, Theodore, "Social Life and Authority in the Eastern European Jewish Shtetl Community", The Southwestern Journal of Anthropology, Vol. 6, No. 3, Autumn 1950, pp. 238-254.

Jaffe, Natalie F., "The Dynamics of Benefice Among East European Jews" Social Forces, Vol. 27, No. 3, March 1949, pp. 252-271.

Zborowski, Mark, "The Place of Book Learning in Traditional Jewish Culture" Harvard Educational Review, Vol. 19, No. 2, Spring 1949, pp. 87-109.

Zborowski, Mark, "Children of the Covenant" Social Forces (In press)

Zborowski, Mark, and Landes, Ruth and others. "Hypotheses Concerning the Eastern European Jewish Family" Psychiatry (In press)

Zborowski, Mark and Herzog, Elizabeth, and others. It Was In Our Town, New York, International Universities Press (In press)

3. In addition, the writers interviewed, for the purposes of this report, individuals from Eastern Europe, Germany, Israel, and native Americans, including both men and women, age range 27-75. Both writers also drew upon their previous knowledge gained from association with Jewish individuals who had expressed themselves on the points under consideration. Dr. Landes is associated with the American Jewish Committee, and was able to draw on her studies made for them.
4. Publications on Israel.

February, 1951

THE BACKGROUND OF THE CHINESE SOLDIER¹

R. L. Bunzel

1. The Position of the Chinese in the United States Armed Forces

Two things make the position of the individual Chinese soldier special: 1) The Chinese are identifiable, and 2) The Chinese are, at least potentially, representatives of "the enemy". The identifiability of the Chinese is derived from a combination of a distinct racial type and identifiable names. At the time that this is written (February 1, 1951) there seems to be very little indication that the Chinese are regarded by Americans generally as "the enemy". Americans interviewed concerning the possibility of an all-out war visualize it as being a war against Russia; in so far as the Chinese are seen as part of the war it is "the Chinese Communists" -- a clique which has seized power from the inept Nationalists and which is now running the country as "dupes of Moscow". Chinese interviewed do not report any evidence of hostility toward them; only one anti-Chinese incident was reported to the writer. This was described as follows by the Chinese informant:

- 1 The following memorandum is based on research conducted by the Chinese group of Research in Contemporary Cultures in New York City, and applies to Chinese from the eastern half of the United States. It does not apply in all particulars to Chinese from San Francisco community, though containing a larger number of complete families and a greater proportion of second and third generation members, nevertheless maintains its cultural identity, and its characteristically Chinese social and political institutions.

February, 1951

I know of only one anti-Chinese incident in New York. A friend of mine got into a subway behind another Cantonese -- you know one Cantonese can always identify another. The train was crowded and he was pushed up against an American. The American was annoyed and turned around and said, "Stop pushing me, you--- you North Korean!" Anyone should have known that he wasn't a North Korean, but a Chinese.

The same informant reported that she had heard that a number of "anti-Chinese incidents" had occurred on the West Coast. The present non-hostile attitude toward Chinese may change if fighting spreads to the Chinese mainland, or if raids on Chinese communities by immigration authorities are reported in the press in inflammatory terms. In that case the high identifiability of even second and third generation Chinese may become a serious problem.

Among the Chinese community there are at least three lines of cleavage: along lines of class, nativity, and political sympathies. The major class cleavage is between the student and professional groups, the so-called "uptown" Chinese, and the Chinatown Chinese. The uptown group come from upper-class families, predominantly urban, the parents belong to the new business class of China with western contacts, and many of the young people have gone to American mission schools in China. They come from the cities of North and Central China, and they speak Mandarin. Most of them are in this country on student visas, and plan to return, although some think that "it may be some time" before they can return.

The "Chinatown" Chinese do not all live in Chinatown, but they have their social affiliations there. They come from

February, 1951

lower middle class and upper peasantry; no really poor Chinese families can afford to send a child overseas. They come entirely from a limited area in South China, speak Cantonese or related dialects. Many speak no English. They are here on permanent visas, and many of them have derivative citizenship. Nevertheless they are, as a group, less Westernized in their way of life and attitudes than the uptown group.

Between the two groups there is considerable hostility. The uptown Chinese look down on the Chinatown group, which in turn resents the arrogance of the uptown Chinese.

There is an even sharper cleavage within the Chinatown group between the Chinese born and American born. (This is not a point of conflict between generations.) The Chinese born are predominantly oriented toward China, and plan to return. Though technically citizens, their participation in American life is minimal. They engage in occupations where they do not compete with Americans or other ethnic groups. The American born, on the other hand, having been through the American schools, speak English and have been deeply imbued with American ideas of democracy. Most of them are the children of merchants, hence, relatively well-to-do. They do not, however, follow their fathers' occupation, nor the occupations of the Chinese born, nor indeed, do their parents want them -- "they do not know how to talk to people." The Chinese born think that the American born have become contaminated by American culture, they are "empty bamboos", ignorant, ill-mannered, frivolous, and unfilial. Their contemporaries among

February, 1951

the uptown Chinese are even more rejecting -- they regard them as "children of laundrymen." They are not always welcomed by Americans, either. Many of them find their problems more than they can solve.

Chinese are not now and never have been racial chauvinists; their ethnocentrism is based on the belief in the superiority of their culture. Those who have accepted American culture will expect to be treated "like anyone else"; they will regard any reference to their racial origin irrelevant and a reflection of American racial chauvinism.²

Chinese do not feel ties of personal loyalty to other Chinese merely because they are Chinese. Their ties are to their families, their villages, their schools, their teachers, their friends, those with whom they share common experiences.³

The problem confronting the American born Chinese is parallel to that confronting the Nisei in 1941. It is, basically, "Who am I?" and also, "Who will 'they' think I am?" The Nisei, having decided in the basis of nativity, education, citizenship, cultural affiliation, that they were Americans,

2 The only difficulty encountered by RCC interviewers with Chinese informants was due to misapprehension of our purpose. Certain Chinese believed that studies in "Chinese personality" implied that the investigators assumed that there were innate differences in the psychological makeup of Chinese -- an assumption which was deeply resented. When it was understood that our interest was in cultural, not biological, differences, cooperation was readily given, since this is a subject in which Chinese are intensely interested, and about which they customarily like to speculate.

3 It was found in the course of RCC investigations that it was easier for Americans than for Chinese to interview other Chinese. Chinese interviewers could work only with personal friends, or with those with whom they had had contact in some previous professional capacity -- as social worker, nurse, etc. They did not feel that being Chinese, working on a problem of Chinese culture, was sufficient basis on which to approach strangers.

February, 1951

were shocked, frequently into sullen apathy and renunciation of American citizenship, when they learned that they were not so regarded by other Americans, who classified them, on the basis of race alone, as Japanese.⁴ It will be one of the most important problems in relation to the Chinese-Americans to find out who they think they are, and whether their picture of themselves corresponds to the picture that other Americans have of them. At present we can give no definitive answer to this important problem, but the indication is, based, to some extent, on what the Chinese and American born say about each other, that their experience may parallel that of the Nisei. There should be further investigation of this problem as soon as possible, and continuing as the political scene changes.

Political sentiment in Chinatown can be compared to that of a Chinese village which has been successively occupied by contending armies in a struggle in which the inhabitants themselves have no stake. The Chinatown people are not indifferent to what is taking place in China; on the contrary, they are deeply concerned. All of them have close relatives there, many of them expect to return one day; all of them have sentimental ties to Chinese culture. Most of them are uncommitted to any party or any leader (traditionally, Chinese despise politics and think most governments and government agents evil), but all hope that out of the present struggle a government will emerge that is strong enough to unite China

4 Thomas, Dorothy Swaine, et. al. The Spoilage. University of California Press. Berkeley, 1946

February, 1951

and bring peace, rebuild the shattered economy of the country.

and correct the most glaring abuses of the recent past.

Because of all these considerations, the Chinatown population has tended to support the government in power. During World War II, Chinatown was strongly pro-Nationalist, pro-American and anti-Japanese. They enforced the anti-Japanese boycott, contributed heavily as individuals and through their associations to war funds and relief funds. After the war, the prestige of the Nationalist Government steadily waned, although no open break occurred. They maintained formal relations with the Nationalist consulate, and sent a delegate to the Nationalist Legislative Yuan (Legislative Assembly) in 1947. There was considerable fear of reprisals against relatives in China, and uptown Chinese who visited Chinatown too frequently and seemed to be prying into peoples' business were suspected of being Kuomintang agents. (An accusation of this nature was made against a research worker associated with another research project.) When the Peking government was established and the Nationalists fled from the mainland, Chinatown's delegate transferred his allegiance to Peking, anticipating that, as is usual when strong leaders switch sides, he would be able to carry his followers with him. This maneuver failed, due undoubtedly in some measure to the worsening of American-Chinese relations, and to persistent rumors that the American authorities were going to round up all Chinese and put them in concentration camps, "just like the Japanese". Recently (February 1951) placards have been appearing in windows of Chinese stores and advertisements have been inserted in

February, 1951

Chinese newspapers announcing the allegiance of some individual, business firm, or organization, to the Nationalist government, and repudiating Communism. (The appearance of these announcements indicates that there is no fear of reprisals against relatives in Communist-held areas.)

The Chinese views himself at the center of a series of concentric circles, with the ties diminishing in intensity as the group becomes more extended. The innermost circle is the self; next comes the immediate family of parents, siblings, spouses and children. Beyond that are relatives of various degrees, to whom the individual has responsibilities, and from whom he has expectations. There are still wider groups, with less clearcut obligations. Individual friendship, however, can cut across any line -- familial, regional, even political. Even in the civil war of 1948-9, generals on opposing sides treated one another with consideration because they were friends:

General Chang Chih-chung, top Nationalist leader in Northwest China, confirmed...reports that he had recently received a radio message from Communist General Chou En-lai emphasizing their past friendship and apologizing for the Communist invasion of Kansu Province several months ago....Asked why he thought General Chou would want to send him such a message in the midst of civil war, General Chang smiled and said, "We have been friends."⁵

In this case General Chou was exploiting his former friendship with General Chang to further negotiations for a settlement

5 New York Times, August 11, 1948.

February, 1951

of the civil war through a rapprochement of hostile groups.

II. Cultural Background of Chinese Recruits

Most of the Chinese entering the United States armed services will come from encapsulated Chinese communities in the metropolitan areas, especially those of the east and west coasts. These communities have a number of special characteristics which will influence the adjustment of individuals coming from them to the requirements of army life. These communities contain an unusually large proportion of foreign-born, many of them the Chinese-born children of returned emigrants. In 1930, the last year of which these data are available, 23% of the total Chinese population were native born, 20% were immigrants who had been in the United States 15 years or more, and the remaining 57% were immigrants with less than 15 years residence. In 1940 males outnumbered females by more than six to one. More than 75% of the population consisted of adult males, and two-thirds of these were between the ages of thirty and forty-nine. In 1940 there were 5,245 married Chinese males and 772 married Chinese females in New York City. The difference represents Chinese males whose wives are in China.

Since the Chinese have never emigrated in family units, but always as individuals, it follows that not only do Chinese communities in this country contain an unusually large proportion of foreign born, but also that of the foreign born all have received their education, through adolescence, in China. Due to various historical causes the migration pattern of the Chinese has been that of continuing transient labor

February, 1951

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migration of adult males. Since the first Chinese entered this country in the middle of the last century as contract laborers, and continuing down into the present, the typical pattern has been for young men to emigrate in late adolescence or early manhood, settle in some overseas community where they had relatives or friends from their village, remain for twenty or thirty years sending money home regularly to their families, and return to China after they had saved enough to buy some property and retire. Many of these men were married before they emigrated, others married on visits home, but they did not bring their wives or children; they would, however, provide money to bring to this country a young son or nephew who could be economically productive and who might ultimately replace them in the business they developed here. The Chinese exclusion laws intensified this pattern by legally restricting immigration to families which claimed United States citizenship, and by making it almost impossible to bring in women. Other legal restrictions tended to cut the Chinese off even more from participation in American life and forced them into developing a communal life of their own.

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All of the Chinese immigrants in this country come from a small group of counties in the province of Kwangtung in Southern China. In this area of China the family village is the prevailing unit of organization. All the inhabitants of a village have the same surname and are related through the male line. In some of these villages almost the whole male population between the ages of twenty and sixty has

February, 1951

emigrated, and the village depends in very large measure on regular remittances from their overseas relatives. The hold of the Chinese family on its members was very strong throughout China, and especially so in the southern area from which our immigrants come. It is usual in China for individuals leaving their native village to set up families in other places to maintain their ties with their native place, returning at the New Year to pay their respects at the graves of their ancestors, contributing to the maintenance of family graveyards and temples, and bodies are always sent back for burial in the ancestral place. In the case of rich and powerful families these ties may be preserved for as long as six hundred years. Cantonese living in North China preserve their native customs, food habits, and dialect for generations, and are identified as Cantonese. It is therefore congruent with Chinese tradition that Chinese resident in America still regard themselves as belonging to their native village.

In the life of the individual Chinese, family connections are all-important. Filial piety, the first rule of conduct for a Chinese, demanded that a man respect and obey his parents; but it also required that the parents educate their children, find wives for their sons, and provide for their grandchildren. Within the family structure each individual has his recognized place; each individual knows where he stands in relation to others; he knows who is older than he and entitled to deference and who is younger and hence entitled to protection and succor. Moreover, most decisions were made

February, 1951

for him by the family, or more accurately by the family situation into which he was born. Family connections determined where he should live, where and at what he should work -- unless his family was either very poor or very rich. The family system has been under intense attack in China for more than a generation, but family demands continue to have great influence even on those who are engaged in the struggle to eliminate the system.

The picture of society sketched above does not change basically when a boy emigrates to the United States. Money for his passage is furnished by the family -- his father, an uncle, or a group of family members. Like his schooling, it is their investment in him for which his contributions to the family income are in a sense a repayment. He goes to a designated place where he has family connections; frequently he goes to a particular job in a family enterprise. On arrival he joins an association composed of people with the same surname or coming from the same district as himself. The association takes over many functions exercised by the family in China. The associations maintain dormitories where members can live. The secretary helps him with legal advice, represents him in dealings with other Chinese and with Americans, helps him if he gets into trouble with American authorities and regulates his conduct. The family and locality associations are represented in the Chinese Consolidated Benevolent Association which claims to represent all Chinese in the Eastern United States (except Boston which has its own association). Because of the precarious position of many

February, 1951

Chinese in this country the associations are able to exert considerable pressure on individuals to maintain their membership, to send remittances home regularly, to comport themselves in a manner that will not reflect unfavorably on the community, and to abide by decisions of association leaders in all business and personal matters involving other Chinese.

The life of the Chinese immigrant is celibate and austere. He works long hours, lives frugally, sends money back to China, and saves for his own return. The occupations in which Chinese engage in large numbers -- restaurants, laundries and small retail shops -- provide little opportunity for the development of social life. For six days the Chinese works hard; on his day off he goes to the nearest Chinatown, visits his association, picks up mail, buys Chinese groceries for the coming week, arranges to send money to his family. But most of his leisure time and his money are spent in ordering and consuming with his friends elaborate Chinese meals, and in gambling. Most Chinese do not have girl friends, either Chinese or non-Chinese, and do not patronize prostitutes to any great extent. However, they gamble a great deal. The Chinese attitude toward gambling is embodied in the belief that money earned by hard work will melt away, but that money won at gambling is a sign on one's favor with heaven and will stay with one and increase. A corollary of this is the belief that the rich Chinese in this country made their first money at gambling and that their first big winning laid the foundations of their fortunes.

February, 1951

to sum up: the average Chinese recruit entering the United States armed forces from the eastern part of the United States comes from a predominantly male community, self-contained and hierarchically organized, in which his position has been determined by his name and place of origin, where the authorized leaders stand to him in loco parentis, and where he receives the maximum amount of security and where the demand made upon him is for conformity and industry rather than for independence or initiative. Many aspects of army life which are most irksome to American recruits fit well into accepted patterns of Chinese life.

III. Traditional Chinese Attitudes Toward the Soldier

The Chinese like to think of themselves as peace-loving people, whose history has not been dominated by dreams of conquest or aggression against other people, who have kept peace within their borders for hundreds of years, and who have absorbed their conquerors. This is not strictly true in any particular, but it is a fantasy which the Chinese cherish about themselves, even while they are fighting a civil war. Certainly the Chinese conception of government has always since pre-Confucian days been a civilian government maintaining itself in power by serving the needs of the people, and thus preserving their confidence. (A famous Confucian text states that of the three things necessary to maintain a stable government -- confidence of the people, adequate livelihood of the people, and military forces -- the one most easily dispensed with is the military forces; of the two

February, 1951

remaining economic power can be dispensed with, but no government can exist without the confidence of the people.)⁶

Traditionally the Chinese have believed in the usefulness of walls as a means of defense; Chinese houses are surrounded by walls against intruders; villages and towns are walled; and the Great Wall surrounded China along its inland frontier — China was a continental power, no danger was expected from the sea. Walls in China, however, had the double purpose of keeping intruders out and keeping insiders in.

The saying most commonly quoted by Chinese to describe the attitude of the Chinese civilian to the regular soldier is: "You do not use good iron to make nails; you do not use good men to make soldiers." The Chinese regarded the army as both brutal and brutalizing, any contact with it was bad and to be avoided at all costs.

Under the Empire the army offered no "career" for young Chinese; the higher posts were all restricted to men of Manchu descent. Parents endeavored to keep their sons out of the army. Young peasants were conscripted in raids on villages; parents, if they had any resources at all, bought exemptions for their sons, usually by paying someone else to serve in his stead. The ranks of the army were filled with the orphaned, the disinherited, the fugitives and the destitute. After the Kuomintang consolidated its power in

6 Parallel to this is the theory and practice in child training: Children are believed to be fundamentally good and reasonable; they can be controlled without punishment by "reasoning with them". Good parents, who are themselves well-integrated people do not have to punish their children.

February, 1951

1927 these attitudes were transferred to the regular Kuomintang armies; they were not wholly absent even during the Japanese war.

The following quotations from an American newspaper correspondent in North China during 1947-48 dealing with methods of recruiting and treatment of soldiers in the Kuomintang armies and the Home Defense militia which they organized in areas taken over from the Japanese describe attitudes of the Chinese to the army:

The fear with which the people looked on the army, and the contempt in which the army held the soldier can readily be seen by the way in which the peasant was conscripted for service. The basis of all conscription was graft, bribery, and influence. Sons of the rich never entered the army; sons of the poor could never escape. An impoverished widow's only son was always drafted; the numerous offspring of the landlord, never. Since draftees were the poorest men, they were often the most unhealthy, and it was very common for one-half of a contingent of soldiers to die before they reached the front. 7

Once on a trip behind the lines I came across a village in which there was not a single man below the age of forty. One day the Home Returning Corps had called out all the youths of this village to build defense works and they had gone out on the road with hoes and shovels. Some distance from the village, they were suddenly surrounded by armed soldiers, locked up and taken away in trucks to Anyang...As a result, many farmers across the hills from us were mutilating themselves, cutting off their fingers and getting their wives to put out one of their eyes. Not even then could they always avoid conscription, for the agents took the lame, the halt, the blind and the tubercular, as well as the poor. 8

7. Jack Belden: China Shakes the World, p. 338

8. Ibid, p. 228.

February, 1951

There were some kindly officers who called their troops "my younger brothers" and who adopted a fatherly attitude to the men under them. But on the whole, the life of the ordinary soldier was but one cut above a pig and a cut below a mule. As a matter of fact, mules, on the whole, were better cared for than men....Soldiers, if wounded, had small chance of living. Time and again I have seen wounded soldiers thrown off trains because they did not have the price of a ticket, wounded men thrown off half-empty trucks because an officer and his brutal sergeant wanted to transport opium -- thrown off, mind you not in a hospital, but on a mountain road, in the middle of nowhere. In the hospitals, I have seen sick and wounded lying in filth, uncared for like so many prisoners in a concentration camp.⁹

Regardless of whether or not the above quotations are a true and objective picture of the Kuomintang army, there is no doubt that they embody the opinion of Chinese civilians of what life in this army was like.

Chinese entering the armed forces now will have passed their whole lives in an era of war and civil war. A youth of twenty was born at the opening of Japanese aggression against China; a man of thirty was born during the period of the warlords, when China was riven by the struggle of rival leaders for power. All would have experienced in some fashion a major war in which their home villages were overrun by Japanese, changed hands several times, and were finally taken over by the Communists. Some stayed in their homes during the occupation; others fled to other parts of China, other joined guerilla bands. All have had direct contact with many different kinds of fighting forces, among which might be named:

⁹ Ibid, p.338

Japanese armies, and Chinese in the service of the
 Japanese
 Kuomintang regulars
 Kuomintang irregulars (during the time of the Kuomintang
 split, or in areas where the Kuomintang had gone over
 to the Japanese or fled)
 Guerillas and other irregulars
 Revolutionary armies (Old Red Army, 8th Route Army,
 New Red Army, Army of Liberation, and other
 Communist organizations)
 Militia and Home defense organizations, both friendly
 and unfriendly to the local population, but in the
 main representing the landlords against the peasants
 Private armies and guards of warlords and local landlords
 "Bandits"

The following quotation from a contemporary Chinese
 novel shows the perplexity of a Chinese peasant in the face
 of unidentified soldiers:

(The scene is Manchuria during the Japanese occupation.
 A peasant has been aroused at night by a group of Communist
 recruits on their way to join the "Liberation Army".)

He opened the door and stepped back into the darkness
 of the room until they had all entered. Then he
 carefully bolted it again.

"You have wearied yourselves with good work, venerable
 sires." The old man forced a smile through his beard, but
 hardly was he greeting them when he began to tremble for
 fear he had said the wrong thing. What were these men,
 anyway, government troops or were they...? ...Ah well,
 how was one to know how to greet folks these days? In
 the pools of his small eyes, hidden away from his visitors,
 were the signs of this forced welcome and of the compulsion
 to do what they asked. But they knew he was trying to
 catalogue them and that his manner would soon show what he
 had judged them to be....

"Venerable sires, you have certainly wearied yourselves
 sufficiently! sit! Sit and rest your legs a while," The
 old man spoke as if he had something in his throat. He was
 still trying to identify his visitors. What were they
 anyhow? Government troops? Well if they were he'd never
 seen any so orderly; noise and bluster -- that was the
 mark of government troops. Brigands? He had seen
 plenty of them in his day. He was quite accustomed to
 brigands. But they were always young, sturdy fellows in
 the prime of life, with some wild boys among them. You
 never saw old men in that kind of a crowd though.....

By now the old man's heart was more at rest because he knew at least they were not government men...Forgetting his animosity and forgetting too for the moment his half jug of rice, he asked boldly:

"You gentlemen are certainly not government soldiers. You're volunteers, aren't you? Volunteers fighting the Japanese....."

"Venerable one, we are not volunteers, but we also fight the Japanese."

"You are not volunteers?" The light in the aged one's eyes went out and he became again only a grief-stricken old man.

It was early dawn when the comrades finally took leave of their host and his little hut...The old man.... stood outside the cottage, staring after the soldiers, and wondering in bewilderment who on earth they could be, and to what forces they belong. Suddenly they had come and as quickly were gone, lost to view in the trees of the mountainside.¹⁰

Revolutionary Armies Chinese view the course of their history not as progress toward some goal (such as "The Unification of Mankind", or "The Withering of the State") but as a series of cycles endlessly repeated. Dynasties come into power, vigorous, full of moral rectitude, devoted to the interests of the people. After three generations they begin to decay; their moral fibre is weakened by luxury and self-indulgence. "The Mandate of Heaven" is withdrawn. New leaders arise among the people; armies of liberation sweep away the corrupt old government and establish a new dynasty. And so, presumably, the cycle begins again.

10 T'ien Chun: Village in August, New York, Smith & Durrell, 1942. pp. 28 ff.

The four works of fiction which every literate Chinese has read and which every illiterate peasant has heard countless times retold by village story-tellers, all immortalize rebellion. The Dream of the Red Chamber deals with rebellion against the demands of the family system in a luxury-corrupted family; it ends tragically but the author's and reader's sympathies are with the rebels. The Journey to the West ("Monkey") is an animal fantasy describing the rebellion of youth against age; youth is finally tamed, but again the sympathies of the author and reader are with the rebel. The Three Kingdoms is an epic of the overthrow of an old, bad government by liberators from the people. All Men are Brothers is a romance of heroic bandits living in a community of brotherly love supporting themselves by preying on wicked officials and other exploiters of the people. These books, forbidden reading in conservative, Confucian middle-class and upper-class families -- but surreptitiously read, nonetheless -- have had an incalculable effect on the Chinese mind. While boys are learning to conform to the demands of an exacting hierarchical society, their great heroes are all rebels against society.

China has seen two revolutions in a little more than a generation. The first, beginning in 1911 (after a number of abortive efforts) with the overthrow of the Manchu dynasty, was completed with the unification of China under Chiang Kai-shek in 1927. The second began with the split in the Kuomintang in 1927 and was complete, in its military aspect, with the establishment of the People's Government in

February, 1951

October, 1949. The military forces involved in the two movements were entirely different in composition, recruitment and morale. Although the Sun Yat Sen revolution was started by a group of intellectuals, mostly returned foreign students, and although many students joined the military forces, the bulk of the fighting forces were the private armies of local leaders and warlords who were won over to the revolutionary cause and who threw their followers into the struggle. The armies were made up of mercenaries and unwilling conscripts; it was one of Chiang's military policies to keep the army divorced from the people, to resist arming the peasants for guerilla operations against the Japanese. The Communist armies, on the other hand, starting from a small band of determined revolutionaries, grew by attracting volunteers from the people among whom they moved. One of the Communist army slogans is "The people are water; the soldiers are fish" -- that is, they move through the water without disturbing it. The communist armies paid for supplies requisitioned from the peasants, helped them with their work, sometimes going out into the fields, helped them in their personal struggles against landlords. It was the boast of the Communists that their armies were recruited entirely by voluntary enlistment. In 1950 it was said that the People's Government had no conscription. Recruits were secured by persuasion and social pressure.¹¹ Pressures were severe, but nevertheless

11 Goodfriend, Arthur, "When the Communists Came to Chuang". Readers' Digest. January 1951. pp. 77-84

February, 1951

there is a difference between being snatched away from one's family or joining up because one's comrades made life intolerable if one did not. Recruits were given banquets by committees of their village before their departure. Arriving at headquarters each one was welcomed personally by the commanding officer, and turned over to a seasoned soldier who helped him get his equipment, initiated him into army routine, and generally made him feel that he was among friends who were concerned about welfare. Reports coming to RCC informants from their native villages as they were occupied, one by one, by the Communists in 1948-9 all emphasized how well-behaved the soldiers were when they entered a village, in contrast to other armies they had known. They fitted the Chinese ideal of a revolutionary army, arising from the people out of their need.

Guerillas Most Chinese are familiar with such characteristics of guerilla warfare as raiding for supplies and equipment, sabotage, use of disguise, borrowed uniforms, infiltrating enemy positions, living when necessary on friendly terms with the enemy and conducting trade across enemy lines. For most Chinese this is what war is. The line between "soldier" and "civilian" becomes blurred. The American picture of war as open conflict between fully identifiable armed forces is exceptional -- something they have heard of but not experienced in their many years of war and occupation.

(A Chinese to whom the writer was explaining the repugnance which many Americans feel to guerilla tactics, especially to using borrowed uniforms, laughed and said, "Yes I have heard that. What do they think war is? How else can you fight a war? ...Maybe in Europe it's different, but Asiatics all know these other ways.") - 153 -

February, 1951

Bandits Banditry has always existed in China, growing to enormous proportions during periods of political and economic instability. Bandits were recruited among the poor peasants without land and with no means of livelihood, who took to the hills. Others came from among those who had quarrelled with their families, with landlords, or village authorities, and deserters from the regular armies. There were also some criminal elements. They were organized into bands, and in some areas they maintained contact with other bands. Individual bandits maintained contact with their native villages; frequently their wives and children remained in the village, and they came and went freely, and saw that their relatives and friends were protected. Bandits preyed on landlords, business people, and officials. They waylaid travellers, held up trains and broke into wealthy houses. They stole and pillaged, but their chief source of income was from kidnapping and holding important individuals for ransom. Where bandits were strongly entrenched the threat of kidnapping was sufficient to intimidate the victim.

Chinese popular literature has pictures of heroic bandits, the friends of the poor, who preyed upon bad officials and rich exploiters of the people. The portraits are romanticized, but even in modern times the bandits were not the enemies of the poor. In most villages there was someone with "black power" -- someone who "knew the bandits". He was the go-between who arranged for protection, and who notified friends when bandit raids might be expected. The bodyguard of rich men (during the period of the warlords no wealthy man would

travel, or stay at home, for that matter, without a bodyguard) was expected to know who in any area, "knew the bandits" and to be able to arrange with him for safe contact for his employer. (Bodyguards had their own nation-wide organization, and through it could make contacts with appropriate persons.)

"Bandit" has become a term of opprobrium in China. Chiang called the Communist guerillas "bandits" (later "communist bandits"), and the Communists have now turned the tables and call Chiang "Bandit Chiang", and the remnants of the Kuomintang Armies which have taken to the hills, "bandit gangs".

The Chinese has all these and other stereotypes of the military man in his culture. An important morale question for the Chinese recruit is, therefore, with which of the various kinds of armies does he identify the army into which he is being inducted, and what, therefore, will his attitude toward it be?

IV. Childhood Experiences Bearing on Army Adaptation

In the following section, Chinese method of handling certain aspects of child training will be considered in relation to participation in military life.

Attitudes toward the body One of the themes most consistently emphasized in Chinese training is the value of the body. Philosophically the Chinese are monists, recognizing no dichotomy between "body" and "spirit". The well-being of

February, 1951

the individual is a condition in which all his functions are in equilibrium and energized, in proper relationship to each other and to the environment. Traditional Chinese medicine is based on a conception of the organism toward which modern Western medicine is groping. "Cultivation of the personality" which is the aim of all Chinese education does not neglect the body; body discipline is one of the higher studies of Chinese scholars. The aim of this training is to develop such control of the body that one can direct what goes on in internal organs and turn one's energies where one will. Over-indulgence (in food, drink, sleep, and sex) and deprivation are equally undesirable.

With this philosophical background the Chinese child is taught to value and care for his body as an integral part of himself and as the vessel through which the life of the family passes. To expose his body needlessly to sickness or danger is unfilial, an act of disrespect to his ancestors from whom he derived his body and a threat to the continuation of the family. (This is felt especially strongly in relation to eldest sons of a family.) As a small child he is constantly warned against falling, against burning or bruising himself, against wandering out of the house into unknown and dangerous areas. If he does fall and hurt himself he is scolded and even whipped, or if he is a very small child an older sibling

is whipped for not having prevented the accident to his younger brother. If an older child is hurt in sport, he is scolded for his recklessness; if he is hurt in a fight he is punished for not having avoided getting into a fight. This produces in Chinese adults a pervasive cautiousness, a reluctance to expose oneself unnecessarily, above all a contempt for bravado, a feeling that there is no moral value in enduring and overcoming danger, per se. These attitudes are tempered by others, such as identification with the group, commitment to ends, etc., which will be considered in another place.

Although Chinese have no prudishness about natural functions, they are extremely reluctant to expose their bodies. They find the free exposure of bodies in American schools and camps offensive; many of them avoid using washrooms at time when other people are likely to be present; they also avoid bodily contact with others. In the case of men this is probably related to a latent fear of homosexual aggression. Homosexuality is common and open in Chinese middle schools (the equivalent of United States high school); "pretty" boys feel that they must protect themselves against being attacked while they are asleep.

In old China differences in rank were expressed by differences in detail of costume; the blue robe of the scholar, and the dark silk robe of the official were symbols of a whole way of life. Schoolboys and schoolgirls wore clothes that

February, 1951

distinguished them from other children; after they put on students' robes there were certain things that became unbecoming ("menial" work, carrying parcels, etc.) It may be assumed that putting on a military uniform will have a similar effect, and that the injunction not to "disgrace the uniform" will carry real meaning. In assuming the uniform, they take on the role of soldier, and will act in accordance with their conception of that role.

Chinese believe that bodily substance is expended in activity (sex, work, movement, etc.) and replenished by food, rest, contemplation. Under normal conditions the balance between output and intake is maintained, and expressed in a number of cycles -- e.g. food is taken into the body, gives up its energy and becomes fecal matter which is put back on the land to make more food. The energy that is derived from food is expended in work to grow more food. One of the basic anxieties of the Chinese is that the ratio of intake and output will be upset, that they will expend their body substance faster than it can be replenished.

(The one point that emerged consistently from interviews with veterans and recruits was anxiety about food. One veteran reported his army experience as follows: "It was horrible. No food, no sleep. You couldn't live that way." Another, a colonel in the Chinese army attached to an American hospital in India, said, "The worst thing about it was the food. No Chinese food, and the American rations made my stomach turn over." A young Chinese doctor enlisting in the Air Force was afraid that he would not get Chinese food at the base to which he was going -- in spite of the fact that he was married to an American girl and did not eat Chinese food at home and never went to

Chinatown. He had gone for years to American schools and colleges here and in China. This parallels material from hospitals and other institutions, supporting the inference that in times of crisis Chinese will eat only Chinese food.)

It is not only the quantity but the kind of food that is important in keeping up body vigor. Certain foods are believed to have special therapeutic values -- for fevers, for exhaustion, for loss of blood, for shock -- and for these medicinal foods there are no substitutes in the American diet.

Wounds, Mutilations, and Death Chinese repudiate the Western estimate that they are "fatalistic". In this, they are probably comparing themselves to other Oriental peoples more fatalistic than themselves. The saying that Chinese quote most frequently to refute the idea that they are fatalistic is a saying of Mencius: "He who knows fate does not stand under a crumbling wall." "Knowing fate" means that one understands certain natural laws; that, for instance, a crumbling wall is bound to fall. It means that one recognizes that in war some people get killed and some do not, and that death may come at any time and in any place. Trained from childhood to protect themselves, Chinese do not court danger, expose themselves needlessly, or attempt what appears to be impossible. However, they do not see most situations as clearcut choices between certain life and certain annihilation, but as situations in which anything might happen. Chinese, being less dependent on immediate rewards (see below page 191 for discussion of this point), have less

February, 1961

anxiety about the outcome of any particular situation -- examinations, journeys, sickness, childbirth, etc., including life itself. Chinese seem to have less anxiety about death than Americans; they believe in reincarnation, in their continuity with their family line. Death is less final. (In both Taoist and Buddhist religions life is a brief sojourn of the soul in the "red dust", the world of illusion and confusion; it makes little difference whether one leaves it sooner or later, since it is not one's real life.) But it is less specific beliefs in immortality such as those embodied in religions than the conviction that individual life is meaningless unless it is part of a larger whole, that enables the Chinese soldier to face danger with equanimity. This kind of courage is valued, but bravery in itself has no value; the value of the brave deed is in what it accomplishes; if one can accomplish the same thing without danger, so much the better.

(During the recent civil war, Nationalist forces surrendered without a struggle when their leaders decided that their situation was untenable although they had superior numbers and equipment. In the words of an American official in China at that time: "The Communists went through them like a hot knife through butter." On the other hand, small Communist forces in Kiangsi, outnumbered, out-equipped, and completely cut off from the outside, resisted heroically the five "annihilation campaigns" launched against them by Chiang Kai-shek in the years between 1927 and 1936. The difference in the will to resist was due in part to the knowledge of the different treatment accorded prisoners by Nationalist and Communist leaders, but also to the degree of commitment to positive, long-range objectives, and to personal loyalty to leaders.)

There seems to be considerable anxiety, however, about mutilation. This can be assumed from the general cautiousness about the body, the anxiety about bodily depletion, the fear that one will not be able to produce a son.

(There is little direct evidence on attitude to wounds and mutilation. However, social workers in Chinatown report that young male Chinese suffer from depression and a deep feeling of rejection when they are returned to their families after being treated in sanatoria for tuberculosis. They feel that they are worthless and that their families reject them. The feeling of rejection seems, from meager evidence at hand, to be a projection of their own attitudes toward themselves. The only Chinese amputee of whom the writer has direct knowledge was the son of one of the rich Chinatown merchants. He had lost both legs in action in the Pacific; he accepted no prosthetic devices, made no attempt to approach normal life. He lived with his parents, and Chinatown people regarded his tragedy as the burden his father had to bear -- for all his money he couldn't be happy.)

Aggression Chinese children are discouraged from reaching out, handling, manipulating objects in their environment. When they are able to walk they are discouraged from exploring or wandering. These prohibitions are explained to them as necessary protection from the dangers of the environment. Meanwhile they are fed whenever they are hungry, sleep when they are tired, eliminate whenever and wherever they choose, and are constantly carried, petted, and entertained by adults. It is expected of adults who have charge of children that they will anticipate the child's wants and satisfy his needs before he announces them by crying. This handling fosters in the child a basic security in relation to the self and the immediate

environment ("home" and "family") coupled with caution and reluctance to deal aggressively with the outside. The restraint of aggression is continued and reinforced as he grows older; he must obey parents and all older relatives without question, and without argument; he must give up his toys and sweets to younger siblings, and be responsible for them. He is punished if he gets into fights with his siblings or agemates. ("A dog that fights never has a whole skin.") He is "too aggressive" if he goes after anything he wants directly. He is "without human feelings" if he refuses any request of a relative or friend, if he neglects to protect the face of his associates, or if he pushes an advantage to the utmost, leaving his opponent with no means of withdrawing gracefully. Chinese culture abounds in institutions which enable the individual to move through life without the need of taking direct aggressive action on his own behalf. His family make important decisions for him; his education, his jobs, his marriage are arranged for him. Later he will arrange these things for those younger than and inferior in status to himself. There are go-betweens to arrange business deals, marriages, legal matters, political appointments, without the two principals having to meet face to face. In America, faced with the high demand for self-assertion made by American life, many Chinese males break down completely or show very marked tension and insecurity.

On the other hand, most Westerners who have lived in China, and Chinese themselves, comment on the susceptibility of Chinese to outbreaks of anger of extreme violence. "Tantrums" and "blind rages" are common among all classes and all ages. In ordinary life Chinese go to great lengths to avoid a quarrel, because they feel that even a small quarrel might easily get out of hand and lead to extremes of violence. Also quarrels tend to spread, involving more and more people. Although there are many devices for avoiding quarrels, there is no way of stopping a quarrel once it starts; go-betweens who are so busy in the early stages of a quarrel now are afraid of becoming involved in something serious; there is no formula for "crying uncle" and stopping a fight.

As a result of this, Chinese fear the devastating effects of anger, but they also understand the value of emotional catharsis. Anger generates ch'i ("gas", i. e. energy) in the body; unless it finds an outlet the excess of ch'i can cause sickness or even death. (Headaches and digestive disturbances are two of the ailments attributed to an excess of ch'i.) The cultivated man can transform his ch'i into creative effort -- calligraphy is the art most frequently mentioned as useful in diverting ch'i. Less cultivated persons must express their anger in more direct and crude forms -- by hitting someone, not necessarily the person who caused the anger. To this necessity for expressing anger in one form or another may be attributed Chinese tolerance of scapegoats. In such cases it

February, 1951

is better to hit someone who cannot hit back (i. e. someone of lower status) for in that way a quarrel may be avoided.

Status, Authority and Related Concepts The Chinese man sees himself as constituting one member in an ongoing family line. He is, to use the Chinese phrase, "one bead in a chain." Identification of the individual with the family is symbolized in many beliefs and practises, such as the belief in reincarnation within the family line, the system of selecting personal names, the rituals of ancestor veneration. In these ceremonies the living parents are venerated along with ancestors long dead. In traditional China the authority of parents is lifelong and is based on the fact of fatherhood, not on the individual's superior strength, wisdom, or control of economic resources. This the child sees dramatized in the ceremonies of ancestor veneration when his father kowtows to his grandfather. In taking his place behind his father and participating in these ceremonies he experiences an enhancement of his self-esteem through his identification with a continuing force. (This is sharply contrasted to American attitudes, which associate obedience with inferiority in power and hence make it degrading.) To the extent that Chinese are able to feel themselves identified with a permanent organization, they will take pride in all the outward symbols of their participation -- uniforms, insignia of rank which demonstrate the individual's place in a hierarchy.

February, 1951

saluting, and other rituals.

(Observers of Chinese in the U.S. forces comment on this pride in uniforms, their care in keeping their uniforms in good order. In this connection one informant commented, concurred in by others, that "being in a good outfit is more important than what you do or where you go.")

Whereas Chinese accept and fit comfortably into hierarchical structures, their concept of hierarchy involves the interaction of complementary roles. In a family that is functioning properly the young give deference and receive protection and support. In a well-ordered state the subject gives loyalty and obedience to the ruler, and the ruler, through his bureaucracy, looks after the welfare of the people. Equality has never been an ideal of Chinese society; the ideal is rather the harmonious fitting together of different and complementary roles.

The Chinese child is ordinarily brought up in a family group that includes more than just parents and children. The size of family varies greatly in China, but in general the lower in the economic scale, the smaller the family unit. For the upper peasantry, artisan and small merchant classes, which provided the bulk of the recent immigration, the three-generation family is most usual -- the male head of the family with his wife, his male children and their wives, and grandchildren -- or from the point of view of the child, grandparents, parents, uncles and aunts, siblings and cousins. There may be unmarried aunts -- sisters of the child's father; his father may have brothers

February, 1951

younger than himself, but belonging to a higher generation. This family unit lives in a walled compound; there is a common kitchen, there are no interior doors, and for the greater part of the year most household activities are carried on in the courtyard. During the first years of his life the child spends all of his time in this courtyard seeing no one but relatives. He learns to live in close physical proximity to a large group of people, all of whom are related to him. But he also learns at a very early age to distinguish among them. Among the first words a child is taught are the correct terms to use to his many relatives. Personal names are very little used in traditional Chinese families -- it used to be forbidden to use the names of the parents or any words that form a part of these names; even siblings are referred to by number: eldest brother, third older sister, sixth younger brother, etc. Along with the correct term of address the child learns the correct behavior expected of him toward each relative: he must respect those older or higher in status than he, and protect and indulge those that are younger. At the same time he learns to distinguish the different personality traits of his relatives -- which are patient, which quick-tempered, which ones are severe and which ones kind; he learns whose favorite child he is, who can procure favors for him, and who will protect him when he has been naughty. The harmonious functioning of the family depends on everyone knowing these points of personal difference, and being tolerant

of them and able to manipulate them. Within the apparently rigid structure of the hierarchical family there is considerable leeway; after formal requirements of respect and obedience have been met matters can be arranged in a manner that affords some satisfaction to everyone. There is a Chinese proverb to the effect that the one thing that is worse than a corrupt official is a completely honest one, that is, an official who applies abstract rules blindly without regard for "human feelings." It used to be customary for the person who won a lawsuit to provide a banquet for the loser ("The winner will feel happy because he has won and be glad to give a banquet, and the loser will not feel so badly over having lost after he has had a good banquet.")

Face When children are very small their mothers rub their fingers over their faces saying "Shame, shame!" when they do anything that is not becoming to their age and status, such as snatching a toy away from a younger child. Through this and other mechanisms shame is localized in the face, the one part of the body which, in adults, is exposed to the outside world, and extreme sensitivity to shame is developed. One can lose face through one's own wrongdoing, but one's face is "damaged" by the actions of others. A father's face is damaged if his child is unfilial; a mother does not scold a child in front of a younger sibling "so as not to damage his face", a teacher loses face if his pupils correct him, an employee loses face

February, 1951

and must resign if his request for a raise is not granted, or if he does not get an expected promotion. One cannot refuse any request of a friend, even if it is impossible to comply. ("You say yes because he is your friend; then you send him a note to say you found out it is not possible. That way you do not damage the face.") An English class for war brides in Chinatown broke up because the teacher singled out one pupil for praise; the others felt damage to their face and would not come back. If social intercourse is not to be completely paralyzed by non-cooperation, each person must avoid damaging the face of others. Chinese who have lived in the United States take it for granted that Americans are "not polite" and that they do not understand or value "human feelings"; in many situations they find American directness and "sincerity" refreshing. But in situations involving other Chinese, such as the English class referred to above, traditional Chinese attitudes concerning face and human feelings prevail. Singling out individuals for praise or blame or other public humiliation or implied humiliation does not serve as an incentive to greater effort on the part of his colleagues.

Rewards and punishment Punishment in a Chinese family is the result of a total situation rather than the inevitable consequence of a single act. Therefore, from the American point of view, discipline appears to be inconsistent, erratic, and unpredictable.

A boy is punished because he was naughty and because his mother has a headache, or is angry with her sister-in-law. Children are frequently made the scapegoat for anger which cannot be expressed against the true object. On the other hand naughtiness may go unpunished on days when his mother feels well and when peace reigns in the family. What the child learns from this is not that his mother is unfair or unpredictable, but that lack of harmony in the family is a bad thing, and that everyone suffers from it. Trained from early childhood to observe people and gauge situations, the child is constantly looking for the contexts of behavior. Moreover, a child is not trained to expect that goodness or effort will automatically be rewarded or even praised. ("If a boy studies very hard and does well at school, his parents may buy him new clothes to show that they are pleased.") But usually the efforts of children are neither praised nor rewarded. Just as he learns that certain situations over which he has very little control are in themselves punishing, so he learns that certain other situations are rewarding -- such as being a small child, or an old man with many descendants, or being an official.

Chinese are not dependent on immediate small rewards as incentives to sustained effort; they are able to keep long range objectives in view and work towards them. ("Americans save money to buy a car; when they have enough money to buy a car they begin saving for something else. Chinese do not do that. They would not buy a car and live on a poor street; that would not be right. It is better to plan your whole life -- go to school and college,

February, 1951

and become an official or a big business man. Then you will live on a good street and have the car too.") Chinese in New York eat a handful of rice a day for six days a week and buy a ten-course dinner on Sunday; they work sixteen hours a day and sleep on packing cases in their shops, and then spend \$20,000 (much of which is given away) on a trip to China. Where sustained effort is required, long term objectives, especially those carrying moral or social prestige, have more force than the promise of immediate small rewards of a tangible nature.

The lack of emphasis on regularity of small, immediate sequences in the disciplinary process is related to the so-called "fatalistic" attitude of Chinese in the face of danger, as well as their observed ability to bear privation and disaster without panic or rebellion.

Learning When Chinese children are very young their hands are tied to discourage them from reaching after objects. As they grow older they have no toys to manipulate. Instead they have things to look at which are out of their reach. When they go to school they learn to read by looking at a book while the teacher reads and then learning by rote to repeat the text. They learn calligraphy by copying models. The emphases are on rote learning and perfect performance. Other techniques are learned the same way -- by watching someone do it. There is no reliance on verbal explanations or on experimenting with materials. Children are encouraged to watch people closely, to study their faces and

gestures and watch their reactions. Adult Chinese depend very largely on their eyes for acquiring knowledge. Long before comic books became a mass medium in the West, little booklets telling in pictures the stories of famous novels and romances circulated among the illiterate of China. During the last war the film strips put out by OWI were more in demand in China than in any other part of the world. It can be predicted that when electrification is general in China television will be enormously popular. Training programs designed for Chinese should take account of their great reliance on visual aids and demonstrations of techniques and their very limited response to verbal explanations. (Conversely it is very difficult for Chinese to give verbal explanations of what they do.)

(One Chinese veteran was assigned to an all-Chinese unit in Southwest China as an instructor in trucking operations because, he said, he was the only one who knew Mandarin. On further questioning it developed that he "picked up" Mandarin while he was in the army.)

The heavy reliance of Chinese on rote learning and on visual imagery is related to a general tendency of Chinese thinking -- namely to experience phenomena as unanalyzed wholes. Chinese writing consisting of a distinct character for each word is an example of this type of thinking applied to the problem of written communication. In social relations, roles are clearly defined and the behavior appropriate to each role is implied in the name by which the role is called. ("When the father is really father and the son son, when the ruler is really ruler and the minister minister

February, 1951

harmony will prevail within the state" -- Confucius, Analecsts). An informant was deeply offended when a prospective employer presented her with a typewritten list of her duties; the employer should have assumed that she would understand her duties without further instruction. Related to conception of roles as indivisible wholes, is the Chinese anxiety about involvement. It is well known that Chinese will let strangers die in the streets without doing anything to help, because to offer any kind of assistance involves one in a lifelong relationship from which it is impossible to withdraw -- one cannot help a person one time and send him on his way and consider the matter closed; on the contrary one has taken on a new role with all its related responsibilities. (Cf. discussion above concerning the possibility of postponing rewards.)

Long practise in dealing with unanalyzed wholes has made the Chinese extremely successful in grasping complex situations quickly. Western doctors who have lived in China are almost without exception impressed by the diagnostic and therapeutic success of Chinese doctors, although they disparage their medical theories; American engineers report that Chinese peasants can repair complicated machines and get them running although they have never seen them before and seem to have no knowledge of mechanics.

Summary

1. To the Chinese individual life is meaningful to the extent that he can identify himself with some permanent entity larger than himself. In old China this entity was the family; since the revolution the nation is gradually displacing the family as the larger entity. Within this larger entity individual well-being depends on the harmonious relationship of individuals fulfilling complementary roles.
2. Although aggression is systematically restrained and disparaged in all areas of life aggressive acts are acceptable when seen as necessary to preserve the existence or harmony of the group with which one is identified. Expelling a bad government, repelling an invader, defending "the family" from aggression are acceptable reasons for fighting.
3. Chinese value courage, loyalty, unflinching devotion to moral purpose, ability to subordinate individual to group interest. They disparage recklessness, bravado, exhibitionism.
4. The Chinese see the enemy as a person or an extension of a person committed to evil purposes; it is not necessary to dehumanize an enemy in order to fight him.

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relevant to

1. National Character Structure

and

2. American National Character Structure

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on

National Character Structure

The main bibliography on National Character Structure was prepared in the summer of 1949, and has been revised for presentation here only to the extent that publication dates of articles and books then in press and since published have been added. It is given in this report mainly to indicate the scope of the material published in this field. Except in the case of certain volumes of methodological interest, this bibliography does not include titles for particular areas.

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on

American National Character Structure

1.

A Note on the Method and Presentation of Material

The hypotheses presented in this report have been drawn from the total body of work that has been done on American National Character Structure. Except where we have quoted from particular authors, references have not been given for each specific point made. The authors consulted, however, are included in this bibliography.

For purposes of presentation, a limited number of illustrations congruent with the hypotheses have been selected from a small number of publications about American servicemen, principally Studies in Social Psychology in World War II, G.I. Songs, and The Best from Yank the Army Weekly. As part of the preparatory work on the report, Geoffrey Gorer made a detailed cross check on those propositions which are presented here about American national character with the findings of Studies in Social Psychology in World War II, which were empirical studies pursued without any national character assumptions (unpublished report). The illustrations were intentionally limited to this small body of material in order to show the internal consistencies within a particular kind of subject matter.

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GENERAL MOTIVATION AND INCENTIVES FOR BASIC TRAINING

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GENERAL MOTIVATION AND INCENTIVES FOR BASIC TRAINING

Content for Orientation Lectures

	<u>Page</u>
I. Background of the Present World Conflict	1
Geopolitics and the Heartland Concept	2
Psychological insight into the strategy of World Revolution	4
The Communist Ideology versus realities	6
"Peoples' Democracy"	7
The Proletariat as supreme	9
Land reform and collectivization	11
Stakhanovism, production quotas, and slave labor	12
II. The Nature of the Present World Conflict	17
The Kremlin's propaganda objectives	17
The Communists' Reasoning	18
The Communists' idea of "Peace"	20
Meaning to people in free countries of the prospect of World Revolution's spread	20
The hard facts of World Revolution to date	22
Why is the Communist state isolated?	23

Instructor's Manual of Questions and Answers

Counter-revolution in Russia--prospects	IM-1
Higher education in Russia	IM-1
Newspapers and magazines in Russia	IM-2
Russia arms for defense only	IM-3
Chinese Communists as agrarian reformers	IM-4
Capitalist nations foment wars	IM-4
Communist persecution mostly propaganda	IM-7

Background Literature

Books	BL-1
Articles	BL-22

Part One

ORIENTATION LECTURES

GENERAL MOTIVATION AND INCENTIVES FOR BASIC TRAINING

Proposed Content for ORIENTATION LECTURES*

I. Background of the present world conflict

General nature of conflict. Conflict exists at all times between nations that have conflicting interests. Today it exists primarily not between nations but between groups of nations, one having an aggressive intent to dominate all the others. The aggressive designs of the so-called Communist group has produced a state of tension which may last for years or until the aggression collapses or an overt event precipitates armed conflict.

Usually a state of tension arises when one power or group of powers engage in extensive arming in excess of defensive needs, followed by exertion of military, political or economic control over a neighboring state. The United States does not threaten Mexico or Canada though it has the power to do so, but the Soviet Union has not only threatened but has extended control over Roumania, Bulgaria, Hungary, Czechoslovakia, Poland and other neighboring nations, so that these are no longer considered independent, sovereign states.

It is now clear that the Soviet leaders are not just interested in defense of their land. They have aggressive designs that are world-wide. They have clearly demonstrated their program of biting off more and more of Europe and Asia, under the guise of people's democracy, with

*As submitted by Norman C. Meier, University of Iowa, author of Military Psychology, (Harper, 1943).

no limit to their ambitions. The attempt to annex the south half of Korea was simply a last stage, planned in Moscow, with weapons made in the Soviet Union and probably with Red leadership in the field.

Conflict today is hence different from national expansion, trade rivalries, and other causes of conflict and sometimes war. It embraces the use of new means for overcoming whole populations on a scale never attempted before. Psychology, or the use of mass ideas designed to deceive and disarm, and the use of communication channels (radio, oral persuasion, movies, stage plays) as instruments of propaganda have been and are being used on a grand scale. It is necessary that these new weapons be better understood, so that their effect may be countered, if the Soviet challenge is to be met.

Geopolitics and the Heartland Concept. Why do the Soviet leaders think they can succeed in extending their domination over the world? One answer is that they have reason to think they are as a power impregnable, that no one is powerful enough to deter them. In this belief they are supported by the ideas of a group of geopoliticians, or persons who study geography and political power. The geopoliticians say that the nation which controls the dominant land mass can survive any kind of onslaught. If hard pressed on any outlying region they need only retire to a better position, and to keep this up until the attacker is exhausted. Hence the Russians believe they can, if hard pressed, retire to the interior, even into Siberia and hold out indefinitely. Of course, this idea is very attractive to the Moscow conspirators. It emboldens them to make a great gamble, despite the fact that the two great proponents

of the Heartland concept, Haushofer and Mackinder, lived before the atomic weapons age and did not envisage the role which air power might play.

No one except Stalin and his fellow members of the Soviet Politburo knows the full extent of the plans and the time-table for each planned move toward eventual world domination. Conspiracy thrives on secrecy. It is like a gigantic game of chess with the one player blindfolded, and we are the blindfolded player; yet not entirely blindfolded, for we know from moves already made pretty much what to expect but not knowing when they will be made. We caught on to the Korea move rather quickly.

Certainly enough is now known that no one doubts that the Soviet plotters have sinister designs on all the remaining free world. Yet millions of people are still unready to believe this. They think of the Soviet Union as a people's democracy, having racial equality, classlessness, where there are no rich and no poor, etc.; as Communism as the coming State, destined to replace the "outmoded" forms of government such as American democracy or British State Socialism. Though the uneducated, the poorly informed and the discontented everywhere are first taken by this appealing prospect, it is not uncommon to find some educated people, even students in colleges who have been attracted to the Communist ideology. In Russia people dare not believe anything else and no doubt it is quite "popular" there.

To the understanding social psychologist, whose business it is to know how beliefs and attitudes come about in people, all this is

abundantly clear. Let us now turn to him for some enlightenment on the real nature of Communism as World Revolution.

We do not know whether the Politburo members really believe that Marxian Communism is good for all people. We do not know if they even know what American Democracy or State Socialism or State Capitalism is and how it works or what any of these have done for the mass of people living under them. Be we may be quite sure that presumed or alleged differences between their Communism and so-called Capitalistic Imperialism can be made to serve their purposes.

Those purposes are very clear. By representing only supposed benefits of their system and only supposed evils of other systems they can induce peoples everywhere to want their system--until the people get wise to the facts. How is this done?

Psychological insight into the strategy of World Revolution. In Soviet Russia the school child is told about Stalin, the Great Leader, and about Lenin and Marx. He is given selected ideas about Communism--all good; and he begins to hate the Capitalists who, he is told, oppress the impoverished workers. He gets nothing else. Stalin is "his ideal," just as Fearless Fosdick is Li'l Abner's.

When he grows older he reads of the Communist State, listens to Party speeches on the controlled radio and sees movies glorifying the Communist heroes and sees the Capitalist carrying on a despicable role. His art, music, literature and drama is likewise carefully selected. Under these conditions he grows up with no education as we understand it--only indoctrination. He possesses a warped set of beliefs and he

is imbued with a false set of notions about the outside world. He has become a cog in a huge machine capable of dangerous possibilities. He looks upon capitalism as a disease which should be eradicated from the face of the earth. He may some day kill a man he now doesn't know because he thinks of him as a deluded defender of degenerate capitalism. Yet he has no real knowledge of how the British or American workman lives, how much he is paid or what kind of car he drives. In fact, he would never think of an American workman as having a car. He never has had one.

By absolute control over the means of communication: particularly control of radio, newspaper and movies, the Soviet citizen gets only perverted and restricted information which is mostly constant indoctrination of Communistic ideas and beliefs. He thus has no real education, no freedom to learn, no way of knowing what it is like in other countries, no way of knowing what life in America or Britain actually is like. Instead he has a grossly distorted picture and a false set of beliefs foisted on him and he is helpless to do anything about it. The Soviet citizenry is thus an indoctrinated mass of people obsessed with manufactured beliefs calculated to lead to untold mischief if and when directed by their masters in the Kremlin fortress. Hence we have a modern Robot nation, capable of marching here or there, capable of causing immeasurable grief to innocent peoples, so completely deluded that they would do this, thinking they are helping to save the down-trodden proletariat from the shackles of capitalistic oppression. Actually they are just pawns in the hands of sinister conspirators, secretly planning world

domination, using the bogey of Communism-Capitalism rivalry as a means to an end. If anyone still believes that Communism is a modern Utopia or heaven on earth, let him examine the facts as known and compare them with the professions of the Communist ideologists.

The Communist Ideology versus Realities. It is easy to get people to believe in something that "looks good" or that holds out promise of something good. This is not a perfect world. But it is getting better all the time. We have gotten rid of human slavery in most parts of the world, also the blood feud, human sacrifice, and other outworn practices. The early colonial empires are now largely a thing of the past. The rack and torture devices of the Middle Ages have long since been discarded by most civilized peoples.

It was believed that imperialism was likewise on the wane. Dealings of industrial nations with native peoples in all parts of the world for raw materials, such as rubber, tin, copra, and oil, and products like coffee and tea which grow only in certain places, has been mutually beneficial to both parties. The payment for products and the royalties paid for development of concessions has materially raised the standard of living all around. It is on a strictly give-and-take basis, not just a take basis.

Yet the Soviet propagandists would have the world believe that the native populations are being defrauded out of their products, that the "imperialist" nations contribute nothing toward betterment of the native populations. Of course they know better, but to shout: "American Imperialists" or "Capitalistic Imperialists" at us continually serves

their propaganda purpose of depicting us as a nation of heartless, avaricious plunderers. While picturing us as oppressors and exploiters of helpless peoples and even of our own peoples, they portray themselves as the true government of the people, by the people and for the people, as though in Communist lands there is no oppression, what is mine is also yours, where there are no rich and no poor, and everyone is happy.

Let us examine some of these glittering "attractions" of the Communists and compare them with the actual realities, as after years of propaganda claims they have turned out to be.

1. "Peoples' Democracy." Whenever the Russian Communists have set up their specially trained agents in control of a neighboring country they proclaim the event as the inauguration of a Peoples' Democracy.

This sounds very much like the ideal state, just about what Americans think of their own system of government, in which any citizen can run for mayor, councilman, governor, Congressman or even President. But do we find this in the Soviet Union or any of the satellite states? In Russia a small clique, self-appointed, and with absolute authority control everything, maintained in power by a huge organization of secret policy and the Red Army. The citizen is watched, spied upon, and if suspected of non-cooperation may be seized in the dead of night and is often never heard of again. Sometimes a whole community may be shipped away in freight cars to destinations unknown. Freedom of speech, of travel, of religion, of unapproved association--is practically unknown or indulged in at great peril. But the citizen can attend "cultural" lectures--in fact he is expected to--and hear all about the Marxian-

Leninist-Stalinist order, and exhortations against the wicked capitalists. He can see movies which have been made to glorify Communism and condemn the capitalist plutocrats. He can get one station on his radio, to hear programs of the same nature. He can read a newspaper carrying some news carefully selected or carefully re-written to reflect favorably on the Communist leaders and degrade the capitalist nations. He can vote, too. All he needs to do to vote is to vote "Yes" for the regime in power; there is nothing else to vote for and nothing to vote against. Voting is therefore just a scheme to see if there are any who are bold or foolish enough to risk being caught not "voting" for Stalin and his regime.

We hold that democracy means that no one person, no one group, no one Party should have any more right to dominate over internal affairs than any other person, group or Party. A Congressman or a Governor can be opposed for re-election by any other person and people themselves decide which person they want to manage their affairs. Our affairs are not decided by a closed body, working in secret, that we did not elect and cannot replace. Our affairs are decided by our chosen representatives, working in open meetings, fully debated, and with the privilege of anyone being heard if he has ideas on the subject. We call these Public Hearings.

No such conditions exist in the Communist system. Elections are not elections; they are simply public demonstrations participated in because the citizen fears to do otherwise or, out of ignorance, believes he is approving something good. So far as his knowledge goes he is

acting as one would expect; his ideas have all been made-to-order for him by order of the Kremlin. He has been told he is a lucky person to be living in the Communist paradise, and he wants to "vote" his approval and thus show his gratitude.

The term "Peoples' Democracy" is hence a sham, a shameless perversion of two good words. The system is neither of the people nor by the people. They are led to think it is for the people. Probably the Russian people are better off than they were under the Czarist days but they are still living under an oligarchy as ruthless as any, against which they are helpless. The tragedy of the situation is, however, that they probably cannot suspect that their leaders have intentions for using them for purposes unknown to them but made plausible. By the means of controlling their thinking and information and so their beliefs and attitudes by rigid supervision of all communication means, they keep them reconciled to deprivations. They cannot have good housing, enough automobiles and radios, because there must be production of guns, tanks, and other weapons "to protect them from capitalist aggression." In this they have no voice. The people themselves have no democracy.

The Proletariat as Supreme. Communism has been loud in its claim that the worker is supreme; he alone creates goods; he alone should reap the rewards. Hence there is no need for capital, management, financial structures, insurance, "foreign exploitation" and the like. There is a classless society: no plutocrats, who own all the good things, while the millions starve. The hammer and the sickle are symbols of those who toil.

This is a fantastic over-simplification of the modern world. It ignores the fact that factories, railroads, steamships, office buildings, department stores, schools and colleges, farm machinery, hydro-electric dams, vast highway systems, automobiles, refrigerators, radios are the result of many persons working together, each not knowing who contributes what part of it, but in the end everyone benefits. By such a complex system America has grown great, with a radio in almost every home, with a telephone in every three out of every five, and with an automobile in about every other one. It just isn't possible for a "workman" to make any of these things himself, alone. But he can enjoy nearly all of them, even though all he does is bolt fenders on automobiles or keeps accounts in a department store or runs a tractor on a farm.

The telephone company is not owned by a corpulent plutocrat. It is owned by hundreds of thousands of ordinary people who did not spend all they earned. The steel plant is not owned by a bloated plutocrat, but by any and every one who buys into the ownership, by purchasing stock. Without that means of using savings it would never have been built and the automobile or refrigerator you own could never have been built. You might still be trading a barrel of molasses for a pair of boots.

The Communist State may have a semblance of classlessness: everybody is poor. The members of the Politburo probably have enough to eat, but they represent only a few. The nine-member delegation sent by Red China to the U. N. returned to Peiping with many of the products of capitalist enterprises: radios, cameras, clothing, etc., paying for

excess baggage charges on the plane with \$1000 bills. No doubt they comprise a special class.

But for the people classlessness means doing what the State (that is, the Politburo) decrees, receiving in return what the State allows, buying (if available) what the meager pay will permit, keeping indoctrinated with the ideas the State wants the proletariat to have. Just what the proletariat can dictate and to whom is not clear. Just how the proletariat can dictate is also very unclear.

The reality is that he dictates nothing. He only listens. The dictation is by the governing clique. The dictation is enforced by a constant tyranny of police surveillance. One dares not fail to conform. The idea of Communism as the dictatorship of the Proletariat is basically false. Even the leaders in supreme power come mostly from upper classes, as fewer than half come from hammer and sickle wielders.

Land Reform and Collectivization. Communism has gained early favor among agricultural peoples by taking farm land away from the owners and giving it to the peasants to work for the state. Those who had little before may be made happy, while the dispossessed may be left to starve and become bitter. The peasant, however, with his new position in life comes to find after a short time that all is not so good after all. The commissars appear to claim half or a considerable portion of all he raises, telling him it is for the workers or for the state. So he soon finds himself no better off than he was before--he has simply traded a landlord for a new and different one. He doesn't own any land after all. His position may be even worse off than it was

before. If he tries to conceal some of his crop he may be severely dealt with. In Korea the situation is confused, with perhaps as much poverty and hard living as before, if not more, because the farmer lacks incentive to produce when he learns that he may not be able to have much for himself anyway.

In free countries, like America or Australia, the farmer can raise as much as he likes, sell it as he chooses, and with the profit, buy more land or better machinery. His willingness to work much or little is his own affair and the rewards are in proportion. The state collects taxes, but they are in accord with his ability to pay and for known benefits, such as good roads, marketing facilities, and agricultural research which tells him how to improve the soil and grow bigger and better crops. It is always a reasonable and fair portion of his earnings, expertly determined. He does not need to be without the common needs and conveniences of good living. About half of all farms are owned by the farmer; others are on a shared-profit or rental basis. Except in some sections where farm land is poor and farm labor is needed only part of the year the agricultural worker is reasonably well fed and housed. And in most cases most agricultural workers some day expect to own some land themselves. And from those now not well off the government takes little or nothing: what they earn is theirs.

Stakhanovism. Production Quotas and Slave Labor. In the Communist Manifesto of Karl Marx the workers in capitalist countries are pictured as virtual slaves of the machine age, under-fed, down-trodden and in perpetual poverty. Marx advocated world-wide revolution,

the overthrow of the capitalist system. His famous expression is "you have nothing to lose but your chains."

Karl Marx lived a century ago. There were inequalities then as there will probably always be when some people work hard and others do not, when some businesses pay off well and others fail, when some persons use good judgment and others make mistakes. But to think that all will be well if only the unfortunate dispossess the more successful of their possessions is child-like reasoning. It is also childish to think that a small group of revolutionaries, without much education and little know-how can sit in power and dictate who should do this and who should do that.

Yet that is pretty much the state of affairs in Communist-dominated lands today. Even if these men were all-wise, all-knowing, semi-Gods, they could not possibly manage the complex running of the modern state with any degree of success. It takes many minds, motivated by ambition, well-educated and disciplined in technology, the economics of production and distribution, the wise use of accumulated savings of many people, the financing of gigantic industrial plants, the building of networks of railways, highways and steamship lines, to carry on modern living. Without the engineers, bankers, metallurgists, geologists, agricultural researchers, transportation experts America would be just a sprawling, backward nation. And without our free exchange of ideas, opportunity for anyone with ambition to obtain special training, the maintenance of our free educational institutions, we would never have developed the present state of high living standards.

Communism would kill the golden goose that has laid the golden eggs. Wherever Communism has taken over a country, as in Czechoslovakia and Korea, it seeks out and arrests the scholars, the intelligentsia, the merchants, the bankers, the clergy, the missionaries. Why? They have committed no crimes. But they have believed in the hated Capitalist system. They have helped to make it what it is. They will not meekly agree to accept Karl Marx and Lenin and Stalin as the new Gods. Hence, away with them. These are cruel facts, which Communists sympathizers are loath to believe.

But Russia does carry on, say the Communist sympathizers, it does have factories, it manufactures automobiles, tractors, locomotives, and the people have items which we call "consumer goods" such as radios and clothes. All dependable reports from behind the Iron Curtain, however, agree in this: compared to the free countries such as Great Britain, Sweden, France or the United States, there is only a meager trickle of consumer goods coming from the factories and available to the people. Most families have poor housing, meager food supplies, very few, if any, of the things that are commonplace in the poorer American homes. Autos, telephones, radios, refrigerators, etc., are rare luxuries, possessed by the very few.

Yet the people work long hours, and are poorly paid. New Five-Year Plans are inaugurated to boost production. This generally means longer hours, little or no more consumer goods. Why? It is now believed that half of the Russian production has been for armament, half only for consumer goods. The Politburo, with utter unconcern for the

welfare of the workers has driven them to produce more and more, but for a purpose which is secret with them. It is not for national defense, except in part, but that is the story they tell the people. It is necessary to get ready "to defend themselves from Capitalistic aggression." The United States is planning to destroy their Communist paradise, they say. This utterly false accusation must be believed by the people, for the secret police and the informers will spot anyone who is foolish enough to express doubt. The Russian people want consumer goods; they want better living standards, less arduous working conditions. But they are helpless.

The Russian masters have cunningly contrived ways to keep attention centered upon their program, without disclosing the true nature of their long range program. They learned that an ardent young Communist coal miner, strong of back and with immense vitality had doubled his output, then proceeded to triple it. The name of Alexi Stakhanov was then praised in all the communication channels as one for all to emulate. By the competitive spirit thus aroused it was expected that loyalty to the cause of Communism would be demonstrated by workers everywhere, with a resulting stepping up of production. It did not matter if the worker wore himself out at an early age, or became prey for disease when his health became impaired. In Russia the term for loyal, hard, strenuous, pace-setting, continuous Herculean endeavor is Stakhanovism.

In America and Britain and France labor unions have been striving for reasonable hours of work, good pay, vacations, and sick and accident benefits. They shudder at the very idea of Stakhanovism, because,

curiously enough, that is exactly the sort of thing they objected to generations ago. It smacks of the sweat shop, of the wearing out and discard of over-worked workers, practices that are now largely superseded by more consideration for labor's rights. The practice of selecting the brawniest, most youthful worker as a pace-setter for all is frowned upon in free countries. Yet in Communist Russia, which preaches freedom of the worker from exploitation, the worst kind of exploitation goes on, while in the so-called Capitalist-Imperialist countries, labor exerts tremendous power to protect itself against any semblance of exploitation.

There are reports coming out of Russia that describe even worse conditions. For political reasons or other reasons great numbers of people are shipped in box cars to Siberia, there to work in the mines or forests under conditions that make it virtual human slavery. Many of them fall victim to disease induced by impaired health through overwork. Few return. These charges have been made in the United Nations by responsible parties and are not refuted by any offer of disproof. The number so consigned to a living death has been estimated by the millions and include probably other huge numbers of Japanese, German and other war prisoners who have disappeared without trace.

In view of such conditions, even if true to a lesser extent than charged, the notion of the Communist state as a land of "happy workers" is a delusion and a sham. Instead it is a land of low living standards, of constant fear, of hard labor, of unfulfilled promises, of deprivation, and meager existence. No one may trust his neighbor, no one may

listen to radio broadcasts except as permitted, no one may even move about unless granted permission. The "workers' paradise" is a cruel delusion rather than a reality. The Iron Curtain is a necessary device to keep the deluded people from finding out that they are deluded. It has been suggested that catalogs of our mail order houses be dropped behind the Iron Curtain. A Sears Roebuck catalog depicting the consumer goods available to people in the Capitalist countries would probably be disbelieved by the Communist-controlled population, but the experiment would be extremely interesting to attempt if it could be done.

II. The Nature of the Present World Conflict

The propaganda objective of the Kremlin has been two-fold. For home consumption it has permitted its own people to hear only certain things. All information must pass through the official channels: only that which glorifies the Communist state can pass, or that which is adverse to the Capitalist countries. In that way the beliefs, attitudes and opinions of the people are fashioned toward a single objective: to reinforce the belief that Communism is the coming State destined to replace all other social orders, which have grown old, outworn and decadent. This the citizen must believe, accept, and live with, rejecting all contrary ideas. There must be unity about all this. Objectors, dissenters, deviationists and non-conformists must be liquidated.

The other aspect of the Kremlin objective is directed to the non-Communist world. It is cunningly contrived and even more deceptive. It mixes some truth with a vast amount of untruth. It holds out the enticement that Communism is always, faithfully, avidly working for Peace.

In doing so, however, it is opposed by the Capitalist Imperialists who are always bent on enslaving the world. In fact, they say, everyone is for Peace but the avaricious Capitalist Imperialists who are bent on aggression and are trying to encircle the communist world. If it were not for these war-mongers like Churchill, Truman, MacArthur, Hoover and Dewey, the world could have Peace. Therefore, when the North Korean army with Russian-built tanks, artillery, trucks, and Russian-trained native leaders moved into South Korea and the United Nations forces came in to fight with the South Koreans, this was clearly, say the Communists, an act of aggression by the United States. Likewise the Red Chinese were for Peace, hence it became necessary to throw the Americans out of Asia.

All this may seem strange reasoning. In fact it does not sound like reasoning at all. The British cartoonist, Low, labeled it "Upside Down Truth." Black is white and white is black. To us it makes no sense at all.

But, believe it or not, it does make sense to the Communist. Consider yourself, for the moment, a Chinese or Russian Communist. You have been told over and over that Communism, in which all share alike, is the coming Order, destined to replace all these outworn systems like Capitalist Imperialism, erasing at one stroke all the iniquities in the world and bringing on an era of everlasting Peace. As a Chinese or Russian Communist you believe what you are told; you have never seen America or Sweden or Britain. You are told that life in these places under Capitalist domination is terrible, that the common people are

ground down and are in a state of poverty and semi-starvation because the big, fat plutocrats enrich themselves at their expense, and the Imperialists are constantly exploiting the native populations, cheating them out of their native products. As a convinced Communist you vow to stop this sort of thing. You set out to rescue the poor down-trodden people from their cruel, ~~heartless~~ masters. You are for Peace in the world but first there is the job to rid the world of the war-mongers and Capitalist oppressors.

That is the way the Communist reasons. How could he reason otherwise, with only a perverted set of false ideas on which to base his so-called reason. He is simply not informed of the real facts about the simplest things of the modern world. He is not an ignorant man; he is simply ignorant of the world outside his limited experience. He has been deluded by an array of false notions, cunningly prepared to lead him to an inevitable conclusion. The leaders, the perpetrators of this state of affairs are guilty of misleading millions of people who themselves are honest, sincere and innocent of any wrong-doing. They are just the innocent victims of the plotting and conspiring of the Communist ideologists, opportunists and professional revolutionaries. Because they are without knowledge of the world the things they are told are readily believed. There is no one to tell them the other side and Communism permits no other side. The tragedy of the whole matter lies in the building up of a false hope, that by killing off the Capitalists there will be Peace and Plenty in the world. Perhaps no greater delusion was ever fastened on so many millions of simple souls in the history of man.

It has now become increasingly clear that the ultimate objective of World Revolution, Russian-style Communism, is to force itself by armed might upon all peoples of the world. When this has been accomplished then we will have Peace--Russian-Style. There will then be no more wars.

So they say to all remaining peace-loving peoples: just come along quietly, peaceably, and there will be no trouble, and then you too, may enjoy the blessings of Communism, BUT just surrender your freedom first--and we'll take your gun.

What does this prospect mean to Americans, Englishmen, French, Japanese, Brazilians and others? Just this: if World Revolution (Russian Communism) engulfs the remainder of the Free World, there will be either:

1. The Peace of complete subjugation, as found in a penitentiary or the police state. There will be no freedom to enjoy one's own preferred form of religion, no freedom to choose an occupation of one's own liking, no freedom to secure a desired education, no freedom to choose a preferred place of living, no freedom to have self-government. Even your tastes in music, entertainment or recreation will be prescribed. The dynamic character of free enterprise, the opportunity to improve one's condition, to forge ahead, to hear radio other than propaganda broadcasts--all this will be a thing of the past. The blight of the police state will settle over your life like a pall.
2. Or, if there is not complete subjugation, there may be sporadic resistance, as in captive nations in Europe today:

guerrilla fighting,--men killed in the night--others arrested on flimsy pretexts for suspected sabotage or non-conformance, and liquidated or sent to Canadian wilds or Siberia for slave labor or for "re-educating." In this situation life will be an unending struggle to keep alive, to live miserably, unless one accept "cooperation" with the New Order. America, Britain, France and other nations will become Poland and Bulgarias, under ruthless and ignorant masters. Such has been the fate of these nations. Our business, government, and religious leaders will be systematically liquidated, and our colleges and universities cleaned out of all but conformist teachers and students who accept Communist doctrine; others will be sent to work camps for indoctrination or slow death. The great system founded upon free enterprise, which has produced the high living standard as we know it, will wither and in time cease to exist.

International Revolution, as Russian Communism, can only be a stultifying, tyrannical and blighting influence on all who are forced under its control. It represents an outdated, crude, unworkable system. To think of it as the new, vigorous and youthful New Order, destined to replace existing social orders is to be sadly deluded. Those who have been led to expect great things have been cruelly disillusioned. Such disillusionment has come too late for many millions of people. It is simply a snare to trap unsuspecting and trusting but ignorant or un-informed persons.

One has only to reflect upon these hard facts and clear signs:

If Communism (Russian-style) is good for all peoples why do not people of their own free choice willingly accept it? The fact is that so far as is known Communism has crept upon nations by degrees without their being aware of it until it was too late to protest or do anything about it. The people of Poland, Lithuania, Czechoslovakia, Hungary and other countries were unaware of the real state of affairs until the police were taken over and all their government officials captured and liquidated or replaced in advance by persons secretly trained in Moscow for the coup. In no instance was there a national referendum permitting the people to vote on it.

If it has superior virtues people would want it of their own free will. Instead, police methods of intimidation, arrest, and secret spies have been necessary to bring about its installation. Plotting and conspiracy have always preceded the actual taking over of a country. It has thus been forced upon peoples who knew very little, if anything, about what was really going on; when later they began to realize what had happened objection met only with drastic measures of suppression, by wholesale arrest, deportation, and confiscation of property. The hand of Communist might was everywhere in evidence to put down any show of revolt against the new masters.

Life under these conditions soon becomes intolerable to many persons. Those who have money or friends to help them, try to escape,

and despite closely watched borders many succeed in doing so. The total number now having succeeded in getting out of the Communist and Communist-controlled countries is truly appalling; so great is it the problem of caring for these people and feeding them is becoming more and more serious. These refugees must give up friends, their homes, their familiar home surroundings,--everything--and risk even being killed in their flight to get away. They face an uncertain and precarious future, yet they do this in order to escape from the blight and tyranny of Communism.

Real conditions of life behind the Iron Curtain cannot be known to us in complete detail, because persons from free countries are not allowed to travel freely in the Communist countries, unless under police supervision. In America, Britain, Sweden,--other free countries,--anyone can travel anywhere about the country. We do not have to ask the police for permission to visit a brother or friend in Chicago or Atlanta. We just go. A British subject or a Norwegian student can go anywhere he likes, except, of course, to a navy yard or other restricted zone, in time of war. But not in Russia or other Communist lands!

Why is this? If Communism is, as the Communist propagandists would have us believe, the ideal state, the New Order, the young, new, vigorous system that is so good it is destined to replace the allegedly outworn and decrepit Capitalist system, why not let us see it? Let us see the supposedly happy people, the all-share-alike system, the benefits to the common man so widely proclaimed. Common sense would argue that if it is so good the very best way to make people everywhere want it would

be to invite them over to see it as it actually is. Anyone is welcome to take a look at our system, and those who do invariably want to stay, with extremely rare exceptions.

But we cannot see through the Iron Curtain, and what is even more significant, the people behind the Iron Curtain cannot see out. They cannot know about us and our system. They must listen to what constant propaganda tells them about us. The whole picture does not make sense.

Experts who are most in touch with affairs, gathering what facts they can about life behind the Iron Curtain, tell us that the Iron Curtain is necessary to keep the Russian citizen in ignorance about the outside world, and to make their job of misinforming them about us easier. It would not do to allow us to meet with the Russian people, nor would it do to allow the Russian common man to visit Britain or America. If that would happen on a large scale the International Communist plot would collapse. The common people must never know the real situation.

Even the leaders must not think too much. Minor leaders, those in closest touch with the people, must be watched closely. They must know the Communist ideology as laid down by Marx, Lenin and Stalin and they must adhere to it absolutely, and be ever zealous in advancing it. Any weakening in allegiance, and doubts as to its merits and deviating from the expected loyalty is apt to be quickly discovered and summarily dealt with, frequently by prison camp or by death. The Russian purgings of leaders and sub-leaders has excited the interested but horrified wonder of the free world. It has the appearance of

ruthless barbarism. To what extent this riddance of leaders has weakened the World Revolution no one knows, but it does clearly prove a weakness in the system. The system needs many leaders but if the older, intrenched followers of Lenin and Stalin kill off the better, younger leaders the movement will some day lack these men who should have been good replacements. The purgings also prove the inherent weakness of an ideology that must use ruthless murder rather than simple persuasion to keep its leaders in line. If even among the leaders there are some that find matters to disagree with, the system must have faults. Hence everyone is in constant suspicion of everyone else, fearing that some innocent remark may be reported and may lead to his liquidation.

World Revolution (Russian-style Communism) thus depends upon ruthless surveillance of all in its leader-group. No one may think for himself. No one may do other than keep strictly in line with the Politburo's ideas. Deviationism is ordinarily a capital crime. Its spread to the remaining free countries would be a tragedy of incalculable magnitude.

Part Two

INSTRUCTOR'S MANUAL

INSTRUCTOR'S MANUAL OF QUESTIONS AND ANSWERS

1. If Communism is oppressive why do not the common people rise up and overthrow it? It must have some good points.

Ans. People that have known only hard life, toil and meager return, oppression, and harsh treatment from former masters, will tend to think their lot under the Soviet system is distinctly better, and it is, if our information is trustworthy. Compared to life in Sweden, Switzerland or the United States it is still considered low standard. They know little or nothing of higher standards. Hence they do not consider themselves oppressed; they merely hope for less hard work and more food. They do not want war and are not interested in world communism except to the extent that it is aroused in them by the Soviet propagandists through radio and oral persuasion in village meetings. But they know that one does not question or challenge, if he should know enough of the plans of the Kremlin conspirators to want to challenge. If he should start a revolt he knows what its fate would quickly be. The secret police are everywhere.

2. There are universities and technical schools in Russia. Isn't there learning, research and scholars there, just as in any free country, such as Britain and the U. S. A.?

Ans. Yes, there are universities and technical schools in Russia. There have been, even in Czarist days. But they are under Communist control. Subjects are taught only if they have some bearing on the advancement of World Revolution. Art even may be taught, if it emphasizes the propaganda cartoon or poster or billboard showing vigorous, young Communist youth, and corpulent, decadent, dissipated, arrogant Capitalists. Psychology may be taught, if it is applied psychology, showing how to get more work per day out of workmen; how military skills may be tested for and improved. Mathematics may be taught, if it is concerned with artillery trajectory or bombing curves. Physics is especially favored, if it concerns itself with nuclear phenomena. There are probably few professors of political science, economics or other such subjects who have freedom to teach their subjects unless it glorifies the Communist state and derides the other forms of government. Under such conditions few true scholars would work, because the fundamental idea of all university learning is to be left unfettered in the pursuit of knowledge, not to try to further world revolution. Universities and colleges in the free countries have scholars who have fled from these conditions.

3. Russia has newspapers and magazines. Why do not the people get information on local, regional and world news just as we do?

Ans. Russia has a limited number of newspapers and a few magazines, compared to ours. But she has no magazines comparable to the Saturday Evening Post, Colliers or the Ladies Home Journal, all of which are supported by advertising, which is a development of western civilization, required to acquaint users with the existence of a multitude of mass-manufactured products. Mass Production can work only if there is mass distribution, which means that people must be informed about the things manufactured. This cannot be done well unless there are mass-circulated newspapers and magazines and now radio and television reaching millions of people. Each is dependent on the other and the end-result is that millions of homes learn about thousands of products produced in such quantities that they can be had for prices in reach of all.

In Russia the newspapers and magazines are not so supported. They are sponsored or supported by the government, controlled by the government and anything published in them is presumed to have the government's approval or was actually put in there by government direction. Thus when an important discussion appears in one of the three official newspapers The Department of Propaganda and Agitation of the Communist Party will see that no ideas unfavorable to the party line will appear. Thus the official information is that information which the Communist Party leaders decide will advance the Marx-Lenin-Stalin ideology—that and that only. Newspapers and magazines are never designed to further the free flow of ideas and information, as in free countries, but only as means for advancing the Communists' ideas. It may include educational items, but only such as are calculated to make the people better Soviet workers; it may include items about music or art of the theater but ordinarily to praise some music or other form of art which tends to ridicule Capitalism or glorify Communism.

The reading of newspapers and magazines is limited. There is reading, but the reader must be aware that it is just more of the same line, hence the propaganda is so obvious that it is probably not very effective even on good Party persons. Even they may grow a little fed up of the unvarying line: work harder, trust the Party, hate the enemies of the regime within and without, and believe in the future.

4. Perhaps Russia is interested in developing her vast expanses in eastern Europe and half the great continent of Asia and wants to defend herself against her enemies. The idea that she has aggressive designs against other countries may be just imagined.

Ans. Millions of non-Communist peoples wish devoutly that this were really so. They have only friendly regard for the Russian people as people and would like to trade with them and have all normal relations with them.

But the evidence that it is not just imagination is too convincing. Communist plottings have been uncovered in widely separated parts of the world. They have enlisted the discontented, the poor, and others by studied effort to drive wedges between the allegiance of the person to his country and the New Order. The government of his country is misrepresented as base, oppressive, unfair. Communism is represented as the New Order which will make everything right. There is always some inequality, some injustice in this imperfect world. The Communists are very shrewd in discovering these conditions and exploiting them. It is, however, unnecessary, to point to anything more significant than the simple fact that Russia has shut off from contact nearly all of her domain. She permits no travel unless under police supervision. She has kidnapped hundreds of German, Austrian and Polish scientists, technicians, and specialists. She has moved factories of Germany which made precision instruments to a secret location within Russia. She is believed to be far along in the wholesale development of rockets, guided missiles, atom bombs, snorkel submarines, jet planes and other instruments of destruction. These are not primarily weapons of defense but rather of aggression. She has kept her factories going steadily since 1945 with war production while the free countries were demobilizing and converting their factories to peace-time production.

If Russia is peaceably inclined why the secrecy? Why the frequent use of the veto in the United Nations? Russia is the only nation so using it, and has prevented measures like effective control of atomic energy. Korea disclosed the awful fact that the North Koreans were well-supplied, far above anticipated needs, with Russian weapons including big tanks of Russian design and manufacture. The Berlin blockade was as unnecessary as it was inhuman, and it disclosed a ruthless and calculated planning that shocked the world.

5. Haven't we misjudged the Chinese Communists? After all, is it not true that they are chiefly agrarian reformers, who seized the land from the wealthy landlords and parceled it out to the peasants? Was that not a good move, making the common people a lot better off?

Ans. The Chinese problem is complex. There is some belief that Chiang Kai-Chek did little to bring about reform and lost the confidence of the people, and associated himself mostly with wealthy government officials. There is belief also that possibly the land reform brought on by the Communists was needed. It is difficult for us to know and to make judgments about it. Conditions may be better, about as before, or not as good, depending upon how the reforms have worked.

But the acts of the Red regime in Peiping since the Korean affair tend to indicate that the Red regime in China is essentially a Chinese Branch of World Revolution or an agent of Communism, Russian style. If so, that is a matter of real concern. The delegation sent to the United Nations General Assembly proved to be arrogant, uncompromising, defiant and unwilling even to recognize the fact that his regime was defying the United Nations itself by undoing its work in Korea. General Wu showed no concern for the common people of Korea or China but boasted of the fact that Russia and China now were so strong they would throw the U. N. forces out of Korea if her terms were not accepted forthwith. It is hence an open question as to whether the Peoples Republic in China is interested in the people for their own welfare or merely as common fodder to advance World Revolution.

6. The Russian Communists say that the Capitalist nations are always fomenting imperialist wars and that Communism will put an end to that.

Ans. There have been wars ages before imperialism existed. The causes of war are many and no two have probably the same causes. Paraguay and Bolivia have had wars but neither is imperialistic. Imperialism, no doubt, has been involved in some wars, but so has religion, over-population, nationalistic expansion and many other sources of conflict and friction. To brand the United States as an avaricious, imperialistic nation is mostly nonsense, in view of her help to the Philippines in setting up its own independent government and the fact that the U. S. A. has never had any territorial concessions on the Asiatic, African, or South American continents. Its businessmen have had commercial relations with many peoples which have been mutually beneficial. In the few instances where troops have

landed it has been to restore order and these have usually been withdrawn, as in Nicaragua, as soon as order was restored. These are all instances of police action and not physical conquest.

Actually today, the only nation that is pursuing imperialistic conquest is Communist Russia. Great Britain has terminated its concessions in India and on the Chinese mainland, and is now using only Hong Kong Island as a commercial contact with China. But Russia has taken over some countries bodily, absorbing the populations by forced migrations and has brought other nations under control to an extent that amounts to virtual annexation. It is pushing into Korea, China, Indo-China, Tibet and is believed to have designs on a number of countries for early control of annexation, with no foreseeable limit to her plotting.

Psychologists recognize a trait of human behavior which they call projection. It works this way: when an individual has a fault or design which he is subconsciously bothered with he tends to accuse some one else as having it. For instance, if a person is stingy to a fault, he regards others as stingy, but not himself—at least, he never admits or recognizes it in himself. So Communist Russia, full of aggressive plans and imperialist ambitions, accuses the nations who might try to resist or thwart her plans of being aggressors and of having imperialist ambitions. So we, who covet no single square mile of another people's territory, are accused by Russia of wanting to take over Korea and make war on China, when it is Russia who attempted first to Communize North Korea and have North Korea (Russianized) take over all Korea.

The League of Nations and now the United Nations have both been trying to prevent war. The United Nations has been trying to eliminate many of the evils, such as wars of aggression, slave labor, stirring up of animosities between nations and peoples and religions. It has not had cooperation from the Communist nations except in a half-hearted way. There is no need for a Third World War if only Russia will abandon her tactics of obstruction and non-cooperation, will cease her aggression, free the captive nations under her control, release the prisoners of World War II, cease inciting hatred of the free countries and show a willingness to live and let live. To try to accuse the peace-loving nations of fomenting war (war-mongering) when she is the only great power doing that very thing brands her as the real obstacle of

peace. Yet she has the effrontery to proclaim that she is the one who wants Peace, when for five years she, and no one else, has been preparing for war.

7. Are not these stories of torture chambers, of forced confessions, of bizarre court trials in which prisoners declare their guilt and acknowledge their sin against the peoples' state mostly propaganda or at least greatly exaggerated?

Ans. Though the non-Communist world is still puzzled to some degree about the full nature and exact manner in which confessions are induced, there is enough known to regard the essential facts as unquestionably true. Cardinal Wyszynski is in prison. He did meekly and abjectly appear in poor physical and mental condition before the court. What went on in the prison chambers has never been ascertained.

Others have gone to destinations unknown, others have been sentenced to death or long prison terms after abject confessions. These confessions, note, are always in the same pattern, usually in almost identical words and phrases, Vogelis, in Budapest, appeared to be monotonously reading a dictated confession.

Now, if one studies Pravda, one is struck by the similarity of public announcements celebrating Soviet holidays. They are stereotyped, as if prepared by officials of the Communist Party. So many of these confessions have the same character: the person regrets having worked against the peoples' democracy which has brought new hope and better conditions to the workers, etc. Hitler's regime likewise indulged in barbaric tortures, some revived from the Dark Ages. Asiatic peoples have their torture practices, such as the water cure, or the splinters under finger nails, and have used them on people who survived to tell about it. It is certainly not unthinkable that the Communists are capable of using any or all of these methods in their attempts to control every individual who may, as a Catholic cardinal or American businessman, not conform to their Communist tenets, and by their hostility constitute a resistance element in the tide of affairs. In World Revolution there can be no other side.

The probabilities are that such cases are what they are because of their political significance. The individuals are just incidental--are just unfortunate victims. Wyszynski's fate is Communism's challenge to the Catholic Church; Vogelis's to the Capitalistic world of business enterprise, trying to operate right in the satellite countries.

These extremes, be it understood, are the products and episodes of fanaticism. Probably many Soviet leaders really believe the system to be good and they want to think of it as the coming order. It has to be continuously promoted. People have to be aroused, interested, given some alternative to despise, and kept in this state of mind. Ordinary persuasion or education or indoctrination is not enough, apparently; hence occasional recourse to widely publicized spectacles, such as the Mdzenty trial—condemning of alleged enemies of the Communist state, and the periodic purges of some of their own leaders. All these excesses smack of the level of poorly educated, tyrannical, fanatical revolutionaries who are set on attaining and retaining and enlarging immense power. They never reckon with the human misery their mistakes may cause.

GENERAL MOTIVATION AND INCENTIVES FOR BASIC TRAINING

Background Literature

Stouffer, S., et al, The American Soldier. Princeton, N. J.,
Princeton Univ. Press, Volumes I and II, 1949.

(Studies in Social Psychology in World War II)

Hovland, C., et al, Experiments on Mass Communication (Volume III).

Stouffer, S., et al, Measurement and Prediction (Volume IV).

These four volumes constitute a permanent record of the activities of a corps of social scientists working with Research Branch, information and Education Division of the U. S. Army, during World War II, plus the contributions of a considerable number of consultants, both civil and military.

Volume I covers adjustment to army life. Chapters 3, 4, and 5 report studies on personal adjustment in general terms, by background characteristics and by type of experience in the army. Chapter 6 covers the subject of attitudes toward promotion in the army, labeled "Social Mobility." Chapter 7 is on Job Assignment and Job Satisfaction, and No. 8, on Attitudes toward Leadership and Social Control, while Chapter 10 is on the subject of Negro Soldiers.

Chapter 9 (The Orientation of Soldiers toward the War) is the one chapter of immediate and direct interest to the present paper and is related to Volume III, Experiments on Mass Communication.

The chapter reports the results of surveys of soldier attitudes toward the war, such as acceptance of various conceptions of the war (pp.431-435) with data classified by educational level (p. 434). There is also the men's own formulation of American war aims, topics about which they desired more information, the degree of clarity in understanding war aims, and the feeling toward the worthwhileness of the war. Relationship of such attitudes and those toward the expectation of another war in the next twenty-five years was also explored.

A second line of study undertook to ascertain the degree of personal identification, how much the individual soldier felt he had done his share, and attitude toward separation from the service. On the latter question separate data were obtained by years of service, by U. S., overseas non-combat and overseas combat breakdowns, and also by age, marital status, physical condition and education.

A third line of inquiry explored the possibility of raising the level of personal commitment by changing attitudes toward the war. This material is more elaborately treated in Volume III, particularly the experience with "Why We Fight" films, and with discussion groups. Some of the comparisons of the attitudes of those having the orientation programs and those not are not indicative of any great effectiveness of the orientation programs (pp. 474-475). In comparisons of "model" programs with "typical" some differences are shown in favor of the former but the results are not consistently impressive. The value of the orientation sessions as providing the soldier with an opportunity to be heard,

to ask questions, to have his thinking stimulated and his information broadened were, however, positive gains.

In the event of World War III there would unquestionably be the need, in the consultant's opinion, for more thoroughgoing orientation programs, with "meat" in them. World-wide propaganda has undoubtedly made many persons quite confused and even uncertain about war aims and objectives. The Korean situation has introduced some additional confusion, perhaps, while in another sense, clarifying some aspects of the total picture. The consultant's prospectus is designed to outline a general framework for such orientation, on the theory that the problem is complex but the best approach is a needed education, frank and sincere, regarding the vital aspects of the current world situation. It is believed that the usual motivations of getting an unpleasant job done and sticking with one's buddies (the two most frequently assigned categories) will operate as always, but for the literate, balanced and "morale-carrier" type of soldier it will be necessary to have the long-run, deep conviction of need plus awareness of the consequences of failure to provide the sustaining motivation.

Volume II of Studies in the Social Psychology of World War II,
The American Soldier: Combat and Its Aftermath.

For the purposes of study of motivation for World War III, Volume II provides two chapters of interest and research value: Chapter 3 (Combat Motivations among Ground Troops) and Chapter 12 (The Aftermath of Hostilities).

Volume II is a unique and invaluable contribution to an understanding of men at war. It is probably the only study made by social scientists searching for basic experiences, attitudes and behavior and having access to the real and only sources--the men themselves. The material is thus objective, assuming the subjects themselves were typically forthright and accurate in their responses to the many questionnaires, attitude scales and other means for eliciting the information. The combat incentives listed in Chapter 3 (Tables I, II, pp. 108-110) need not be a guide for future incentive appraisals; they may serve to point up the failure to provide more effective incentives. Consideration of them as found may serve better to define the problem.

Relations between private soldiers and NCO's and officers (pp. 127 ff) and the sections on combat motivation (130 ff) come in for study but concern mostly the usual incentives as pride in outfit, attitude toward shirkers, etc. The study of attitudes of vindictiveness toward the enemy probably suggests the degree to which anti-enemy propaganda and war news had taken effect. Other motivational items and morale supporters such as philosophy and prayer were studied and reported. All this material, gathered from men in hospitals and in overseas locations, comprises a comprehensive account of the combat soldiers' reactions and views in the combat situation and will repay careful study.

Chapter 12 (The Aftermath of Hostilities) is also a unique record of the views in retrospect of the war as offered by the combat soldier, as the war was drawing to a close or had ended. There is a significant

measurment of changes in attitudes toward the British, Germans and French during peroids in 1945 in April and again in August, with the latter reflecting contact with the Germans after cessation of hostilities. This material also presents attitudes toward the home front, toward August 1945 belief in the worthwhileness of the war and toward future American policy.

Volume III. Experiments on Mass Communication

This volume is of especial interest to social scientists as it not only presents the experience of presenting the "Why We Fight" films but it also describes the results of setting up a number of experimental situations to test the effectiveness of the films and the relative effectiveness of presenting the same material in different ways. It thus throws light upon basic learning principles, on mass communication principles, and on the effectiveness of particular films. The data is also analyzed for particular variables as education and general intelligence.

These studies, designed to test the workability of film presentation, are more of value to learning, conditions of retention, subject analyses, and like, than to the immediate concern of this paper. They are of concern, however, in that the movies were not conclusively successful, so far as was ascertained, in instilling deep-rooted motivation for combat. It is thus observed that something more is needed.

Volume IV. Measurement and Prediction

This volume, even more than Volume III is concerned with measurement problems, as scaling and other means of measuring attitudes, and hence is not of direct and immediate concern to this paper. The content should be of value to the further refinement of research tools.

Meier, H., Military Psychology. New York: Harper & Bro.,
1943 with Foreword by Lieut. Gen. Ben Lear

Chapter 1 (Why Men Fight: Group Conflict) outlines the more basic causes of inter-group conflict; discusses frustration and its psychological distortion, nationalistic attitudes, delusions and obsessions and the resolution of group wants and aspiration into ideological conflict. Attention is devoted to the stages of psychological preparation of people for war.

Chapter 2 (Psychological Aspects of Warfare) presents the ways in which psychological devices are used to soften up both civilian populations and armed forces for easier conquests and the work of agents in pre-war preparation. Total war as it has come to be known in present times is discussed with its implications for both war and peacetime implications and involvements.

Chapter 3 (Psychological Preparation for Combat: Morale) has a direct bearing on the topic of this paper. Both positive and negative

incentives are discussed, considering the drives and appeals likely to be most responsive to cultivation and likely to stand up under the stress of combat conditions. While positive appeals are regarded as probably the most durable, negative appeals also have potency and in the event of World War III would have a high place. Considerable attention is given to sustaining factors in morale (pp. 72-80) as those most likely to persist through adverse conditions of combat.

Chapters 4 and 5 (Skills, Learning) are not of immediate interest.

Chapter 6 and 7 (Leadership and Coordination) have many sections of indirect bearing on motivation and incentives, but center around leadership effectiveness.

Chapter 8 (Adjustment to Combat Conditions and Stress) is concerned primarily with the emergencies of motivation, special circumstances wherein particular measures are needed to avert failure in performance.

Boring, E., Psychology for the Armed Forces.
Washington, D. C., The Infantry Journal, 1945

This volume, appearing first as a 25¢ handbook represents the contributions of a number of psychologists to make available to men in the armed forces the information which psychology can supply as helpful in making them better soldiers. Most of the sections, as those on vision, hearing, smell, color, etc., are not of immediate interest in this report.

The chapters of interest are No. 14 on Motivation and Morale and No. 22 on Propaganda and Psychological Warfare. The Motivation and Morale section discusses needs and frustration in a general way with some application to Germany. Also discussed are psychological mechanisms (reaction to frustration) as fantasy, identification, compensation and projection.

Morale, defined as "wanting to do what you have to do" comes in for consideration, discussing physical well-being (cleanliness, warmth, recreation, self-importance, etc.) and such matters as group solidarity, leadership and ideology.

The chapter on Propaganda and Psychological Warfare reviews propaganda activities incident to World War II with a final section on Organization of Propaganda and Tactics of Propaganda with Formula for a Propaganda Victory. Though most of this material applies to an actual war in progress some of the items may be of interest and value in an indoctrination program.

Inkeles, Alex, Public Opinion in Soviet Russia.
Cambridge, Mass.: Harvard Univ. Press. 1950

This is the first volume of studies to appear from the Russian Research Center of Harvard University.

For anyone who wants to understand the basic nature of the Soviet system this book is require reading. "The Soviet regime," the author states, "has developed one of the largest and most complex systems of

public communication in the world. The Communist Party has forged a parallel system of control which is more elaborate and thorough than any other still in existence in the post-war era. Both the system of communication and the control apparatus are oriented toward a single goal. They must serve as instruments through which the party and government mobilize the mind and will of the population; they must see to it that what ought to be done is done, what is thought and felt is thought and felt." (p. 317). Communication means are to be used primarily "to strengthen the party's leadership in its self-assigned role as leader, teacher, and guide of the Soviet people." The media are simply tools for this purpose.

Dr. Inkeles provides the historical background necessary to understand better the Leninist theory of public opinion policy, and the evolution of the Department of Propaganda and Agitation. The schooling of opinion leaders and the selection and training of personal oral agitators is given attention, and the interrelation of the local party organization are outlined. These topics are covered in Parts 1 and 2.

Part 3 is concerned with the Soviet Press which holds a unique position in the world. It is never a means for expressing an editor's opinion nor a means for reflecting public opinion. It is first of all a "collective propagandist and collective agitator." Stalin has spoken of it as a "transmission belt between the masses and the Party" and in another reference regards it as an instrument in the party's effort to eliminate the remnants of capitalism in the consciousness of the people

and to transform men into active builders of Communist society (pp. 135-136). It, therefore, cannot be objective. There are newspapers for each level and each age, with two (Pravda and Izvestiya) directed to all people. This diversification simplifies the control. Analyses of typical content are given. A chapter on Editors and Writers tends to make clear the Party control over the conduct of the paper.

Part 4 is devoted to a description of domestic broadcasting in the Soviet Union, covering not only the administrative control, but the salient facts regarding the networks, reception, programming, and the radio audience. In 1949, Inkeles states, there were about ten million wired speakers and regular radio sets in the Soviet Union—about one radio per four families. Much of the listening is "collective" listening—at others' homes, in dormitories, reading room of a plant, etc. Audience measurement is practically nil and only letters indicate audience reaction.

Part 5 is concerned with the Soviet film industry. The movie is recognized as an art form but must carry Soviet culture, preferably ideological themes. Strict control is held over what is produced and what is produced may at times be severely criticised and in some cases ordered withdrawn. Since 1947 the Ministry of Cinematography, staffed with political specialists and film personnel of the proper ideological firmness, is charged with this responsibility. (p. 296) To Lenin the film was a "pictorial publicist," the educational film "a pictorial public lecture" and the feature of art film "artistic propaganda for

our ideas in the form of an absorbing picture. Stalin, in turn, conceived of the film as "a great and invaluable force . . . aiding the working class and its Party to educate the toilers in the spirit of socialism, to organize the masses . . . and to raise their cultural and political battle-fitness." (p. 307). The party maintains an elaborate supervisory organization to insure that the films produced in accord with its directives do indeed serve the purposes for which it intends them. For this purpose the party maintains a special sector for film affairs in its Department of Propaganda and Agitation as its chief instrument for controlling the Soviet cinema.

Stratton, G., Social Psychology of International Conduct.
New York: Appleton-Century, 1929

Though published thirty years ago, this volume is, in the consultant's opinion, unique in the field of psychological analysis of the factors involved in inter-nation behavior, namely the conditions that lead to inter-group friendliness and antipathy. It presents a scholarly analysis of racial differences, prejudice, the causes of friction, the forces that make the nation or that lead to its deterioration, the psychological attitudes needed and how these undergo manipulation. He undertakes to outline the wants and desires of individuals which they expect to be satisfied in the nation-state; the frustration of these desires and the bases of attraction and repulsion among states.

The sections dealing with war as a product of social planning (Chapter XXI), of war's sources in intelligence (Chapter XXII), and his array of war's psychological causes (Chapter XXIII) are masterpieces of lucid exposition.

All in all, Part II (Chapters XII to XXIV) constitutes some of the best material ever produced by a social psychologist on the subject of war, and it is to be regretted that the volume appears not to be widely read, while deserving of the closest reading by statesmen and all others who would understand the causes and conditions of international conflict. The consultant does not agree fully with all the material, but he believes no more comprehensive and valuable insight has thus far been written.

The particular sections of most direct application to the topic covered is found in Chapters VIII, IX, X, XXI, XXII, and XXIII.

Professor George H. Stazton, one time chairman of the Department of Psychology at the University of California (Berkeley) is a scientist of high rank, one-time president of the American Psychological Association and author of a number of books. He is now retired.

May, Mark, A Social Psychology of War and Peace.
New Haven: Yale University Press, 1943.

The thesis of this volume is that learning underlies war and peace; that populations can learn to hate and to fight, to fear and to escape, to love and to defend, to follow leaders. Aggressive social movements

are explained as having a background in history but are motivated primarily by the frustration-aggression complex, popular at Yale at the time the book was written. Attention is given to goal perception,, recruitment of members and the importance of an ideology.

The assigning of learning to a basic role in war and peace is in conformity with Stratton's earlier position that war is a result of social planning and has its sources in man's intelligence. The May volume tends somewhat to over-simplify, as all single-principle explanations do, despite the reference to a multitude of contributory items, which are generally used to support the thesis rather than having weight of their own.

The May thesis does, however, make it very clear how the Communist control of the normal educational facilities, converting them to a hybrid function of education, indoctrination, and propaganda, so that the child is brought up by the state to learn Communist-idolization, Capitalist-hatred, prepares him for his assigned role in the New Order. In this sense the May volume assumes a high importance in making clear, as Professor George Counts of Columbia's Teachers College (I Want to Be Like Stalin) has done, that the bringing up of a generation of minds warped in their outlook toward a world pictured to them in grossly distorted fashion constitutes a menace to the peace and security of all other nations.

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Doob, L., Public Opinion and Propaganda. New York:
Henry Holt, 1948.

This is perhaps the most comprehensive treatment of public opinion and propaganda by a psychologist, with chapters on the perception of, content of, and learning of propaganda that are of interest, indirectly, to an indoctrination course.

As does also Mark May's A Social Psychology of War and Peace, the Doob book offers the theme that propaganda is always man-made, man-applied and man-consumed. Whether it is called learning or merely "impact" or reception the mechanism is clearly one that accounts for the effort of one segment of society to control another segment usually by the medium of language. Both volumes, if read carefully, make the activities of World Revolution an open book. If anyone desires to understand better the workings of the Soviet Department of Propaganda and Agitation he can find, not the actual, concrete workings but the general principles explicitly outlined in Doob's volume, as these are generally the same everywhere.

Rossi, A., A Communist Party in Action. New Haven:
Yale Univ. Press, 1949.

This is a translation of Physiologie du Parti Communiste Francais which presents the history of the rise and fortunes of the Communist

Party in France. It is thus an informative account of the workings of an organization that can perhaps fairly be regarded as a segment of World Revolution within the confines of an existing nation.

Here is presented such aspects as the mobilization of youth, the rural areas, the intellectuals, the trade-unions; activities such as terrorism and mass demonstrations, underground activity; accessory functions as use of the press, party finances, recruitment, personnel and party training, etc.

Angelo Rossi, the author, a political scientist of Paris, a French Socialist in politics, maintains an attempted judicial attitude, holding that it is better to permit the existence of the Communist Party in France (the book covers the period only up to and during 1941) while calling on all non-Communists to contest it at every point. It is, he holds, not legal and in accord with the philosophy of free institutions to outlaw a party. The opposition to Communist activity should be a reexamination of what may be offered the masses, in opposition, a better ideal, and create for the society of the future a structural basis different from that which a Communist victory would entail—something that would make a stronger appeal to man's spontaneity and sense of justice than that made by Communism itself.

Unfortunately the book takes us only to 1941. It would be very significant to have the author's reflections and views now. After

Poland, the Balkans, Czechoslovakia, etc. would he hold to the positions mentioned above? The volume is of great value, however, in giving a picture of Communist opportunism, inconsistencies and intransigent belief in the "coming" order.

Krech, D., and Crutchfield, R., Theory and Problems of Social Psychology. New York: McGraw-Hill, 1948.

This new volume is probably the most advanced text in the field of social psychology. It has two contributions toward a better understanding of the present international outlook.

1. In early chapters (II and III) it presents some of the more basic and underlying principles of social behavior, the motivation of behavior and the way in which the individual perceives the world and organizes his perception of it. Chapter III outlines the way these perceptions become modified (reorganized) as the person grows older and meets with a wider and more varied type of experience. The next portion of the book (Social Processes) shows how beliefs are acquired, attitudes formed, and how these beliefs and attitudes develop and change. Chapter VII is concerned with the methods that have been devised for measuring them, and Chapter VIII with the large scale, group, measurement, as in the public opinion polls. While not completely adequate and up-to-the-minute this section is nevertheless good.

Chapter IX deals with persuasion through propaganda, treating it through a study of language, with additional coverage of language manipulation by suggestion, with some "principles" of propaganda as the concluding material.

The next two chapters on the Structure and Function of Social Groups and on Group Morals and Leadership are excellent and have a direct bearing on present-day affairs.

All of the above material tends to make clear the manner in which beliefs, attitudes, opinions arise and hence prepares the reader for a subsequent understanding of the machinery of control. It is thus a simple matter to apply these considerations to a clearer understanding to the way in which whole peoples may be indoctrinated with uniformly-held beliefs and attitudes, as in the Communist-dominated countries.

2. The other section dealing with material of interest to the present international situation is the final chapter (XV) on International Tensions. As a general presentation from the viewpoint of psychology this is a fairly comprehensive statement of the factors and conditions affecting inter-group tensions and the conditions within the United States that are related to the tensions. The two authors represent liberal viewpoints, sound in general, but somewhat idealistic. The viewpoints lack, in the consultant's opinion

and appraisal, a full comprehension of the dynamics of "imperialism," the elementary facts of economics, including finance and world trade, and the full comprehension of modern, world-wide affairs. Nevertheless, the material is among the best ever assembled by psychologists, who are just psychologists and not social scientists, well-rounded, as well, as this comprehensive training is indispensable to a penetrating insight into contemporary world affairs. Hence the featuring of the doctrine of frustration-aggression is too much in evidence, and "special interests" given a somewhat distorted role. The picture, however, of national interests as interfering with the most enlightened conduct of international affairs seems to be well stated. And the discussion of obstacles to international understanding is well presented.

The program presented for reducing international tension and the proposal for a United Nation Institute of the Human Sciences represent a hope which may find interest after the present situation has been brought to some resolution. This material was prepared prior to August 1947 and does not reflect the world situation after the announcement that an atomic explosion had occurred in Russia. While the material (pp. 606-615) is still vital material and the following discussion entitled The Leverage of Atomic Energy for Peace, including some of the findings of the Atomic Bomb Survey (SSRC, Cornell University, 1947) is included, it is probable that a somewhat different view would have characterized the material if prepared today.

Linebarger, P. H. A., Psychological Warfare.
Washington, D. C.: Infantry Journal Press, 1948.

Psychological Warfare is a descriptive account of the uses of persuasion in warfare, with many illustrations of its practical use in World War II in all theaters of operations. It includes a review of the history, definitions, limitations and uses of psychological warfare. The author speaks from practical contact with actual operations, including the preliminary analysis and planning of the operations. Psychologists and others who have written on the subject, such as Doob and Lasswell are liberally quoted.

As a documentary account of psychological warfare as it was attempted, with evaluation and appraisal, by both Allied and Axis propagandists on both enemy armed forces and civilian populations the volume is a valuable contribution to the literature. It points up the errors, the miscalculations, the failure to take the propagandees' background into account, and other miscues, as well as the successes and effectiveness of other efforts. It demonstrates that paper bullets can be as effective as leaden ones, but the method also has limitations. It can contribute materially to a shortening of a war.

The consultant observes that valuable as the efforts of psychological warfare have been in World Wars I and II it is quite likely that the full possibilities of the war of ideas, using known human interests, motives and incentives, have yet been far from fully exploited.

As the present prospect in the world is likely to be ideological conflict, the importance of psychological ways and means useful in that contest takes on a new and highly significant character, because populations are involved and ideas cannot be completely controlled by armed force however great and drastic.

The role of this volume, therefore, aside from its historical and descriptive contributions, might be to provide suggestions for the conduct of the future psychological warfare, guidance for the avoidance of past miscalculations, and suggestions for newer and better material.

Farago, L., (Ed.), The Axis Grand Strategy. Blueprints for the Total War. New York: Farrar & Rinehart, 1942.

The volume is a collection of extracts from many publications, mostly German, compiled under the supervision of the Committee for National Morale which was organized in 1940 to build up national morale. The selection of material from the original German is largely the work of the editor, a journalist who represented British and American newspapers in Germany during the thirties.

The divisions of the books are labeled: The Pattern of War, The Art of War, The War Machine, The Sinews of War, and Hitler's Grand Strategy. The material is selected with a view toward demonstrating the ideas of total war and world conquest toward a New Order as presumably entertained by Hitler.

As it is now believed that the Kremlin leaders have similar grandiose notions there is much in Axis Grand Strategy that may apply to the current situation, with only differences in methods, territorial operations and long-run scheduling. The ideas of the geopoliticians, particularly Mackinder and Haushofer are presented in Chapter XVI. It is a possibility that these, particularly the concept of the Heartland as advanced first by Mackinder, fits the World Revolution conspiracy and Union-plus-China impregnability idea much better than it did the Russo-Nazi temporary union.

GENERAL MOTIVATION AND INCENTIVES FOR BASIC TRAINING

Background Literature - Articles

Aron. Public Opinion Inside the U. S. S. R. (Author is a U. S. government official who has spent many years in Russia and neighboring states; has knowledge of Russian language). Pub. Opin. Quart. 1947, 11, No. 1, 5-25.

Public opinion exists in the U. S. S. R. but it has no public expression. The Politburo, however, attempts to keep close tab on it but for its own purposes of control or rather to observe the possible incidence of any adverse opinion that might assume proportions hostile to the continued control of the Kremlin. Stalin dominates the Politburo still, and may or may not act counter to known public opinion; also he never consults public opinion and at most may modify a policy slightly when caution dictates.

To combat unfavorable opinion or conditions producing dissatisfaction illusions are created: the shortage of shoes doesn't exist, it is just a matter of hoarding somewhere. Stalin failed, however, to make the people believe the Orthodox Church was an enemy and that religion is an opiate of the people.

Other sections deal with the scope and nature of Soviet propaganda: its all-pervasiveness, propaganda as enlightenment, Soviet censorship, and basic material of the propaganda. Of particular interest to this report is the section on "Calculated distortion of Russian-Allied relations" (pp. 15-17). Propaganda is a monopoly of the Communist party. Its domestic program is considerably the maintenance of illusions. A

final section makes observation on the efficacy of Soviet propaganda. While resistance to the constant flow of propaganda exists, in the form of skepticism, anecdotes making fun of some of the more absurd items, it is not possible the full extent of the resistance.

Dallin, Alexander, America through Soviet Eyes.
Pub. Opin. Quart. 1947, 11, 1, 26-39.

This article presents a detailed analysis of the Soviet Press in 1946, especially Pravda, which even at that early date after the end of World War II shows an alarmingly high proportion of anti-United States editorials. Life in the U. S. is shown in distorted fashion, quotations from unimportant persons, blowing up of minor episodes, giving exaggerated or even fantastic figures about unemployment, quoting freely from Senator Pepper but little from Secretary of State Byrnes, reporting inconsequential meetings of radical groups, ignoring more typical gatherings, etc.

Four main topics regularly account for 80% of all American news in Pravda:

1. Militarism and imperialism in American foreign policy; "atomic diplomacy" and "dollar dictatorship."
2. Pro-Soviet views and statements critical of American and British policy expressed in the United States;
3. Reactionaries in the United States, Fascists, racial discrimination, "monopoly capitalism" and "redbaiting";

4. Industrial strife, unemployment, inflation, and the inevitability of an economic crisis. (p. 27)

A table (1, p. 28) gives the number of lines devoted to these categories for each month in 1946.

The "120 million" are held in subjugation by the masters who are "several dozen financial and industrial magnates" and among others the AF of L even is regarded as "servants of American reaction. Character sketches are given of some of the sinister figures: Cardinal Spellman as the spearhead in the church's "struggle against democracy" (meaning: communism) Dulles, who "represents" the monopolist armament makers, Baruch (a speculator grown rich) and others.

Much is published about gangsterism, imperialism, oppression, inequality, and discrimination; little or almost nothing about the achievements of the United States. "The freedom-loving peoples do not wish to tolerate dollar diplomacy any longer." (Pravda, November 10, 1946)

Davison, W. Phillips, An Analysis of the Soviet-controlled
Berlin Press. Pub. Opin. Quart. 1947, 11, 1, 40-57.

The article gives the findings of a content analysis of representative issues of four Russian-controlled newspapers in Berlin for December, 1946.

"News" is not selected primarily for news value, as in American

dailies, but is carefully chosen to further predetermined themes. The United States and Britain receive particularly harsh treatment. News favorable to them is played down and news of an adverse character is given prominent display. The unfavorable themes are ordinarily similar to those appearing in the Communist party organs in Moscow, such as "The United States is torn with economic unrest, causing industrial strife and inefficiency;" that the United States is in the grip of reactionaries; that the United States is pursuing policies of militarism, imperialism and dollar diplomacy. A small number of items are favorable or neutral.

Riegel, O. W., Hungary—Proving Ground for Soviet-American Relations. Pub. Opin. Quart., 1947, 11, 1, 58-82

This rather extended picture of conditions in Hungary after it was occupied by Russia, Britain, France and the United States now has chiefly historical value, but it points up the formative policies of the Soviet Union toward a conquered people; the uncertain, halting and neutral policies of the other countries. American activity was sprinkled with effort to get commercial relations reestablished, while Russia soon saw the opportunities for Communist penetration. The following political events were a natural outcome of this situation as pictured by Professor Riegel, though he did not foresee the outcome at the time.

The article is hence depictive of the Communist thinking when it clarified its procedure and was preparing to take the most of its opportunities. It shows also the basic pattern of the respective governments' foreign policies, which in our case, were not prepared for positive action. Into this vacuum the Soviets stepped, with results which are now history.

Field, Mark G., The Academy of the Social Sciences of the Communist Party of the Soviet Union. Amer. J. Sociol. 1950, LVI, 2, 137-141.

This organization is designed to effect a closer tie between the Party and the activities of the social scientists so that direct control may be ~~exercised~~ upon what is taught.

Speier, Hans, The Future of Psychological Warfare, Pub. Opin. Quart. 1948, 12, 1, 5-18.

The United States has not promoted proper study of psychological warfare, turning attention to it only in emergencies as in WWI and WWII. For the effectiveness of the means, exhaustive study and constant readiness to us it is in order in an unstable world.

Cantril, Hadley, Tensions that cause wars; common statement and individual papers by a group of social scientists brought together by UNESCO. Urbana: U. of Ill. press, 1950.

Discussion of "major influences which predispose toward aggressive nationalism"--value judgments, expectancy, interpersonal tensions, environmental factors, ideologies, etc.

Kriesberg, Martin, Cross-pressures and attitudes; a study of the influence of conflicting propaganda on opinions regarding American-Soviet relations, Pub. Opin. Quart., 1949, 13, 5-16.

- 1) Unawareness of conflicting interpretations.
 - 2) Moderation of opinions.
 - 3) Loss of interest in controversial foreign policy.
-

Klineberg, Otto, The UNESCO Project on International Tensions; a challenge to the sciences of man. International Social Science Bulletin, 1949, 1 (1-2) 11-21, 88-99.

Research on

1. What is meant by "understanding"?
2. What is meant by "tensions"?
3. Tensions in whom, where?
4. In people generally, or leaders?

Cantril, H., Opinion Trends in World War II, Pub. Opin. Quart., 1948, 12, 1, 30-44.

Illustrations by charts of the fluctuating course of opinion on significant aspects of American opinion. The article should offer suggestions useful in planning both civilian and soldier motivation in the event of WW III.

White, Ralph K., Hitler, Roosevelt, and the Nature of War Propaganda, J. Abnorm. Soc. Psychol., 1949, 44, 157-174.

Differences between the propaganda of Hitler and Roosevelt with implications for the present propaganda of the United States and Russia.

Stapel, J. and DeJonge, M., Why vote Communist? Pub. Opin. Quart., 1948, 12, 3, 90-99

Communists in Holland differ from majority of population in respect to religious beliefs, economic status, and various socio-political attitudes. The recent decline in Communist vote indicates that the voting preferences of many who vote Communist can be changed.

(Psychol. Abs. 1949, 23, No. 6)

London, Ivan D., A Historical Survey of Psychology in the Soviet Union. Psychol. Bulletin, 1949, 46, 4, 241-277.

A well-documented review (137 references) of the history of psychology through the pre-~~Lenin~~ period (1917-1923), through the trail and "error" period (1924-1930) into the present materialistic period. The "housecleaning" and reorientation came in 1929-31, when psychology was required to serve the purposes of the state.

Schmulowitz, N., and Luckmann, Foreign Policy by Propaganda Leaflets. Pub. Opin. Quart., 1945-46, 9, 4, 428, 429, 485-493.

Raises the question of foreign policy commitment as promises made in leaflets.

The study gives some additional insight into propaganda warfare, as practiced in the Japanese theater in WW II.

Rose, A., Bases of American Military Morale in World War II. Pub. Opin. Quart., 1945-46, 9, 4, 411-

A brief article giving the author's observations and reflections from the standpoint of a sociologist and observer in the North African and Italian campaigns.

Doob, L., The Strategies of Psychological Warfare. Pub. Opin. Quart., 1949-50, 13, 4, 635-644.

An attempt to reduce problems of psychological warfare to a systematic order of types of situations and kind of material.

Ettinger, K. G., Foreign Propaganda in America, Pub. Opin. Quart., 1946, 10, 329-342.

Spitzer, H. M., Presenting America in American Propaganda., Pub. Opin. Quart., 1947, 11, 213-221.

Smith, Geo. Horsley, Beliefs in statements labeled fact and rumor. J. Abnor. and Soc. Psych., 1947, 42, 80-90.

Williams, B. H., Public Opinion in a World of Power Politics, Pub. Opin. Quart., 1947, 11, 3, 361-366.

Explores the grades of opinion and the gap between verbal acquiescence in policy and willingness to sacrifice for it, particularly if it involves foreign lands. Suggests measuring intensity with which opinions are held and the awareness of the practicability of realization of the goal.

Rodnick, D., and E., Notes on Communist Personality Types in Czechoslovakia, Pub. Opin. Quart., 1950, 14, 1, 81-88.

Described five types: fanatics, "idealists" loyal despite misgivings, pan-Slavists—Party loyalty minor to pan-Slavic solidarity, "economists"

interested in economic policy, and Party "intellectuals" who were willing to gain self-importance as propagandists.

Presents a recent picture of Czechoslovakian Communists.

Block, R., Propaganda and the Free Society, Pub. Opin. Quart.
1948-49, 112, 4, 677-686.

Observations on the plans for interpreting American life and policy to the rest of the world. The difficulties are pointed out: the aversion to "propaganda" in many persons minds; the confusion of the term with advertising; and the multi-facet aspects of American life. The reluctance to accept propaganda even in its best sense as an instrument of statesmanship is also a difficulty.

Vucinich, Alexander, the Structure of Factory Control in the Soviet Union. Amer. Sociol. Rev., 1950, 15, 2, 179-186.

The paper outlines the system of control operating in the Soviet factory as a socio-economic and administrative unit. The control involves a gamut of agencies and channels of the Soviet government and Communist Party for the purpose of forestalling any deviations from the legal and normative provisions sustaining the Soviet system.

Hyman, H., and Sheatsley, P., Some Reasons Why Information Campaigns Fail, Pub. Opin. Quart., 1947, 11, 3, 412-423.

More giving out of information is not necessarily productive of

expected results. Conditions affecting reception are: chronic "know nothings" resistant to acquiring information; lack of interest; selective interpretation following exposure; differential changes in attitudes after exposure.

McGranahan, Donald V., U. S. Psychological Warfare Policy, Pub. Opin. Quart., 1946, 10, 446-450.

Questions the wisdom of non-ideological lines of attack on the psychological warfare front. The Russians, presumably with the same morale information we had, did use a frontal attack on the Nazi cause. It appears that our policy was dictated by the "advertising complex" whereby we sought to avoid offending the public we were trying to influence.

Marzolin, L., Paper bullets: a brief story of psychological warfare in World War II, New York: Froben, 1946.

Abs. in Psychol. Abstracts, Sept. 1947, 21, Item 3195 (by N. L. Gage).

Bassow, W., Izvestia looks inside U. S. A., Pub. Opin. Quart. 1948, 12, 430-439.

Krugman, Herbert E., The role of resistance in propaganda, Int. J. Opin. Attitude Res., 1949, 3, 235-250.

Relations of attitudes and resistance.

Inkeles, Alex, Domestic broadcasting in the USSR. In Lazarsfeld, P.F., and Stanton, F. H., Communications Res.: 1948-49 (see 23:5495) 223-293.

Administration of network, reception, policy, etc.

Thomson, Chas., A. H., Overseas information service of the U. S. Govt., Washington, D. C.: Brookings Inst., 1948, XII, 397 p.

Analysis of current program of propaganda organization with recommendations about course of world politics.

Van der Horst, L., The social-psychological background of the present world crisis, Psychoanal. Rev., 1950, 37, 1-24.

Crisis evolves from unsolved problems: (1) reconciliation of individuality and community life, (2) disappearance of hopes for salvation, (3) need to adapt instinctual life to societal responsibilities.

Pratt, C. C., (Ed.), Military Psychology: Special Number, Psychol. Bull., 1941, 38, 6, 370-488.

Articles by different psychologists on German military psychology (Auspacher); Morale (Child); Motivation and learning (Mowrer); Perception (Fernberger); Propaganda Technique and Public Opinion (B. L. Smith); and Psychological Causes of War (Stagner). Primarily bibliographical, but with discussion.

Prince, P., A psychological study of Stalin, J. Soc. Psychol., 1945, 22, 119-140.

"Stalin is Russia." This article reviews the life of the Russian dictator giving it a psychological interpretation. He is regarded as a skillful manipulator, always appearing to function in the public good and identifying himself with the fortunes of the Russian people.

Davis, A. K., Some Sources of American Hostility to Russia., Amer. J. Sociol., 1947, LIII, 3, 174-183.

Institutional ethnocentrism, institutional rivalry, and scapegoating are viewed as source areas for hostility. Differences arouse moral indignation; similarities may evoke rivalry and competitive anxiety.

Smith, Geo. Horsley, Attitudes toward Soviet Russia: I. The Standardization of a scale and some distribution of scores.
II. Beliefs, values, and other characteristics of pro-Russian and anti-Russian groups., J. Soc. Psychol., 1946, 23, 3-34.

A scale and results of its administration to 300 college students. The results are related to books read about Russia, religious and racial backgrounds and other factors.

THE RELATION OF MEDICAL OFFICERS TO LINE OFFICERS
IN THE MILITARY SERVICE

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Prepared for
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UNDER CONDITIONS OF MILITARY SERVICE

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THE RELATION OF MEDICAL OFFICERS TO LINE OFFICERS IN THE MILITARY SERVICES

I. Summary. Difficulties in coordination between medical and line officers are simply one example of similar difficulties of cooperation between any type of experts and administrators. Although there is no research in the social sciences directly relevant to this problem, general experience suggests that difficulties arise from differences in roles between the two types of officers; in concept of mission; in training; in attitudes; and in ethics. These differences give rise to complex problems of communication, each category of officer finding it difficult to communicate his particular problems to the other. The line officer ordinarily should accept the recommendations of the medical officer, unless those recommendations severely hamper him in the carrying out of his missions. In such cases he should get a careful estimate on the probable result in diminished efficiency of his unit if he decides not to follow the advice of the medical officer. In the light of this estimate he should make his final decision, because the ultimate command power rests with him.

Solutions to the problems of coordination lie in special training of line officers and medical officers in understanding the issues facing the others. Physicians must come to recognize and aid the primary goal of the military service; they must make decisions concerning the ability of personnel to engage in duties on the basis of valid knowledge of the effects of disease on performance; and they must recognize that in emergencies it may be necessary to change standards. On the other hand, line officers must come to recognize that various types of disease or of pathology result in varying

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degrees of limitation of performance; that intangible factors like fatigue have a real effect on efficiency; that it is not profitable to take the moralistic attitude toward disease; and that psychiatric pathology is not "imaginary," and can seriously hamper efficiency if it is not properly dealt with.

II. In recent years difficulties in coordination between medical officers and line officers in the armed forces have probably been increasing rather than decreasing. The reasons for this are numerous, but they include both the greater complexity of the requirements of modern warfare and the greater complexity of medicine. Particularly, emphasis on psychiatric problems and change in attitudes toward mental health have widened the breach between many commanding officers and medical officers. The issue, then, is: What can be done to make for more effective liaison and understanding between medical officers and line officers? As far as is known there is no research in social sciences or other areas directly relevant to this problem. Therefore the statements below must be made in terms of general psychological principles and experience in human relations. It would be possible to organize effective and worthwhile research to study this problem using techniques available at present.

III. Perhaps the most important reason for the difference between these two groups of officers is the fact that they must play different roles. The mission of the commanding officer and the line officers under him is to carry out a military activity until his goals are successfully accomplished. He tries to do this with minimum cost in personnel and equipment, but his primary responsibility is to achieve the military goals, even at great cost if

necessary. The physician, on the other hand, has been trained always to consider his primary responsibility to be the curing of disease, the relieving of pain, and the maintenance of health. This role is altered somewhat by his membership in a military organization, because there his foremost responsibility is contributing to the efficiency with which the military operation is conducted and doing his part to see that it is completed with the smallest possible mortality and morbidity. Sometimes situations arise in which these two roles are in conflict. For example, in an extreme situation, a commanding officer may order patients with minor wounds to help defend a position against attack. This occasionally may be necessary, but of course it runs against the training of the medical officers in his command. Similarly, a commanding officer may be in great need of personnel immediately, with the expectation that later on more personnel will become available, and he will decide, despite the recommendation of his physicians not to drive his subordinates to extreme fatigue, that the future must take care of itself and that for the present they must continue in battle beyond the time deemed desirable by the physicians.

Of course the training of the two types of officers differs also, and this helps to affect their concept of their roles. A military officer is constantly indoctrinated in his primary responsibility to defend his country against attack, at the cost of his life and those of his command if necessary. The medical officer, on the other hand, is constantly indoctrinated in the need for maintaining life rather than destroying it. Sometimes it seems that the purposes for which the two groups were trained are 180 degrees apart. Although it is clear that there is real need for them to cooperate in order

to maintain the strength of their country, this difference in background naturally expresses itself in attitudes and actions.

The attitudes of military officers frequently are authoritarian, since they have been trained and have lived in a hierarchy of command. Such attitudes are frequently highly moralistic, involving clear-cut ideas of what is right and wrong. The medical officer has been trained ever since he was in medical school not to make such evaluations. He has the role of scientific and professional objectivity, with the single goal of helping his patient to maintain health without making any judgments concerning other aspects of his life. This non-evaluative frame of reference which is inherent in his ethical code is quite contrary to the authoritarian attitude of many Army officers. The physician also frequently looks on himself as a professional person who should be free and independent in his thinking and finds himself for this reason uncomfortable in the necessary limitations of military life.

There are also marked differences in ethics, which grow out of the problem which we have mentioned above. The ethics of the line officer are primarily those of loyalty and faithfulness to his superiors and ultimately to the people and the government of the country whom he represents. Ordinarily he does not question commands if they come from properly constituted authorities. On the other hand, the ethical responsibility of the physician ordinarily is to the individual patient rather than to the group. His concern with society traditionally is limited almost exclusively to preventing patients from harming others, either through homicidal attack or through the spreading of contagious or other diseases. The physician frequently feels that it is not his place to

reveal confidences or privacies about his patients to other individuals, and consequently is in conflict between this basic ethic and that which demands that he comply with regulations and commands from military authorities.

IV. These differences produce complex problems of communication, each type of officer finding it difficult to communicate his particular problems to the other. The reasons for these difficulties in communication are frequently not obvious to the officers involved. For one thing, it is likely that they have not paid much attention to the problems which have been suggested above--the differences in roles, in training, and in resultant attitudes and ethics. They often assume that the other person has approximately the same point of view that they do and do not make efforts to explain their own points of view and to work out the differences between them. The line officer works usually with other professional military persons who do things primarily from the military framework. He does not need to explain to them his attitudes and points of view on many things and does not stop to think that the training of the medical officer in such matters is slight. Similarly, the physician has a lengthy background of training in his particular specialty, and like civilian physicians, medical officers frequently tend to forget that those they talk with have not had all this experience and do not understand all the things that such learning provides. The military officers and the medical officers also speak a different language, and frequently feel uncomfortable in the presence of each other because of this fact.

V. It is impossible for military operations to be carried out unless a line officer is in total command of all of his men. This means entire responsibility for decisions concerning medical problems as well as all other problems in the command. However, the line officer ordinarily should accept the recommendations of the medical officer, just as he ordinarily should accept the recommendations of every other specialist on his staff. In modern warfare a great many experts work together in a team to accomplish military goals. The commanding officer cannot possibly be informed in detail on all the relevant areas of competence. Therefore, he should take the recommendations of his subordinate staff unless those recommendations severely handicap him in carrying out his mission. Sometimes, of course, the needs of the organization which he has learned about from one source appear different from those recommended to him by someone else on his staff. Also, at times, various of his staff officers will disagree. In such circumstances he should get a careful estimate of the possibility that an adverse decision against the medical officer on his part will result in diminished efficiency. In the light of this estimate he should make his final decision. Whenever he makes this decision, however, he hazards a great deal, because he is likely to be wrong if he opposes the recommendations of someone more expert in certain fields than he is. This type of decision is the most difficult one resting in the realm of responsibility of the commanding officer.

VI. We have now outlined the various difficulties which arise in relationships between medical officers and line officers. What solutions are there to these problems of coordination?

First of all, many of these issues can be met straightforwardly in the training of medical officers and line officers. In the preparation of each should be included discussion of the issues which have been raised above.

Moreover, a brief review of the areas of knowledge of each should be made available to the other so that he has some understanding of the general type of knowledge and languages used by the other.

Physicians must come to recognize that as long as they are in the military service, their primary responsibility is to the commanding officers. For greatest efficiency this requires not only an intellectual acceptance, but also emotional and moral commitment to this point of view. It is in the nature of military service that the welfare of the individual must be subjugated to the welfare of the group. This goes contrary to much of the training of the physician, but he must recognize the discrepancy. It will not be unethical for him to work in this framework if it is clear to all the patients he handles--and it should be because all of them know they are in military service--that his primary responsibility is to the commanding officer, and to other properly established authority, just as theirs is.

It is also important that physicians make their decisions concerning the ability of personnel to engage in duties on the basis of valid knowledge of the effect of disease on performance. At present relatively little such knowledge is available to physicians. They do not learn it in medical schools and there is still much research to be done in this area. The usual assumption of an ordinary general practitioner is that if a person is sick in any way he should be put to bed or at least remain inactive until his illness is completely cured. This is not always possible in civilian life, and in military life it is even less possible. There is also a tendency on the part of physicians to take the position that if a patient has chronic illness he

should be relieved from military duty. In time of manpower shortage this may not be for the best interest of the country at large. For example, a person with a slowly growing cancer may well be able to carry on military duty for two or three years. Similarly, there are various types of responsibilities in the armed forces which can be adequately conducted by a person with amputated legs. A careful analysis of the potential services which a patient can give is a responsibility of the medical officer. He must pay much more attention to the vocational implications of medical pathology than he ordinarily does. Particularly in emergencies, it may be necessary for physicians to change their standards entirely. There have been cases in every war of our country where the wounded have arisen from their beds and fought. There have been times when a physician has had to postpone necessary immunization until after a military emergency has been met. In situations of this sort the physician must learn to subordinate the most elegant standards of his own profession to the practical situation. A particularly difficult illustration of this principle comes in deciding what work to delegate to psychoneurotics. It has been said by the Russians that there are no psychoneurotics in their armed forces. Undoubtedly there is no truth in this extreme statement, but it does probably reflect the fact that the Russians pay relatively little attention in military assignments to psychoneurotic difficulties. They had in the last war the attitude that if a man was not physically injured to the extent that he could no longer fight, he should continue in military service almost regardless of his mental and emotional state. This attitude undoubtedly lowered the morale and the efficiency of the Russian units, but it perhaps had the effect for a time at least of increasing

the over-all power of the Russian military machine. It is important for physicians to recognize that the standards of illness in peacetime must be somewhat altered, perhaps by military necessity.

On the other hand, there are certain important things for line officers to recognize which they frequently do not pay enough attention to. First, it is important for them to realize that various types of pathology have different degrees of limitation of performance. Sometimes a patient may appear superficially to be entirely well but actually have a seriously debilitating illness which prevents him from carrying out his assignments. All sick persons do not look sick. Some people who look relatively well may be much more seriously disabled than those who have an appearance of debility. It is necessary also for military officers to realize that intangible factors like fatigue have a real effect on efficiency. It may be possible to work men for a period of time at superhuman rates, but eventually the limitations of the human organism will make themselves apparent. Both mental and physical fatigue will limit productivity so as seriously to diminish the efficiency of the unit.

Also, many line officers--particularly those who have been in military service for a long time--tend to take a highly moralistic attitude toward disease. They believe that if a patient really makes an effort he can "fight off" disease and return to duty. There is little scientific evidence to support this point of view. Disease and irresponsibility are quite different things, and most or all disease processes are quite out of control of the patient. Rather than blaming a patient for being sick, the best thing a military officer can do is to encourage him to return to normal at the earliest possible date.

Perhaps the most difficult issue in the attitude of the line officer toward disease is to be found in the field of psychiatric pathology. These diseases are not "imaginary." Even though as yet we cannot find under the microscope the chemical or physical changes which result in these illnesses, undoubtedly these will some day be found. The incident in which General Patton slapped the neuropsychiatric soldier under his command in the Italian campaign has brought this matter to the public attention. Neuropsychiatric disturbance and malingering are not the same thing, though sometimes the two are difficult to separate. Ordinarily the medical officer is much better qualified to diagnose between "goldbricking" and nervous or mental disturbances than the line officer is. If a condemning, moralistic attitude is taken by line officers toward such disturbances, rather than a recognition of their reality, they cannot be handled most effectively. There is great frustration in having a disease and being unable to perform effectively even though one wants to, while at the same time one is blamed for malingering. Such frustration results in low morale both on the part of the patient and on the part of his colleagues in the military services who recognize the situation he is in. If a line officer has a properly trained medical officer, he can advance the welfare of his unit most effectively by giving the medical officer wide latitude in deciding whether his patients have neuropsychiatric illness or are simply malingering, and in determining on the basis of this diagnosis what the proper treatment is.

VII. In general there have been great advances in the understanding by military officers of the modern medical outlook. Similarly, the training of military

physicians is constantly improving so that they are becoming more effective instruments of the armed forces of America. We have outlined above other steps which might be taken to improve this relationship still further.

FEAR AND COURAGE IN TRAINING AND COMBAT

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I. Non-Technical Summary.

Fear is a drive; it can motivate good as well as bad behavior. Fear can motivate men to be more alert, careful, swift and resourceful. It can motivate panic and paralysis, and create a variety of disguised indirect effects such as clumsiness, forgetting, irritability, fatigue, insomnia, indigestion, and neurotic symptoms. The most important thing is not how afraid the man is, but what fear motivates him to do.

The sudden relief from fear serves as a reward to strengthen habits. If men solve a fear-provoking situation by good behavior, such as firing or attacking, they will learn to be braver. If they secure temporary relief by bad behavior, such as cowering or running, they will learn to be more cowardly. Training should introduce men gradually into fear-provoking situations with proper coaching to make certain that they perform the correct responses when frightened. It should be as realistic as possible. But some of the most important sources of fear, such as seeing comrades killed or using one's own weapons to kill, can occur only in combat. Therefore training in proper responses to fear must be continued into the early stages of combat.

The first step in adaptive response to fear is to locate the danger. To do this one must resist the natural tendency to avoid fear-provoking thoughts. The next step is to plan and prepare for the actions that will minimize the danger. Knowing exactly what to expect and do not only reduces the danger, it also reduces the fear. Then one must carry the plans into action. Concentrating on the immediate task at hand and being highly motivated to perform that task can reduce fear. In times of crisis men can receive great support from the sight of others who are performing coolly and bravely. They should be trained to communicate encouragement by word and gesture.

Everything that contributes to good morale - confidence in leadership, loyalty to leaders, group spirit, good physical condition - helps to reduce fear and make men able to go forward in spite of it. Conversely, everything that contributes to bad morale intensifies the problem of fear.

In spite of the obvious importance of the human factor in combat, there has been extremely little first-hand scientific research on human performance in combat.

The following recommendations are made:

1. Training should be made as realistic as possible. Men should be familiarized with the meanings of all the sights and sounds that they are likely to encounter in combat; they should be exposed to all factors including confusion and isolation. Men should be introduced into fear-provoking situations gradually with the proper coaching to make sure that they make the correct responses when frightened.

2. Since some of the most important sources of fear can occur only in combat, training in the proper responses to fear must be continued into the first stages of combat.
3. Men should be taught the common physiological effects of fear so that they will not be surprised by them. They should also be taught techniques for dealing with fear.
4. Special attention should be paid to overcoming the fear and guilt aroused by using one's weapons to kill the enemy.
5. Research should be conducted on human behavior under conditions of combat. Trained teams of social scientists should be sent to combat areas for this purpose. Such teams might well consist of an experimental psychologist selected for his knowledge of experimental design and techniques, a clinical psychologist selected for his knowledge of behavior dynamics and interviewing techniques, and a social anthropologist or sociologist selected for his knowledge of social structure and participant-observer techniques. One of the duties of such a team should be the first-hand observation of combat behavior and the interviewing of men immediately after engagements for the purpose of discovering new facts and formulating new problems. In addition to data on the effects of fear, trained observers of this kind should be able to perform a valuable liaison function, supplying higher echelons with a great variety of valuable quantitative information

ranging from deficiencies in training and administration to the human engineering problems involved in the use of new weapons under combat conditions. Some of the problems which should be investigated are:

- A. The effects of different policies with respect to the treatment of psychiatric casualties.
 - B. The evaluation of repressive as contrasted to permissive attitudes toward fear.
 - C. The systematic collection and evaluation of different techniques used by leaders and men to cope with fear.
 - D. Systematic surveys of deficiencies in training which show up in combat.
6. Such a program for research on human behavior under conditions of combat should be planned and authorized in advance so that the most can be learned from minor wars, such as the Korean incident, and the initial stages of any major war.
7. A special study should be made of the problems of selecting and training personnel for "suicide" missions.
8. Experimental studies should be made to increase our basic understanding of fear and hence provide a better scientific basis for methods of dealing with it. Laboratory studies should be made of problems such as the anatomical and

physiological basis of the fear responses, the effect of various drugs on fear, the nature of the reinforcement and extinction of fear, responses that are incompatible with fear, and the relative effectiveness of different techniques for reducing fear.

II. What Fear Is.

In order to be able to plan administrative measures for dealing with fear in training and combat, one needs to understand what it is. Fear used to be treated under the vague heading of emotion which implied that it was something necessarily disruptive and bad. This view had the disadvantage of suggesting shame and repression and failing to suggest how fear can be used to advantage. The new view is that fear is a drive (3), (8), (9). Like other drives, such as hunger or pride, it motivates behavior. It can motivate either adaptive behavior, such as being more alert, careful, swift and resourceful, or maladaptive behavior, such as cowering or fleeing. The most important thing, then, is not how afraid the man is but what fear motivates him to do. Training can and should be designed to teach men adaptive responses to fear.

Escape from fear is a reward. A sudden reduction in the strength of fear serves as a reward to strengthen responses in exactly the same way that food or praise strengthens other habits. Thus the man in combat will learn those responses he makes when his fear is reduced. If his fears are reduced after successfully attacking the enemy, he can be

expected to learn the habit of attacking when frightened; if he is allowed to escape fear by fleeing, he will be expected to have a stronger tendency to run away next time. Similarly the learned symptoms of combat neurosis are reinforced when they help the soldier escape from fear. For a more detailed discussion of the way symptoms of war neurosis are learned, see Dollard and Miller (3).

Fear is itself a response which can be learned. A person who is frightened in a situation which previously did not elicit any fear, quickly learns to become afraid of that situation. Thus the fear of the most dangerous aspects of combat increases with experience. When fear is not reinforced by pain or danger, it tends to be slowly unlearned, in other words, extinguished. Thus with increasing experience in combat, men gradually decrease their strong unrealistic fears of the spectacular but relatively less dangerous weapons, (10). If not too strong, fear can be inhibited by other stronger responses. Soldiers who are intensely motivated and preoccupied with attacking may show relatively little fear in situations that ordinarily would arouse intense fear.

III. Common Responses to Fear.

Two common patterns of response to fear are a strong tendency to remain motionless and mute, and paradoxically, the opposite tendency to cry out and run. The tendency to remain motionless and mute interferes with the combat man's initiative and his communication with his comrades.

The responses to fear can be modified by learning. Soldiers can be taught to have fear motivate useful responses, such as taking cover or firing weapons to destroy the danger from the enemy. In aerial combat between 35 and 40% of the men reported that they performed their duty better when they were very much afraid and 50% reported that mild fear had a beneficial effect. (11, p. 131)

When too strong or prolonged, fear (like other drives such as fatigue or hunger) has bad physiological effects. Some of the most common effects of fear are a pounding heart, a rapid pulse, a strong feeling of muscular tension, trembling, exaggerated startle, dryness of the throat and mouth, a sinking feeling in the stomach, perspiration, the frequent need to urinate, irritability and aggression, confusion, feeling faint, nausea, fatigue, and sometimes stuttering, speechlessness, and forgetting (1), (4), (7), (8).

IV. Factors Influencing the Strength of Fear.

Fear is increased by pain or any exceedingly strong stimulus, danger, the unfamiliar, sudden or unexpected, and darkness. It is increased by not knowing what to do, by helplessness, being alone or seeing others afraid. If others are cowardly, ones own shortcomings are less conspicuous, so this also reduces the motivation to continue to perform bravely in spite of fear. Lack of confidence in one's leaders or weapons increases fear as do hunger, thirst, fatigue and poor physical condition.

The strength of fear can be reduced by a variety of factors. One of these is safety. Where fears are unrealistic, they can often be reduced by demonstrating that something that looks still worse is not dangerous.

Knowing exactly what to expect reduces fear. One of the tasks of training is to familiarize the men as realistically as possible with the sights, sounds, and other conditions of combat, including the confusion and the feeling of isolation. Men should be taught to discriminate the various types of shells. They should be prepared for the physiological effects of fear. In general, it is thought best to let the men know that fear is a normal reaction to combat and to take a permissive attitude toward it so that the men will not have to contend with the shame of being afraid in addition to the fear itself, (6), (9). On the other hand, it could be argued that there are certain advantages in trying to suppress fear, if possible. More work needs to be done on this problem.

Fear can be reduced by knowing exactly what to do to minimize the danger. But one must first locate the danger before one can know what to do about it. Thus the first step is to face the fear and danger rather than to suppress it. Vague fears or anxieties must be converted to specific fears of specific dangers. Then the adaptive action can be planned and executed. This will minimize the danger and reduce the fear, (2). Teaching exactly what to do in order to minimize danger is obviously one of the most important tasks of training. Men should be given confidence in and skill in using their weapons.

Fear can be reduced by concentrating by the task at hand. It is often helpful to try to break seemingly impossible tasks into small, manageable units which can be accomplished step by step. In the rare cases where no positive action can be taken, one should concentrate on not doing

anything foolish that will make the danger worse. Men should be taught to concentrate on the task at hand. If they try this when they are afraid and have their fear reduced by doing it, concentration on their tasks will become an habitual response to fear.

Strong motivation for the task at hand helps men to overcome fear and tends to reduce fear. Apparently one of the strongest motivations in combat is group spirit, not to let one's immediate comrades and leaders down. Contact with loved and trusted comrades who are behaving bravely is a strong factor counteracting fear. Thus it has been found important to keep an individual with his own combat unit. It is also important to train individuals to maintain communication, talk it up in combat; they must overcome the natural tendency for fear to inhibit speech, (6). In general, anything that helps increase morale helps in dealing with the problem of fear; anything that reduces morale, intensifies the problem of fear.

V. Fear of Killing.

Everyone receives strong social training against murder, mayhem and all forms of aggression. This training generalizes to the enemy in combat. Psychiatrists have found that it is an important source of anxiety and guilt in producing psychiatric casualties. We would also expect it to reduce the efficiency of men who did not become psychiatric casualties. This is confirmed by the observation of S.L.A. Marshall (6) who reports that less than 25% of men who have an opportunity to do so, use their weapons against the enemy. If this is true, it represents a serious loss in fire power.

Research on this problem is needed under the conditions of combat. In the meantime theory suggests the following common-sense measures. The differences between the ingroup (family, friends, nation) toward whom the taboo on aggression was originally established, and the enemy should be emphasized. Differences between war and peace should be emphasized. Emphasize all the features of the enemy that tend to justify or permit aggression. Since aggression is permitted in self defense, one such feature would be that they will kill you if you don't get them first. Similarly criminal acts by the enemy should be emphasized. Men should understand that they are carrying out orders and that the Armed Forces and the nation takes the responsibility. Vivid details of aggressive actions against the enemy should be publicized with commendation. Each individual should be encouraged to make the first aggressive move and receive some form of praise and reward for it. After he has fired at a live target for the first time and been praised rather than censured, it should be much easier to fire a second time.

VI. Need for Continuing Training Into Combat.

Two of the most important sources of fear in combat are seeing one's comrades killed or wounded and the necessity to use one's own weapons with the intent to kill another man. Since these are not encountered before combat, training must be prolonged into combat to teach the men to respond appropriately in the face of these strong sources of fear. Because of the strong fears aroused in the initial contact with combat, one would expect this to be a crucial learning

situation for the men largely determining what their subsequent reactions will be to fear in combat. Special steps should be taken to see to it that the men have proper encouragement and coaching in the correct responses at this crucial time.

VII. Need for Research Organization to Gather Data on Combat.

Combat behavior is the most important part of military life, but the least systematically studied. It seems highly likely that trained teams of social scientists could get valuable information on behavior under the crucial conditions of combat. For example, it was not until S.A.L. Marshall's (6) studies that it was generally known that less than 25% of the men who had an opportunity to do so actually used their weapons against the enemy in a given engagement. If his studies are confirmed, this represents a serious loss of fire power, a problem which should be studied and corrected. Similarly, other serious problems may exist without being recognized. This is especially true where technological changes have markedly altered the conditions of combat. Trained social scientists, making quantitative surveys wherever possible, should speed up the detection and correction of such problems. A team might well consist of an experimental psychologist selected for his knowledge of experimental design and technique, a clinical psychologist or psychiatrist selected for his knowledge of behavior dynamics and interviewing techniques, and a social anthropologist selected for his knowledge of social structure and participant-observer techniques. Specialists of this kind, trained to recognize human problems and to gather quantitative information on them, should be able to make a great contribution to the

liaison between combat and training and combat and the General Staff. They should also be able to design, recommend and execute research on specific problems. In order for research of this kind to be carried out effectively under the hurried and confused conditions of war, it must be planned, coordinated and authorized in advance under the more favorable conditions of peace. Such advance planning and authorization will enable us to learn the most out of minor wars, such as Korea, or the early stages of any major war. The value from the more effective utilization of human resources should be well worth the considerable difficulties involved.

VIII. The Problem of "Suicide" Missions

The advent of the atom bomb as a weapon with which a small crew can strike a widely destructive blow increases the importance of a few highly courageous men who are determined either to deliver the bomb or to intercept it, without regard to personal hazard. For this reason, special attention should be given to the problem of selecting, training, and motivating men for such missions. One of the first steps in this direction would be to have a trained team of social scientists including one, or more men with experience in the relevant military specialities, interview the men and the leaders who have been involved in such missions, for example, Doolittle's Tokyo raid. Our best experience to date should be gathered together, evaluated and preserved. Another step would be to survey a representative cross-section of men for their willingness to participate in such a mission and to study the characteristics of the men who expressed various degrees of willingness to participate.

A part of such a study should be an attempt to validate the application of survey techniques to this problem by comparing results on the same unit under different conditions: (1) When it was unlikely that any such missions would be called for in the immediate future, and (2) when the men thought an affirmative answer was equivalent to volunteering for a mission about to be conducted in the immediate future. When the first groups are activated for such missions, special arrangements should be made to study them. In the meantime a team of social scientists working in close liaison with the military should be set up to investigate the problem from the widest possible perspective including factors such as incentives, personality variables, the effects of various types of selection on the quality of the men and on general morale, the possibility that some volunteers would be too unstable to be effective, the roles of group spirit and personal loyalty, and the effects of a mathematical chance for survival as opposed to the certainty of death.

IX. Need for Basic Research on Fear.

Everyone agrees that fear plays an exceedingly important role in combat. It seems probable that the effectiveness of our techniques for dealing with fear will be increased by advances in our scientific knowledge about fear just as the effectiveness of sanitation, inoculation, and antibiotics have been increased by the development of the bacteriology, chemistry and the other sciences underlying medicine.

Therefore, the Armed Forces should support a program of basic scientific research on fear. Laboratory studies should be made of problems such as the anatomical and physiological basis of the fear response, the effect of various drugs on fear, the nature of the reinforcement and extinction of fear, responses that are incompatible with fear, and the relative effectiveness of different techniques for reducing fear.

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SELECTION OF MEN WHO WILL BE COURAGEOUS IN COMBAT

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SELECTION OF MEN WHO WILL BE COURAGEOUS IN COMBAT

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I. NON-TECHNICAL SUMMARY

Because the types of stress met in combat are so different from those previously encountered, it is extremely difficult to predict who will be courageous in combat. In spite of the extreme importance of this problem, relatively little satisfactory work has been done on it. Studies comparing normal soldiers with psychiatric casualties after the breakdown has occurred are valuable for exploratory work but not for proof. They are subject to a number of serious errors such as retrospective falsification and the difficulty of distinguishing cause from effect. Follow-up studies are needed to evaluate present selection methods and to develop and test new ones. Even a slight improvement in the techniques for selection and classification would be of immense practical value.

Getting rid of a poor technique would avoid wasting the manpower that was being unnecessarily wasted by it; discovering a better technique would increase fire-power at the front.

The following recommendations are submitted:

(1) Studies should be made to evaluate the effectiveness of present techniques for selecting men who will have courage in combat and to develop and validate new techniques.

(2) These studies should involve the following general design:

- a. The collection of data (such as ratings by interviewers, test scores, and biographical inventories) before combat. Ideally all such data should be set aside and not be used as a basis for selection nor be made available to administrative officers making decisions affecting the careers of the men.
- b. Specially trained teams of investigators should be sent to the combat area to collect data on the combat performance of the man who have been tested.
- c. The ability of the data collected before combat to predict performance in combat should be determined by suitable statistical analysis.

(3) Such studies should be planned and authorized in advance so that they will be ready to go as soon as war breaks out.

(4) Minor wars, such as the Korean incident, should be used to evaluate techniques for selecting men for combat.

II. THE PROBLEM

There are a number of reasons why we would expect the prediction of combat behavior to be difficult. The types of stress met in combat (extreme physical hardship, danger and death, the compulsion to violate the taboos on mayhem and murder), are unique. There are no similar situations in the individual's previous civilian life history to use as a basis for prediction. Furthermore, it is difficult to design test situations that will frighten

the candidates without frightening higher headquarters or Congressmen. Finally, there is an absence of certain important sources of civilian neurotic anxiety such as the need to make major life decisions indepently and proloaged intimate contact with the opposite sex. Yet another difference is the freer opportunity for expressing aggression against an enemy.

This theoretical expectation that the prediction of courageous behavior in combat will be difficult is confirmed by such evidence as is available. For example, three psychiatrists, (3pp. 157-160) who studied the psychiatric problems of the Eighth Air Force in Europe during its first year of combat operations, report: "It is recognized that there is no method of selection now in use which can pick those men who will show these ready fear reactions when they encounter combat flying." As a result of his extensive investigations of combat behavior S.L. A. Marshall (4p. 60) concludes: "There is no feature of training known to any company commander I have met which enabled him to determine, prior to combat, which of his men would carry the fight for him and which would simply go along for the ride."

Aita (2) made a follow-up study of 150 men who would have been rejected on the basis of brief clinical interviews if standards had been stricter. The lowest 2.5% had already been rejected; these were the next lowest 5.7%. He found that only approximately 20% of them failed to serve satisfactorily in the Army. This was against 4.7% of those for whom success had been predicted.

Plesset (7) reports on 138 men who had presented sufficient adjustment difficulty to necessitate psychiatric attention but for various reasons remained in his division after the gangplank was raised. At the end of 30 days of combat only one of this entire group had been evacuated for "Exhaustion." The remaining 137 were still living and fighting in snow and mud, with cold food and often little sleep in constant proximity to death, injuries, loneliness, and fear. Thus there is considerable evidence that men who might easily be rejected on the basis of neurotic pre-combat behavior can perform well in combat.

This and other evidence caused Menninger (5p. 266-267) to conclude: "Initially some of us in psychiatry had some very definite opinions about the criteria for selection. Also, some of the line officers were equally sure about who could be made into good soldiers. But, by the standards of either group, some of the best prospects turned out to be poor fighting men and some of the poorest became heroes We ought to have learned a lot more than we did from the experience of the last war; we could have learned much more between wars."

In the absence of conclusive proof, one way or the other, the foregoing evidence raises serious doubts about the effectiveness of the selective techniques now used. Present neuropsychiatric selection techniques tend to be based on analogies to the quite different conditions of civilian life. No adequate studies have been made to validate them. Thus, it is entirely possible that they are rejecting many potentially good men.

Even a slight improvement in the selection and classification techniques would be of immense practical value. For example, S. L. A. Marshall (4) estimates that less than 25% of the men who have an opportunity ever use their weapons against the enemy. If selection and classification could increase this ratio, it would increase fire power. The type of research needed to evaluate present techniques and to develop improved ones is sketched under IV below.

III. CRITICISM OF RETROSPECTIVE STUDIES.

Studies in which men who have already become psychiatric casualties are compared with normal servicemen are subject to a number of serious errors. Men who have been forced to abandon pride and become psychiatric casualties are likely either to indulge in retrospective falsification to justify themselves or to be more willing to remember and admit pre-combat neurotic tendencies that others would forget or conceal. Furthermore, the interviewer is likely to evaluate potential negative signs more seriously when he knows that the man is a psychiatric casualty; in other words, subjective measures and interpretations are likely to be influenced by a serious "halo effect." It is difficult to avoid this because it is almost impossible to prevent an interviewer from learning who is a psychiatric casualty and who is not in the course of any extensive interview. Finally, objective measures taken after a fact may reflect effects of combat breakdowns rather than causes. To date practically all studies have been retrospective and therefore useful for developing hypotheses but not trustworthy for proof.

IV. RESEARCH RECOMMENDED

The kind of studies needed are follow-up studies of the following general design:

- (1) Subjects are interviewed and tested before going to combat.
- (2) The results are not used to select or classify but are put away without being made generally available to the administrative officers responsible for the men.
- (3) Various indices of combat success are gathered.
- (4) The results of the tests and interviews are correlated with these measures to see how well they predict success.

Such studies could be made in a number of different ways, each having its special advantages and disadvantages. Some representative types of studies are outlined below:

1. Intensive study of a special group on its way to combat

A special group on its way to combat could be studied intensively in the staging area or on a transport. One of the advantages of such a study would be the reduction in the variability of combat exposure by selecting a group of men all destined for the same sector at the same time. This would also simplify the problem of securing follow-up measures.

Pre-combat tests and interviews. As many different kinds of measures as possible should be taken on such a group. The first of these should be a brief clinical interview and an overall subjective estimate as similar as possible to the kind now generally in use. This should be followed by

a more intensive interview covering all areas that psychologists and psychiatrists think might be relevant. In order to facilitate the validation of separate aspects of this interview against future combat results, the interviewer's estimates and his reasons for them should be fractionated into special standardized rating scales of the kind that could be subjected to item analysis. There should also be opportunity for various overall judgments. This procedure should be worked out carefully in advance to ensure standardized results of the kind that can be subjected to meaningful statistical analysis to determine which aspects of the interview data are predictive of combat success and which are not.

As many as possible objective and semi-objective measures should also be taken. For example biographical data facts should be collected on various inventories such as the NSA (9). Psychological and physiological tests should be given. Ideally, all measures for which any reasonable claims of validity have been made should be tried.

Measure of combat performance. The foregoing measures should be validated against subsequent performance in combat. Psychiatric casualties would be one index of combat performance, but in order to gather the best and most standardized data on combat performance, it will be necessary to assign a team of specially trained investigators to this group. The primary duty of this team will be to gather various types of data on combat performance. For example such investigators could interview the man immediately after a given engagement to determine whether or not they used their weapons when an opportunity presented itself. According to S.I.A. Marshall (4) less than 25% of men who have an opportunity to use their

weapons against the enemy & so. Furthermore, he claims that it is the same men who do this day after day. If this is true, it would be an exceedingly valuable thing to predict. With experience in the field, a research team should be able to discover other more or less objective items of behavior of this kind. They should try to test both the observer and the test retest (6) reliabilities of all such items. They could also develop a technique for obtaining ratings from a man's immediate associates analogous to those developed by Lunedaine and Janis (8 pp. 54-58) in World War II.

2. Extensive study.

It has been found that the score on a standardised written questionnaire covering the main items stressed by most psychiatrists has a high correlation with a psychiatrists' decision to select or reject a man. An example is the NSA score described in Stouffer et al. (9 pp. 486-567). Data of this kind can be gathered much more economically than the ordinary psychiatric interview; furthermore they are much more standardised and detailed. Because of the standardisation and detail, it is much easier to check the predictive value of each separate item and thus improve the selection and weighting of items. Data of this kind should be collected and made a part of the permanent record of a very large sample, ideally including all men inducted. An extremely large sample is needed because only a relatively small proportion of such a group would actually reach combat and a great deal of error variance would be introduced by the variability of the conditions of combat. This error variance would lower the predictive value of all items but leave the comparisons between items unaffected.

Thus it would be possible to get an accurate estimate of which items were the best. Furthermore special studies, analogous to the extensive study described in (1) above, could be made of selected sub-samples in a particular combat situation.

At the same time these data were being gathered, the psychiatrists who were screening inductees should be required to rate them in various groups such as upper 25%, middle 50%, and lower 25%. Ideally a permanent record should be kept of these ratings but should not be available to company commanders and others responsible for the subsequent fate of the men. Then predictive efficiency of these ratings could be compared with those of the weighted score on the standardized written questionnaire.

3. Study of ability of measures to predict adjustment to pre-combat Army life.

Since some of the losses in personnel are due to the inability to adjust to pre-combat life, it might be desirable to make a special study of the ability of measures taken before basic training to predict subsequent adjustment to the pre-combat features of Army life. The general design of such a study could be similar to either of those already described.

4. Intensive study of ability to predict adjustment to special training situations of high stress.

A survey should be made of special training situations in which an appreciable number of men are eliminated for emotional reasons. An example of such a situation is the series of jumps required in paratroop training. Finan's study reported in Stouffer et al. (8 pp. 213-220)

suggests that a reliable measure can be secured of reluctance to jump. It would be desirable to determine the ability of a variety of measures, such as psychological tests and interviews, to predict such behavior.

In such studies the possibility would have to be kept in mind that the factors involved might be quite specific to the particular criterion situation in training. Therefore it would be highly desirable to try to find a number of different stress situations in different kinds of training and to make separate studies correlating the same measures with performance in each of these different situations.

5. General considerations of experimental design.

(a) Selection of the experimental group. In the experimental groups chosen for intensive study, as many as possible of the men who would be rejected by the present neuro-psychiatric screening devices should be allowed to continue to combat. This is the only way that one can ever find how many potentially good men are being rejected by the poorer features of present screening techniques. The cost of inducting (or forwarding on to combat) some poor men in a limited experimental group is relatively small compared with the cumulative cost of using unvalidated techniques in all of the services year after year.

(b) Contamination of the criterion. The measures being validated should not be generally available until after the criterion data have been collected. If the officers responsible for making the administrative decisions have access to the results of these measures, they will tend to be more hopeful about men with good scores and pessimistic about ones with poor

scores. Their decisions will affect the man's career and interfere with getting any accurate measure of the ability of the scores to predict success. Similarly, the special investigators collecting follow-up data should be unaware of these scores.

(c) Possible specificity of results. Because the conditions of various types of combat in modern war (e.g. long-range bombers, infantry, tanks, submarines, surface ships) are so varied, it would be desirable to make several studies testing exactly the same measures on men destined for quite different types of combat. If the different measures had the same relative predictive value for the different types of combat, one would have increased faith in their generality. If they had different relative predictive value for different conditions of combat, one might have a basis for classification, sending the men to the type of combat at which they were most likely to succeed.

V. NEED TO PLAN STUDIES IN ADVANCE OF WAR

It is obvious that studies of this extremely important and difficult problem require careful planning and also strong support from all echelons of command. Under the emergency conditions of minor or major wars, such planning and high-level authorization is likely to be impossible. Therefore the crucial staff work must be done in advance. The general plans should be outlined and discussed and the principles involved, such as sending a team of specialists to a combat area to secure validation data, should be approved. In short, pre-packaged studies should be ready to go so that we can learn the most from any minor wars, such as Korea, or from the initial phases of any major war. The importance of such peacetime planning, discussion, coordination and authorization cannot be overemphasized.

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APPLICATION OF PRINCIPLES OF LEARNING IN TRAINING SITUATIONS

J. H. Moore

1. Review of applicable research data or principles:

From a rapidly growing volume of research on human learning, there is developing a constructive view of learning. The statement of these principles are included in the recommendations.

2. Appraisal and summary of research data and principles:

Training, next to combat, is the primary mission of the Armed Service. Training should be based on a modern science of learning. In the specific application of principles of learning, the curricula constructors should keep the following recommendations constantly in mind as a guide to correct learning method.

3. Recommended action:

1. Recommendations for applying principles of learning to curricula construction:

- a. Emphasize relatedness rather than itemization.
- b. Stress meaningful generalization instead of extreme specificity.
- c. Consider learning as essentially the gaining of meanings not one of fixation of stereotyped reactions.
- d. Encourage discovery and problem solving instead of rote learning and parrot like repetition.

ECONOMY IN MOTOR LEARNING

J. H. Moore

1. Review of applicable research data or principles:

Learning a motor skill is not just learning to do a given act faster. It involves periodic organization of responses into more integrated patterns.

2. Service policies and practices to which these are applicable (indicate existing deficiencies; cite particular policies, directives, etc., where feasible):

Proper supervision in specific service school training courses where motor skills are taught on a large basis.

3. Recommended action:

1. Make a real study of the character of the function to be learned. Pay particular attention to the organization of the performance as whole. For this purpose utilize such aids as:

- a. Verbal descriptions and expositions.
- b. Direct observation of performances or models, supplemented, perhaps, by slow-motion pictures, graphs or other devices which serve to give a clear picture of the structure of the performance.
- c. Practice at first with manual guidance only if it helps to get the "feel" of the act as it should actually be performed.

2. Attend to appropriateness of your own reactions as you learn. Develop the ability to select and utilize fruitful responses by discerning their relevance to the goal, and to detect and eliminate errors.

3. Learn as nearly as possible in the setting in which the act of skill must be really executed. Do not depend upon formal exercise of the

parts of a function except where the part offers unusual difficulty, but practice the act as a whole.

4. When intergrating previously learned movements into a new performance, pay especial attention to the organization of these responses into a smooth-working pattern.

5. Avoid overemphasis on any one phase of a total act, for this may destroy the balance and effectiveness of the performance. Strive to fit details together into the proper timing and rhythm, or scheme of the entire activity.

6. Avoid stereotyping of activity; skill demands flexibility in attaining the necessary goal.

7. Form and accuracy, rather than speed, should usually be stressed in the beginning. One should strive for refinement and precision more and more as learning proceeds into its later stages.

**EMPHASIS ON INTEREST, ATTITUDES, APPRECIATIONS
AND VIEWPOINTS IN A LEARNING PROGRAM**

J. H. Moore

1. Review of applicable research data or principles:

The great variety of motives in human behavior is brought about by the environmental learning (education) and it is therefore the function of education to stimulate the development of new and more mature and more productive interests and purposes.

2. Service policies and practices to which these are applicable (indicate existing deficiencies; cite particular policies, directives, etc., where feasible):

Most service schools are prone to emphasize routine factual learning and skills, when parts of their student personnel have worthless work habits, submissive, dependent or overaggressive attitudes that nullify effective learning and later job efficiency.

3. Recommended action:

1. It is recommended that a careful evaluation be made to discover just how much of the highly specific training given in the Armed Forces Schools is actually utilized in practice after training, and how much is lost by:

a. Delay in application for a few months. (Rate of forgetting details is extremely rapid, unless they are applied in concrete situations.)

b. The great lag in training curricula behind the actual application in the field.

GENERALIZATION AND DISCRIMINATION

J. H. Moore

1. Review of applicable research data or principles:

When an individual finds that a given kind of behavior produces desired results in his relationship with his superiors, he is likely to try this behavior with other persons. He generalizes habits which have been learned in one situation to other more or less similar situations.

2. Service policies and practices to which these are applicable (indicate existing deficiencies; cite particular policies, directives, etc., where feasible):

Training of Airmen.

3. Recommended action:

1. Indoctrination of training personnel with the principle that correct responses must be adequately and properly awarded. It is even more important that half wrong, or all wrong responses should not be rewarded in such a way as to develop failure attitudes.

INDOCTRINATION PROCEDURES FOR REDUCING FEAR IN COMBAT

John V. Moore

HUMAN RESOURCES RESEARCH CENTER

1. Statement of topic. It has been found that certain factors reduce fear in combat. It is proposed that in indoctrinating combat leaders in procedures to be employed in directing the activities of the groups for which they are responsible, these factors be included.
2. Abstract of paper. It has been found in a previous study conducted during World War II by psychologists in the Army Air Force aviation psychology program, that the following factors reduced fear in combat:

	<u>Officers</u> <u>Percent</u>	<u>Enlisted Men</u> <u>Percent</u>
Having confidence in your equipment	95	91
Having confidence in your crew	93	91
Having confidence in the technical ability of your immediate superior or commanding officer	87	88
Keeping busy all the time while in the air	90	85
Seeing or hearing other men acting calmly in dangerous situations	82	79
Concentrating on the job you have to do	74	77
Knowing that you will be sent back home after completing a definite number of missions	72	74
Taking evasive action	74	70
Having a commanding officer who does every- thing possible to look out for the food, shelter, and comforts of his outfit	68	70

It is recommended that in the training program for potential and actual combat leaders specific mention should be made of these fear-reducing factors.

3. Review of applicable research data. Shaffer, Williams, et. al., in Chapter 6 of Report No. 14 of the Army Air Forces Aviation Psychology Program Research Reports, "Psychological Research on Problems of Redistribution", interviewed approximately 4600 air crew personnel that flew in combat during World War II regarding fear in combat. Preliminary data were gathered by the group-questionnaire method and by interviews. The final questionnaire consisted of 159 questions of the multiple-choice form. 135 of the questions were concerned with the frequency, symptoms, causes and effects of fear, and with factors aiding or hindering its control.

That fear is a significant factor affecting performance is apparent from the frequency with which subjects mentioned that they had experienced fear. From one-third to one-half of each group interviewed reported that they experienced fear on every mission or almost every mission. Approximately 75% of the subjects stated that combat fear was very much, or somewhat, stronger than any earlier fear experienced.

Of the factors which the subjects mentioned to reduce fear, the effect of confidence and morale was most conspicuous. Having confidence in equipment, crew and leadership stood out as the most frequent factors. The second most significant condition for the control of fear was effective activity. Keeping busy, concentrating on the job, shooting, etc., reduced fear tensions by substituting constructive efforts. Social stimulation also reduced fear.

4. Appraisal and summary of research data. This information was compiled and analyzed by competent research psychologists. The sample, numbering approximately 4500 cases, seems both large and representative enough to give significance to the information obtained.
5. Service policies and practices to which the recommendation is applicable. Aviation cadet training and combat crew chiefs' training would seem to be training areas where an indoctrination procedure stressing the importance of these fear-reducing factors are important.
6. Recommended action. It is recommended that consideration be given to introducing into current aviation cadet training programs an indoctrination procedure stressing the value of introducing and maintaining these fear-reducing situations. It is further recommended that additional information be obtained from combat crews returning from combat in the current Korean police action with a view toward obtaining information respecting fear-producing situations and factors effective in reducing fear.

LEADERSHIP: MENTAL EFFICIENCY
IN UNUSUAL SITUATIONS

James H. Moore
Department of Psychology
School of Aviation Medicine

1. Review of applicable research data or principles:

Extensive review of this topic in Personality and Behavior Disorders by J. McVicker Hunt, Vol. I.

2. Appraisal and summary of research data and principles:

Mental abilities have been shown to remain fairly constant under ordinary conditions, but are subject to marked changes under unusually favorable or unfavorable conditions.

3. Service policies and practices to which these are applicable (indicate existing deficiencies; cite particular policies, directives, etc., where feasible):

Choosing combat and other leaders without evaluating how they will function, mentally, under stress conditions.

4. Recommended action:

Develop stress situations wherein measurement is made of the intelligence and general mental ability of potential leaders and others who are required to demonstrate a high type of mental activity. These should be under situations of great psychological and physical stress. Additional consideration might be developed in evaluation of stress (and its effect on intellection) by narcoanalysis with props such as motion pictures, sound effects, etc.

**PRINCIPLES OF EDUCATIONAL SCIENCE TO BE UTILIZED
IN SCIENTIFICALLY PLANNED TRAINING PROGRAMS**

J. H. Moore

1. Recommended actions:

Recommend that the following facts be kept before individuals charged with planning units of training.

1. Whatever makes for effectiveness in learning facilitates retention.

2. Rote learning or memorisation is subject to immediate deterioration..

3. Discrete factual information may be expected to be quickly forgotten, where systematically and widely applied general ideas are retained more successfully.

4. Understanding the principle involved in solution of a problem is one of the best means of managing it at a later date.

5. To resist deterioration of learning, make it meaningful and overlearn it.

6. Material to be learned should be organized into a coherent structure, based not on logical organisation, but along the lines which an individual would use the material in a problem solving situation.

7. Active efforts to recall useful facts are effective because they establish the goal to be attained, provide practice in a realistic form and assist in organizing the material into a compact unity of patterns.

8. Knowledge of progress, constructive diagnosis of difficulties, and systematic efforts to evaluate trials results in functional knowledge.

**PSYCHOLOGICAL RATHER THAN LOGICAL
ARRANGEMENT OF LEARNING SITUATIONS**

J. H. Moore

1. Review of applicable research data or principles:

Learning experiences should be related to one another horizontally, and they should also be sequentially organized so that a systematic body of ideas and activities will be continuously expanded into larger and more meaningful pattern.

2. Service policies and practices to which these are applicable (indicate existing deficiencies; cite particular policies, directives, etc., where feasible):

Much of the subject matter presented in formal classes in the Armed Services is organized logically. This is of great convenience to the instructor but, except for those with high abstract thinking abilities, is a poor form of organization for learning experiences.

3. Recommended action:

In developing a learning situation, learning units should be adjusted to:

1. The psychological capacity of the individual.

2. The natural "psychological" method of learning. Steps followed in problem solving are the best guide for the psychological approach.

3. Once the concepts and problem approaches have been established on a smaller scope, they should be expanded to increasingly wider and broader aspects of the problem area.

**REALITY LEVELS - IN TRAINING SITUATIONS
WITH REFERENCE TO ACHIEVEMENT LEVELS**

J. H. Moore

1. Review of applicable research data or principles:

With reference to levels of aspiration, certain "reality levels" have been established. These refer to three types of groups:

- a. Those that set their aspirations at a minimum.
- b. Those that set their aspirations at a maximum of their abilities; at a mark they hope to come close to, not to attain.
- c. Those that set their goals at about average.

The degree of initiative with which individuals attack a task, is related to their reality level.

2. Recommended action:

1. There are many tests for determining the "reality levels" in goal setting. This should be an important selection device for training programs where it is important to determine the amount of initiative that will be demonstrated by the student worker.

THE USE OF THE FLESCH OR SIMILAR TECHNIQUES FOR IMPROVING
THE READABILITY OF AIR FORCE MATERIAL

R. G. Smith

J. V. Moore

HUMAN RESOURCES RESEARCH CENTER

1. Statement of topic. The problem exists that Air Force personnel are finding it difficult to comprehend certain Air Force publications. Publications of a technical nature which the Air Force uses are often written by private concerns. These publications contain a vocabulary and style of writing which are understandable to the engineers and technicians writing them, but are often incomprehensible to Air Force students and other military personnel who must make use of them. It is proposed that a technique for insuring readable writing be adopted in preparing Air Force material for publication.
2. Abstract of paper. Much of the printed material which the Air Force uses for training and daily operations is written at a difficulty level that makes it highly improbable that most of the people reading the material will comprehend it easily. Certain techniques have recently been developed which will insure that the material being written is readily understandable by the population which reads such material. Rudolph Flesch in "The Art of Readable Writing" published by Harper and Bros. in 1949, describes a technique which will enable the writer to produce material that is readily understandable for a particular population. It is recommended that this technique, or others which will be mentioned later, be considered by the Air Force for use as a guide in the preparation of printed material.

3. Review of applicable research data. A. O. England published an article entitled, "Getting a Message Across by Plain Talk" in the June 1950 issue of the Journal of Applied Psychology. England's study showed that the Air Material Command's printed material was not being understood by its employees. For example, more than 90% of AMC employees found it hard to read and understand AMC directives; more than 60% of AMC airmen found it hard to read and understand such directives; and more than 20% of the Air Force officers found it hard to read and understand messages addressed to them.

Pashalian and Crisay in an article entitled, "How Readable are Corporate Annual Reports," published in the August 1950 issue of the Journal of Applied Psychology, found that on analysis of the readability of some 26 annual reports of large corporations, the general level of reading was difficult and human interest value dull according to Flesch technique measures. According to Johnson and Bond in an article entitled, "Reading Ease of Commonly Used Tasks", published in the October 1950 issue of the Journal of Applied Psychology, even psychological tests which are administered to large segments of the general population are difficult for most people to read with ease.

From this brief review of the literature pertaining to the readability of printed material it can be seen that a considerably varied portion of the printed material which comes before the public's eye is not easy to understand.

4. Appraisal and summary of research data. The brief review cited above seemed to make clear that little consideration is being given to writing literature that will be readily understandable to the audience to whom

it is addressed.

5. Service policies and practices to which the recommendation is applicable.

People who are responsible for the preparation of all Air Force printed material, both writing and editing, are the focus points of this recommendation.

6. Recommended action. It is recommended that the Flesch technique or similar techniques developed in connection with a contract research centered at the Air University be employed in the preparation of Air Force printed material.

130
~~133~~
HBM Appendix _____

SOME FACTORS
IN
HUMAN VISUAL DISCRIMINATION

C. G. MUELLER

Prepared for
THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE

Department of Defense
Research and Development Board
Washington 25, D. C.

June 30, 1951

HBM Appendix _____

SOME FACTORS
IN
HUMAN VISUAL DISCRIMINATION
C. G. MUELLER

Several difficulties arise as we attempt to review the data on any human sensory system, its capacity and how the latter applies to military activities. The first difficulty, of course, is that we are not dealing with a capacity, but with many capacities. If we ask the capacity of the human sensory system, we find that it has many capacities depending on the circumstances obtaining when it is used. In fact, the data in any sensory field tell us the extent to which the capacity is dependent upon any one of a large number of variables. Thus, any statement about sensory capacity must have appended to it a statement concerning the circumstances under which this capacity is expected to hold. But if we ask what the eye will be able to do in detecting for example, aerial or surface targets, we shall be answered with a question, what conditions will prevail when the targets are presented? What the eye can do is expressed in terms of figures of certain contrasts shapes, subtending certain visual angles, exposed for certain time, etc. To make the transition to military targets requires detailed information on the observation conditions. Therefore, to give any definitive answer for military operations, we must know the conditions at the time the discriminations are made. Unfortunately, in many cases little quantitative information is available for specifying combat conditions as far as sensory discriminations are concerned. We know considerably less of the demands made of the human observer in a military situation than we do of the limiting factors in human discrimination.

This deficiency is a serious one. The sensory data show clearly that, discrimination-wise, man can be adjusted to a wide variety of operating conditions. But to make use of this adaptability we must know to what to adapt. For example, the sensitivity to light of a normal observer in outdoor illumination can be improved on by a factor of 10,000 by placing him in the dark for 30 minutes. Thus, the "capacity" which, in this case might be defined in terms of minimum amount of light required to see, is 10,000 times greater if he is adapted to the dark than is the case if he is adapted to daylight brightnesses. Other examples are equally striking. An individual's maximum sensitivity for colored lights can be shifted from a yellow-green to a blue-green; or in the case where we wish to detect a target as brighter than its surroundings, the brightness required for detectability increases by a factor of over 1000 when we adapt to the brightness of a clear daylight sky over that obtaining when we are adapted to clear night sky.

To utilize facts such as these requires that we know the demands on the observer. More importantly, these demands must be stated in terms interpretable as sensory data. If we are to predict what the observer will do, operational data such as the voltage of a signal in a radar set or the size of the surface target measured in feet or yards must be supplemented by other relevant data. We must know the brightness corresponding to specified voltages of the signal for the radar screen in question; we must know the distance of the surface target and the visibility conditions expressed in terms of contrast reduction for the case of the surface target. Too frequently the indispensable information linking the stimulus object and stimulus condition at the position of the observer are not available,

A second difficulty arises from the fact that the task of the individual military man is becoming constantly changing. He becomes more and more dependent upon information presented to him by dials and signals and various sensory displays. The fact that the early steps in many combat tasks are being taken over by physical equipment means that the nature of the questions being asked of the sensory psychologist or physiologist is changing.

What might be called questions of the first kind have already been considered. These are generally of the following form: a certain military problem exists, (for example, the detection of surface craft at sea) and the questions raised are what can be expected of the human observer as a detector device, how can we guarantee that he will be performing optimally, can we improve his performance by training, is it possible to select men who would be good at the specified task? These are the types of questions that were prevalent during World War II; questions of this sort still exist and in great numbers. But in many cases, the first stage of a military task (e.g., target detection) has been, or is being taken over by physical equipment. This does not eliminate the sensory problems (it may even increase them), but it seriously changes them.

Consider an example of the detection of a surface target at sea. If the human observer is used as the detector device, we encounter the problem of the probability of an observer seeing a target and questions of how this probability depends on the size and the contrast of the target. The size and contrast will, in turn, depend upon the range of the target and the contrast will also vary with the visibility conditions. After we have answered some of these questions, elementary computations permit us to state the ranges at which certain targets are likely to be seen under

various conditions of the physical medium (atmospheric conditions, etc.) and of the observer (the levels of illumination to which he is adapted, etc.). If we now shift to a physical detector, such as radar, the sensory problem, while not eliminated, is seriously changed. The information received by the radar set must now be transmitted to the military operator. If this information is presented, for example, as "pips" on a radar screen then our visual problem is one of determining the probability of seeing the pips and we must be concerned with "optimal" ways of presenting our visual display. But now, instead of relatively simple parameters in the visual detection of sea targets, we must be concerned with visibility under conditions that may change for every change in radar apparatus. In other words, our operating conditions now involve such terms as (1) different speeds of rotation of the scanner; (2) different types of phosphor screens, each with a different decay function, or a different dominant wavelength, etc.

This state of affairs could lead to an endless series of research projects and "solutions" to practical military problems with this latter changing each year with improvements in radar equipment. In fact, this would be true were it not for one fact: that the selection of radar displays can be made dependent upon our knowledge of visual functions. Now the question put to the sensory psychologist or physiologist is of a different form (we shall call these questions of the second kind). Our equipment picks up information about a target. This information is in the form of electrical changes, etc. How should we present this information to the human operator? Should we use a visual signal or an auditory one? If a visual signal, should it be with different colors, different intensities, lights in different positions etc? Thus, with relatively few

restrictions we are asked how we can best use the human observer as a channel and decoder through which information flows and by which it is translated into military action? This represents a significant change in the type of problem confronting us. It goes far in breaking down the questionable distinction between applied and basic data. It means that the practical and applied data in these cases will be the basic data concerning sensory function.

This development just outlined will be mirrored in the present review by an emphasis on what some would call the basic data of vision. How does the eye work and what can the eye do? These questions will be answered in as general a way as possible so that they will have as great an applicability as possible. In the case of each visual function application will be discussed and possible future application indicated.

It is obvious that there are many areas within the military where questions of the first kind must be answered. These areas are no less important because of recent developments in physical techniques. On the contrary, questions of the first kind may become more important because they involve sensory functions for which we have no adequate equipment substitutes. Since we are in a stage of transition as far as the utilization of the data obtained as answers to specific questions having to do with military performance.

FLUCTUATIONS AT THRESHOLD

The first limitation we encounter in studying the human sensory system arises from an apparently simple phenomenon called threshold. The elucidation of this simple, or obvious, phenomenon and the listing of the variables that affect it, however, will take us far in our discussion of the problems

of sensory and perceptual discrimination.

We are led to use the notion of a threshold when we find that a stimulus intensity must reach or exceed a certain range of values before the stimulus can be detected. That there are some stimulus intensities that we cannot see or hear, and others that we can, seems obvious. But what appears, by inspection, to be a clear dichotomy turns out to be, upon closer examination, a continuous function. This is true both subjectively and objectively. An individual brought into a situation where he must detect near threshold stimuli finds considerable difficulty in deciding whether he sees the target or not. In terms of the individual's behavior the dichotomy also disappears when we find a region of intensity values where the probability of seeing a target is neither zero nor one, but rather varies systematically between these values as a function of the intensity of the stimulus and a number of other variables. Thus, the answer to the question of whether an individual will be able to see a given signal is a probability statement. The answer is that he may or may not and the probability of seeing is a function of a large number of variables which are under our control.

An example of the region of uncertainty for an experienced observer is shown in curve 1 of Figure 1. This figure shows the probability of seeing a short flash of light as a function of the intensity of the light.

The concept of the threshold and the fact of a range of uncertainty are not limited to the dimension of intensity alone. This region of uncertainty is seen in the detection of difference in intensity, differences in linear extent, contrast, etc. Examples for the case of the detection of a target brighter than its surrounds is shown in Figure 2.

It must be emphasized that the variability at threshold is not the sign of a poor observer. It is not possible to eliminate it by training

or other procedures. On the other hand it may, to a certain extent, be modified. Training may change it; test conditions will change it markedly.

The uncertainty interval in the region of the threshold has many important practical consequences. First of all, we must now realize that threshold is a statistical concept. A threshold is an intensity value (or value of visual angle, or intensity difference) that corresponds to some arbitrary point on our probability of seeing function. We recognize then that any use of the human sensory system must also lead to statistical concepts. This is true, for example, if we ask how far an observer can see under some specified atmospheric conditions. For a human detector, the effective range is a random variable and a single verbal report or instrument setting gives information about instantaneous performance.

Two other points are worthy of mention in discussing the region of uncertainty. The first of these is that the "frequency-of-seeing" curve changes as a function of time. This is shown clearly in Figure 2. Curves A and B were obtained from the same, trained observer on different days. The results for each day are regular and yield a smooth curve. The intensity values for curve A, however, are about twice those for curve B. Both curves were obtained under conditions that minimized change. They were obtained at the same time of day under the same conditions of dark adaptation and under the same test conditions.

The second point to be made concerning the frequency-of-seeing curves is, of course, the differences between individuals. An example of this also shown in Figure 2, where curves C and D were obtained under the same conditions as A and B, but from a different observer.

The practical consequences of the day-to-day and individual-to-individual variabilities are important. The results for sensitivity fluctuations

in time for example, mean that a night lookout on an hour-on-hour-off watch might be able to see a given target 20 times out of 20 presentations in one watch and 10 times out of 20 presentations on the next watch. The consequence for testing for night lookouts might also be noted. The results mean that there are gross limits to the reliability of any test instrument imposed by the demonstrable changes in the "capacity" being measured.

One of the simplest ways of changing the uncertainty interval, as far as the military is concerned, is to use more than one observer in the detection system. The expected results of such a procedure are shown in curves 2, 4 and 10 of Figure 1. The number on each curve refers to the number of observers used simultaneously as lookouts. The curve shows the probability of at least one observer seeing the target as a function of the intensity. For this graph it is assumed that each individual observer would give the frequency-of-seeing curve shown as curve 1. Here we see that the use of two or four observers changes both the position and the slope of the probability-of-seeing curve. The greater the number of observers used, the greater the change in slope and position. Although not practical, the curve for 10 observers is shown to illustrate this point further.

DARK ADAPTATION

Let us now shift our attention to sensory capacity as it depends on the conditions under which observations are made. These conditions may be in the nature of stimulus variables, such as the nature of the target, or the visibility conditions; or they may refer to the state of the observer, for example whether he is dark adapted, fatigued, or subjected to low

oxygen concentration. In general, the changes in capacity to be considered under these headings will be much greater in magnitude than those discussed above.

Perhaps the greatest changes in sensitivity are to be found in the variations due to "adaptation" conditions so we shall begin with a discussion of dark and light adaptation.

Dark adaptation is a term referring to the changes in sensitivity of the eye as a function of time in the dark. An example of these changes is shown in Figure 3. This figure shows how the threshold intensity varies with time in the dark. The thresholds represented by the beginning and end of the dark adaptation curve differ by a factor of 1,000. Actually, of course, the curve of dark adaptation is not always the same and we shall see presently the extent to which variables such as size of target, exposure time, and previous light adaptation affect this curve. Some of these variables will affect the shape of the curve, that is how much the sensitivity changes or how rapidly it changes. Other variables will affect only the position of the dark adaptation curve on the intensity axis.

Let us consider first the variables that affect the shape of the dark adaptation curve. Figure 4 shows the way in which position of the test target affects the dark adaptation curve. These curves were obtained for a 2° field fixated centrally and at $2\frac{1}{2}^\circ$, 5° , and 10° peripherally. These curves show that for a constant area stimulated, that is, for a fixed size of target subtending 2° of visual angle, the threshold varies systematically with changes in the angle of regard. For the centrally fixated target, we observe no discontinuity in the dark adaptation curve. For all other positions, a break in the curve is observed and the more peripheral the target, the greater the displacement of the curve to the lower intensity values.

Let us now ask how the position of the target changes the sensitivity at complete dark adaptation. To obtain the answer, we can take the values shown in Figure 4, after 30 minutes dark adaptation, i.e., we can cut through all of the curves at 30 minutes. As we would expect by inspection of Figure 4, such an analysis shows that the eye is more sensitive in the peripheral region than in the fovea or centered area. Recently Sloan has studied this problem in detail and her results are also shown in Figure 5. The results show that the eye is most sensitive in a region 10 to 20 degrees from the center. The difference in sensitivity between the 10 - 20 degree region and the foveal region is of the order of 10 to 1 for the Sloan data and 50 to 1 for the Hecht, Haig and Wald data of Figure 4.

The effect of retinal position on a dark adaptation curve depends upon several other variables, the most important one being the wavelength or, more properly, the frequency of the test stimulus. That this is the case is shown clearly in Figure 6. If we use a deep red light and perform the experiment represented in Figure 5, we find no break in the dark adaptation curves regardless of the position of the stimulus. In other words, for a deep red stimulus we obtain the top curve of Figure 5, for all positions of the target. If we use any colored lights, from the red-orange region of the spectrum to a deep blue, we observe a break in the curve with the magnitude of the break depending upon the wavelength of the stimulus.

The curves for dark adaptation as a function of wavelength are deceiving in several respects. In terms of the amount of energy required for threshold the human observer is not most sensitive to the violet end of the spectrum although the curves of Figure 6 might give this impression. We obtain Figure 6 if we do one of two things (1) measure the threshold in relative energy units and then translate all curves so that the first

portions of all curves coincide, or (2) use an intensity unit that performs this operation for us. The measurement of dark adaptation curves for various wavelengths in energy units give rise to curves differing in position on the energy axis as well as in shape. If we cut across such curves after two or three minutes of dark adaptation and plot the energy values at threshold as a function of wavelength, we obtain the top curve of Figure 7. If we now cut across the same dark adaptation curves after 40 minutes of adaptation we obtain the lower curve of Figure 7. What is shown in Figure 6 is the measurement of dark adaptation with an intensity unit based on the upper curve. What results, of course, are curves that are invariant with change in wavelength for the first few minutes and that decrease beyond this time by amounts that correspond for each wavelength with the difference between the two curves of Figure 7. Thus, the dark adaptation curve for red light shows little, if any, decrease beyond the first rapid portion of the curve, the blue and violet curves show the greatest decrease. What must be emphasized, however, is that the human observer at all times in the course of dark adaptation required more energy to see a violet light than is required for a green or yellow light.

The existence of the two sensitivity functions shown in Figure 7 has important applications. The most widely known is the use of red light to obtain maximally effective illumination for photopic or cone function while minimizing the effect of the light on scotopic, or rod function. The use of red goggles in ordinary room illuminations or the use of red filtered light sources in briefing rooms gives a brightness adequate for reading maps, for example, and yet provides a brightness for the scotopic system that does not seriously impair peripheral dark adaptation. The superiority of red light over white light in this selective use of the photopic system

is made possible by the difference in the sensitivity curves of Figure 7. As Figure 7 clearly shows the advantage of red light is not due to the higher threshold of the scotopic system for the red end of the visible spectrum. In fact, the threshold for red light is about the same for both photopic and scotopic activity. What is important are the thresholds for the other wavelengths. A red light of fixed energy will have approximately the same effect on both the photopic and scotopic systems. A white light of fixed energy will have greater effect on the scotopic than on the photopic system. Thus, a white light and a red light matched for brightness with the cones will not appear matched for the rods. This modified version of the Purkinje phenomenon is the basis for the advantage of red goggles. When we make a white light intense enough to be as effective as a red light for reading and other tasks, we do more damage to rod dark adaptation than is done with the red light.

That this general argument is valid is shown conclusively in an experiment by Hecht and Hsia. Dark adaptation when studied after adaptation to white light and after adaptation to red light of the same photopic brightness. The curves obtained under these conditions are shown in Figure 8. The data represent the averages from ten experimental sessions. It is obvious that the eye is more sensitive and recovers more rapidly after adaptation to the red than after adaptation to white light. Hecht and Hsia also obtained these functions at various intensity levels. The superiority of red light is less pronounced at low intensities where the recovery from both is more rapid. Figure 9 shows a plot of the time required to dark adapt to an arbitrary threshold value after adaptation to various intensities of either the red or white light.

Two other variables in the discussion of the target are important in

specifying the sensitivity of the eye; these variables are (1) the length of time the target is exposed, (2) the subtense area of the target at the eye. Both of these variables affect the position of the dark adaptation curve on the intensity axis.

For the relation between exposure time and intensity there are two rules to remember. For short exposure times the eye is a perfect summator and the product of intensity and exposure time must reach or exceed a fixed constant value for detection. Since intensity is a rate measure this means that, for short exposures, the energy required for threshold is a constant, regardless of exposure time. For long exposures the threshold depends only upon the intensity, that is, the threshold is independent of exposure time. For small stimulus areas, the transition from one of these rules ($I \cdot t = \text{constant}$) to the other ($I = \text{constant}$) is extremely abrupt. An example is given in Figure 10, where $\log I \cdot t$ is plotted against $\log t$. In this plot the first rule ($I \cdot t = \text{constant}$) calls for a straight line of zero slope; the second rule requires a straight line with a slope of unity. That both relations hold is clearly shown. For large areas of the stimulus the transition from one of these rules to the other is more gradual and there is a range of exposure times over which neither law holds. In general, then, for short flashes energy is the important dimension; for long flashes intensity, or rate of flow of energy, is the important dimension.

The importance of the area of the target is shown in Figure 11, where the threshold intensity is plotted against the radius of a circular target. The upper curve was attained for foveal stimulation, the lower curve with the stimulus 20° in the periphery. The peripheral curve

suggests a practical rule that the product of area and intensity is a constant for most of the range of the areas. There is a systematic deviation from this rule for the larger areas. This deviation is important for theories of visual function but it is not likely that stimulus areas of military significance will go beyond the range covered by the rule. For the fovea the product of area and intensity is also a constant for small areas, although the deviation for larger areas is more pronounced than in the periphery. In general, for both fovea and periphery there is a diminishing return for increasing the energy by increasing the area, although for a fixed brightness of the target, the larger the area the greater the probability of seeing.

In the case of increasing the area of centrally fixated targets we are likely to involve two variables, one is a "pure" area variable, the other is the position variable discussed above and shown in Figure 5.

Another variable of possible importance for selection purposes is the variation in threshold with the age of the observer. The function relating threshold and age has recently been studied by Robertson and Yuckin and is shown in Figure 12. There is an increase in threshold of .10 - .15 log units (or an increase of from 25 to 40 per cent) for every ten years of age between 20 and 70. In a general way, these are supported by the work on night vision testing during World War II which shows a greater percentage of failures on night vision tests for the older age groups. Robertson and Yuckin have also shown that most of the variation of threshold with age can be accounted for by the change in the size of the dark adapted pupil with increasing age.

One final class of variables that we shall consider and that has a profound influence on adaptation to dark is the intensity and duration of

the stimulus before dark adaptation begins. The results referred to in Figure 3 give an example of the changes in dark adaptation curves obtained by changing the duration of the preadapting stimulus. In this connection there are two important findings to consider. The first is obvious in the light of our previous discussion; this finding says that the greater the intensity of light and the longer it is on before dark adaptation begins, the higher is the initial threshold and the longer it takes for the eye to adapt to any pre-assigned threshold value. Over a large range of values of both intensity and duration of the pre-adaptation stimulus, we find again a rough rule that the product of intensity and duration must equal a constant to give a constant effect measured by the subsequent dark adaptation curve. This means that we get the same dark adaptation curve if we adapt to bright light for short time or adapt to dim light for long time provided the product of the intensity and the exposure of the adapting light is a constant.

This $I \cdot t$ relation for adapting stimuli does not hold for extreme values of intensity and duration and the second important finding is what happens to dark adaptation under these extreme pre-adaptation conditions when the reciprocity of intensity and duration of exposure breaks down. For very short periods of preadaptation the recovery in dark adaptation is rapid and this can be exaggerated to such an extent that one curve may start at a higher initial threshold but drop sufficiently rapidly so as to cross a dark adaptation curve with a lower initial value. Practically, this means that the effect, for example, of a momentary stimulus, such as a visual signal, gunflash, etc., will disappear more rapidly than the same energy distributed over a longer period of time. For low to moderate intensities, such as would be encountered in most visual signals, recovery

should occur in less than one minute and probably within 10-20 seconds.

We have said little about light adaptation and for very good reason. Relatively less is known about this important process than about dark adaptation. Much of our information concerning light adaptation comes from the family of curves of dark adaptation shown in Figure 3. Light adaptation refers to the change in the threshold as a function of the length of time we are exposed to a stimulus. If we define light adaptation in terms of the threshold immediately after the adapting intensity is reduced to zero, it is obvious that the measurement of light adaptation is, in effect, the measurement of the beginning of the dark adaptation curve. We are then interested in how the beginning of the curve varies with the intensity and duration of the previous exposure. There are certain limitations to such a restrictive definition of light adaptation. As shown in Figure 3, the shape as well as the starting point of the dark adaptation curve is a function of the duration and intensity of the previous exposure. We have seen that it is possible to obtain dark adaptation curves that have the same starting point (instantaneous threshold) but different rates of decrease. This means that if we measure the effect of light adaptation by measuring the threshold one minute after turning off the adapting stimulus we shall obtain a different function than one measured in terms of threshold immediately after, or 30 seconds, after the cessation of the adapting stimulus. One example of the type of curve obtained is shown in Figure 13. In the light of the previous discussion it may be considered illustrative, but the quantitative characteristics of the curve will change with the criterion measure of light adaptation.

INTENSITY DISCRIMINATION

We have been discussing variables that affect the threshold of the human eye in the dark. Actually, of course, most situations in which we are asked to detect a target have some light present, that is, we see a target against a background. This is true of all daytime operations, of all equipment room tasks and to a certain extent even of night lookout where silhouetting against the sky is possible. It is of interest to ask the extent to which the rules given for the detection of a target in the dark apply also to cases where we are detecting a figure against a background. In general, the answer is that the same rules do apply, but it is instructive to indicate the similarities and differences in functions for zero and supra-threshold intensity levels.

We have already had occasion to refer to the fact of response variability at threshold for intensity differences. This variability is similar in many respects to that observed for absolute threshold. Figure 2 shows the probability of seeing a difference in intensity as a function of the magnitude of the difference.

The first new variable we encounter in the detection of a target against a background is the intensity of the background. If we consider the amount of intensity that must be added to a region of the background in order to see the region as brighter than its background, we find that the threshold addition of intensity varies with the background intensity as shown in Figure 14. If we define contrast as the ratio of the difference in intensity to the background intensity then contrast sensitivity increases (that is, threshold contrast decreases) as we increase background intensity. This is shown in Figure 15. This function has recently been extensively

investigated by Blackwell who obtained the same relation although his curves are based on many more observations. These results mean that for a fixed intensity of the signal the lower the background or noise intensity the greater the probability of detection. For a fixed contrast or ratio of signal-to-noise intensity, the greater the background intensity the greater the probability of detection.

We find, as in the case of absolute threshold, that area and exposure time affect the threshold for contrast or for intensity differences. Figure 16 is the analogue of Figure 10 and shows $\Delta I \cdot t$ as a function of $\log t$ for several levels of adaptation intensity.

Figure 17 shows the relation between the added intensity required for detection and the size of the target. Once again, over moderate ranges of area the product $\Delta I \cdot \text{Area}$ is a constant although there are systematic deviations for large areas and these deviations are important for visual theory.

In addition to the intensity of the immediate background of the target we must be concerned with the intensity of any surrounding area if this is different from the background. Consider a stimulus field shown in Figure 18 which is typical of what might be found in radar reading rooms where A can be considered the radar screen, a the pip to be detected and B , the area surrounding the radar'scope. In a situation of this sort the threshold for detection of a as different from A depends not only on the brightness of a and A but on the brightness of B , the surround field. The results of one experiment are shown in Figure 19. This figure shows that optimal sensitivity (minimal difference threshold) is obtained when the surround brightness is equal to the brightness of A . Undoubtedly, this effect depends on many other variables, particularly the size of A and B .

and these variables should be exhaustively studied.

The topic of visual fields surrounding acuity objects, contrast objects, etc., requires more emphasis both experimentally and theoretically. The area surrounding the test object has been used to stabilize variability, to eliminate the inversions in acuity, flicker, and intensity discrimination functions at high intensities with little attention directed toward how and why this operation works. The importance of the surrounds comes up again and again in military problems where visual displays are heterogeneous.

The results for intensity discrimination considered thus far have been obtained with the eye adapted to the background intensity. Our discussion of dark and light adaptation suggests that the length of the adaptation period may be a variable. Figure 20 shows the change in ΔI as a function of how long the observer is adapted to the background. These results were obtained with high intensities of the adapting stimulus (5000 Trolands). The figure shows a rapid decrease in threshold for ΔI for the first three minutes and a subsequent increase in the threshold that is not complete until ten minutes of adaptation. Comparable results for lower intensities of the adapting stimulus show that the required increment in intensity decreases rapidly in the first two minutes of adaptation and then remains relatively constant.

The change in the difference threshold (ΔI) when the background intensity is decreased (rather than increased from zero as in the previous case) is shown in Figure 21. Here the value of threshold ΔI is plotted as a function of time of adaptation to the decreased intensity. The parameter represented by the three curves is the intensity of the previous adapting stimulus.

The data on intensity discrimination have very wide application. Virtually all visual tasks involve the discrimination of intensity differences. In addition, measurement of sensitivity in the dark may be considered a special case of intensity discrimination where the background intensity is zero. It is probably also true that much of what is normally called visual acuity is an intensity discrimination function.

Two important areas of application are those having to do with camouflage and with visibility conditions in radar operation. Some of the applications to radar operation may be indicated. If you have the screen brightness and signal brightness under separate control then (1) for fixed screen brightness the greater the signal brightness the greater the probability of detection (2) for fixed signal brightness the lower the screen brightness the greater probability of detection. If we have control only over contrast (signal to noise ratio) then the higher the noise the greater the probability of detection.

The application of the adaptation effects in intensity discrimination are numerous and, in fact, the results of Figure 21 were replotted from a study on radar screen visibility. Consider the situation in which an observer comes into the radar room from a place of higher brightness. If we can control the brightness of the signal, the greater the signal the more rapidly will the target be picked up. If we have control only over contrast the greater the background intensity (noise level), up to intensity to which the observer was previously adapted, the more rapidly the detection.

In both cases the time required to detect a given target will be greater the greater the difference between the illuminations. Figure 20 and similar curves for different brightnesses give the results for the

case of going from dark to higher illuminations. Figure 21 gives the results for the case of going from a brighter to dimmer region.

Additional applications of intensity discrimination data may be seen in the area of camouflage. A simple example may be found in one attempt to camouflage aircraft. If concealment from aerial observers is the goal we wish the plane to be indiscriminably different from its background which will be land foliage or sea surface. If concealment from ground observers is desired then the plane must not appear different from the sky. In the latter case for daytime operation the target usually appears as darker than its background, i.e., the plane is usually silhouetted against the sky except in cases of direct reflection of the sun. To avoid detection the plane must be made to appear brighter and to approximate the brightness of the sky as closely as possible. One attempt to increase the brightness of the plane involved the mounting of light sources in the wings of the plane.

Similar principles were employed in camouflaging aircraft for night flying. Under circumstances where the brightness of the night sky is the only brightness to be considered there is no problem of camouflage. The plane-sky contrast for low levels of brightness is below threshold for the size of the target involved. For the dark adapted eye, however, very little light from a target is required for detection, and, in the presence of an additional light source, such as enemy searchlights, the reflected light even from low reflection surfaces will exceed threshold. One of the solutions of this problem involves a calculated risk. One way of achieving very low reflection values is to observe a specular reflector from a point not included in the ray paths of the reflected beam. This principle was used on some of the night fighters in World War II. The plane surface was covered with a paint that approximated a directional reflector. Rays from

any point source such as a searchlight were reflected in a direction that depended on the orientation of the reflecting surface. Because of the curved surfaces of the aircraft this meant that the full plane was never seen although at any moment small strokes of light might be seen due to reflection from some part of the craft. These flashes would be detectable but would not trace out any identifiable shape.

VISUAL ACUITY

Acuity indicates the ability to see fine detail and is defined as the reciprocal of the minimum visual angle (expressed in minutes of angle) separating two contours. The first requirement for measuring visual acuity is that we have a target different in brightness from its background. The size of the target, or some portion of it, is then systematically manipulated to determine the minimum angular size required for detection of some critical characteristic of the target. Consider the broken circle target shown in Figure 22. The magnitude of the break in the circle is systematically varied until the observer is unable to see the break. Many other types of acuity objects can be used and two others are shown in Figure 22. Perhaps the most frequently used for testing purposes is the block letter found in many tests of acuity. Frequently a grating object or a checkerboard design is used.

The type of acuity object used will affect measurement in several important ways and these effects can be shown most clearly by first considering the way in which acuity varies with intensity. Figure 23 shows a plot of visual acuity against intensity of the background. In general, acuity increases as the background intensity increases. Curve C shows results for a Landolt ring target; the second curve in the figure gives the results for a grating target. Acuity for the Landolt ring reaches a higher value at the highest intensities than is the case for the grating target. In general,

acuity values are greater at the higher intensities for targets that do not involve repeated patterns. The detection of a bright thin line on a dark background is more likely than the detection of non-uniformity in a field of alternate light and dark lines of the same dimensions.

Thus, acuity depends on the intensity at which it is tested, and this intensity function in turn depends on the type of target used. Even when we restrict ourselves to a single type of target, e.g., the resolution of two thin lines, we find that the acuity-intensity function is not simple. The results show that a bright target on a dark background gives a different acuity-intensity curve than does a dark object on a bright background. These results appear in Figure 24. The upper curve was obtained using a dark target against a light background; the lower curve refers to a similar experiment with a light target against a dark background. The lower curve shows a decrease in visual acuity at the highest intensities. To complicate the situation further these results seem to depend on the size of the lines to measure acuity. If the two lines are narrow (168 seconds of visual angle), we observe the decrease in acuity at high intensities; if the lines are larger (1000 seconds of visual angle) we observe no decrease over the range of intensity studied. These results are shown in Figure 25. We have said that the requisite condition for measuring acuity is a target that is different from its background. The extent to which it is different is an important parameter of acuity function. One measure of this difference is the target-background contrast and the results show that the greater the contrast the greater the visual acuity, of the smaller the visual angle, required for detection.

As in the case of the thresholds for intensity and intensity difference, visual acuity varies with the time during which the target is exposed. Fig-

ure 26 shows the results of one study of this relationship. Over the ranges of exposure times and intensity employed in this experiment the logarithm of the angular width of line required for detection was a linear function of the logarithm of intensity. Also, the product of visual angle and exposure time was constant for a threshold effect.

For high levels of illumination the region of maximum visual acuity for the human observer is the central or foveal region, and all of the results discussed so far have been obtained using central fixation. A recent experiment showing the validity of this general rule yielded the results shown in curve A of Figure 27. Here we see visual acuity plotted against retinal position expressed in degrees from central fixation. At low levels of illumination the periphery of the eye is more sensitive than the fovea which raises an important question concerning the relation between visual acuity and retinal position at low illuminations. The answer to this question may be seen in Figure 27. The superiority of central fixation decreases steadily as we decrease intensity until at the lower intensities the region 5 - 10 degrees from the center gives maximum acuity values. These results and others not shown in the figure indicate that the point of maximum acuity varies systematically with the background intensity, shifting gradually from the center (0°) to a position 10° or more in the periphery.

Two types of acuity objects may deserve special mention in connection with military operations and testing. The first of these is a vernier acuity object that requires alignment of two lines, edges or borders. This acuity function may be important for the many military tasks involving reading of dials, pointer directions, etc. The second type is a letter or numeral acuity object which again may be linked to reading of dials, maps and charts. In addition, many feel that letters or numerals measure a more complex

acuity function and therefore may be of greater practical use to the military as a test object.

The data for vernier acuity follow closely those for other acuity objects. The effect of background intensity is shown in Figure 28 and in curve A of Figure 29 where again acuity is seen to increase with increasing intensity. Figure 28 also exemplifies the decrease in acuity with decreases in exposure time, although the complete function has not been studied. Increasing the separation between the two targets to be aligned decreases vernier acuity and this finding is shown in detail in Figure 30. Vernier acuity is more sensitive to target separation than, for example, stereoscopic acuity. The width of line used in vernier adjustment seems to be unimportant.

Much work has been reported on the detection of letters and numerals and this information should be taken into account in considering a letter or numeral target for testing purposes. We shall have occasion to refer to the testing problem later. Let us briefly consider first some of the variables that influence letter and numeral detectability.

In addition to the variables already mentioned for acuity targets in general, variables such as contrast, size, exposure time, etc., we encounter additional variables with letter and number displays. One such variable is the stroke width of the letter or numeral. The relation between visual acuity and stroke width of the figure (of constant height) is shown in Figure 31. For the small angles involved the distance at which a target is detected is directly proportional to visual acuity so the ordinate in this figure may be considered to be visual acuity in arbitrary units. The lower curve shows the results for a dark target on a light background, the upper curve shows the results for a white figure on a dark background. Once again we find that the direction of contrast is an important variable. It affects

the numerical values of acuity obtained and the value of the maximum stroke width.

When more than one number or letter is presented simultaneously, the spacing of the figures becomes an important variable. The results of Berger indicate that there is an optimal spacing for figures and that this optimum depends on the nature of the figure.

Space does not permit complete coverage of the many variables that have been studied. One final variable that must be taken into account in the use of letters and numbers either in testing or as indicators or signals is the inequality in the difficulty and the confusability of the figures. Under fixed conditions of width of stroke, height of letter, contrast, etc., all of the letters are not equally difficult. In addition, if a given figure is presented and an observer guesses incorrectly, all of the possible errors (25 in the case of the letter) are not equally likely. He is not as likely to say **H** when he is presented a **I** as he is to say **L** or **J**. Once again the difficulty of the items and the confusability of the items have important practical consequences.

It must be obvious, from this brief review, that visual acuity is not a fixed capacity of the observer. The capacity will depend on the condition of the observer, the type of material we present, and the way in which we present it. In some limiting cases we may be restricted by the resolving power of the optical system (cornea, lens, fluid media). In other cases we may be limited by the resolving power of the retina and its mosaic structure. In fact, in all cases performance must be limited by the contrast rendition of both of these. The extent to which the sensory system will react and transmit the characteristics of the stimulus will depend on the variables briefly referred to and many others.

STEREOSCOPIC ACUITY AND THE DISCRIMINATION OF REAL DEPTH

Stereoscopic acuity has had its greatest application in range finders for anti-aircraft firing, surface firing at sea, and to lesser extent in artillery firing. The theory of stereoscopic vision is well developed and data on many variables are available.

Figure 32 shows the effect of intensity on the variability of depth settings in an artificial range finder situation. The magnitude of the error, measured here in terms of the average error, decreases with increasing intensity.

The effects of increasing the distance between the adjustable ranging line and the target is shown in Figure 33. The results show that the average error in making range settings increases linearly with increasing distance between target and fiducial line. Curve A is for separations in a horizontal direction. Curve B shows the results for separations in the vertical dimension. The distances on the horizontal axis are in mm. where 2.6 mm equals one degree of visual angle. The results for the vertical separation have recently been extended to separations down to 20 seconds of visual angle and the results are similar to those in Figure 33. These results are shown as the middle curve in Figure 30, where they may be compared with the results for vernier acuity. It is clear that stereoscopic acuity is much more resistant to the influences of separation than is the case for vernier acuity.

When we introduce different vertical separations between the target and the range reference line in the two eyes, we have what is called a vertical disparity. Recent results show that the average ranging error increases markedly and systematically with the magnitude of this vertical disparity. The extent to which the ranging is affected depends on the target. A target

with the edge nearest the fiducial line slanting between 30 and 60 degrees from the vertical is more sensitive to the vertical disparity than a vertically oriented target.

The above results on stereoscopic acuity have direct applications to optical rangefinder operation. The intensity function tells us that ranging will be poorer in dim illuminations than in bright and that any device such as introduction of neutral or colored filters that reduces the intensity below that required for maximum stereoscopic acuity will increase average ranging error. The separation function of Figures 33 and 30 has direct application because of tracking errors in optical rangefinders. A rangefinder operator coupled to a poor tracking operator or apparatus will have a larger average error than one coupled to a more accurate tracker and the average range error will be directly proportional to the error of the tracker.

The results for real depth discrimination parallel closely those for stereoscopic acuity. Curve B of Figure 29 shows real depth discrimination as a function of the background intensity. For the real depth situation the results on target-fiducial mark separation are similar to those of Figure 33. Again a linear relationship exists and again these observations have recently been extended to separations of 20 seconds of arc.

SOME RESULTS FOR TESTING AND TRAINING

We have seen some of the variables that affect sensory function. Let us now turn to some of the results obtained in testing, selecting and training for these functions.

During World War II several tests were developed to measure what was called "night vision." The general purpose in this testing program seemed to be to devise a test that would measure the capacity of individuals to see

at night. Some of these tests, such as the Hecht-Shlaer Adaptometer measured the threshold for seeing a short (one-fifth of a second) flash of light. Others such as the Radium Plaque Adaptometer measured the threshold for detection of a stimulus silhouetted against a background of fixed, and low, intensity. The Radium Plaque Adaptometer (hereafter referred to as the RPA) used a block I figure and the task was to correctly state the orientation of the figure (up, down, right or left).

The test-retest reliabilities of these tests vary from test to test and from one study to another. The test-retest reliability of the RPA, for example, has been reported in the range from 0.43 to 0.82, with perhaps most of the reports falling in the 0.60's. The reported reliability of the Hecht-Shlaer has ranged from 0.42 to 0.64 with values as high as 0.77 if the correlation ratio was used rather than the product-moment correlation. The average reported reliability is lower than that of the RPA. Generally speaking, the reliabilities of most tests developed during the war fell within the range of 0.40 to 0.80. The Army Air Force-Eastman Kodak test and the Rostenberg test show higher average reliabilities than most other test, but fewer studies involving large populations of subjects have been reported. For example, a reliability as high as 0.94 has been reported for the AAF-Eastman test with the average probably in the 0.80's. But no report of a reliability greater than 0.80 was based on an N greater than 33. For the two studies with test populations of 45 or more one ($N = 85$) found a reliability of 0.80, the other ($N = 200$) yielded a reliability of 0.68.

We have attempted to show in discussing the absolute threshold that we should not expect high reliability with a single test measure of performance near threshold. From the point of view of discrimination, threshold is a statistical concept. The probability variations of Figures 1 and 2 are a

part of the phenomenon we are studying and the range of this probability function is not small. When we add to the variability of this type the fact that many "night vision" tests employ a forced guess procedure, and when we add the fact that the scores from many of the tests are not normally distributed, it appears that the reliabilities are not lower than could be expected.

Let us consider the problems of test-retest reliability of a representative test, the RPA, in the light of the data we have reviewed in the preceding pages. The frequency of seeing curves of Figure 2 show that a well-trained observer, when tested on two days, saw the stimulus 16 times out of 20 presentations the first day. The second day at the same intensity the same observer saw the stimulus 7 times out of 20 presentations. This amount of variation is commonplace under the most controlled laboratory testing. These numbers correct may be considered analogous to scores on the RPA test which also uses 20 stimulus presentations. To this source of variance we must add the variance imposed by the forced-guess. There is one chance in four of guessing the orientation of the RPA figure. Therefore, the testee should, on the average, guess 5 out of 20 presentations of the RPA test patch with no contribution from the visual system. But the number correct in a set of 20 will show chance fluctuations such that, for example, one time in ten the guesser should get 2 or fewer correct and one time in ten he should guess 8 or more correctly. These two examples of variability represent respectively, 45 and 30 per cent of the total possible test score range. In most tests there are other sources of variability. In many tests, for example, no fixation light is provided. This means that in any particular exposure or trial the probability of seeing will depend on the retinal region stimulated. If scanning for the target is permitted the probability will depend on the

scanning procedures of the observer tested. We have seen that the threshold may change by a factor of 50 to 1 with change in the retinal region stimulated.

Obviously, all of these factors will not be involved in all tests, but no test is free of all of them. Nor do all of the variables apply to all individuals. An observer whose threshold range is such that his threshold on all days is higher than the fixed intensity of a given test instrument will not show a day-to-day threshold variance on that test. Similarly, an observer whose threshold range is always below the test intensity used will have no variance in test score attributable to threshold change but will have variations due to his guessing. In view of all of the known sources of variability, some of the reports of reliability are surprisingly high rather than low.

When we turn to the question of the validity of the "night vision" tests we encounter greater difficulties. First we must clearly state for what we desire them to be valid. As a measure of sensitivity after dark adaptation all tests are valid by definition, of course, for performance on tests such as the Hecht-Shlaer is what we mean by sensitivity. If we use them as predictors or measures of performance of visual military tasks involving low levels of illumination, then the question cannot be conclusively answered either on a priori grounds or on empirical grounds. The major difficulty in establishing the validity of "night vision" tests is the difficulty in getting an adequate measure of the military performance. The few studies that have attempted to meet this difficulty have show low or zero correlations between "night vision" test scores and performance on night duty.

In an attempt to circumvent the difficulties of measuring combat duty performance a number of studies have correlated test scores with scores on various training devices and with so-called field tests. The correlations obtained have varied from $-.07$ to $.83$. These studies are difficult to

summarize. They have differed in "night vision" tests used, in field or training device used and in methods of scoring both. Some experiments have shown a serious attempt to get a measure of field performance, others have merely made the vision test figures larger and attached them to the outside terrain. The concept of a field test is weakened when one correlates visibility of a Landolt Ring test in the laboratory and the visibility of the same figure attached to trees and shrubbery and illuminated with the night sky.

In evaluation the results of correlations of test scores and field or training measures we find once again a tendency for the highest correlations to be linked with the studies with the smallest N's. The correlation of .83 (the highest reported) was obtained with a group of 16 observers. No studies using more than 50 observers have yielded correlations above .70 and none with an N greater than 100 have given correlations above .60. Very roughly speaking, the correlations distribute themselves uniformly from -.10 to .80 with minor peaks between .60 and .70 and between 0 and .10.

Further analysis of these data is probably not warranted because of the many confounding variables, particularly the differences in "night vision" tests used and the differences in the nature of the training or field test measures taken. Any analysis is likely to reveal the two main features of the data, the diversity of results obtained and the impossibility of drawing general conclusions concerning the agreement between "night vision" test scores and measures of field tests.

In the case of the reliability of "night vision" tests the point was made that high reliability could not be expected with tests that involved a small number of presentations and a short period of time. This conclusion was forced on us by the data on visual function and the nature of the tests

used. The basic data on visual excitation can contribute also to our understanding of the relation between any single "night vision" test and a measure of field or combat performance. The first part of the paper was devoted to showing the many variables that influence visual acuity and contrast sensitivity at low levels of illumination. In field or military performance most of these variables will come into operation. Targets will vary in size, contrast, position with respect to the observers' line of sight, etc., and any measure of combat performance will, therefore, be some complicated function of performances under a wide variety of circumstances. Only in the case where performance under one condition is highly correlated with performance under other conditions could we expect a test as restricted as most "night vision" tests to be related to field performance. There is little evidence that such high correlations exist. On the contrary, the evidence points in the direction of low correlations between scores on different tasks at low levels of illumination.

For example, the RPA test involves a single shaped figure, a black T. The task is to report the orientation in one of four positions. The test utilized only one intensity level and one size of target. Other tests may not have these restrictions but will have others. Some tests measure at one fixed position, i.e., they furnish a fixation point. In considering the restriction in fixation for example, we find that the correlation between maximum visual acuity in the periphery at a low level of illumination and the acuity at any fixed retinal position varies with the retinal position. Figure 34 shows for a group of subjects, the rank order correlation between maximum peripheral acuity at 0° , 2° , 4° , 6° , 8° , and 10° away from central fixation. This function passes through a maximum in the region of maximum visual acuity for the intensity level used and decreases for greater and lesser eccentricity. This means that a score based on performance for many fixation positions is not likely to correlate highly with a test score based on a threshold at one retinal position.

The results obtained in correlating "night vision" test scores and performance either in military operations or in field or training situations leads us to consider the common assumption that there is a single capacity to see at night. The results indicate that this single factor does not exist, that the performances under different conditions are not highly correlated and that the first step in achieving high validity after the establishment of an adequate criterion, should be testing under more varied conditions. High validity will not thereby be guaranteed, but in the absence of greater scope in testing procedures we are assured of low validity.

There is no doubt that performance on "night vision" tests is affected by training and practice on the tests. The extent to which such practice generalizes to other performances at low illuminations has not been clearly established. Many studies point to the increase in RPA scores, for example, on second and third administrations of the test. The results of one of these studies is shown in Figure 35. This figure shows the percentage of individuals failing the RPA test on four successive test administrations. Scores on the RPA test seem to increase as a result of one period of training on a modified Evelyn night vision trainer, although negative results have been reported. Figure 36 shows the results of one experiment on the effect of night vision training on RPA scores. This figure shows the percentage of cases failing one, two, three, and four administrations of the RPA test for an untrained group and for a group previously trained on a modified Evelyn trainer. In this study only those who failed the first test were given the second, only those failing the first and second were given the third, etc. The percentage value in the figures are based on the number taking the first test. The major effect of training seems to be the change in the percentage failing the first test. Six per cent of the trained group failed the first

test, while 12.9 per cent of the untrained group failed the first test. After the first test approximately one-half of those tested in each group failed each test and this result is mirrored in the convergence of the two curves of Figure 36. These results give some indication of the extent to which practice or training for seeing at low brightness levels generalizes.

There are no conclusive studies on the effects of training procedures on combat performance, although again this is undoubtedly due to the difficulties in measuring adequately combat performance.

Finally, let us consider one other visual function, visual acuity, from the point of view of test design and selection. The most widely used tests of visual acuity are those using either a checkerboard design, block letter design, or the broken circle pattern. Examples of these types of acuity figures are shown in Figure 22. The checkerboard test requires the proper identification of one arm in four that is different from the rest. The letter test requires correct identification of the letter. The Landolt C test requires the correct identification of the quadrant in which the break in the circle appears. Any attempt to average or summarize the many studies during World War II on the test-retest reliability of acuity tests would probably conclude that the checkerboard test has the highest reliability. Such a conclusion, of course, does not do justice to the data. The reliability of the checkerboard test is usually reported in the .80's, less frequently in the .70's and .90's. If we are interested in the relative merits of test figures alone, some of the superiority of the checkerboard figure may be spurious; until near the end of the War the checkerboard figure was always used in the Ortho-Rator, an apparatus that maximized the probability of constant test conditions, test procedures, and scoring. Support for this interpretation may be found in the fact that, in the hands of some investigators, tests such as the Snellen test characteristically yielded reliabilities con-

parable to the Ortho-Rater test.

The interpretation of the relative reliabilities for the various acuity targets must also be influenced by the recent work on the visibility letter and numeral designs. Not until World War II was any serious effort made to select letters and style of printing to be used for letter acuity tests. Differences in both the difficulty and the confusability of letters and the dependence of both on the print style has only recently had its effect on test construction. One effect has already been the increased reliability of letter tests, and additional research is required.

Many investigators now prefer the letter tests with the letter designs modified and the letters judiciously selected. This trend seems to be based partly upon the increased reliability when letter selection and design are considered and partly upon a judgment of the visual functions being tested. It is felt that the letter target measures more subtle visual functions than is the case for a simple repeating design such as the checkerboard.

The argument on the basis of the reliability is straightforward; the argument on the basis of visual functions tested seems to rest on data that have not yet been rigorously presented. We encounter again the question of the validity of the tests for military selection. We have clear evidence in the case of visual acuity that we are not dealing with a simple visual function. Factor analyses of visual acuity test results clearly show that more than one factor is involved. In fact, in one study for the test battery used, 12 factors were found. This raises the question of the relative importance of each factor for military performance. It is not likely that all factors are equally important for military selection or that the factors important for one type of duty will be the same as the factor (or factors) required for another type of duty.

Once again we do not have adequate data on the basis of which the Armed Forces could choose from among the many acuity tests. In addition to reliability and the factor loadings of each test, we must have data from job analyses of military performance and from validation studies. These indispensable data are lacking at the present time. Everyone agrees that the extreme cases of visual acuity defects should be screened, as should the cases of extreme night blindness. But no one has frontally attacked the question of what constitutes an extreme case for military operations. References are frequently made to estimated requirements in day-to-day civilian activities, in industry, etc., but the relevant information for a decision on military selection is not available.

CONCLUDING REMARKS

It is obvious that the study of vision is not the work of a single science, but depends on the data of many sciences. We have restricted ourselves to a discussion of what the human observer can do on the basis of visual stimuli. Particularly, we have been concerned with some of the limitations placed on him by the visual sensory system. But much more than this must be known before we can predict what the observer will do in a particular combat situation. Some of the additional variables are psychological in nature and lead to such concepts as motivation, emotional stability, etc. Some of these variables will be discussed in other reports submitted to the Committee.

Other variables that will affect the extent to which we can predict the individual's behavior will appear in the data of the physical sciences. We have seen that most of the laws covering visual discrimination are stated in terms of physical or geometrical dimensions of the stimulus at, or near, the observer. When we talk about the contrast sensitivity of the eye, for example,

we specify the contrast of a stimulus figure a few feet or yards from the observer, or in many cases, at the eye position. But the stimulus object in the case of enemy aircraft or surface ships may be many miles away and the contrast at the point of the observer will depend importantly on the distance involved. Both size and contrast will vary with the distance. To predict the range at which a normal observer will detect an enemy plane, for example, we must know the (1) contrast sensitivity of the eye, (2) the contrast at the target and (3) the contrast rendering properties of the atmosphere. The last of these will be defined in terms of a function relating the contrast at a point, the contrast at the stimulus object, and the distance between the point and the object. One parameter of this function will be a term covering what we normally think of as the visibility or atmospheric conditions. The same kind of information is required for other media, such as ocean water, and for man-made media, such as optical instruments.

Consider the use of binoculars for night vision. We have seen that the probability of detection is a function of the area of the target; for a given target-to-background contrast, the larger the area the greater the probability of seeing. Therefore, the use of binoculars would be expected to increase the probability of seeing a given target. But if we are using the binoculars at low levels of illumination, such as for night lookout, several other variables must be considered. The binoculars will decrease the contrast and the loss in detectability from decreased contrast may more than offset the gain from increased area. We would also have to consider the light loss due to the use of binoculars through reflection. In this case, field tests during World War II clearly showed the advantages of using binoculars designed for night search.

Many other examples could be given to show the extent to which the

application of discrimination data depends upon the data of physics and other sciences. These important areas of research have not been considered under the heading of human discrimination, although in many cases they are necessary for the application of the discrimination data.

Finally, we might point to the way in which the use of sensory data depends on the way we conceive of the human engineering problem. A recent example of this is to be found in the influence of information theory on discussions of human performance. A particular conceptual framework of this sort usually suggests or emphasizes certain kinds of experiments and experimental results. For example, viewing human discrimination in the light of information theory, two types of data become important. These are data of the speed of responding and data on discrimination when many categories of response are possible. We can specify the information in terms of the number of alternative responses that can be made, and with the speed of responding, we can state the capacity of the system. In these terms many of the data on span of discrimination, serial reaction time, etc., are emphasized.

SUMMARY AND CONCLUSIONS

From this brief review we have seen that we have many data showing the variables that affect visual function. All of the variables are important in the sense that they all affect the probability that a stimulus will be seen.

The variables that have been discussed may be roughly placed in two classes, (1) those that refer to the characteristics of the stimulus and (2) those that refer to the conditions of the observer. Examples of variables that were considered under the first heading are the size of the stimulus, the shape and color of the stimulus, the length of time the stimulus is exposed, the position of the stimulus with respect to the line of sight, and the brightness of the surrounding visual field. The second class of variables may be subdivided into those conditions of the observer that are relatively permanent and those that are transient. We did not discuss in detail the variables that "permanently" affect the conditions of the observer. Inferentially, this topic entered the discussion in many places. Any treatment of individual differences in thresholds and all questions of selection and training for visual functions are based on the assumption that such stable conditions exist. Examples of variables that affect the condition of the observer over short periods of time were covered in the discussion of light and dark adaptation.

Some of the variables discussed have direct and obvious application to military problems. This is particularly the case, for example, in the work on the visibility of radar signals, where the importance of the intensity of the signal, the brightness of the background, the size of the pip, the length of time the observer is adapted to radar room illumination, all follow from

wellknown visual functions. Similarly, there are direct applications to day and night lookout, where background brightness, level of adaptation, and the size and contrast of the target are important. It is expected that more and more of the variables discussed will have direct application to military operations as it becomes possible to design the task to suit the observer, rather than designing the observer to match the task.

There remain areas where what appear to be visual problems have not been adequately solved. In these cases we generally encounter one of two difficulties: (1) the visual problem is not clearly or adequately stated, or (2) the problem is properly stated but we lack the data for giving the solution. A difficulty of the second type is always easier to overcome. Questions concerning the legibility of figures, the readability of dials, general questions concerning methods of presenting information to the observer all require additional research before definitive solutions can be presented. But in most of these cases the questions to be studied can be stated at the outset. In other cases, e.g., night lookout performance, it has not yet been established what the visual problem is. This suggests that one of the greatest needs at the present is for research that will show what the demands are on the human observer. Inadequate attention has been given to the specification of the stimulus conditions for the combat situation. More data are needed to bridge the gap between the terms used by the line officer to describe the task and the terms found in a scientific discussion of visual discrimination. To select the relevant information from the research in vision requires a job analysis of combat activities. The point is illustrated by the work in much of the vision testing program where the emphasis on reliability has not been accompanied by an interest in showing that the functions now reliably tested are indeed essential for performance. We know

that we can test "night vision" with a reliability of .70 but we have not yet shown that the test scores correlate with performance on night lookout.

THE CASTE DIVISION IN THE MILITARY SERVICES

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THE CASTE DIVISION IN THE MILITARY SERVICES

Comments by a social scientist who served as an enlisted man in the Mexican Border Incident of 1916, as an Army officer in World War I, and as a Navy officer in World War II.

The line drawn between officers and enlisted men in the military services — a distinction in status and privileges so sharp that it is commonly called a "caste" barrier — is without doubt one of the principal sources of resentment and frustration, and hence of poor morale, in an American wartime military establishment composed largely of volunteer and drafted civilians. It will certainly create similar and serious problems under universal military service adapted to a "cold" or undeclared war.

The existence of widespread dissatisfaction with the caste system among enlisted men cannot be challenged. It is attested by returned GI's with almost complete unanimity, and its deleterious effects on morale are known to every unbiased observer. It reduces the organizational effectiveness of the armed services by a substantial amount — perhaps by nearly 50 per cent. if one can judge by comparative evidence from psychological and sociological studies of other types of groups and organizations. There can be no doubt but that the elimination of this source of dissatisfaction, in whole or in considerable part, would be worth at least several divisions to the American military establishment.

The problem is not capable of easy solution, however, as by statutory enactment or a new Emancipation Proclamation. Military experts can advance too many cogent arguments for the retention of existing distinctions in rank. The whole system of authority and discipline cannot be undermined to remove a mere source of irritation, however disruptive this may be. Even the Russians, as we know, were compelled to reinstitute the caste line with all its concomitants, including the salute.

It is not necessary here to go into the arguments in support of the traditional system of military rank. We accept them as essentially valid, just as we accept as a fact the unfortunate consequences of the prevailing distinctions. Our concern is rather to determine whether the social sciences and history can suggest any possibility of reconciliation, any method by which the military organizational structure could be modified so as to preserve the essentials of the existing system and yet ameliorate its morale-wrecking consequences.

One possible and promising solution is indicated by the descriptive and analytic literature of anthropology and sociology. Fundamentally, this would consist, not in abolishing the caste distinction, but in extending or multiplying it -- in other words, in instituting four or five major classes of military personnel instead of merely two. This would be, it is maintained, much more in accord with the social structure of modern American society as a whole and with that of its major constituent institutions, like business, industry, government, education, and the church, and would thus be more familiar and hence more congenial and tolerable, to men taken into the armed services from civilian life.

It is a firm generalisation from cultural anthropology and comparative sociology that in any society a similar and characteristic type of organisation tends to pervade all social institutions, and that when a change in this type appears in some institutions, e.g., the economic or political, it tends to be extended in time to all other institutions. Some institutions change more slowly than others, exemplifying what is technically known as "cultural lag," and these laggard institutions give evidence of disequilibrium and a measure of disorganisation until they are ultimately brought into structural harmony with the rest.

In our own society the military institution with its caste system presents perhaps the outstanding example of such a cultural lag and social disequilibrium. It developed during the feudal period in medieval Europe, assuming a form consistent with other social institutions. There were at that time, for example, only two major social classes - a land-holding aristocracy and a mass of impoverished serfs. The distinction between them was exceedingly sharp; all property, learning, and culture were concentrated in the former class, who avoided intermarriage and social intercourse with the landless, illiterate, and uncultured peasantry. Under such conditions a military cleavage between officers, drawn from the aristocracy and hence "gentlemen," and enlisted men impressed from the boorish masses

was natural and inevitable. A similar situation still prevails in Russia, where a new bureaucratic aristocracy has replaced the old one of birth, where the masses are as enslaved as they were under serfdom, and where no true middle class has ever emerged. That Russia has reverted to a two-caste military system is thus understandable, and constitutes no argument for its adaptiveness in the United States.

Since the Middle Ages, in consequence of the Industrial Revolution, social evolution has produced a much more complex structure of social classes. The researches of sociologists and anthropologists over the past two decades have demonstrated that the contemporary United States is characterized by five major social classes: (1) a small "upper class" of old and prominent families; (2) a large "upper middle class" of business and professional people and independent farmers; (3) a large "lower middle class" of white-collar workers and small business men; (4) a large "upper lower class" of industrial and agricultural workers; and (5) a smaller "lower lower class" which includes floating laborers, recipients of relief, and criminal elements. These are not separate castes, like the aristocracy and peasants of the Middle Ages, for intermarriage is possible, mobility from class to class is common, and the lines of demarcation between adjacent classes are blurred rather than sharp.

108

This increased complexity in class structure is paralleled in most of the individual institutions of modern society. In government, an elaborate bureaucracy has grown up between the rulers and the ruled. In the church, important lay posts and organisations have come into being between the clergy and their passive congregations. In industry, a substantial managerial class has intervened between owners and employees. Only our military institutions still cling to the simple dichotomous structure of medieval society. The widespread dissatisfaction with the caste barrier is a manifestation of the resulting social disequilibrium.

It should be emphasized that the fault lies in the dual division into officers and enlisted men, not in the hierarchical system of military rank as such. The gradations in rank in the Army, Navy, and Air Force actually parallel quite closely those in the governmental structure (civil service ratings of P1, P2, P3, etc.), in business and industry (straw bosses, foremen, branch and divisional managers, etc.), in education (instructors, assistant professors, associate professors, etc.), and in other social institutions. They are thus in fundamental harmony with the general type of organizational structure prevailing in the society at large. It is only their survivalistic classification into two sharply segregated castes that is at variance with the dominant

patterns of American social life. It is this which arouses such acute discomfort in civilians inducted into the armed services.

Habituated throughout their lives to social systems with several major levels of prestige and with only moderate differences in status and privileges between adjacent levels, men find themselves suddenly plunged into a system with but two major levels characterized by sharp differences in status and privileges. For those who find themselves classed as enlisted men, necessarily the overwhelming majority, the experience is likely to be galling and humiliating. Since most of them come from intermediate social class positions in civilian life, and from other than menial occupations, their assignment to the bottom military caste is sensed as a demotion in status, and this is aggravated by the special privileges of officers, which reveal a sharper contrast to their own position than they have ever encountered in an immediately superior status level in their peacetime experience. The resulting frustration is severe — peculiarly so in a society which places such a high value on social status and mobility as does that of the contemporary United States, and which has so much "room at the top" and in middle brackets.

The reverse situation, though very much less common, also has unfortunate consequences. The occasional officer who comes from a relatively low civilian status finds himself in possession of privileges and power far beyond anything he has ever known or expected, and these are only too likely "to go to his head" and to lead him "to take it out on" subordinates who would outrank him in civil life.

The military caste system, in short, arbitrarily crams into two sharply contrasted status levels a population which has been habituated to a broad spectrum of prestige gradations with only modest contrasts between adjacent levels. Personal pride and self-respect take a severe beating. It is little wonder that the average American detests military service from the bottom of his heart, avoids it except under extraordinary patriotic stress, and escapes from it with enthusiasm at the first opportunity. It could scarcely be otherwise when the status structure of the military institution does such extraordinary violence to the very motives and values that have made Americans the great nation they are. If the United States is to become defensively strong, the military system must somehow be adapted to the American way of life and made reasonably congenial to the average citizen.

Analysis of the social structure of the United States suggests certain specifications for a military status system which would be in essential harmony with civilian habits and experiences. First, the existing hierarchy of ranks and ratings would be retained in approximately its present form, not only because it resembles the hierarchies in other American institutions but also because changes should be made only where absolutely imperative. Second, the anachronistic dichotomy between enlisted and commissioned personnel would be completely abolished, and in its place would be substituted a fourfold or fivefold classification of major status comparable to those in other walks of American life. Third, privileges and associated symbols would be distributed in a graduated series running from the lowest to the highest level in approximately equal steps, with the distinctions between any two adjacent levels appreciably less than those now prevailing between

officers and enlisted men. Fourth, the lowest level would be numerically smaller than the one immediately above it, as in the American social class system. Fifth, mobility up the scale would be encouraged and facilitated as a reward for skill, experience, and merit → particularly between the lowest level and the next → and demotion in level would be utilized as a penalty for delinquency or serious deficiency.

This analysis does not come exclusively from theory. On the contrary, it has been specifically suggested by the writer's first-hand experience in both the Army and the Navy, and particularly by observation made in an organization with joint Army and Navy personnel in an operation in the Pacific theatre in World War II. It is the writer's distinct impression that morale among enlisted personnel is in general appreciably better in the Navy than in the Army. He is inclined to attribute this, at least in part, to the fact that the Navy is the only service to take a major step toward abandoning the traditional two-caste system by partially differentiating a third intermediate category, that of chief petty officers. Navy "chiefs" have their own clubs and other special privileges. They receive special deference from officers and other enlisted men alike. They even wear distinctive uniforms as a symbol of their unique status. They thus serve to cushion the caste contrast and render it more tolerable.

The implications of the special role of Navy "chiefs" became clear in the above-mentioned joint organization, which wavered in its policy between classing chiefs with Army sergeants with only the

privileges of top-ranking enlisted men and classing sergeants with Navy chiefs and according them the special privileges of the latter. The former policy so enraged the chiefs, and the latter so gratified the sergeants, that the socially salutary function of the peculiar status of Navy chief petty officers was brought forcefully home to the entire command.

A suggested reclassification of the American military structure into five equidistant status levels is presented below. Minute details are given for the purpose of clear exposition, but it should be recognized that they are themselves of slight importance provided the principles which they represent are somehow taken fully into consideration.

LEVEL I: A lower-lower class, who might be called PRIVATES. All would have the same rank or rating and the same pay, but they would consist of three groups:

1. Apprentices or plebes, consisting of newly inducted or enlisted men during their first six months of service, including officer candidates. The "plebe" tradition of the Academies, with its disciplinary and morale-building value, might well be taken over into the regular service.
2. Holdover privates, consisting of inducted or enlisted men who after six months of apprenticeship have not acquired skills or displayed other merits warranting advancement to Level II, as well as of qualified men awaiting Level II openings in their particular outfits.

3. Demoted privates, consisting of men from higher levels demoted for incompetence or delinquency.

This level would possess a status similar to but rather lower than that of ordinary enlisted men at present. In particular, pay (after allotments to dependents) would be lower and privileges fewer. The prestige and rewards should be kept low intentionally for two reasons: (1) to engender motivation to strive for advancement, and (2) to provide a sufficient contrast to Level II to make a rating on the latter level a genuine source of status satisfaction. There would be appreciably fewer men on Level I than on Level II, but they would have to be sufficiently numerous to make a Level II rating genuinely meaningful.

LEVEL II: An upper-lower class, who might be called PETTY OFFICERS.

They would consist of two groups:

1. Army, Air Force, and Marine non-commissioned officers and holders of comparable ratings in the Navy.
2. Others of the present category of enlisted men who do not hold such ratings but have acquired useful skills or accumulated meritorious records. This group might be called "chiefs" on the analogy of the American Indian usage of this term to denote qualified warriors rather than persons exercising command.

Every effort would be exerted to make this a genuinely satisfying status, not merely in material privileges but also in symbolic accompaniments. Pay should be higher than for Level I -- perhaps twice as high, though not necessarily greater than at present.

Special privileges should be emphasized, perhaps modeled on those now accorded to Navy chief petty officers. There might, for example, be special clubs and special messes, at least on large posts, to which privates would be admitted only on invitation and accompanied by a member. It would be advisable to stress that men on Level II are officers of sorts, as indicated by the name "petty officer," and to utilize them for all minor commands, e.g., of details. When not on actual combat duty, they should be allowed to wear uniforms rather similar in style to those of higher classes of officers, to display collar ornaments as insignia of rank (e.g., 1, 2, or 3 chevrons where lieutenants wear bars), and to wear, if they wish, tailored uniforms and smart accessories such as Sam Brown belts. They might even be given a special allowance of \$100 or more when promoted to Level II to help defray the cost of pride-gratifying "fine feathers." The present status gap between non-commissioned and junior commissioned officers should be substantially reduced. Social intercourse between the two should be specifically permitted, and petty officers should be freely admitted to junior officers' clubs and messes on invitation. Officers of higher ranks should be expected to address petty officers as "Mister," restricting the use of bare surnames like "Smith" or "Jones" to privates alone. Every effort should be made to make petty officers respect themselves, and be regarded by others, as "real soldiers." They would, for example, be exempted as far as practicable from menial duties such as kitchen police, which would fall mainly to "plebes" and other privates. It might also be advisable to give partial expression

to the GI and civilian opinion that actual combat personnel deserve special recognition. This could be accomplished by setting no limit to the proportion of Level II men in combat units, which might even attain 100 per cent. in some cases, but by limiting their proportion in non-combat outfits to perhaps 50 per cent. in home or rear areas and to 75 per cent. in forward or overseas areas. Such a distinction would effectively scotch the common gripe of combat personnel that non-combat personnel are favored in respect to promotions, and it might increase the relative attractiveness of the more dangerous types of service.

LEVEL III. A lower-middle class, who might be called JUNIOR OFFICERS.

They would include the Army, Air Force, and Marine ranks of second lieutenant, first lieutenant, and captain and the Navy ranks of ensign, lieutenant (j.g.) and lieutenant. Their status and privileges would remain much the same as at present, but their relative position would be changed by slightly widening the gap between them and senior officers and by substantially narrowing that between them and petty officers through enhancement of the status of the latter.

LEVEL IV: A upper-middle class, who might be called SENIOR OFFICERS.

They would include majors and lieutenant commanders, lieutenant colonels and commanders, and colonels and Navy captains. The break between junior and senior officers would be emphasized a bit more than at present, e.g., by special clubs and messes on large posts.

LEVEL V: An upper class, who might be called FLAG OFFICERS.

They would include generals of all grades and their Navy equivalents. The existing status distinction between such officers and those of Level IV seems entirely satisfactory.

The crucial points in a military status structure revised along the lines suggested above may be repeated for the sake of emphasis. Level II should be the norm for all really worthy and experienced enlisted personnel. Its associated status, privileges, and symbols should be elevated substantially over the present situation, and its "social distance" from Level III greatly reduced, to accord with the realities of American society, in which intermediate status positions greatly predominate over those on the bottom level and inter-status differences are approximately equal along the entire scale. Level I would be purposely depressed below the present standards for American enlisted personnel and brought closer toward those in foreign military systems. While such a lowering might seem undesirable to a sentimentalist, it would be crucially necessary in order to make the normal Level II status genuinely rewarding to Americans.

It is particularly important that the symbol system be changed, and not merely the reality situation alone, for symbols are peculiarly effective in matters pertaining to social status. The impression should be deliberately fostered that Level II is in fact, though perhaps not in law, the lowest grade of officers. A military establishment consisting predominantly of officers though doubtless a humorous matter in countries like Mexico with low standards of living,

is by no means out of line with the economic and social system of the United States. Probably privates should even be required to salute the petty officers who exercise command over them, e.g., in taking order, or reporting. On the other hand, saluting outside of the line of duty, e.g., on the street, has probably already been carried too far, and might well be limited to personnel two or more levels apart.

The suggestions presented herewith, though they seem warranted by modern psychological, anthropological, and sociological science, should certainly not be precipitately accepted. If favorably received, they should be thoroughly discussed with a wide variety of military experts and civilian social scientists and should probably be first tried out in a pilot experiment with some special branch of the armed services, e.g., commandos or Seabees.

REGULAR AND RESERVE OFFICERS

Comments by a social scientist who served in two wars as a reserve officer -- in the Army in World War I and in the Navy in World War II.

Some friction between regular and reserve officers is inevitable. The former, as a professional group of highly trained specialists, regard the latter as amateurs, and quite naturally find difficulty in according them a full measure of confidence. In turn the reservists, who are drawn for the most part from successful business and professional positions in civilian life, are aware of their own superior competence for certain special assignments. Moreover, as practical men used to "getting a job done," they grow impatient at "red tape," "official channels," and other routines which impress them as better suited to a peacetime military establishment than to a wartime emergency. To the reservists, furthermore, the regulars often appear deficient in initiative, over-concerned not to risk future advancement by making decisions where these are not imperative. To the latter, of course, initiative can be interpreted as irresponsibility.

Though it leads to some mutual recrimination and a great deal of informal grouching, the friction between the two categories of officers seems, on the whole, scarcely serious enough to arouse genuine concern. Experience indicates that the two groups get along with one another about as well as could reasonably be expected. Each has its characteristic weaknesses, to be sure, but each also contributes special strengths and these tend to complement one another. It might be possible to take

conscious steps toward inculcating mutual respect -- especially in the regulars, who appear to manifest rather less of it. But the situation as a whole certainly gives no cause for alarm.

One special aspect of the relation between regular and reserve officers, however, stands in urgent need of remedial action. This concerns the utilization of former regular officers who have been "passed over" for promotion and retired to civilian life, and then brought back into the service during a war emergency. They create a problem of really serious proportions, and one that demands a fundamental change in policy.

The writer has encountered scores of such officers in wartime, in both the Army and the Navy, and he has heard innumerable stories about others. Yet he knows of not a single instance, either at first or at second hand, where such a man proved to be a distinguished officer. In a handful of cases such men did a competent but undistinguished job. In the overwhelming majority of instances, however, they showed themselves to be distinctly inferior in both capacity and character, and were a genuine headache to all who had to serve with them.

In their general level of competence these resuscitated officers rank far below the average of both the regulars and the reservists. A social scientist cannot refrain from expressing respect for the systems of promotion in the armed services which seem capable of separating the sheep from the goats so nearly unerringly. Though the average caliber of entrants into West Point and Annapolis may be slightly below that of students at the leading civilian universities, this differential is

clearly corrected by the selective systems governing promotions.

Not only do these produce a corps of professional officers who are, man for man, the equals of successful men in business, industry, and the other professions. They also yield a crop of rejects who are as inferior as any group of civilian failures.

By virtue of previous service, these rejects usually enjoy seniority and command over reserve officers who are their manifest superiors in capacity, as well as over younger and more competent regular officers. The subordination of competent to incapable officers results in inefficiency, frustration, and lowered morale. This is aggravated by the fact that the rejects, embittered by their failure to achieve promotion yet jealous of their status as Academy graduates, tend to displace their disappointment and hostility by "taking it out" on the reserve officers under their command. The writer has seen this happen in so many instances, to the detriment of the service, that he strongly suspects it to be the rule rather than the exception. Nearly every case of serious friction between reserve and regular officers known to him has involved an Academy man who had failed of promotion, been retired, and later been returned to wartime duty. Reservists readily accept superior officers who are junior to them in years, provided they are competent, but they find it intolerable to serve under officers of proved incapacity whose only claim to respect is that they have spent four years at one of the Academies.

It is therefore strongly recommended that, in the event of another war emergency, no officer below the permanent rank of Colonel in the Army or Captain in the Navy, who has been passed over for promotion and retired, be placed in any position of command over either reserve officers or younger regular officers. Officers of this type should be used, if at all, only in unimportant staff or liaison positions or in innocuous posts where they do not exercise command and can do no serious harm. A decision along these lines would remove the one really serious source of friction between reserve and regular officers.

PROPOSAL FOR USE OF USES GENERAL APTITUDE TEST BATTERY
AND OF INTERVIEWING AND COUNSELING FACILITIES OF
U.S. EMPLOYMENT SERVICE IN PROCESSING PERSONNEL FOR THE
MILITARY DEPARTMENTS AND FOR INDUSTRY

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U. S. Department of Labor

Prepared for
THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE

Department of Defense
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**PROPOSAL FOR USE OF USES GENERAL APTITUDE
TEST BATTERY AND OF INTERVIEWING AND COUNSELING FACILITIES OF
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**- Charles Odell -
Beatrice J. Dvorak**

SUMMARY*

Manpower is conceded by most authorities to be our scarcest resource in this period of defense mobilization. Proper development and use of manpower is therefore a cardinal point in mobilization planning. The counseling and testing program of the U.S. Employment Service, in cooperation with the schools and colleges, has a significant part to play in any well-conceived manpower mobilization program. This statement is therefore presented to point up specifically the ways in which USES testing and counseling services may be used in cooperation with those of other agencies in the best interest of the Nation.

To the best of our existing knowledge, personnel and guidance services, including psychological tests, have been accepted and may be used to some extent, but without a common over-all approach, at the following points in our educational, civilian manpower and military personnel systems:

- 1) In secondary schools for purposes of vocational and educational guidance; for allocation of youth and adults

*Significant portions of this statement have been taken from an over-all proposal prepared by a Special Committee on Manpower Utilization set up by the Council of Guidance and Personnel Associations, the organization of guidance and personnel workers in the United States. It may therefore be said to have the "endorsement in principle" of this Committee and of the Presidents of the Association belonging to the Council. We have taken the liberty of using large sections of the CGPA statement, because we, too, endorse the general principles involved, and because a copy of the statement was sent to Secretary of Labor Maurice J. Tobin with a request for action on his part to do what he could to see that the principles were adopted as government manpower policy.

to various types of defense training courses; and, possibly (if student deferment based on tests is accepted in principle), for purposes of student deferment.

- 2) In the colleges and universities for purposes of educational and vocational guidance, and, possibly (if student deferment based on tests is accepted in principle), for purposes of student deferment,
- 3) In the public employment service to assist individual applicants in choosing a vocation and in placement on defense training or specific jobs.
- 4) In the special recruitment drives of the various branches of the armed services to determine mental fitness for voluntary enlistment.
- 5) In the Department of Defense Joint Induction Centers to determine mental fitness for the draft and to assist in the allocation of men to the various services of the armed forces in accordance with their respective needs for men of certain levels of mental capacity.
- 6) In the individual services of the armed forces to assist in the allocation of men to various types of specialized training and duty.
- 7) In industry for purposes of allocation to specific jobs.

In the interests of efficient development and utilization of our human resources, these services should be coordinated, and a common approach developed which minimizes duplication of effort and confusion to the individual and which insures the proper use of the limited supply of available guidance and personnel workers. To achieve these objectives

in accordance with sound principles of guidance and personnel administration, the following basic elements should be included in an over-all manpower development, allocation and utilization program:

- 1) The USKS General Aptitude Test Battery which has a wide range of aptitudinal coverage should be administered to all men of military age prior to induction into the armed forces in order to help the individual determine vocational and educational objectives consistent with his abilities and the Nation's manpower requirements. The use of the GATB would not preclude the use of other instruments to measure other characteristics of the individual such as interest, specialized abilities, proficiency, achievement or personality.
- 2) The GATB should be administered and interpreted at the earliest possible moment in the educational life of the individual. This would facilitate educational and vocational planning at a level in the growth and development of the individual where it would be possible to get the maximum possible benefit out of secondary and higher educational opportunities. (Such a level might be in the third year of high school.)
- 3) Counseling services should accompany the administration of the GATB in order to interpret such testing and all other pertinent information to the individual in such a way that he can make suitable vocational decisions.
- 4) A basic record containing the profile of individual test scores and all other data pertinent to vocational choice

and preparation such as evidence of interest, school achievement and work experience, along with a statement of vocational objectives and plans should be prepared for each individual at the time of counseling. Subsequent progress made toward the vocational objective in the armed forces should be incorporated in the record for possible use in civil readjustment.

- 5) The basic record should be transmitted to each subsequent point at which personnel and guidance services will be provided--(from the employment office to selective service, the military services, schools, colleges, etc.).
- 6) Provision should be made for qualified personnel at each of these subsequent points trained in the use of the information on the basic record and particularly in interpretive counseling techniques and methods.

This proposal has the following specific advantages over presently discernible planning or policy in connection with manpower development, allocation and utilization:

- 1) Duplication of effort at each of the points of personnel screening would be minimized.
- 2) Valuable information developed about the individual at each phase in his educational and vocational development would be made available to personnel workers at each successive stage, thus insuring continuity of process and more efficient personnel utilization.

- 3) Confusion to the individual resulting from uncoordinated and diffuse methods, procedures and techniques would be substantially reduced.
- 4) The cost of operation of these phases of an over-all manpower program could be materially reduced.
- 5) Valuable time could be saved, particularly in the personnel testing, interviewing, classification and distribution activities of the armed forces.
- 6) The chances for purposeful vocational choice and preparation early in the educational life of each individual, and consistent with the Nation's needs, would be enhanced.
- 7) Substantial sums of money now being spent on test construction could be concentrated instead on the unmet needs for validity data on a wide variety of occupations and courses of training, both civilian and military.
- 8) Testing would become an integral part of the over-all manpower program.
- 9) The limited supply of guidance and personnel workers could be allocated to serve where they could do the most good rather than being dispersed at many points where their services would be duplicative and competitive through no fault of their own.

**PROPOSAL FOR USE OF USES GENERAL APTITUDE
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APPENDIX

The USES General Aptitude Test Battery consists of 15 tests measuring 10 aptitude factors. Air Force research has found that "the battery is well-designed factorially." RESEARCH NOTE Pers: 50-4, Project 21-03-016, EF-4, 21 June 1950. Air Force research has also shown that "the USES General Aptitude Battery factorially is very similar to the Airman Classification Battery." RESEARCH NOTE Pers: 51-4, Project: 21-03-015, 6 February 1951.

The Fifteen tests comprising the USES Battery are as follows:

Part A - Tool Matching. Consists of a series of exercises containing a stimulus drawing and four black-and-white drawings of simple shop tools. The examinee indicates which of the four black-and-white drawings is the same as the stimulus drawing. Variations exist only in the distribution of black and white in each drawing.

Part B - Name Comparison. Consists of two columns of names. The examinee inspects each pair of names, one in each column, and indicates whether the names are the same or different.

Part C- H Markings. Consists of a series of large capital H's.

The examinee draws a short vertical line through the bar of each H without touching the sides, working rapidly to draw as many lines as possible during the time allowed.

Part D- Computation. Consists of a number of arithmetic exercises requiring the addition, subtraction, multiplication, or division of whole numbers.

Part F- Two-Dimensional Space. Consists of a series of exercises containing a stimulus figure and five geometrical figures (two-dimensional line drawings). The examinee indicates which one of five geometrical figures is made by rearrangement of the parts of the stimulus figure.

Part G- Speed. Consists of a series of large rectangles. The examinee taps with pencil to make three dots in each of the rectangles, working as rapidly as possible during the time allowed.

Part H- Three Dimensional Space. Consists of a series of exercises containing a stimulus figure and four drawings of three-dimensional objects. The stimulus figure is pictured as a flat piece of metal which is to be either bent, or rolled, or both. Lines indicate where stimulus figure is to be bent. The examinee

indicates which of the four drawings corresponds to the stimulus figure.

Part I - Arithmetic Reason. Consists of a number of arithmetic problems expressed verbally.

Part J - Vocabulary. Consists of sets of four words. The examinee examines each set and indicates which two of the words are related by having either the same meaning or opposite meanings.

Part K - Mark Making. Consists of a series of squares in which examinee is to make three pencil marks, working as rapidly as possible. The marks to be made are short lines, two vertical and the third a horizontal line beneath them.

Part L - Form Matching. Consists of two groups of variously shaped line drawings. The examinee indicates which figure in the second group is exactly the same size and shape as each figure in the first or stimulus group.

Part M - Place. The equipment used for this test and for Part N consists of a rectangular wooden board (Pegboard) divided into two sections, each section containing 48 holes. The upper section contains 48 cylindrical wooden pegs. The examinee removes the wooden pegs

from the holes in the upper part of the board and inserts them in the corresponding holes in the lower part of the board, moving two pegs simultaneously, one in each hand. This performance is repeated two more times, with the examinee working rapidly to move as many of the pegs as possible during the time allowed for each performance.

Part N - Turn. The equipment described under Part M is used for this test. In this case the lower section contains the 48 cylindrical pegs. The examinee removes a wooden peg from a hole using one hand, turns the peg over with the same hand so that the opposite end is up, and returns the peg to the hole from which it was taken. The examinee works rapidly to turn and replace as many of the 48 cylindrical pegs as possible during the time allowed. This performance is repeated two more times.

Part O - Assemble. The equipment used for this test consists of a small rectangular board (Finger Dexterity Board) containing 50 holes, and a supply of small metal rivets and washers. The examinee takes a small metal rivet from a hole in the upper part of the board and at the same time removes a small metal washer from a vertical rod with the other hand; examinee puts the washer on the rivet, and inserts the assembled piece into the

corresponding hole in the lower part of the board using only one hand. The examinee works rapidly to move and replace as many rivets and washers as possible during the time allowed.

Part P - Disassemble. The equipment used for this test is the same as that described for Part O. Examinee removes the small metal rivet of the assembly from a hole in the lower part of the board; slides the washer to the bottom of the board; puts the washer on the rod with one hand and the rivet into the corresponding hole in the upper part of the board with the other hand. The examinee works rapidly to move and replace as many rivets and washers as possible during the time allowed.

Currently there is one hand-scored form or edition of the General Aptitude Test Battery. However, the United States Employment Service is working on a project for the development of a machine-scored form which when completed will provide two or more alternate forms of this test battery. This project is well underway and barring unforeseen difficulties should be completed within the next year.

Approximately 2½ hours are required to administer the General Aptitude Test Battery. However, since the test may be administered on a group basis, this amount of time is not required to administer the test to each person. The actual unit time required for administration will, of course, depend upon the number of persons comprising the group during any one administration of the test. An additional twenty minutes per person is required for scoring the General Aptitude Test Battery. At such time as machine-scored forms are developed and test scoring machines are

available, this scoring time will, of course, be cut to a negligible period per individual tested.

When scored the General Aptitude Test Battery yields measures of ten aptitudes as follows:

- G - Intelligence - General learning ability. The ability to "catch on" or understand instructions and underlying principles; the ability to reason and make judgments. Closely related to doing well in school.
- V - Verbal Aptitude - The ability to understand meaning of words and ideas associated with them, and to use them effectively. The ability to comprehend language, to understand relationships between words and to understand meanings of whole sentences and paragraphs. The ability to present information or ideas closely.
- N - Numerical Aptitude - Ability to perform arithmetic operations quickly and accurately.
- S - Spatial Aptitude - Ability to comprehend forms in space and understand relationships of plane and solid objects. May be used in such tasks as blueprint reading and in solving geometry problems. Frequently described as the ability to "visualize" objects of two or three dimensions, or to think visually of geometric forms.
- P - Form Perception - Ability to perceive pertinent detail in objects or in pictorial or graphic material. Ability to make visual comparisons and discriminations and see slight

differences in shapes and shadings of figures and widths and lengths of lines.

- Q - Clerical Perception - Ability to perceive pertinent detail in verbal or tabular material. Ability to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetic computation.
- A - Aiming or Eye-Hand Coordination - Ability to coordinate eyes and hands or fingers accurately so as to make precise movements with speed. Ability to control rapid movements of the hand in accordance with what the eyes see.
- T - Motor Speed - Ability to make hand movements, such as tapping, rapidly. Ability to make a movement response swiftly and quickly. Probably related to reaction time.
- F - Finger Dexterity - Ability to move the fingers, and manipulate small objects with the fingers, rapidly or accurately.
- M - Manual Dexterity - Ability to move the hands easily and skillfully. Ability to work with the hands in placing and turning motions.

The scoring system used for the USES General Aptitude Test Battery is comparable to that used by the Military and would therefore be readily understandable by military personnel. The aptitude scores are expressed as standard scores with a mean of 100 and a sigma of 20.

The USES Battery includes 4 tests which require the use of 2 pieces of apparatus. This is a feature not found in test batteries used by the

Military Services. These sets of apparatus are used to provide measures of Finger Dexterity (F) and Manual Dexterity (M) and they have predictive value for a number of occupations. The apparatus tests are made of unusually durable materials and experience indicates very little maintenance difficulty, since there are no wearable parts such as threads on bolts.

In practice, the Individual Aptitude Profile, consisting of 10 aptitude scores, is compared with 20 Occupational Aptitude Patterns to determine the fields of work that are most suitable for the person's abilities. These Occupational Aptitude Patterns consist of minimum scores for the most significant aptitudes required for the group of occupations covered by that pattern. The attached samples of Technical Reports will show the method used in establishing minimum scores for an occupation. Such validity studies form the basis for the establishment of an Occupational Aptitude Pattern for a group of occupations requiring similar amounts and kinds of aptitudes. The attached Guide to the Use of the GATB, Part I shows such standards covering about 1500 occupations. In some instances occupations have been included in this listing even when no standardization data were available, because USES job families research over a period of years indicated that the occupational performance requirements were very similar to other occupations on which the USES had conducted test standardization studies. Additional research is necessary, not only to verify those judgments, but to extend the range of occupations covered by norms. The USES has a continuing program of research directed toward this objective that is carried on through

cooperative research with State Employment Security Agencies and universities. In addition to that objective, research projects are under way to determine the effect of training on the aptitudes measured by the General Aptitude Test Battery and to determine the earliest age at which aptitude scores become relatively stable for individuals. The latter type of studies are being conducted in cooperation with High Schools in various parts of the country. Additional research needs to be done to determine military and civilian job equivalents on the basis of tested abilities. In other words, which military and civilian jobs fall into the same job families on the basis of occupational aptitude patterns? Such information would be useful, not only in the transition from civilian to military life, but also in later transition from military to civilian life.

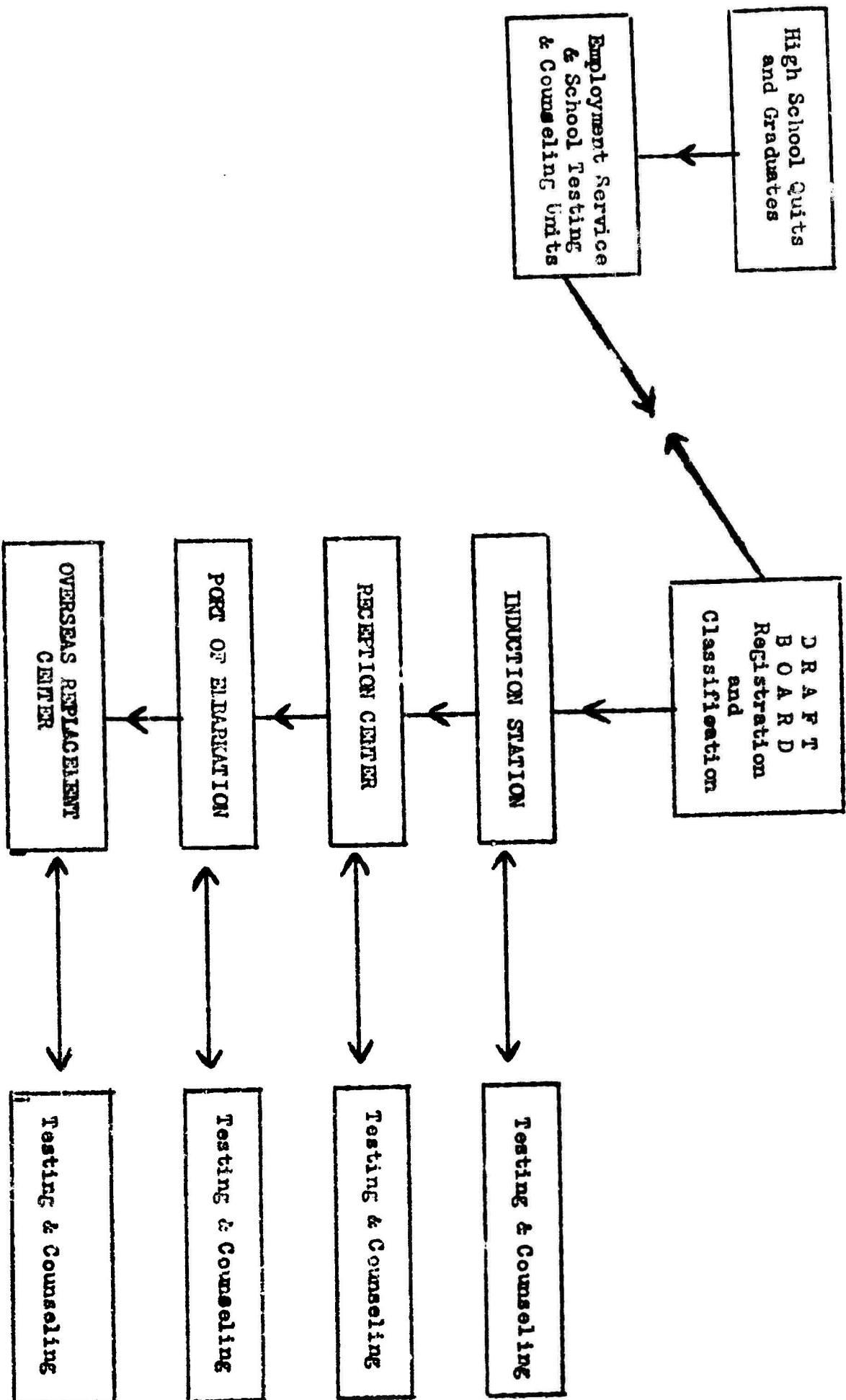
It is proposed that the USES General Aptitude Test Battery be used as the common core test battery and that the interviewing and counseling facilities of the United States Employment Service be used in connection with processing personnel for the military departments prior to induction for military service and also for industry. For the Department of Defense, this would have the advantage of an early and continuous assay of the manpower to be drawn from. For the civilian manpower agency, it would have the advantage of establishing a system and methods for channeling new entrants into the labor force through local employment offices. It would provide information with respect to the national distribution of intelligence and special aptitudes and thus provide an inventory of the occupational potentialities available for both military and civilian pursuits. This is significant information for mobilization planning and operation.

The early testing, collection of work histories, and interpretive counseling to determine sound vocational plans for all persons of draft age prior to induction and the establishment of a basic personnel record incorporating this information which would be transmitted with the man would provide information that could be used later in the following ways:

- a. Screening for the Military Service at or near the level of 70 on the general classification test.
- b. Allocation of individuals among the three military departments.
- c. Military assignment to occupational specialties. The research that would be needed to accomplish this adequately has already been mentioned.
- d. Military assignment to advanced service schools. The USES General Aptitude Test Battery does have discriminatory value at the upper levels of abilities, as shown in the attached reprint of the article on "A Comparative Evaluation of the Professional Aptitude Test and the General Aptitude Test Battery" by Ray B. Ralph and Calvin W. Taylor of the University of Utah.
- e. Industrial allocation.
- f. Assignment to civilian colleges, technical schools and trade schools for advanced training.

It is proposed to set up the testing program so that prior to induction the entire population of draft age would be tested with the General Aptitude Test Battery and counseled in accordance with test results, interests, full or part-time work experience, training, education and with due consideration being given to the demands of the civilian and military defense program. This plan, of course, assumes that arrangements would be made to test and counsel not only high school seniors but other school leavers, including those who have left school and return to the school to obtain work certificates, and others who register with Selective Service but who have not been tested with the General Aptitude Test Battery and counseled prior to registration. In those few instances where it would be necessary to test individuals whose records have become lost or who entered military service before the use of the GATB had been initiated, it would be necessary to have trained persons available in the military service to administer the GATB. It is most likely that a need for the service of such individuals would be found in ports of embarkation and overseas replacement centers. The following flow chart shows the processing channels for these various groups.

Flow Chart Showing Processing Channels for Various Groups to be Tested and Counseled



Certain quality controls would be essential to the effective operation of this program in order to insure that personnel involved are well trained and competent. Various training materials have been prepared by the United States Employment Service for use in training text examiners and counselors in State Employment Service offices. In addition, materials have been prepared by the United States Employment Service for evaluating the testing and counseling services of State Employment Service offices and their use by employment office managers and supervisors provides a check on the competence of personnel. In addition, it would be desirable to establish a procedure for joint military-civilian control of testing and interviewing, providing for periodic check and review.

In order to implement this plan it would be necessary for the State Employment Security Agencies to establish extensive cooperative relationships with the secondary schools for carrying out the program. Such Employment Service-school cooperation programs are already in operation in many States and localities. School facilities and resources are effectively utilized in these instances. In these programs, high school seniors are tested and counseled well in advance of school leaving, with both school and Employment Service personnel actively participating in the actual administration, scoring and interpretation of test results. It would be comparatively simple to extend these programs to include all schools and all graduates and most drop-outs provided that adequate funds are available to staff such activity.

The use of the USES General Aptitude Test Battery could be supplemented by the use of the USES Oral Trade Questions and Typing and Stenographic proficiency tests whenever the persons involved had well defined work experience or training that could be evaluated through the use of such tests.

The success of the program depends to a great extent upon the adequate maintenance and transmittal of a basic record containing information on test results, work history and a statement as to the occupations and fields of work in which the individual would make his greatest contribution to the defense effort. This basic record would be transmitted to Selective Service for use in deciding where the individual would make his maximum contribution to the defense effort; that is, in the armed forces, in some kind of non-military training situation, or in defense industry. If the individual were accepted for military service, the basic record would be transmitted to the joint induction center of the Department of Defense for use in allocation of men among the three military departments. The basic record could also be used constructively in the military assignment of persons to various types of specialized duty and training. The program as outlined does not preclude the administration by the various services of certain highly specific tests that have predictive value for various types of training courses or specialized duty.

If it were determined that persons should be deferred for purposes of non-military higher education, the basic record would be transmitted

to the appropriate institution for use in assisting the individual to choose a course of study consistent with the needs of a defense economy. If an individual were deferred for any other reason, he and his record would be referred back to the public employment service where an effort would be made to insure that he found employment consistent with his highest skills and abilities and the needs of the defense economy. In the case of the physically or mentally disabled, such information would also be helpful to those responsible for physical restoration and rehabilitation services designed to restore the individual to a point of maximum usefulness and productivity.

In the event of discharge from military service, the individual's basic record, supplemented by pertinent information concerning his military service would be made available to appropriate civilian agencies concerned with his civilian readjustment. Such practice would insure a more orderly, consistent and economical approach to vocational readjustment than was possible in the case of discharges from World War II.

The specific nature of the basic record and the method of transmittal should be determined by consultations with interested agencies, such as the Department of Defense, U.S. Employment Service, Selective Service, U.S. Office of Education and Veterans Administration, since these would be the chief users of the record at various steps in the process. The basic needs of the military services are of primary importance in this situation, and therefore no attempt has been made at this point to enumerate the items or format of such a record.

The chief difficulties that can be anticipated with regard to the proposed program deal with problems of: (1) Public acceptance of the use of tests and counseling in this way: (2) transmitting the basic record from one step to another in the process, and (3) the lack of adequate funds in the Employment Service to carry out this program on the scale that is implied. In order to gain public acceptance, a public relations program could be undertaken which would point out to the public the advantages such as those listed at the end of this report. Numerous guidance programs involving testing and vocational counseling are already in operation in the schools. Many of these were stimulated by the success of the Military Services in the use of tests during World War II. The present proposal would serve as an extension of such services. In addition, school authorities could point out to students the advantages that would accrue to them personally from this added knowledge of their own vocational abilities and the opportunities for using those abilities in choosing and finding suitable work in and out of the armed forces. An opportunity would also be afforded at that time for acquainting the student with the Military Services and the possibilities for in-service vocational training in various fields. Problems relating to the transmittal of the basic record could be solved in a number of ways, but perhaps the best solution would be to require all persons of draft age to carry the record in the same way that Social Security cards are now carried. The mechanics of recording the information in such a way that it could not be tampered with by the holder could be devised fairly

readily. It is difficult to state the exact cost of the program at this time, but it is anticipated that the Employment Service would need about \$8.00 per case to cover test supplies, administration, scoring and interpretation of tests, interpretive counseling, interviewing, and test research.

This proposal has the following specific advantages over presently discernible planning or policy in connection with manpower development, allocation and utilization:

- 1) Duplication of effort at each of the points of personnel screening would be minimized.
- 2) Valuable information developed about the individual at each phase in his educational and vocational development would be made available to personnel workers at each successive stage, thus insuring continuity of process and more efficient personnel utilization.
- 3) Confusion to the individual resulting from uncoordinated and diffuse methods, procedures and techniques would be substantially reduced.
- 4) The cost of operation of these phases of an over-all manpower program could be materially reduced.
- 5) Valuable time could be saved, particularly in the personnel testing, interviewing, classification and distribution activities of the armed forces.

- 6) The chances for purposeful vocational choice and preparation early in the educational life of each individual, and consistent with the Nation's needs, would be enhanced.
- 7) Substantial sums of money now being spent on test construction could be concentrated instead on the unmet needs for validity data on a wide variety of occupations and courses of training, both civilian and military.
- 8) Testing would become an integral part of the over-all manpower program.
- 9) The limited supply of guidance and personnel workers could be allocated to serve where they could do the most good rather than being dispersed at many points where their services would be duplicative and competitive through no fault of their own.

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ACHIEVEMENT EVALUATION IN THE ARMED FORCES

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ACHIEVEMENT EVALUATION IN THE ARMED FORCES

Howard Page

It has been variously estimated that it costs between twenty-five and one-hundred thousand dollars to train a pilot in the United States Air Force. It costs five thousand dollars, over and above travel, pay and allowances to provide training for a single officer at the Command and General Staff College at Ft. Leavenworth. Obviously, training is an expensive undertaking.

The goal of training is to provide knowledge and skill. Since training plays such a vital role in the military establishment, it seems appropriate to examine such programs with the view toward insuring the application of known principles of learning to such activities.

Systematic experimental study of human learning dates from 1885 when Ebbinghaus stated some of its fundamental problems, derived methods for studying them and set the pattern for much of subsequent research. Since that time learning theory and research have become a central topic of psychology.

Much is now known about the effects of distribution of practice, modes of presentation of material to be learned, motive and incentive conditions, retention and conditions for best retention, transfer of training and conditions of forgetting. Real advances have likewise been made in the field of

proficiency evaluation and the development of measures of performance.

It is not the task of this paper to show specific application of all the above to training within the services. This of course, should be done reviewed in the light of learning theory. Policy should be examined as well to insure that proper emphasis and guidance is furnished those involved in the day-to-day instruction of military personnel.

The following paragraphs are devoted exclusively to one aspect of training the evaluation of achievement by means of written subject matter examination. Policy has been examined in so far as time would allow and examples of existing practice described. Questions of policy have been raised, but not answered. It is hoped that the following may serve as a guide in approaching the broad area of Training and Education as outlined by the Working Group for the Study of Human Behavior Under Conditions of Military Service.

Achievement Evaluation for Curriculum Standardization

Curriculum standardization during peacetime is less of a problem for the services than during times of mobilization when similar courses of instruction must be given in widely separated geographical areas. Nevertheless, problems exist even in situations where relatively few institutions and courses are involved. Achievement tests used as one method to establish

criteria of learning in such courses serve to enforce minimum standardization of course content.

A. Army

1. Existing Policy

Policy at G-1 and G-3 level is very broad in that statements such as the following occur:

"Progress of the individual in attaining minimum standards will be determined by observation of training and by tests." (ATP 21-1, par. 10, April 6, 1949)

"All tests should be of the performance type. Written or oral tests should not be used in this particular course." (ATP 23-1, par. 21, Feb. 21, 1949)

Standardization of basic military training for recruits is accomplished in part by the administration of the Basic Military Test. G-1 establishes the policy for use of this test in ATP #21-1, 1949, in which provision is made for the administration of this test during the thirteenth week of the fourteen-week program. Promotion to the next grade is dependent upon a minimum score on this test and provisions are made for disposition of personnel failing to meet this requirement. Standardization of basic military training is also accomplished in terms of the basic military sections of the tests used in the Career Guidance Program for promotion purposes. (WD Cir. 202, 1948)

2. Existing Practice

Now for Headquarters, Army Field Forces and confining agencies have gone in requiring cross-school or cross-course examinations has not been determined. The Quartermaster General does not administer such examinations across schools, for example, as they relate to courses of the Food Services School.

In actual practice at the school levels, it is known that many achievement-type examinations are used for purposes of curriculum and instructor standardization, as well as for rating personnel undergoing instructions.

B. Navy

1. Existing Policy

Achievement tests for standardization of recruit training are used as for basic military training in the army. Policy for this, as for the use of other achievement tests, is stated in letters issued by the Chief of Naval Personnel. Many such policy statements are contained in letters published during the war and never cancelled.

2. Existing Practice

During the war, the Bureau of Naval Personnel issued achievement tests for use across schools and across courses in about twenty-five technical specialties. At the present time, this activity is non-existent

except for Class A schools in Electronics. In this instance, tests are still centrally prepared.

The Bureau of Naval Personnel does prepare and supervise annual comprehensive examinations for each of the four years of NROTC training. This is not done by Army in its ROTC training program where each unit prepares its own examinations.

C. Air Force

Time did not permit the obtaining of an information.

Achievement Evaluation and Promotion

An area in which proficiency tests, along with other evaluation procedures, might profitably be used is that of promotion for both officer and enlisted grades. Differences in existing policy between the services make a consideration of such policy and practice important in order to determine the advisability of a more standard procedure for the Department of Defense and to insure that any policy so established is in line with what is known about proficiency evaluation.

A. Army

1. Existing Policy

Current army policy as it pertains to the promotion of enlisted personnel is contained in WD Cir. 1, 1948.- Career Guidance Plan for Warrant Officers and

Enlisted Men and in WD Cir. 202, 1943, entitled Implementation for Career Guidance for Career Fields. SR 650-255 outlines the operation of planning and computing agencies.

2. Existing Practice

Briefly, the career guidance program calls for the administration of proficiency examinations prior to promotion up the ladder in a career field. These examinations are administered annually (in some cases semi-annually) to individuals who apply for them. Other requirements such as time in grade and score on enlisted efficiency reports are prerequisite to the examination. The examination covers the MOS and Basic Military requirement for the grade desirous of attainment, rather than a measure of achievement on the job currently held.

Examinations are administered locally, but distribution, scoring and ultimate promotion are handled by the appropriate Army Headquarters.

There is no prescribed policy requiring achievement examinations in the promotion of Regular Army Officers. Promotion in the Reserve program, however, is in part determined by the completion of specified extension courses whose satisfactory completion requires passing grades on objective examinations.

B. Navy

1. Existing Policy

Current Navy policy proscribes navy-wide competitive examinations for promotion to all Petty Officer

ratings. Examinations are administered semi-annually and centrally controlled by the Navy Examination Center, Norfolk, Virginia. Policy for this program is contained in a BuPers Circular Letter, dated 1949, and in the Manual for Qualifications for Advancement in Rating, NavPers 18-068.

These examinations differ considerably from those used in the Army Career Guidance program because Petty Officer ratings in the Navy cover many specialties and no efforts have been made as yet to specify specific ratings in terms of detail job evaluation and analysis.

2. Existing Practice

The Navy differs from the Army and Air Force in that it requires written examinations for promotion to all grades below Flag Rank. These examinations cover specific subject matter and are objective or essay type, dependent upon the grades of officers coming up for promotion. Current policy for such a program is specified in BuPers Letter 106-49, although originally specified in an Act of Congress 1862.

Promotion in the reserves is similar to that in the Army to the extent that prescribed extension courses must be completed and examinations passed.

The Marine Corps has a Career Guidance program prescribing examinations for promotion of enlisted rates and officers. Time has not permitted investigation of the details of this program.

C. Air Force

No effort has been made to determine policy and procedures within the Air Force as they relate to examinations for promotion. It is known that they do have a career guidance program similar in principle to that of the Army, but not yet as completely implemented. Like the Army, there is no prescribed examination program for promotion of regular Air Force officers.

Achievement Evaluation and Reclassification and/or Demotion

An area of potential utilization of achievement tests is that of reclassification and/or demotion. In areas where ability to perform a task is directly related to subject matter knowledge, the determination of proficiency in such subject matter, as well as information as to on-the-job performance, would seem feasible.

Little evidence of the appreciation of the value of achievement tests for this purpose is found at the policy level.

A. Army

1. Existing Policy

AR 600-180 - Enlisted Proficiency Reports provides that an individual making below a certain score on the efficiency rating be referred to a reclassification board. Par. 73 of WD Cir. 202, 1948 provides alternative actions that such boards may take. One such action provides for the administration of examinations to determine proficiency.

Also available are Army Trade Screening Tests (35 tests by MOS), which may be utilized for verification of assigned MOS, determination of degree of skill, determination of need for refresher training, etc. (See WD Pamphlet 12-13, PRT 431)

2. Existing Practice

No evidence was found that above policy was implemented to the extent of requiring examinations.

B. Navy

No similar examples of the use of achievement tests for reclassification have been found.

C. Air Force

Practice has not been investigated.

Achievement Evaluation and Refresher Training

The need for refresher training should be related to retention of knowledge previously learned. Proficiency examinations might be utilized as one measure to determine when and how much refresher training is essential. While it has been impossible to determine just what factors do determine assignment for refresher courses, one or two instances have been found where achievement examinations are used to some extent.

A. Army

1. Existing Policy and Practice

A map reading test is now used under policy established by G-3 as a self-study guide for persons

selected to attend the Command and General Staff College. Success at the C&GS College is considerably dependent upon ability to read maps and officers experience much difficulty because of their inability in this area. Current practice prescribed the administration of a map-reading test to those already selected for this course. The examination is scored and officers given the correct answers, as well as their own. This information provides the officer with a chance to brush up on his weak points during the time prior to attending the course.

G-2 prescribes the use of language examinations for selection, classification and assignment to the Army Language School. Examination results are used to indicate those individuals needing refresher training in a language with which they have some familiarity.

B. Navy and Air Force

No policy has been located prescribing similar uses of such tests in the Navy and Air Force. It is impossible to state, however, just the extent to which such tests are used at the lower echelons. Past experience would indicate that at the school levels in all three of the services, extensive tests are used by school personnel for the purpose of establishing level of difficulty of material to be taught, placement of students and the conduct of after-hour special study programs.

Policy Consideration Relevant to Achievement Evaluation

In the following paragraphs several questions have been raised as to the need for policy covering the use of proficiency examinations where applicable within the Armed Forces. These are by no means all the questions which might be asked, and no attempt has been made to answer them in terms of recommendations. It is hoped that the Working Group on Human Behavior Under Conditions of Military Service will find it feasible to make specific recommendations with reference to some of them.

A. Mobilization planning must call for phenomenal expansion of training facilities for individual training in technical specialties. Is planning adequate for standardization of such training within each service and between services where applicable? There is little examinations for purposes of curriculum standardization. In case of war, a conservative estimate of one year would be required to organize such test development facilities, staff them and start production. Construction of such measuring instruments and the preparation of proto-types for rapid production in time of need becomes immediately feasible and policy should call for such activity at this time.

B. All of the services have instructor training programs which include instruction in educational psychology and methodology. Is a central instructors

school for the combined services feasible, such as a teacher training institute? Could a civilian institution such as Columbia Teachers College be used for such training in peacetime? As an alternative, could a standard text be developed for all services which would include best knowledge and practices as they relate to methods of instruction, learning principles, classroom supervision and management, measurement, etc.?

C. Enlisted promotions in terms of competence determined in part by proficiency examinations is better handled than ever before. Persons involved in Career Guidance in the Army, Navy and Air Force see such programs inoperative in mobilization. What policy is needed to cover such a program in time of war? Continued budget cuts will reduce the number of top-grade enlisted personnel to a number too small to meet training cadre requirements for a wartime manpower draft.

D. Should a consistent policy exist across the services for the use of proficiency examinations in the promotion of officers? Research should perhaps be instituted to determine what the Navy has gained by the use of such programs and why the other services have not deemed it necessary to do so.

E. If budgetary limitations and/or reduced demand for present military manpower requirements make smaller services a necessity, policy is needed to accomplish this retrenchment. Should proficiency examinations be a requirement to determine demotion, reclassification or separation from the active services?

Should their use be within service or across service if and where feasible?

F. What should determine the need for refresher training on the part of individuals in the service? Current competence in a field of speciality should certainly be one factor for consideration. How is current competence ascertained? Should policy specify the use of achievement tests in such determinations?

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JOB ANALYSIS

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Bureau of Naval Personnel

Prepared for
**THE WORKING GROUP ON HUMAN BEHAVIOR
UNDER CONDITIONS OF MILITARY SERVICE**

**Department of Defense
Research and Development Board
Washington 25, D. C.**

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JOB ANALYSIS

D. George Price

1. Statement of Sub-topic: Job Analysis (E.5. on "Career-Wise Master Plan").

Problem: The problem or objective of this field is (a) to obtain occupational information concerning Navy military jobs adequate for the numerous purposes and areas of personnel administration where such data is needed to effect optimum utilization of personnel in the Navy, and (b) to process the data into usable billet definitions, job classifications, qualifications, and specifications.

Job analysis is related to, or closely affects, the following additional items in the "Career-Wise Master Plan":

- B. 2, 3, 5, 6, 7, 8, 9
- C. 4, 5, 6, 8, 9
- D. 2, 5, 6, 7, 8
- E. 1, 2, 3, 5*, 6, 7, 8, 9, 10
- F. 2, 3, 5
- G. 9
- I. 2
- K. 9

2. Brief summary or abstract of paper

(Attached as separate enclosure) (Enclosure (1)).**

3. Review of Applicable Research Data or Principles

The Manual of Instructions for Naval Occupational Analysis, NavPers 15803, contains detailed information on the Navy's job analysis procedure and on its underlying principles.

*Job analysis item itself.

** Included in original report only. - 1 -

The personnel functions of recruitment, selection, classification, training, assignment, promotion, etc., may be carried on with varying degrees of effectiveness without job analysis, but nowhere in government or in industry can maximum effective utilization of personnel be achieved without a job analysis program. Job analysis provides personnel administrators with detailed information concerning requirements of jobs, so that they know what personnel are needed for, where they are needed, and under what conditions they are required to work.

The research principles involved in the Navy's job analysis program have been developed after investigation and study of the formats and experiences of industrial programs and those of government agencies such as the War Manpower Commission, United States Employment Service, and so forth. Since military manpower needs create unique problems, the job analysis principles and methods found elsewhere were modified to meet the Navy's needs and still later modified according to the Navy's experience in job analysis, in order to establish and refine working principles and procedures.

Analysis of jobs performed by officer and enlisted personnel in the Navy provides detailed job information in a prescribed format to serve as the basis for other personnel administration publications and material. The principal basic product presenting this data is called a job specification. Each specification includes a complete description of a job; limits the scope of the job; defines its purpose; establishes the qualifications standards in terms of knowledge, skill, and experience; establishes physiological and psychological standards; provides a standard functional descriptive title and naval job code; lists sources of procurement; and provides civil readjustment information.

From such specifications, data is extracted which, in conjunction with other material provides basic data to develop further (1) coding structures for job identification, (2) a rating structure, (3) qualifications standards for advancement or promotion, and (4) additional publications and devices required in other phases of personnel administration.

The principles involved here are (1) each job must be thoroughly defined and described in order that men may be properly recruited, classified, trained, assigned, promoted, and selected for special assignments --- all of which contribute to optimum utilization of manpower; (2) jobs of the same title (not yet standardized) and same basic occupation vary considerably in different types of ships and in different activities; therefore, thorough descriptions require analysis of a wide sampling of jobs in a number of ships and stations; (3) thorough definitions and descriptions require on-location analysis, since experience of the Navy shows that the questionnaire method alone is inadequate. Other considerations (time and budget) may affect the possibility of obtaining complete on-location coverage of jobs in time for the analyses to be most usable. Reliability of data and valuable detail obtained by analysts, however, outweigh the advantage of wider coverage by questionnaire method.

Publications prepared as a result of occupational research are distributed to (1) personnel administrators in the Bureau of Naval Personnel and other bureaus and offices, at naval district headquarters, sea frontiers, receiving stations, and other activities engaged in personnel management and (2) ships and stations on which the jobs are

found. All of these instruments and devices are planned to increase the effectiveness of naval personnel administration by permitting the matching of qualifications of naval personnel or of civilian candidates for recruitment as naval personnel with the requirements of the Navy job to be done, and by affording Commanding Officers, Division Officers, and supervisors an understanding of the details of billets in their organization.

A list of job specification publications of the Billet and Qualifications Research Branch of the Research Division will be found as Appendix A.* In addition to personnel publications, new structures and devices are developed by the Bureau of Naval Personnel; for example, revision of the wartime enlisted rating structure was based on occupational information obtained by job analysis in the shore establishments and operating forces employing all types of air, surface, and undersea craft and other types of naval developments.

The analysts who gather occupational information for the above purposes use prescribed methods and formats as guides to give a measure of standardization to the manner in which data is assembled. A sample completed questionnaire is attached as Appendix B and sample schedule and physical requirements forms as Appendices C* and D.*

Limited occupational data for Navy billets has been gathered in a systematic manner since 1943. For enlisted personnel during wartime, it was particularly the shipboard duties and ratings which were analyzed. The following wartime ratings were covered to a limited degree aboard Battleships, Light Cruisers, Aircraft Carriers, Destroyers, Heavy Cruisers, Destroyer Escorts, Attack Transports, Landing Ships, Tank, Destroyer

* Included in original paper only

Tenders, Motor Torpedo Boats, Aircraft Carriers, Escorts, Aircraft Carriers, Small, Submarine Chasers (SC), Submarine Chasers (PC), and Submarines.

Boatswain's Mate	Water Tender
Quartormaster	Electrician's Mate
Torpedoman's Mate	Shipfitter
Radarmen	Carpenter's Mate
Sonarman	Seaman
Gunner's Mate	Fireman
Fire Controlman	Aviation Machinist's Mate
Radio Technician	Aviation Radioman
Radioman	Aviation Radio Technician
Yeoman	Aviation Ordnance Man
Storekeeper	Aviation Metalsmith
Machinist's Mate	Aviation Electrician's Mate
Motor Machinist's Mate	

In addition, data was gathered and job specifications were printed for officer and enlisted billets on the following types of landing ships or units:

Landing Craft Infantry, Large	H-16A and H-17 B Components (units of Acorn groups providing weather forecasts and photographic services)
Landing Ship, Medium	
Landing Ship, Tank; (with one revision)	J-2 and J-7C Components (ordnance components of an Acorn group)
Landing Craft, Support, Small	N-1A Component (a unit to set up and maintain living facilities in tents)
Landing Craft, Control	A-3 Component (administrative services unit of a standard landplane and seaplane group)
Landing Craft, Tanks	

Landing Craft Support, Large	B-5A Component (waterborne Transportation service unit)
Landing Craft Vehicle and Personnel, and Landing Craft, Mechanized	B-8 Component (ship or boat-repair units)
C-6, C-14, C-17 Components (communications components)	H-9 Component (material and equipment component of landplane and seaplane groups)
Standard Landing Craft Unit	H-10 Component (airfield operation control component of a landplane group)
Amphibious Transport Boat Groups	
Beach Party (unit of a shore party to facilitate landing of troops and material by organizing beach for traffic and by controlling and direction of operation of landing boats)	

Enlisted billet specifications were printed for Submarines, Destroyer Escorts, Attack Transports, and Destroyers.

Officer billet specifications were printed for Eleventh Naval District, Selected Activities; Personnel Separation Center; Navy Yard. Officer billet specifications were written in addition for Naval District activities such as Receiving Stations, Communication Activities, Harbor Entrance Control Posts, Inspector of Navy Material, Frontier Base, Port Director, Naval Supply Depot, and so forth.

Officer and enlisted billet specifications ashore have been published for the following occupational and organizational areas: Recruit Training Command, Radiological Defense, Patrol-Type Aircraft Squadron.

During World War II, catalogs of specifications for Radioman rating and Fire Controlmen rating, including duties in various types of ships and commands, were also issued.

From the source data thus obtained, additional research into job classification, job comparison, qualifications for advancement in rating, and job physical requirements, and various mobilization studies are in progress.

4. Appraisal and Summary of Research Data and Principles

a. Research data and principles - job analysis methods.

The procedures used in naval military job analysis produce detailed job data, but by no means complete time-and-motion studies of jobs. The job analysis method and forms used in the Navy have evolved from study of the United States Employment Service job analysis program, Civil Service Commission position descriptions and specifications, other government agencies, progressive industrial personnel departments, and from evaluation of the Navy's needs, experimentation, and experience in actual job analysis.

The type of job information gathered may be divided into two headings: (1) job analysis data and (2) qualifications analysis data. "Job analysis data" consists of:

- (a) title nomenclature;
- (b) job code;
- (c) location of job;
- (d) job summary;
- (e) job tasks;
- (f) machines, tools, etc.
- (g) working conditions;
- (h) job relationships;
- (i) procurement sources, and
- (j) civil readjustment information.

"Qualifications analysis data" enumerates minimum and preferred qualifications job incumbents must possess to successfully perform in a given billet and consists of:

- (a) rank or rate;
- (b) test score pattern;
- (c) physical demands;
- (d) personal characteristics;
- (e) educational requirements;
- (f) civilian experience, and
- (g) naval experience.

In brief, job analysis data (here including qualifications analysis data) is generally gathered during on-location surveys by analysts trained in the procedures. Analysts may be civilians from the Bureau of Naval Personnel, Navy enlisted Personnel Men in pay grades E-6 and E-7, or naval officers. Questionnaires are usually filled out by job incumbents and are studied by the analysts who later interview the incumbent, obtaining sufficient information from him, if possible, in order to write the job schedule. When necessary to observe the incumbent at his work this is done by the analyst. In any case, the analyst, by virtue of his presence on-location for a projected time, always becomes familiar with the operating conditions, equipment, and general operation of the ship or unit in which the incumbent works.

"Policies Governing Collection and Use of Naval Job Analysis", as stated on pages seven and eight of the job analysis manual of instructions are as follows:

"In order to obtain the information ("job data") considered vital to effective naval manpower utilization, it is necessary to have full cooperation of those in command of activities where studies are made, as well as of officers and men in the occupations studied. Such cooperation may not be completely established if job analysis is linked with any attempt to evaluate personnel, organizational structure, or assignments to duty. Accordingly, the following policies have been adopted by the Bureau of Naval Personnel, and all technicians engaged in job analysis are expected to adhere to them:

"(1) It is, in no degree whatsoever, the purpose of this program to gauge the total personnel needs of the naval activities visited or to evaluate the organization or the quality of the work performed. The analyst does not concern himself with how well the worker does his job, nor does he concern himself as to whether the proper man was assigned to the job, nor whether there should be such a job established. He represents the Research Division of BuPers, not the General Inspector.

"(2) All billet analyses will be cleared by the commanding officer concerned for approval by him before any papers are transmitted to the Bureau. Frequently, the commanding officer will detail this approving authority to some subordinate.

- "(3) It is important that the division officers, or officers-in-charge, be given an opportunity to review and comment upon the accuracy and completeness of job analysis schedules covering the billets under their cognizance prior to the commanding officer's review. If, for any reason, it is not possible for this review to be made by the division officer, completed schedules should nevertheless be cleared through the commanding officer or his deputy.
- "(4) The commanding officer of each ship or station should be informed that he will receive, at some future date, copies of all job specifications, rating specifications, and other publications based on the job analyses prepared at the naval activity under his command. These publications will be distributed, when printed, by the Bureau of Naval Personnel.
- "(5) Because material prepared by personnel technicians under bureau auspices might be construed to be an authoritative basis for some personnel action, analysts will not leave copies of Naval Job Schedule (NavPers 2497) or of Naval Job Physical Requirements (NavPers 2499) at the ship or station. It is reasonably certain that the command on board at the time of survey will understand

the use which such schedules would have in the organization. However, subsequent commands, not being fully aware of the limitations of these surveys might overestimate their value. By not leaving schedules, no problem will come up about their use until they have been processed into valid specifications or other personnel administration instruments and are approved by the Chief of Naval Personnel, Chief of Naval Operations, or Secretary of the Navy as a basis for action. Duplicate copies of Naval Job Analysis Questionnaire (NavPers 2496) may be left if desired by the command, since these forms will have been prepared by personnel of the activity.

- "(6) Analysis will be made of billets held by enlisted personnel in all pay grades and of officers of all ranks through Captain. Analyses of billets occupied by officers of Flag Rank will not be included in studies unless specifically ordered."

There is a need now to re-evaluate the job analysis methods in the light of current needs for the data obtained. For the following purposes the present products of job analysis research appear adequate:

Job definition	Detailing
Job classification	Selection

Job specifications

Establishment of complements
and allowances

Utilization or improvement in
organization or assignment
by the fleet command, indivi-
dual ship or station

Recruiting

Career Planning

Separation and Civil
Readjustment

Mobilization Planning

For the purposes of preparing detailed qualifications for advancement in rating and promotion and training and examination writing, the present results of job analysis appear to be inadequate. Personnel assigned the task of writing training courses, school curricula, and examination questions find that they need more detail in job definitions and statements of duties and tasks required.

The Military Occupational Classification Project (MOCP) under the Personnel Policy Board of the Department of Defense has been charged, as one of its functions, to standardize the job analysis procedures for all of the armed services or to recommend phases of job analysis where standardization is essential. Therefore, at the present time the Navy is conducting no research into the methods of job analysis, pending receipt of Military Occupational Classification Project recommendations.

b. Research data and principles - job data obtained.

The amount of job information gathered to date is indicated in section three of this report (3. Review of Applicable Research Data or Principles) and a bibliography of publications may be found attached as Appendix A. The bulk of this material is useful in extracting detailed information concerning enlisted ratings, qualifications for jobs, title nomenclature, battle stations, and so forth. Continual advancements and technical development, the postwar revision of the

enlisted rating structure, the postwar shipboard reorganization, and unification of the armed services, all tend to make necessary major revision in much of the job data collected up through 1947. The Navy's plan for complete coverage of all Navy billets contemplated a ten year program of job analysis to cover all Navy jobs, exclusive of new jobs resulting from technological developments. Personnel and budget reductions plus increased technical developments have caused the job analysis program to lag behind this schedule. Many of the surveys conducted during World War II and even since the war are in need of validation or re-analysis.

5. Service policies and practices to which these (the job analysis research data and principles) are applicable.

Section 3, Chapter 4, United States Navy Regulations, gives the responsibilities of the Bureau of Naval Personnel --- responsibilities which show the need for establishment of a research unit to study problems in connection with procurement, education, training, discipline, promotion, and distribution of officers and enlisted personnel of the Navy, including the Naval Reserve and the Naval Reserve Officers' Training Corps.

In addition, Section 1, Chapter 4, states that "The Naval Technical Assistants (in this case, the Chief of Naval Personnel) ... shall be responsible, as applicable and within the limits of their respective fields of authority for:

- "1. The research in, and the design, development, procurement, production, distribution, maintenance, and readiness of material and facilities."

The Bureau of Naval Personnel Manual, Part A, Chapter 1 -

"Organization" - defines the function of the Research Division as:

"The Research Division performs investigative research in all phases of naval personnel administration and management (encompassing Regular Navy and Naval Reserve), including such functions as recruitment, selection, classification, placement, training, advancement, wage and salary administration, occupational skills, manpower utilization, performance evaluation, welfare and morale, discipline, transfer, separation, and civil readjustment; develops standards, methods, techniques, and devices (rating structures, job codes, aptitude and achievement tests, etc.) for the performance of these functions; coordinates similar research and development conducted by other government agencies or under contract; and makes special surveys and studies required by the Chief of Naval Personnel."

Bureau of Naval Personnel Manual, Part C, Chapter 3 - "Classification of Personnel" - defines the need for and purposes of classification and further shows the relationship of utilization of job analysis in the classification procedure as follows:

"C-3101. PURPOSES OF CLASSIFICATION

"(1) Classification is designed to obtain the greatest return from the skills and abilities of the personnel of the Navy by serving as an instrument to aid effective distribution and as a selection process to aid training. In distribution it facilitates the balancing of the skills on hand against the skills required. In training

it facilitates the most productive instruction in that an individual's capacities govern the type and amount of training he receives.

"(2) There are several phases in the proper placement of personnel, and all of them are very intimately related. These phases are so inter-dependent that they cannot be separated into isolated functions.

A listing of these phases includes:

- "(a) Classification of personnel. - Collection of information regarding education, abilities, pre-Navy training, performance, and experience.
- "(b) Billet analysis and job specification. - Research and cataloging of the significant characteristics of billets. Knowledge of the job by the detailing officer is as necessary as knowledge of the person.
- "(c) Detailing. - The assignment of personnel to fill exact requirements of billets.
- "(d) Accounting. - Maintenance of an up-to-date count of personnel and maintenance of up-to-date, usable records.
- "(e) Planning. - The planning of future personnel requirements.

"(3) The purposes of classification go beyond the routine planning, placement of personnel, and even mobilization. It enables the distribution organization to select persons for special, unusual jobs. Proper classification of men and jobs can be used also to specify exactly what is expected of a person in his job, or how he should be trained in order to qualify for a desirable job."

To discharge such responsibilities effectively, the Bureau of Naval Personnel must know in detail the specific types of and qualifications requirements for officer and enlisted billets existing in the present Navy organizational structure. There must be the same kind of occupational information for potential mobilization billets and billets which are likely to develop as a result of advanced techniques in modern naval warfare. In addition, other naval bureaus must be informed of the duties existing in each naval job under their cognizance so that they may coordinate their activities with the prescribed personnel functions of the Bureau of Naval Personnel.

The Navy's need for a program of job analysis became apparent immediately when the United States entered World War II. Never before had the Navy operated on so many widely separated fronts, been faced with the problem of selecting, classifying, training, and distributing such a vast number of reserves, and had to cope with the particular weapons of warfare that developed rapidly with the progress of the war.

New personnel techniques were required to meet the emergency demands of mass mobilization. The first step was a reorganization of the Bureau

of Naval Personnel in 1942, modeled after the recommendations of the firm of industrial and management engineers, Boos, Fry, Allen, and Hamilton.

In the report was stated (1) the need for a comprehensive job analysis program in the Navy and (2) the suggestion that the work be divided among three divisions. Enlisted Personnel Division and Officer Personnel Division would undertake studies of immediate and pressing problems relative to the classification and detailing of personnel, while the Training Division would engage in a long-term scientific project designed to provide the basis for conducting revision of rating groups as the needs of the Navy might dictate, at the same time determining requirements which must be met by the men in each rating, revising qualifications to reflect changes in duties brought about by current conditions, and increasing the degree of specialization of enlisted training while reducing overlapping between training for different ratings.

In addition, it was recommended that the Procurement Division be reorganized, and that it maintain detailed information regarding the sources of the supply of manpower. Officers of the Procurement Division conducted interviews with responsible naval authorities and from the material obtained created a classification of billets and wrote procurement directives and an Officers' Qualification Manual. These were emergency tools, not scientifically expert, but invaluable for the needs of the time, and they established the groundwork for further research.

In recommending a Procurement Division responsible for providing the manpower needed by the Navy, the report shows the need for job analysis and the gathering of detailed information on jobs by the following excerpt:

"The Procurement Division should maintain detailed information regarding the sources of supply of manpower, and be able to measure the Navy's requirements against the existing supply.

"This entails detailed analysis of the many classifications of experience and ability which are required by the programs. Information concerning the numbers of men needed, by classification, and the corresponding supply available should be maintained currently."

In discussing the functions of the Procurement Division and the Distribution Division as they are interrelated, the report states:

"This work of classification of men by their abilities and qualifications is of prime importance to the work of both these Divisions. It is in fact one of the truly key jobs in the entire field of personnel administration."

Research was instituted for officer and for enlisted billets. In general, the work done by the officer section emphasized qualifications and leaned more toward the problems of classification and selection. Work done on enlisted billets emphasized job analysis and specific training for the duties of a particular job. Another difference in emphasis was that analysis of officer billets was concerned primarily with shore activities, while enlisted billet analyses were made primarily in forces afloat. For major types of landing craft, analyses were made simultaneously for officer and enlisted billets. These analyses became the basis for determining ship organization and complements in this branch

of the fleet; and this type of simultaneous study of both officer and enlisted billets became the pattern for later organizational billet surveys, thus eliminating duplication of field trips by teams from two sections of the Bureau of Naval Personnel.

In 1945, the need was recognized to revise the entire enlisted rating structure. In October of that year, a Bureau of Naval Personnel subcommittee reported a plan for such a revision and outlined the basic concepts and principles of a rating structure. About this time, the need for a permanent research organization was recognized. The Research Division was established with the function assigned to it by Bureau Organization Series Directive No. 77, dated 5 November 1945: "It shall be the function of the Research Division to conduct studies in personnel policy, techniques, procedures, assignment, evaluation, promotion or advancement, and morale of officers and enlisted men of the Navy." Under its broad mission, research on the rating structure became the first task of the new organization.

Reclassification of jobs and ratings was accomplished, using job analyses conducted throughout the Navy. Continued maintenance of the rating structure and the Navy job classifications is essential, as the continuing job analyses indicate the changing nature and relationships of jobs and the development of new jobs and duties.

At the close of World War II, as a result of demobilization and government economy, the Billet and Qualifications Research Branch was reduced from a peak strength of approximately 75 in this work to 6. A staff of this size was not sufficient to keep up to date even the analyses that had been made in the past, while the need to continue collecting

job data to build up source material for many required projects was hardly diminishing. In justifying this need, Admiral Denfield gave the following statement to the Subcommittee on Navy Appropriations for 1948, at the time when he was Chief of Naval Personnel:

"When I first came back in the spring of 1942 as Assistant Chief of Naval Personnel we had approximately 325,000 men and about 30,000 officers, and we envisioned a great increase due to the war of both officers and enlisted personnel; prior to that time the men had been moved around as so many bodies, and if an activity wanted so many men at a certain place they were given so many men at the ratings they asked for; the officers were more or less moved around in accordance with their rank. If they called for certain ranks we would give them officers of that rank.

"I felt that we needed to have some sort of an analysis not only of officers' and men's capabilities but also of the jobs that they were required to perform. So we set up this system, first for classification of personnel. We had these classification experts, who were officers, enlisted, and civilians at the various training centers and recruiting centers. They talked to the man as soon as he came in either from induction or as he was enrolled. They gave him a copy of a questionnaire and interviewed him to find out just what he was best qualified to do, and they tried to fit him and rate him for what he was best qualified to do.

"After we got that procedure going we went to the different ships, to work on the personnel for the Navy afloat, and we

wanted to find out what the jobs were on board the ships in order to put the very best people we had in the service in these jobs.

"That required that we go to these ships and analyze every job on the ship, and also at the air stations, and to a lesser extent in the shore establishments because at that time we were primarily interested in the seagoing ships.

"As an example of what we did on a new battleship that was going into commission that had a large number of new personnel ordered, we set up a job analysis for every job on that ship and we tried to fit each man into the billet on board that ship. We found when we got through that not more than between 5 and 10 per cent of these people had to be shifted. We found the ship was run much more efficiently, we had a much greater economy in the use of personnel as a result of having outstanding young men on the job and we found that we did not need as many as we had previously intended.

"I feel at this time, when there is a continual reduction in the personnel from year to year that it is most important that we have this sort of a system working, and I think it will help to economize in personnel and it will enable us to do the job better. That is the primary reason for this system. It is, of course, the military jobs that the Bureau of Naval Personnel is most interested in. We use officers who have knowledge of the jobs; we use enlisted men

who have knowledge of the job, and the civilians that we use are primarily those who are trained in this job analysis and in this classification work, who know the methods and the forms to use to carry out this sort of an analysis."

The Billet and Qualifications Research Branch of the Research Division now combines the functions of billet analysis for all naval military billets, job specification writing, Navy job classification, qualifications analysis, establishment of rating structure, job evaluation, organizational analysis, and related studies.

The postwar Enlisted Rating and Warrant Structures, April 1948, established a Personnel Man rating which allows for enlisted military personnel participation in the job analysis program. Personnel Men in pay grades E-6 and E-7 perform personnel technician duties, carrying out among other functions, that of job analysis for enlisted and/or officer billets. Instruction into the purposes and techniques of job analysis is furnished in the curricula for Personnel Man School, Class A, and Personnel Man School, Class C-1.

In November 1948, the Chief of Naval Personnel's Civilian Advisory Committee noted that substantial progress had been made in the programs of billet analysis, enlisted classification, and officer classification. Despite continued effort and production, however, the committee observed that the billet analysis program and officer classification program appeared to be falling behind in relation to the total job.

The Civilian Advisory Committee recommended that the Bureau of Naval Personnel "press forward on these programs as they are conducted in the Bureau and that greater attention be given to the development of the

practice of using the products of these research and classification activities."

Other guidance and influence in the direction of job analyses undertaken has been and continues to be received from various sources such as:

(a) General Inspector, Bureau of Naval Personnel.

(Example: General Inspector's Report of Inspection of Naval Training Command, Mare Island Naval Shipyard, Vallejo, California, dated 22 October 1947, recommended the development of satisfactory job codes for officers at Naval Retraining Commands. This recommendation resulted in a complete job analysis survey of officer and enlisted billets in a Retraining Command.)

(b) On-site Survey Board, which has utilized job specifications, while conducting surveys, to aid in complete understanding of a particular command or office; and which influences the trend of job analyses by virtue of its recommendations.

(c) General Orders, as in the case of General Order No. 9 which modified organization of the Operating Forces of the United States Navy, thereby causing internal changes in jobs and job relationships, which cause need for re-analysis or revision of catalogs of specifications.

- (d) Inter-bureau or inter-governmental agencies, such as the Inter-Bureau Technical Committee on Guided Missile Personnel, which recommends investigation into the nature of jobs performed in guided missile work, or the Joint Inter-Governmental Committee on Occupational Classification.
- (e) The portion of the Hoover Commission Report dealing with reorganization of the military departments cited the need for active and up-to-date military job analyses for use in determining optimum utilization of military manpower.
- (f) Personnel Policy Board, Department of Defense, which established a joint Military Occupational Classification Project in 1949 to provide
- (1) inter-service techniques and methods of job analysis, evaluation, and classification, and
 - (2) recommendations for manner of continuing these programs in the individual military services when the Project is decentralized after a one-year phase.
- (g) The Research and Development Board, Committees and Panels furnish program guidance in the field of human resources. The Human Resources Committee Program Guidance of February 1950 states the continuing need in the Military Occupational Classification Analysis and Classification Program for: (1) a broadscale basic research

program in the various aspects of occupational analysis, covering techniques of occupational analysis, methods of job evaluation, bases of occupational groupings and classification and code systems, and the development of physical standards suitable for expressing physical qualifications of personnel; and (2) the extension of field job analyses to all types of military jobs.

- (h) Guidance is, at times, direct from the Chief of Naval Personnel who, in carrying out his responsibility as defined in United States Navy Regulations (quoted in the second paragraph of Section 5 of this paper) directs the initiation of specific research projects or approves specific areas in which to conduct job analysis.

As formerly stated in paragraph 4.b, the long-range objective of the Job Analysis Program is to furnish job specifications for all discrete billets on every type of ship and shore activity. Maintenance of such specifications as completely up-to-date descriptions is difficult and at times has required re-analysis of billets in a particular type of activity or ship even before a first analysis of billets in another type. In some cases, responsibility for maintenance is assumed by a type command as in the case of Cruiser-Destroyer Force, Pacific Fleet in which the following responsibility is assigned to the Readiness Officer in the Operations Division: "Supervise necessary revisions of Billet Analysis Pamphlets provided by BuPers for CruDesPac Ships".

MAJOR DEFICIENCIES

Major deficiencies in the Job Analysis Program consist primarily of lack of coverage of billets in certain occupational areas: (1) Areas where the Navy has responsibilities during war time but is not now active. Since the Job Analysis Program was relatively new when the Navy demobilized, such areas as Military Government could not be analyzed before they were dissolved. Also jobs in research laboratories, where jobs are predominately civilian in peacetime, were not analyzed before they were converted to civilian status. (2) Areas where examples of the billets desired to be analyzed are few as in Battleships. (3) Officer - level Bureau and other Navy Department jobs.

Other deficiencies have been (1) inadequate staff to keep job analysis up-to-date with new technical developments; (2) inadequate staff for highly specialized personnel studies such as inter-relationship of personnel classifications with those of allied countries; and (3) lack of inter-relationship of jobs between the Armed Services, especially those needed in joint operations such as the Berlin Airlift.

Other situations which complicate the job analysis program rather than cause deficiencies are as follows: (a) Much of the direction and fiscal support of the job analysis program depends upon the "Program Guidance" of the Research and Development Board and upon the recommendations of the Military Occupational Classification Project for the direction which job analysis will take during the decentralized phase of the Project. While both of these forces offer assistance to the Navy's job analysis program, they also consume a great many man hours

for conference reporting, coordination of effort, and so forth. (b) As personnel tools and techniques are developed, there is a perpetual need to keep them up-to-date; hence the need for personnel to continue such maintenance, which detracts from the effort to go forward in analyzing new occupational areas. (c) There is the need to train personnel in uses of the materials developed, as in the case of Personnel Officers who, because of rotation in duty, very often do not have the advantage of continual cognizance of personnel technical developments.

SERVICE PRACTICES TO WHICH JOB ANALYSIS IS APPLICABLE

The practices of personnel administration to which job analysis is applicable and the way in which job analysis effects them are as follows:

(a) Recruiting and Procurement

Job analysis is the basis for the classification, rating, warrant and officer structures which form the career patterns for personnel in the Navy. These career patterns are a special inducement in the recruiting and procurement of personnel particularly at the high school job counselling level. Job analysis also furnishes the ground for comparison between military and civilian jobs so that the Navy can determine the occupational sources for military personnel who are desired, especially in critical fields.

(b) Training

Job analysis furnishes the source data on the types of work performed in the Navy for which Navy personnel must be trained. The Manual of Qualifications for Advancement in Rating, NavPers 18068, is based on the duties of a rating as partially determined by job analysis. Training courses and curricula are developed from the qualifications for advancement in rating.

(c) Transfer and Detailing

The assignment of personnel to billets for optimum utilization of manpower should be the placing of square pegs in square holes, insofar as practical, and is dependent upon accurate knowledge of the job to be filled as well as accurate knowledge of the qualifications of the individual to be placed. Job analysis furnishes the detailed information as to duties so that effective placement can be arranged.

(d) Peace Plans and War Plans

In time of peace and in time of emergency the Navy must know what jobs are necessary to be performed and know the details of each job. Peace plans and wartime mobilization depend upon job analysis to furnish the information on the Navy's job needs and requirements, and on occupational relationships between military and civilian jobs.

(e) Promotion and Advancement

Detailed job analysis data and related information obtained through job analysis procedures furnish information as to the various levels of work required in the many occupational fields or families. The advancement in rating and promotion procedures in the Navy utilize this information to establish more equitable means of promoting and advancement.

(f) Separation and Civil Readjustment

Just as in recruiting and procurement, job analysis furnishes data for separation and civil readjustment of personnel by offering comparisons between military and civilian jobs. Such comparisons offer guidance and assistance to separatees in seeking post-service employment, and to employers in understanding the nature of Navy jobs and the relative level and value of Navy training and experience.

(g) Complements and Allowances

In order to establish standardized complements (wartime numbers) and allowances (peacetime numbers) aboard ships and at Navy stations, there must be detailed information as to the jobs to be performed and the amount of work in each specific billet so as to determine the numbers of personnel required. Although complements and allowances are frequently assigned according to traditional experience and the needs stated by personnel

on the ship or station, it is the purpose of administrators to utilize job specifications obtained by on-location job analysis to more scientifically determine the complements and allowances.

(h) Pay Evaluation

Job analysis provides the basic information for job evaluation which is a determination of the various levels and relative difficulty of work and on which is based the equitable division of responsibility in the pay grades of a rating and in the grades or ranks of officer personnel. ("Equal pay for equal work" ideal.) Job analysis furnished the information for job descriptions which the Hook Committee used to evaluate the military pay structure and to recommend the revisions which resulted in the Career Compensation Act of 1949. It is the purpose of administrators to utilize job analysis data more fully, to conduct job evaluation, and to improve the distribution of Navy jobs in the various pay levels.

(i) Welfare

Job analysis affects welfare of Navy personnel mainly by making possible a career system and by improving standards and procedures as discussed under the other topics. It is an accepted fact that proper classification, training and placement in a job contribute to a great

extent to the happiness and welfare of the individual and it is in this respect that job analysis affects the welfare of the individual.

(j) Classification and Selection

Classification of jobs is dependent upon the accurate analysis of jobs and differentiation between jobs. Classification of personnel brings together the individual's qualifications and the requirements of the job. Job analysis furnishes the basic data for accurate job definition in order to accomplish the entire classification procedure. The selection process utilizes job data and classifications to assist detailing officers in choosing personnel for jobs or schools according to their qualifications.

(k) Records

The keeping of records is facilitated by the ability to use codes assigned to job definitions which have been obtained by job analysis.

(l) Performance

Job analysis affects performance of jobs by the fact that personnel properly recruited, classified, trained and assigned are invariably and naturally better qualified for the job, more interested in it, and more proficient in the performance of duties. Many of the elements of personnel administration contribute to improvement in job

performance but all of the elements have been affected by the basic job analysis process.

6. Recommended Action

a. Service Policy and Practice

Experience in the Navy's job analysis program and its related research studies has indicated need for the following service policies and practices:

(1) More liaison between research units and operating sections: - It is a natural tendency, and one which is perpetually combated, for research analysts to grow farther away from actual operating procedures and problems. In job analysis, although analysts have the opportunity to conduct on-location surveys, this danger still exists, although to a lesser extent than would be true in basic research types of studies. Operating sections consequently are sometimes inclined to distrust the findings of research groups, although again the case of job analysis is exceptional in that the operating forces have cooperated fully in the job analysis process and there is usually a 100% understanding of the reasons for conducting the study and of the uses to which it will be put. It is still believed, especially in connection with research studies which grow out of job analysis, that a means of conducting liaison between the Research Division and operating units for indoctrination into utilization

of research products should be established. This would result in (a) better research products, (b) efficient utilization of personnel techniques and tools developed by research, (c) follow-up and maintenance of job analysis in the fleet and field, (d) indoctrination of personnel technicians and officers to promote greater understanding and acceptance of facts found by scientific means, and (e) better understanding between the Bureau of Naval Personnel and Technical Bureaus which do not in all cases accept the role of Bureau of Naval Personnel in conducting research in technical occupational areas and training.

b. Additional Research

In line with the major deficiencies discussed previously, the following needs are recognized by the Navy. These needs have been shown recognition by being reported as projects to the Manpower Panel, Research and Development Board, for which funds are requested; or by inclusion in plans for the organization of the Billet and Qualifications Research Branch (as in the plans to establish a Job Evaluation Section and an Organizational Section). Continuance of the job analysis program indicates a need for both basic and developmental research.

(1) Research in job analysis methods or evaluation of the Military Occupational Classification Project recommendations: - Present analysis, formats, questionnaires were developed from those used for civilian jobs, with modifications. Since Military life is a 24-hour-a-day life, there are probably factors to be considered

which have not been thoroughly and scientifically determined. Also in the light of standardizing methods between the Armed Services, the Navy feels it is necessary to conduct such research in methods in order to most effectively cooperate in the standardization and in order to evaluate the Military Occupational Classification Project recommendations.

(2) Development of tests and other predictive factors for aptitude and success in jobs. Establishment of "cutting scores" for each career field, occupational group, or other job entity.

(3) Job evaluation and optimum pay grade in rating.

(4) Projects proposed in budget requests, but inactive due to lack of personnel or funds:

(a) Detailed Specifications for Navy Ratings.

(b) Occupational Standards and Suitability of Women.

(c) Utilization of Illiterates.

(d) Detailing from Sea Duty to Shore Billets With No Specialized Training.

(e) Mobilization Requirements for Specialists.

(f) Development of Civil Readjustment Program for Retiring Personnel.

(g) Feasibility of Assigning Rates to Skilled Men.

- (h) Validation and Application of Military Occupational Classification Project Recommendations to the Naval Establishment. (See No. (1)).
- (i) Validation of Occupational Qualifications Classification Program for Reserve Officers.
- (j) Format of Manuals of Qualifications for Advancement and Promotion (to determine most effective manner of presenting qualifications and means for determining qualifications).
- (k) Military Organizational Structure Analysis.
- (l) Improved Standards for Admittance to Organized Reserves.
- (m) Re-evaluation of Age-Rank Standards
- (n) Research to Determine Selection Standards for Occupational Analysts.

7. Contributors

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