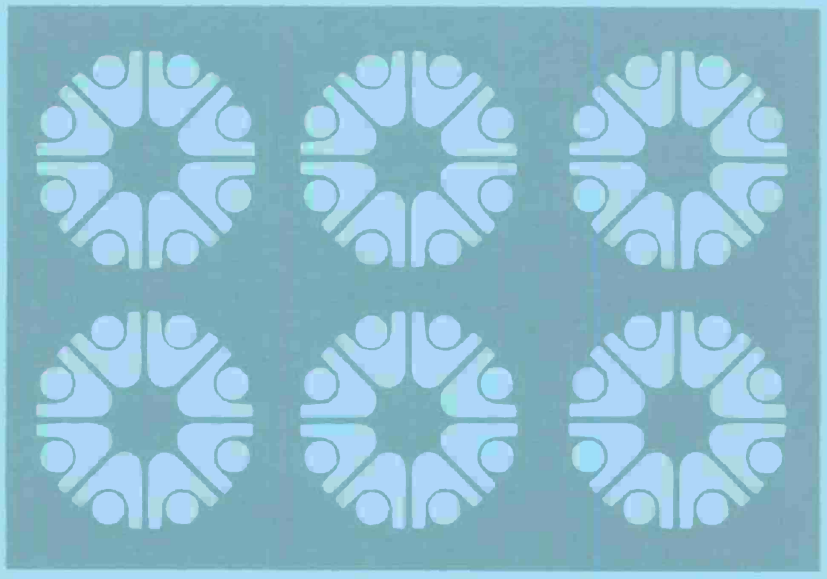
Battelle
Human Affairs Research Centers
4000 N.E. 41st Street / Seattle, Washington 98105

Memorial Institute
TR-2.

Research Report



BATTELLE MEMORIAL INSTITUTE
HUMAN AFFAIRS RESEARCH CENTERS
SEATTLE, WASHINGTON 98105

Technical Report #2
October 1974

Comparisons of Navy and Civilian Leadership Among Navy Recruits

George C. Thornton, III
Stanley M. Nealey

Report of Work Accomplished Under Contract
N00014-73-C-0259

at

Battelle
Human Affairs Research Centers

Sponsored by

Organizational Effectiveness Research Programs
Psychological Sciences Division
Office of Naval Research

Stanley M. Nealey
Principal Investigator

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER: TR #2	2. GOVT ACCESSION NO.
3. RECIPIENT'S CATALOG NUMBER	
4. TITLE (and Subtitle): Comparison of Navy and Civilian Leadership Among Navy Recruits	5. TYPE OF REPORT & PERIOD COVERED: Technical Report
6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s): George C. Thornton, III Stanley M. Nealey	8. CONTRACT OR GRANT NUMBER(s): N00014-73-C-0259
9. PERFORMING ORGANIZATION NAME AND ADDRESS: Battelle Memorial Institute Human Affairs Research Centers 4000 NE 41st Street, Seattle, WA 98105	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS: NR 170-738
11. CONTROLLING OFFICE NAME AND ADDRESS: Organization Effectiveness Research Programs Office of Naval Research (Code 452) Arlington, VA 22217	12. REPORT DATE: October 1974 13. NUMBER OF PAGES: 24
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15. SECURITY CLASS. (of this report): Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

leader power
organizational climate
basic training
recruiting
retention
Navy leadership
civilian leadership
rank and authority
job expectations

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

With the draft ended, the military has to recruit and retain personnel in direct competition with employment in the civilian sector. This report presents the perceptions of 303 new Navy recruits, 365 Navy basic trainees, and 599 Navy enlisted men with two years of service regarding leadership climate and leadership power practices in the Navy compared to those typical of civilian employment. Civilian leadership practices were generally

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102-014-6601

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

perceived more positively than those typical of the Navy. By comparison with Navy leadership, civilian leadership was described as involving more equalitarian decision making, less formal superior-subordinate relations, less punitive handling of mistakes by subordinates, less close supervision and more considerate supervision. In addition, Navy leaders were felt to rely less than their civilian counterparts on the use of expert, reward and referent power and more on power based on rank and coercion.

New recruits expected leadership climate on regular Navy duty to be more positive than that in boot camp; the perceptions of experienced enlisted men confirmed this belief. However, perceptions of civilian leadership also became more positive as experience with the Navy increased. Whether these differences are attributable to experience with the Navy or to developmental and maturing processes, the implications are clear: if the Navy wishes to recruit and retain personnel in competition with civilian jobs, it should strive to improve leadership climate and leadership power practices.

INTRODUCTION

With elimination of the draft, the military must rely on volunteers to meet its manpower needs. Operating with an all-volunteer force places the military in more direct competition with organizations in the civilian sector for services of young persons in our society. Individuals are now freer to make a choice of career and a wider range of considerations may determine that choice. Previous research would suggest that the leadership style and organizational climate of an organization affects personnel recruiting and retention. The purpose of this study was to compare the perceptions of groups of Navy enlisted men at three points in their military careers regarding military and civilian leadership.

Several studies have demonstrated that individuals hold different attitudes toward various types of organizations and these attitudes affect organizational attraction. Graham (1970) developed an adjective check-list which provided a measure equally appropriate for descriptions of organizations and individuals. Validation efforts showed that reliable differences in attitudes toward various organizations could be measured. Sheard (1968) found differences in the preferences of college students for the following six types of organizations: federal government, military service, large corporations, small businesses, state government, and educa-

tional institutions. In an attempt to extend Super's (1953) theory of vocational choice to the problem of organizational choice, Tom (1971) found a congruence of self-description and description of the preferred organization. Tom found support for the theory that the choice of an organization is based on subjective and highly personal and emotional factors.

Individuals' perceptions of organizational climate, including leadership climate, have been found to affect a number of important organizational consequences. Excellent summaries of portions of that literature are available (Fiedler, 1967; Forehand & Gilmer, 1964; Litwin & Stringer, 1968; Porter & Steers, 1973; Pritchard & Karasick, 1973; Taguiri, 1968). In summary, it has been found that attitudes toward leadership and organizational climate variables are related to absenteeism, turnover, grievance rates, attitudes toward the organization, and commitment to organizational goals.

In the current study, it was hypothesized that Navy and civilian leadership would be perceived to differ at time of induction, during basic training, and following eighteen months of Navy experience. Specifically, it was predicted that Navy leadership would be perceived less favorably than leadership on civilian jobs. It was also hypothesized that there would be differences in perceptions of Navy leadership among enlisted men with various amounts of military experience. No hypothesis was made regarding differences in perception of civilian leadership as a function of amount of military experience.

METHOD

Sample. A total of 1,267 men from the United States Navy participated in this project. Three groups were defined in terms of respondents' position in the Navy and were composed as follows: 303 inductees at the Armed Forces Entrance and Examining Station (new recruits) at Los Angeles (N=165) and Denver (N=138), 365 trainees at the Navy Training Center (basic trainees) in San Diego, and 599 enlisted men with eighteen months experience on various duty stations throughout the world (experienced enlisted men).

Demographic characteristics, such as mean age, high school class ranking, and size of home town were found to be similar for all three groups of men with the exception of age comparisons as presented in Table 1. Age was not obtained from the experienced enlisted men but it can be assumed they were approximately eighteen months older than the trainees. The experienced enlisted men came from slightly smaller home towns.

The questionnaires were administered to the new recruits and basic trainees in groups and returned anonymously. The sample with eighteen months of duty experience was identified from the master enlisted file of Navy personnel and surveyed by mail sent directly to each individual at his duty station. The respondents completed the questionnaires anonymously and mailed them directly back to the researchers. Of the 1,700 questionnaires mailed out, 78 were returned unopened and 22

were returned after analyses began. From past experience in conducting mail surveys of Navy personnel under similar conditions it was estimated that approximately 1/4 to 1/3 of the questionnaires did not reach the intended subjects. Thus, the estimated effective response rate was approximately 50-60 percent. The new recruits and basic trainees samples were surveyed in the summer of 1972; the experienced enlisted men received their questionnaires in the spring of 1973.

The questionnaires given to the three groups were similar in form and content. They were designed to assess attitudes toward five organizational climate dimensions and five modes of expression of interpersonal influence or leadership power.

The five organizational climate dimensions were (1) hierarchical vs. equalitarian decision making, (2) formal vs. informal superior-subordinate relations, (3) supportive vs. punitive handling of mistakes by subordinates, (4) close vs. general supervision, and (5) considerate vs. inconsiderate supervision. These five organizational climate dimensions were described by five pairs of contrasting situations. On each dimension the respondent used a five-point scale to describe (1) attitude toward Navy basic training, (2) expectation (or description) of Navy duty eighteen months after boot camp, (3) attitude toward civilian jobs, (4) the situation in which he would try hardest to do a good job, and (5) the situation in which he would be most satisfied. For this

report only questions one, two, and three will be analyzed. Discussions of other phases of the project can be found in other reports (Maynard, Thornton & Nealey, 1974; Nix, Thornton & Nealey, 1974; Thornton, Hamilton & Nealey, 1973; Thornton & Nealey, 1974a and 1974b).

The five leadership power dimensions used in this study were defined by French & Raven (1959) as follows: (1) legitimate power based on rank and position, (2) expert power based on knowledge, (3) reward power based on positive rewards, (4) referent power based on personal respect, and (5) coercive power based on negative sanctions and punishment. Attitudes toward the use of the five power modes by superiors were obtained by presenting situations that illustrated each mode. The respondents indicated (1) how frequently each form of power is used during basic training (or current duty), (2) how frequently they think each form of power should be used during basic training, (3) how frequently each form of power is used in most civilian jobs, (4) how hard they would try to do a good job under each mode of power, and (5) how satisfied they feel with each mode of power. Only the results from questions one and three relating to basic training and civilian jobs are analyzed in this report.

RESULTS

To test the first hypothesis, the perceptions of Navy and civilian leadership were compared for the three samples

of enlisted men (see Table 2). In the case of the new recruits, their expectations of leadership in basic training were compared with their perceptions of civilian jobs. The sample of basic trainees compared their currently experienced perception of leadership in basic training with their perceptions of civilian jobs. For the eighteen-month sample, perceptions of current Navy duty assignments were compared to perceptions of civilian jobs. It is clear from these results that at all three stages the respondents had less favorable impressions of Navy leadership than of leadership on civilian jobs. At time of induction, the sample expected leadership during basic training to be undemocratic, formal, punitive, inconsiderate and to involve close supervision, in comparison with supervision on civilian jobs. In addition, the new recruits expected Navy leaders to use legitimate and coercive modes of influence more frequently than their civilian counterparts.[1] By contrast they expected leaders during basic

---

[1]Data from a companion report in this series (Thornton & Nealey, 1974b) indicate that of the French & Raven power modes, enlisted men tend to be satisfied with expert and referent modes of power; reward power tends to be neutral with respect to the satisfaction-dissatisfaction dimension; legitimate and coercive power are judged to be dissatisfying. Interpretations of the data involving the French & Raven power modes will contain language which implies that expert and referent power are "good" and legitimate and coercive power are "bad." It should be understood that these interpretations are based on evaluation data from the samples of enlisted men rather than value judgments of the authors.

training to use comparatively more expert power than civilian leaders. A highly similar pattern of comparative results were found for the sample of basic trainees (Table 2, middle columns). The comparable comparisons for the sample of experienced enlisted men (see Table 2, right hand columns) show several differences. While Navy leadership is still seen as more hierarchical, formal and inconsiderate, it is no longer seen as more punitive and close than civilian leadership. However, leadership on regular Navy duty suffers by comparison with civilian jobs when the frequency of use of power is examined. The experienced enlisted men reported that legitimate and coercive power were used more frequently in the Navy, and expert, reward, and referent power more frequently in civilian jobs. Consider the change in perceptions for expert power. At time of induction, the recruits expected that military leaders would use expert knowledge more than their civilian counterparts; however, after 1 1/2 years of military experience, enlisted men reported that civilian supervisors used expert knowledge to influence subordinates more than did their Navy supervisors. This shift is of particular interest because perceptions of <u>both</u> Navy leadership and civilian leadership varied across the three samples. Navy leadership was judged as using progressively less expert power (reading from left to right in Table 2). At the same time civilian leadership was judged as using more expert power by the enlisted men as a function of the length of time since they had experienced

civilian jobs. In fact, the new recruits had a mean expert power score of 3.22 for civilian jobs. This is the same score given by the experienced enlisted men to Navy duty.

While the comparison of perceptions of basic training with civilian leadership by new recruits is of interest, some might argue that the views held by new recruits of later Navy leadership would be more revealing of future adjustment to the Navy environment. The relevant data are displayed in Table 3. It can be seen that civilian jobs are still perceived in a more favorable light on three of the five climate dimensions. In other words, even at time of induction, the recruits expected to experience less desirable leadership on Navy duty than in civilian jobs. The differences are less striking than those in Table 2, however, indicating that inductees do compartmentalize somewhat their beliefs about basic training and recognize that it is not fully representative of Navy duty. A similar effect occurred with the sample of basic trainees, i.e., they recognized that leadership climate was more positive on Navy duty than during basic training, but civilian leadership was still seen as more positive than leadership on Navy duty.

Table 4 contains data relevant to the second hypothesis, that perceptions of Navy leadership change as a function of military experience. The samples of new recruits and basic trainees were asked to describe what they expected the Navy leadership climate to be like on Navy duty eighteen months

after basic training. These expectations can be compared with the experienced enlisted men's description of leadership climate on their current Navy duty. Comparable questions for the French and Raven leadership power modes were not asked; therefore, the lower right hand part of Table 4 is left blank. Perceptions of civilian leadership are also displayed. These latter data are the same as in Table 2, but have been subjected to significance tests to discover if amount of Navy experience is related to perceptions of civilian leadership.

As a result of organizational experience in the Navy, change in perceptions of both Navy and civilian leadership take place. Remember that the perceptions of civilian leadership shown in the left half of Table 4 involve looking back at civilian jobs after different amounts of experience in the Navy, while the perceptions of what Navy duty is like involve future expectations on the part of new recruits and basic trainees.

Turning first to the perceptions of civilian leadership climate, it can be seen that as experience in the Navy increases there is a general tendency to see civilian leadership in a more and more favorable light. Mean scores tend to increase from left to right, indicating that civilian jobs are remembered as more democratic, more informal, more permissive, more general, and more considerate as Navy experience increases. The comparable climate data regarding perceptions of leadership on regular Navy duty (right half of Table 4) are a bit more

complex. As occurred with perceptions of civilian jobs, Navy duty was perceived as being more informal, more permissive, and more general as experience increased. At the same time, however, Navy duty was seen as less democratic and less considerate by the more experienced enlisted men. The combination of increasingly positive memories of civilian jobs with increasingly negative perceptions of Navy duty in these two climate dimensions signals potential problems that deserve further attention. In any case, perceptions held by new recruits and basic trainees of what Navy duty would be like were, in the main, inaccurate. (See Nix, Thornton & Nealey, 1974, for further elaboration of this point.)

Examination of the leadership power data in the lower half of Table 4 shows that as experience in the Navy increases perceptions of civilian jobs become increasingly positive. Legitimate and coercive power are seen as less frequently used in civilian jobs and expert and referent power are seen as more frequently used. This effect parallels the perceptions of leadership climate on civilian jobs.

DISCUSSION

The results of this study provide clear evidence that there were significant differences in perceptions of Navy and civilian leadership among the Navy enlisted men in these samples. These differences span the time from induction,

before any exposure to Navy leadership, to a time following approximately two years of Navy experience. In general, the Navy enlisted men believed that civilian jobs are characterized by a more favorable leadership climate and by the less frequent use of negative attempts at interpersonal influence than did new recruits and basic trainees.

This study was done prior to the end of the draft, but the perceptions of the recent inductees probably represent perceptions of many persons currently considering enlistment in the Navy. Based on previous research of organizational choice, we can predict that negative expectations of leadership will adversely affect enlistment. Since this survey was conducted when the draft was in effect, a number of "volunteers" may have been under some pressure to enlist in the Navy rather than be drafted. In another report in this series (Thornton, Hamilton & Nealey, 1973), the authors classified recent recruits as "draft-induced" and "true" volunteers on the basis of their Selective Service lottery number and response to a question whether the draft influenced their enlistment in the Navy. It was found that both groups held negative attitudes toward the current Navy leadership with the most strongly negative attitudes among the "draft-induced" volunteers. The results from the Thornton, et al (1973), report would suggest that the findings displayed here apply to current recruits even though the draft has now ended. To meet continuing manpower needs, the Navy may have to change

leadership practices and ultimately the image of Navy leadership among potential recruits.

The results of the current study suggest that perceptions of both military and civilian leadership may change as a result of military experience. There is an indication that the perceptions of some aspects of Navy leadership improve over time, but these shifts are not enough to overcome the adverse comparison with leadership on civilian jobs since shifts in perceptions of civilian jobs improve over time. Part of the shifts may be due to developmental and maturing processes and part may be due to experience with Navy leadership. While the cross-sectional design of this study does not allow firm conclusions regarding developmental processes, it provides evidence for differences in perceptions of groups with different experience. The fact remains that enlisted men considering reenlistment hold negative attitudes toward the military. These conclusions are supported by analyses of additional attitude items reported by Maynard, et al (1974). The data of this report reveal another disquieting fact with action implications. Among experienced enlisted men with two years of Navy duty behind them, civilian leadership is seen as having many more positive attributes than Navy leadership. The effect of such a comparison on reenlistment is not difficult to imagine.

Table 1

Demographic Variables for Three Samples of Navy Recruits

Variables	New recruits $\bar{X}$	New recruits S.D.	Basic trainees $\bar{X}$	Basic trainees S.D.	Experienced enlisted men $\bar{X}$	Experienced enlisted men S.D.
Age (months)[1]	228	14.8	230	16.3		
Population of Home Town[2]	3.46	1.72	3.32	1.57	3.02	1.70
High School Class Standing[3]	2.85	.80	2.86	.74	2.98	.79
N in sample	303		365		599	

[1]Age not obtained from experienced enlisted men

[2]1 = Less than 5,000
2 = 5,000 - 10,000
3 = 10,000 - 30,000
4 = 30,000 - 100,000
5 = 100,000 - 1,000,000
6 = Over 1,000,000

[3]1 = Bottom 25 percent
2 = Below average but not in bottom 25 percent
3 = Above average but not in top 25 percent
4 = Top 25 percent

Table 2

Comparison of Organizational Climate and Modes of Leadership Power in Civilian Jobs and Military Situations at Three Points in Military Career

Leadership Variables	New Recruits (N = 303)		t	Basic Trainees (N = 365)		t	Experienced Enlisted Men (N = 599)		t
	Civilian Jobs	Basic Training		Civilian Jobs	Basic Training		Civilian Jobs	Navy Duty	
Climate Dimensions									
Decision-Making: Hierarchical (1) vs. Democratic (5)	2.82[1] (1.33)	1.96 (1.23)	8.26***	3.12 (1.37)	2.00 (1.20)	10.70***	3.03 (1.07)	2.65 (1.13)	5.98***
Authority Structure: Formal (1) vs. Informal (5)	3.12 (1.21)	1.42 (.96)	19.16***	3.56 (1.23)	1.35 (.84)	28.35***	3.50 (1.01)	2.75 (1.09)	12.35***
Performance Evaluation Punitive (1) vs. Permissive (5)	3.30 (1.16)	2.72 (1.61)	5.09***	3.56 (1.49)	2.14 (1.53)	12.70***	3.33 (.96)	3.37 (1.13)	-.66
Supervision: Close (1) vs. General (5)	3.15 (1.16)	1.84 (1.21)	13.60***	3.17 (1.23)	2.37 (1.42)	8.14***	3.40 (.98)	3.45 (1.18)	
Leadership Inconsiderate (1) vs. Considerate (5)	3.28 (1.14)	2.79 (1.53)	4.47***	3.46 (1.17)	2.45 (1.49)	10.19***	3.56 (.87)	3.08 (1.30)	7.51***
Leadership Power Modes									
Legitimate[2]	2.86 (1.29)	4.16 (1.01)	-14.43***	2.71 (1.27)	2.93 (1.50)	-2.14*	2.44 (1.12)	2.81 (1.46)	-4.91**
Expert	3.22 (1.22)	3.86 (1.16)	-6.62***	3.42 (1.30)	3.32 (1.40)	1.00	3.70 (1.06)	3.22 (1.27)	7.10***
Reward	3.07 (1.21)	2.73 (1.40)	3.20**	3.20 (1.32)	3.40 (1.44)	-1.95	2.98 (1.19)	2.30 (1.35)	9.25***
Referent	3.01 (1.14)	2.82 (1.32)	1.90	3.16) (1.29)	2.78 (1.53)	3.63**	3.31 (1.00)	2.70 (1.45)	8.48***
Coercive	2.52 (1.24)	3.84 (1.30)	-12.79***	2.35 (3.31)	3.72 (1.45)	-13.39***	2.00 (1.11)	2.90 (1.55)	-11.55***

[1]Mean value; standard deviation in parentheses

[2]For all powers: 1 = seldom, 5 = frequent use

*p < .05
**p < .01
***p < .001

Table 3

Comparison of New Recruits' Perceptions of Leadership Climate on Navy Duty and on Civilian Jobs

Climate Dimensions	Civilian Jobs	Navy Duty	t
Decision-Making: Hierarchical (1) vs. Democratic (5)	2.82[1] (1.33)	2.75 (1.11)	.70
Authority Structure: Formal (1) vs. Democratic (5)	3.12 (1.21)	2.15 (1.16)	10.07***
Performance Evaluation: Punitive (1) vs. Permissive (5)	3.30 (1.16)	3.06 (1.20)	2.50*
Supervision: Close (1) vs. General (5)	3.15 (1.16)	2.70 (1.16)	4.78***
Leadership: Inconsiderate (1) vs. Considerate (5)	3.28 (1.14)	3.28 (1.18)	0

*p < .05 (t > 1.96)
**p < .01 (t > 2.59)
***p < .001(t > 3.34)

[1]Mean value; standard deviation in parentheses

Table 4

Differences in Perception of Organizational Climate and Modes of Leadership Power in Civilian Jobs and Military Duty as a Function of Military Experience

Leadership Variables	Perceptions of Leadership on Civilian Jobs				Perceptions of Leadership on Navy Duty			
	New Recruits (N=303) (1)	Basic Trainees (N=365) (2)	Experienced Enlisted Men (N=599) (3)	F Comparison	New Recruits (N=303) (1)	Basic Trainees (N=365) (2)	Experienced Enlisted Men (N=599) (3)	F Comparison
Climate Dimensions								
Decision-Making: Hierarchical (1) vs. Democratic (5)	2.82[1] (1.33)	3.12 (1.37)	3.03 (1.07)	4.95*** 1<2	2.75 (1.11)	2.90 (1.27)	2.65 (1.13)	5.32*** 2>3
Authority Structure: Formal (1) vs. Informal (5)	3.12 (1.21)	3.56 (1.23)	3.50 (1.01)	15.20*** 1<2=3	2.15 (1.16)	2.45 (1.23)	2.75 (1.09)	27.89*** 1<2<3
Performance Evaluation: Punitive (1) vs. Permissive (5)	3.30 (1.16)	3.56 (1.19)	3.33 (.96)	6.51*** 1<2=3	3.06 (1.20)	2.93 (1.29)	3.37 (1.13)	17.23*** 1=2<3
Supervision: Close (1) vs. General (5)	3.15 (1.16)	3.17 (1.23)	3.40 (.98)	7.48** 1=2<3	2.70 (1.16)	3.07 (1.27)	3.45 (1.18)	39.42*** 1<2<3
Leadership: Inconsiderate (1) vs. Considerate (5)	3.28 (1.14)	3.46 (1.17)	3.56 (.87)	7.41** 1<3	3.28 (1.18)	3.28 (1.16)	3.08 (1.30)	4.27** 1=2>3
Leadership Power Modes								
Legitimate[2]	2.86 (1.29)	2.71 (1.27)	2.44 (1.13)	13.55*** 1=2>3				
Expert	3.22 (1.22)	3.42 (1.30)	3.70 (1.06)	17.53*** 1=2<3				
Reward	3.07 (1.21)	3.20 (1.32)	2.98 (1.19)	3.58* 2>3				
Referent	3.01 (1.14)	3.16 (1.29)	3.31 (1.00)	6.95** 1<3				
Coercive	2.52 (1.24)	2.35 (1.31)	2.00 (1.11)	20.86*** 1=2>3				

[1]Mean value; standard deviation in parentheses

[2]For all powers: 1 = seldom, 5 = frequent use

*p < .05
**p < .01
***p < .001

REFERENCES

Fiedler, F. E. A theory of leadership effectiveness. New York: McGraw-Hill, 1967.

Forehand, G. A., & Gilmer, B. H. Environmental variation in studies of organizational behavior. Psychological Bulletin, 1964, 62, 361-382.

French, J. R. P., Jr., & Raven, B. The bases of social power. In D. Cartwright (Ed.), Studies in Social Power. Ann Arbor: University of Michigan, Institute for Social Research, 1959.

Graham, W. R. A method for measuring the images of organizations. Paper presented at the meetings of the Western Psychological Association, 1970.

Litwin, G. H., & Stringer, R. Motivation and organizational climate. Boston: Harvard University Press, 1968.

Maynard, W. S., Jr., Thornton, G. C., III, & Nealey, S. M. Navy Basic Training as Seen by New Recruits, Basic Trainees, and Experienced Enlisted Men (TR 4). Seattle, Washington: Battelle, Human Affairs Research Centers, October 1974.

Nix, S., Thornton, G. C., III, & Nealey, S. M. Navy Leadership: Are Recruit Expectations Accurate? (TR 3). Seattle, Washington: Battelle, Human Affairs Research Centers, October 1974.

Porter, L. W., & Steers, R. M. The organizational, work, and personal factors in employee turnover and absenteeism. Psychological Bulletin, 1973, 80, 151-176.

Pritchard, R. D., & Karasick, B. W. The effect of organizational climate on managerial job performance and job satisfaction. Organizational Behavior and Human Performance, 1973, 9, 126-146.

Sheard, J. L. Preferences among types of work organizations and the importance and attainability of work goals. Unpublished doctoral dissertation, Colorado State University, 1968.

Super, D. E. A theory of vocational development. American Psychologist, 1953, 8, 185-190.

Taguiri, R. The concept of organizational climate. In R. Taguiri, and Litwin, G. H. (Eds.), Organizational climate: Exploration of a concept. Boston: Harvard University Press, 1968, 9-32.

Thornton, G. C., III, Hamilton, J., & Nealey, S. M. Differences in Attitudes Toward Leadership Between "Draft-Induced" and "True" Volunteers (TR 1). Seattle, Washington: Battelle, Human Affairs Research Centers, December 1973.

Thornton, G. C., III, & Nealey, S. M. Effective Leadership: Perceptions of Newcomers and Old Timers in the Navy (TR 5). Seattle, Washington: Battelle, Human Affairs Research Centers, October 1974a.

Thornton, G. C., III, & Nealey, S. M. Leadership Preferences as a Function of Amount of Experience in the Navy (TR 6). Seattle, Washington: Battelle, Human Affairs Research Centers, October 1974.

Tom, V. R. The role of personality and organizational images in the recruiting process. Organizational Behavior and Human Performance, 1971, 6, 573-592.

OFFICE OF NAVAL RESEARCH
PERSONNEL AND TRAINING RESEARCH PROGRAMS (Code 452)
DISTRIBUTION LIST

3 Office of Naval Research
(Code 452)
800 N. Quincy Street
Arlington, VA 22217

6 Director
U. S. Naval Research Laboratory
Washington, DC 20390
ATTN. Technical Information Div.

12 Defense Documentation Center
Building 5
Cameron Station
Alexandria, VA 22314

6 Library, Code 2029
U. S. Naval Research Laboratory
Washington, DC 20390

Science and Technology Division
Library of Congress
Washington, DC 20540

Psychologist
ONR Branch Office
495 Summer Street
Boston, MA 02210

Psychologist
ONR Branch Office
1030 E. Green Street
Pasadena, CA 91106

Research Psychologist
ONR Branch Office
536 S. Clark Street
Chicago, IL 60605

Director
Human Resources Research Office
ARPA, Room 625
1400 Wilson Blvd.
Arlington, VA 22209

Dr. Alvin J. Abrams
Navy Personnel R&D Center
San Diego, CA 92152

Dr. Clayton P. Alderfer
Department of Administrative
Sciences
Yale University
New Haven, CT 06520

Dr. James A. Bayton
Department of Psychology
Howard University
Washington, DC 20001

Dr. H. Russell Bernard
Dept. of Sociology and
Anthropology
West Virginia University
Morgantown, WV 26506

Dr. Milton R. Blood
Department of Psychology
University of California
Berkeley, CA 94720

Dr. David G. Bowers
Institute for Social Research
University of Michigan
Ann Arbor, MI 48106

Dr. Fred E. Fiedler
Department of Psychology
University of Washington
Seattle, WA 98195

Dr. Samuel L. Gaertner
Department of Psychology
University of Delaware
220 Wolf Hall
Newark, DE 19711

Dr. Gloria L. Grace
System Development Corporation
2500 Colorado Avenue
Santa Monica, CA 90406

Dr. Eric Gunderson
Code 8030
Navy Medical Neuropsychiatric
Research Unit
San Diego, CA 92152

Dr. J. Richard Hackman
Department of Administrative Sciences
Yale University
New Haven, CT 06520

Dr. Thomas W. Harrell
Graduate School of Business
Stanford University
Stanford, CA 94305

Dr. Norman J. Johnson
School of Urban & Public Affairs
Carnegie-Mellon University
Pittsburgh, PA 15213

Dr. Terence R. Mitchell
School of Business Administration
University of Washington
Seattle, WA 98195

Dr. Edgar H. Schein
Sloan School of Management
Massachusetts Institute of Technology
Cambridge, MA 02139

Dr. Siegfried Streufert
Department of Psychology
Purdue University
Lafayette, IN 47907

Dr. Saul B. Sells
Texas Christian University
Fort Worth, TX 76129

Dr. Victor H. Vroom
School of Organization & Management
Yale University
56 Hillhouse Avenue
New Haven, CT 06520

Dr. Clark L. Wilson
Graduate School of Business Administration
University of Bridgeport
Bridgeport, CT 06602

Dr. Philip G. Zimbardo
Department of Psychology
Stanford University
Stanford, CA 94305

Dr. Richard E. Sykes
Minnesota Systems Research, Inc.
2412 University Avenue, S. E.
Minneapolis, MN 55414

Dr. Karlene H. Roberts
School of Business Administration
University of California
Berkeley, CA 94720

Military Assistant for Human Resources
OAD(E&LS) ODDR&E
Pentagon 3D129
Washington, DC 20301

AFOSR (NL)
1400 Wilson Blvd.
Arlington, VA 22209

Air University Library/LSE-8110
Maxwell AFB, AL 36112

Lt. Col. R. B. Tebbs
DFLS
USAF Academy, CO 80840

Office of the Deputy Chief of Staff for Personnel, Research Office
ATTN: DAPE-PBR
Washington, DC 20310

Chief, Plans & Operations Office
USA Research Institute for the Behavioral & Social Sciences
Room 278
1300 Wilson Blvd.
Arlington, VA 22209

2 Army Research Institute
Commonwealth Bldg.
1300 Wilson Blvd.
Rosslyn, VA 22209

Chief, Psychological Research Branch
U. S. Coast Guard (G-P-1/62)
400 7th Street, S. W.
Washington, DC 20590

Dr. A. L. Slafkosky
Scientific Advisor
Commandant of the Marine Corps (Code RD-1)
Washington, DC 20380

Commandant of the Marine Corps
(Code MPI-20)
Washington, DC 20380

Chief of Naval Personnel
Assistant for Research Liaison
(Pers-Or)
Washington, DC 20370

Bureau of Naval Personnel
(Pers-6)
Assistant Chief of Naval Personnel for Human Goals
Washington, DC 20370

Cdr. Paul D. Nelson, MSC, USN
Head, Human Performance Div.
(Code 44)
Navy Medical R&D Command
Bethesda, MD 20014

Naval Postgraduate School
Monterey, CA 93940
ATTN: Library (Code 2124)

Professor John Senger
Operations Research & Administration Sciences
Naval Postgraduate School
Monterey, CA 93940

Training Officer
Human Resource Management Center
NTC, San Diego, CA 92133

Scientific Director
Naval Health Research Center
San Diego, CA 92152

5 Navy Personnel R&D Center
(Code 10)
San Diego, CA 92152

Officer in Charge (Code L5)
Naval Aerospace Medical Research Lab.
Naval Aerospace Medical Center
Pensacola, FL 32512

Capt. Bruce G. Stone, U. S. N.
(Code N-33)
Director, Education & Training Research and Program Development
Chief of Naval Education and Training Staff
Naval Air Station
Pensacola, FL 32508

HumRRO (ATTN: Library)
300 N. Washington Street
Alexandria, VA 22314

Director of Research
HumRRO Division #4 (Infantry)
P. O. Box 2086
Fort Benning, GA 31905

Journal Supplement Abstract Service
APA
1200 17th Street, N. W.
Washington, DC 20036

Division Director for Social Science
National Science Foundation
1800 G St., N. W.
Washington, DC 20550

Office of the Air Attache
Embassy of Australia
1601 Massachusetts Avenue, N. W.
Washington, DC 20036

Scientific Information Officer
British Embassy
3100 Massachusetts Avenue, N. W.
Washington, DC 20008

Candadian Defence Liaison Staff, Washington
2450 Massachusetts Avenue, N. W.
Washington, DC 20008
ATTN: Chief, Defence Research

Dr. Lennart Levi, Director
Lab. for Clinical Stress Research
Fack
S-104 01 Stockholm, SWEDEN

Mr. Luigi Petrullo
2431 N. Edgewood Street
Arlington, VA 22207

Dr. John J. Collins
9521 Cable Dr.
Kensington, MD 20795