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CIVIL DEFENSE RELIEF PATTERNS:

(VII) Summary

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## CIVIL DEFENSE BELIEF PATTERNS

### PREFACE

#### WHAT THIS SERIES OF REPORTS IS ABOUT

This series of reports deals with distinctive patterns of belief about fallout shelters and radiation, peace and defense, with the trusting of sources, with people's interests in various kinds of civil defense topics, and with changes in these various patterns over time.

We have taken one of two major approaches to psychological analysis. Some workers study traits, how much of a particular characteristic do how many people have. Instead, we have used type psychology, the parsimonious description of persons in terms of major patterns of belief. Readers interested in type methodology should read William Stephenson's The Study of Behavior.

Rokeach, in the Open and Closed Mind, suggests a model of beliefs which might best be described in concentric rings. At the core, we have beliefs so fundamental that their destruction would disintegrate the self. Then we have beliefs and disbeliefs in authorities. Then we have beliefs and disbeliefs in the ideas that these authorities express. Some of us are more rigid and dogmatic than others in defending our belief systems, including our beliefs in authorities.

During December, 1961, in each of five cities -- Boston, Lansing, Minneapolis, Oklahoma City, and Santa Monica -- we interviewed about 30 persons, 149 altogether. We chose them on the basis of their responses to a telephone survey directed by Dr. David K. Berlo. We maximized differences among persons in terms of their estimates of the likelihood and nearness of war, the chances it might effect them and possibilities of protecting themselves. Ours is a purposive sample of persons, not a random or representative sample.

In these interviews, we collected information about the belief patterns of people in three areas: fallout shelters and radiation, trust and distrust accorded people who might say something about them, and general orientations toward peace and defense which buttress these beliefs.

To accomplish this, we used Stephenson's Q methodology. A brief summary of the major steps in a Q study will be found at the end of this preface. Also, a separate report entitled Technical Summary is available summarizing in detail the various procedures used in collecting, processing, and analyzing the data.

In May, 1962, we sent all 149 persons who were interviewed in December a copy of the Government's pamphlet entitled "Fallout Protection."

One month later, in June, 1962, we re-interviewed all we could reach of the persons who had participated in the December phase of the study. In all, 105 of the original 149 were re-interviewed. Again, we collected information on patterns of fallout shelter and radiation beliefs and peace and defense beliefs. In addition, we investigated a new area -- people's interest

## II

in various kinds of civil defense topics, ones that might appear in print. We also asked the people about exposure to civil defense information, how the world situation was changing, "Fallout Protection" bulletin readership, use of the mass media and other things of a demographic or biographic nature such as age, education income, etc.

Our purpose in re-interviewing was to get at various aspects of change and stability in the predominant belief patterns associated with fallout shelters and radiation and peace and defense over a six month period.

Our prime interest was in the relationship of such changes to exposure to information about civil defense, readership of the "Fallout Protection" bulletin, perceptions of changing world conditions, media use and other characteristics of the respondents.

In this series, Civil Defense Belief Patterns, there are included seven reports on the substantive findings of this program of research. They are:

### Fallout Shelters and Radiation

Description and tabular summary of the four major types of persons on the basis of their patterns of belief about fallout shelters and radiation.

### Source Credibility

Description and tabular summary of the five major types of persons on the basis of their patterns of trust and distrust accorded sources of information about fallout shelters and radiation.

### Topic Appeals

Description and tabular summary of the five major types of persons on the basis of their patterns of interest in civil defense information topics.

### Peace and Defense

Description and tabular summary of the five major types of persons on the basis of their patterns of belief about peace and defense.

### Change in Belief

Description and tabular summary of the changes in major types of belief patterns about fallout shelters and radiation and peace and defense. Includes a summary of the relationships between belief pattern changes and various indices including civil defense information and media exposure, "Fallout Protection" bulletin readership, and general demographic characteristics.

### Summary

→ A General and overall summary of the program of research on civil defense belief patterns. ↖

### Technical Summary

Detailed summary of the various procedures used in collecting, processing and analyzing the data. This report primarily is intended for the reader with a more technical bent who is either interested in the specific technical procedures we used or is interested in conducting a similar program of research.

### III

#### Major Steps in Q Analysis

1. Respondents are asked to sort a deck of cards which have items printed on them into a specific number of ranked piles according to a modified normal distribution. The sorting is done on the basis of some criterion, e.g., belief-disbelief, agree-disagree, etc.
2. A matrix of intercorrelations is formed by correlating every person's sort of items with every other person's sort of items.
3. This matrix of intercorrelations is submitted to factor analysis so that persons are variables and items are observations. A principal axis solution is obtained. This is submitted to a varimax rotation which produces orthogonal factors. On this basis, a factor represents a grouping of persons around a common pattern of sorting the items. Hence, a factor represents a type of person.
4. Each pattern of sorting the items associated with each factor or type of person is estimated. This is done by weighting each item response of each of the persons most highly associated with a given factor by the degree to which they are loaded on that factor. The higher a person's loading on the factor, the greater is the weight. These weighted responses are summed across each item separately. This produces an item array of weighted responses for each factor in the rotated factor analysis solution selected. The arrays of weighted responses are then converted to z-scores.
5. The arrays of item z-scores are ordered from most accepted to most rejected for each factor. This provides a hierarchy of item acceptance for each factor or type of persons.
6. The arrays of items z-scores for each factor are compared by subtraction for each pair of factors. This produces arrays of difference scores for each pair of factors. This provides the basis for differentiating one factor or type of persons from another.

## SUMMARY

The research we will report here was designed to help communicators in the Office of Civil Defense develop more effective strategies in their public information programs. The research was conducted under a grant to Dr. David K. Berlo from the OCD.

In our study, we tried to determine:

1. major types of American adults in terms of their beliefs and disbeliefs about fallout shelters and radiation.
2. major types in terms of their beliefs and disbeliefs on propositions about peace and defense.
3. major types in terms of their trust and distrust of various persons and organizations as sources of information and opinions about fallout shelters and radiation.
4. major types of American adults in terms of their interest in various civil defense topics.
5. changes in civil defense orientations by the various types during a six-month period as related to exposure to various kinds of communication about civil defense, including that in the Fallout Protection bulletin.

Our methods for this research were somewhat unorthodox. We did not conduct a survey of a large, representative sample of the adult American public. Nor did we carry out a controlled laboratory experiment. Instead, we extensively applied Stephenson's Q methods, selected the people we studied purposefully rather than randomly, and correlated and factor analyzed people rather than dimensions or traits. We used these methods because they had proven valuable for our earlier work on similar communication problems.

In this study, we assume that one person can communicate more effectively with another if he knows well that person's thinking and feeling on the things about which he plans to communicate. We assume further that a communicator who knows well which relevant sources or communicators his receiver trusts can more strongly affect his receiver than can one who does not. We assume that, though every person is unique, there will be relatively few basic patterns of thinking and feeling, of belief-disbelief, about matters like fallout shelters -- patterns which will reasonably (but not exactly) describe most of the people the communicator wants to communicate with. Finally, we assume that knowledge of receivers' beliefs, etc. will affect communicators, modifying their own views of the matters in the communication stream.

In the following pages, we describe four major types of persons. The form is simple. We say: Here is a person, a "local initiative shelter" person, say. Here are some propositions about shelters and radiation he tells us he believes very strongly and here are others he rejects as untrue. Here are some general notions about peace and defense he supports heartily and here are others with which he clearly disagrees. Here are his most trusted sources of civil defense information and here are the ones he distrusts the most. He tends to have such and such characteristics. Over the five or six months between interviews, he had certain communication experiences and he changed this much in these ways.

That is the framework of our analysis and summary report. Those persons who plan to use our results or who wish to know more about our methods should read the detailed reports on which this summary is based.

#### Common Beliefs and Disbeliefs

No matter which type a person was, no matter whether he was for or against shelters, he was likely to subscribe to the belief:

There seems to be an awful lot of confusion about the need for fallout shelters. The leaders in government don't seem to be able to make up their own minds on whether we ought to build them or not.

This points up a crucial matter for the communicator. If the President and other highly visible officials closely associated with defense talk but do not act as though the building of shelters is important and urgent, the people are likely to perceive confusion. If the government speaks differently with its many voices, the people are likely to perceive confusion. If the government reverses or noticeably modifies its direction on such matters, the people are apt to become confused and to perceive confusion in their leaders. On issues like shelter building, action speaks loudly, and so does apparent inaction -- much louder than millions of pamphlets or spot television cartoons on every station.

Each type of person says he wants more information about fallout shelters. He feels he should be concerned about shelters and read about them when he has the opportunity. Most people no matter what their orientation toward shelters still carry with them the common myths about shelters and radiation, or at least they feel uncertain enough not to reject them. For example, they saw radiation as some kind of communicable

disease, that anything radiated could in turn radiate them. Should a shelter be built of lead? Should it have an airtight door? Can you get rid of fallout? Does it stay dangerous for years? Would staying in a shelter for several weeks drive me out of my mind? Should I build one or shouldn't I? Nearly everyone seems to have at least some such uneasy fears lurking in the recesses.

No matter whether they are for or against shelters, practically everyone agrees that they care very much whether we have a nuclear war. Every type disagrees with the idea that "the best way to keep out of war is not to get ready for one." Almost everyone strongly rejects the statement, "I think that our leaders should do anything to keep us out of nuclear war -- even to the point of yielding to the Russians on important issues."

Nearly everyone seems to see our military strength as a deterrent to war. They feel, too, that we will all have to get used to a world where the threat of nuclear attack is always with us. And they like the idea of getting the finest minds in the nation to work out some new solutions to the cold war.

Even types who are against the building of shelters do not reject the state director of civil defense as a trustworthy source of information and opinion about radiation and fallout shelters. But practically everybody writes off the following as sources: "my next door neighbor," George Meany of the AFL-CIO, head of the state taxpayer's league, head of the Farm Bureau, "my boss," and "my best friend." Local TV and newspaper people are also not seen as particularly trustworthy sources for this kind of information.

Every type expresses interest in the topic, "Living Off the Land after an Atomic Attack." But they reject as articles they would not want to read the titles: "Some Shelter Contractors Are Dishonest - Watch Out!" and "Your Corner Grocer Can't Help You After the Bomb."

#### Type A Persons: For Shelter Protection With Private Initiative

Within our non-representative sample, people who want shelters but who do not want to feel that government is doing the whole thing were by far the most common. We call them Type A.

"A" strongly believes, he says, that he and his family should have a shelter they can get into, that building a shelter is like buying insurance. He says that, if he had the money, he would get one built right away.



Most important in understanding "A" is to know that he feels pretty sure that shelters will work, that they will provide real protection. Furthermore, and perhaps this is even more important, he believes that it will be worth getting into one and staying there until things are reasonably safe, because it is possible for them to become reasonably safe. He predicts that the country and the area around him would be reasonably safe several weeks after an attack. At least, liveable, usefully survivable conditions could be restored.

"A" thinks that the government should help -- by lending money for community shelters, by providing leadership, by getting things moving -- but he does not feel that "it is the federal government's responsibility to protect all citizens by supplying them, rich and poor, with shelters."

He asks for more information and for a clearer stand on shelters by government leaders.

"A" is more convinced than are the other types that, in case of nuclear attack, his area will get a heavy dose of radioactive fallout. He is the only type who is reasonably sure that fallout can be easily detected and that, if you filter the dust out of the air, it will be perfectly safe to breathe. He is alone, too, in firmly rejecting the idea that radioactive fallout is like a gas that can get you wherever you are. The other three types, especially "B" and "C", feel strongly that "we must try harder to prevent war and not give so much attention to shelters." But "A" apparently does not find this a very meaningful statement; he neither agrees nor disagrees.

More generally, in areas of international relations, peace and defense, "A" says he wants strong military preparedness and firmness on the part of the president. He considers a third world war a realistic possibility: the chances of thermonuclear attack on the U.S. are small, he says, but we must be prepared. He feels that there are defenses against atomic war, should it ever come. He strongly opposes first strike on the Russians. Broadly, he feels that the civil defense people are doing their best to prepare us in case of attack.

In sorting out potential sources of information and opinion about fallout shelters and radiation, he puts the President of the United States right on top as his most trusted source. The President is followed by the federal, state and local directors of civil defense, a pamphlet issued by OCD and the Secretary of Defense. He also says he would trust highly "a famous nuclear scientist." But he rejects as sources the heads of such groups as S.A.N.E., the Committee for World Federation and the National Committee for Peace and Disarmament.

Asked what civil defense topics he would most like to learn more about, "A" designated those which chiefly dealt with how to take care of things during and immediately after an attack: first aid, how to get rid of fallout, how to contact loved ones, chances for survival, evacuation techniques, medical aspects of radiation, and how much time between warning and attack.

He rejected "So You Think Radiation's Contagious," probably because he doesn't think so. He said he did not want to learn anything more about peace-marchers, nor explore a hypothetical question about Russian soldiers walking our main streets, nor investigate reasons why he should not build a fallout shelter. He strongly rejected the topic title: "No More Children for Nuclear-Age Man."

We see here further confirmation of "A's" pro-shelter stand. You remember that his support for shelters most likely is bolstered by his beliefs that he can survive, that shelters will work and that conditions will be good enough so that it will be worth surviving. The interests he expresses in civil defense topics indicates a searching for stronger support for those very beliefs. He wants to know more about his chances for survival. He wants to know what things will be like "after the blast -- the next week, the next year." He wants to be better prepared to take care of things when, if ever, the attack comes.

During the six months between our first and second interviews, "A's" pattern of beliefs on fallout shelters and radiation remained practically the same. His January array correlated with his June array .97. A few persons with "A" patterns in January shifted to "D" patterns in June, but, as you will see, the "D" belief pattern is not radically different from "A" -- they are both pro shelters.

"A" appears to be more talkative on civil defense matters than do others. Association with the "A" pattern and saying "yes" to the question, "in the past few months, have you talked with anyone about civil defense?" were correlated .25. But "A's" pattern was not related to reading of the Fallout Protection bulletin, nor to any of the other information-seeking activities we examined.

#### Summary of "A"

"A" has a relatively stable pattern of beliefs generally favorable to the building of fallout shelters. He wants the government to encourage local initiative in the development of fallout protection. He believes shelters will work, but seeks further confirmation for this belief. He

trusts official sources for information and opinion about shelters, but wishes they were not so confused. Though we need a national probability survey to determine this, we think it probable that the "A" pattern is by far the most frequent among American adults.

Type B Persons: Against Shelter Building; Shelters Won't Help

Our second type of person takes a dim view. He is sure that fallout shelters won't do the job, that they only make people think they are safe when they really aren't. "B" doesn't believe there is anything an ordinary citizen can do to protect himself in case of a nuclear attack.

Radio-activity from an attack, says "B", would make much of the earth impossible to live in for years, or even centuries.

Our whole effort -- brains, time and money -- should be concentrated on preventing nuclear war, on developing fruitful avenues toward lasting peace. Shelters, "B" seems to feel, are a waste of resources. If we must have shelters, he says, let's make them community shelters. He never wants to be in the position of having to keep neighbors out of a private shelter. Even if he had the money, he would not get a shelter built for his family right away.

But "B" is not a religious fatalist like "C". He rejects the idea that his fate is in the hands of God. He disagrees that "a person dies when his time is up" and "there's nothing anyone can do about it." And he doesn't consider fallout shelters immoral. Nor does he believe that, if we all prayed for peace there would be nothing to worry about.

He feels that filtering the dust out of the air after an attack will not make the air safe to breathe. He was the only one who did not reject the idea that, "if you get exposed to radiation at all, you are likely to die." "B" expresses a very slight interest in finding out more about shelters, feels that people ought to be better informed about them. He suspects that we have not been told the full story of the devastating effects of nuclear war. He wants to be rational.

But he fears the irrationality of others -- that "somebody will push the wrong button at the wrong time" -- or that, "after a nuclear attack on the United States, life here would be a savage, man-to-man struggle for survival." What should we do about it? "B" feels that our leaders should keep talking at peace and disarmament conferences and in the United Nations.

"B" says that the U.S. should have the strongest military defense possible, even though he feels that there is no defense against an atomic war. He says that the civil defense people have been doing pretty well. He is strongly opposed to a first strike by the United States. On the other hand, he doesn't think things can be solved by the U.S. staying out of international politics.

He feels reasonably sure that Russia or some other country will not make a nuclear attack on the United States within the next 10 years.

For information and opinion about shelters and radiation, his most trusted source is the President. But he puts "a famous nuclear scientist" and the secretary of state above the secretary of defense. And he ranks U.S.I.A.'s Murrow, the head of a peace and disarmament committee, the head of S.A.N.E. and the governor of his state above the federal director of civil defense. The secretary-general of the U.N., "B" says, would be more credible than a pamphlet prepared by OCD people and certainly than the local director of civil defense. He rejects such potential sources as the national commander of the American Legion, the head of the American Medical Association and the president of the Ford Motor Company. He seems to be saying that, when he hears about such matters as fallout shelters, he wants to hear about them from somebody he feels has a broad world view, from a strong proponent of peace and disarmament.

In fact, the relevant topic he most wants to learn more about is "how Can the World Disarm?" He wants to know more about the peace-marchers, too. "A" and "B" both exhibit high interest in articles dealing with effects of radiation. But, "A" seems genuinely concerned about finding how to take care of himself and family, while "B"'s interest seems to derive more from anxiety and a desire to develop counter-arguments.

He ranks "World War III Could Be An Accident" very high in interest. He wants to know what will happen to survivors, the likely fire situation, what doctors say about radiation, the non-war aspects of civil defense and how to get rid of fallout.

As you might expect, he says he doesn't want to learn anything at all about how to build or supply shelters, how to keep happy in a shelter, in-the-meantime uses of shelter space, the arguments of group shelters versus family shelters. He doesn't even want to know how to contact loved ones after nuclear disaster (probably because it's a trivial question if you don't survive). He doesn't like things which suggest that the Russians may be quite ready to attack us.

Compared with other types, "B" is better educated, has a higher income and reads more books.

Though not as stable in belief pattern as "A", "B" shifted only a little during the six months between interviews. The way he ranked the belief statements in January correlated .88 with their ordering in June. Five of 15 persons originally typed "B" shifted to the more favorable patterns, "A" and "D".

#### Summary of "B"

"B" just doesn't believe that shelters will work. He envisions a completely devastated world following a nuclear attack. He feels that radiation is like a gas which will seep into shelters and kill those who were foolish enough to build them.

We are not doing nearly enough to prevent war, "B" says. We ought to invest much more effort in disarmament conferences and peace talks.

"B" trusts sources including the President he feels will have a broad world view. He distrusts locals.

He will probably most pay attention to communications which emphasize peace and disarmament efforts.

Some of those on the border of the "B" pattern may be pulled over to at least tacit approval of community shelters. The core of "B" probably can be moved to such support only in an emergency and only with strong, consistent support by prominent government leaders, especially such people as Adlai Stevenson.

#### Type "C" Persons: Against Shelter Building: Religious Fatalist

Of the 57 belief statements, "C" agrees most with this one:

My fate is in the hands of God. There is no use building fallout shelters or anything like that, since what God wills will be done.

He also says that, if all of us prayed for peace, there would be nothing to worry about. He suspects that fallout shelters may be immoral. He is sure that "a person dies when his time is up" and there is nothing to be done about it.

Even if he had the money, says "C", he certainly would not get a shelter built for his family right away. He doesn't believe that any proper shelter could be built for \$300. He thinks that even if he had one, there wouldn't be

time to get into it, in case of attack. He seems convinced that radiation sickness is contagious and that filtering fallout dust from the air will not make it safe to breathe.

Perhaps we get a better clue to his feelings about shelters when he rejects the statement, "I worry a lot about whether to build a fallout shelter or not." In other words, he claims he is unconcerned about the matter. Even so, he does agree moderately that he will do whatever the government thinks is best.

Like "B", "C" strongly favors increased efforts toward prevention of war. Apparently he is not such a pure fatalist as to reject any preparation for the future (other than prayer). Of the four types, "C" most strongly rejected the idea that building shelters is like buying insurance. He was the only one who rejected the statement: "I wish the people in government would stop talking so much about fallout shelters and do something about them."

In fact, "C" thinks that the civil defense people are doing a fine job. He is not particularly worried about the possibility of war, thinks it very unlikely that we will be attacked.

He moderately favors a first strike, if Russia really threatens us, but certainly not without such threat. He does not think that nuclear war would mean the wiping out of mankind.

Like Types "A" and "B", he ranks the President his most trusted source of opinion and information on fallout shelters. Several political leaders outside the executive branch are high on his list: Eisenhower, Nixon and Goldwater. But so are the Secretary of Defense, the Federal director of Civil Defense and the local director of Civil Defense and the Secretary of State. He ranks "local leader of my religious faith" higher than does any other type. "C" rejects strongly the principal of the nearby school.

Despite his avowed fatalism, "C" appears interested in survival. He wants to know how food exposed to radiation can be salvaged, how he can contact his loved ones after an attack, what he can do to insure survival. He says he certainly does not want to learn reasons why he should not build a fallout shelter. He claims no interest in psychological and sociological problems which might develop in shelter living. Like "B", he is highly concerned about the matter, "How Can the World Disarm?" He wants to know in what ways the government might help to foot the bill for building a shelter. He seems somewhat more worried than the other types about his pocket book.

"C" would probably not resist the building of community shelters except under conditions where his church leaders aroused him against shelters. He might be put off, too, by partisan political fighting over the issue. He seems highly unlikely to build a private shelter without a great deal of facilitation.

As you might expect, "C" is distinguished by attachment to a particular religious faith, usually fundamentalist, and by somewhat more than average attendance at church. He was somewhat less aware than the other types that he had received a copy of the "Fallout Protection" bulletin.

The "C" pattern is somewhat less stable than those for Types "A" and "B". Correlation between "C" belief rankings in December and June was .73. Of 11 persons originally classified as "C", five remained so, four changed to the "A" pattern, one to "D" and one became unassignable.

#### Summary of "C"

"C" thinks he will die when his number comes up, or when God decides it's time for him to die. Praying for peace, says "C", will help much more than building shelters.

Like "B", he has little confidence that shelters will work, though he doesn't imagine the completely destructive holocaust that "B" does. He probably won't build one for himself, but neither does he seem likely to oppose community shelter building.

The President, the secretary of defense and Civil Defense officials are among his highly trusted sources. But so are political leaders outside the defense hierarchy. And "C" was the only type that ranked "local religious leader of my faith" as a highly trusted source for opinion and information about civil defense matters.

Those who changed from this type generally moved in a pro shelter direction.

#### Type "D" Persons: For Shelters Underwritten by the Government

"D" and "A" are alike in that they both feel shelters work and should be built. Their arrays correlate .50. But, unlike "A", "D" seems quite eager to see the government take the initiative and carry out a complete shelter building program. And he wants it to be community shelters. One of his two strongest beliefs is:

It would be better for communities to build large public shelters rather than to have each family build one of its own.

His other top belief indicates an interesting kind of submission. Concerning fallout shelters, says "D", "I'll do whatever the government thinks is best to do."

He is the only type that strongly believes it is the Federal government's responsibility to protect all citizens by supplying them, rich and poor, with shelters. "D" says he's convinced that he and his family should have shelter space they can get into, and that the government ought to get started on a big shelter-building program. He thinks it a good idea for shelters to serve peace-time uses, too.

He rejects private family shelters. Even if he had the money, "D" says, he would not get a fallout shelter built for himself and family right away.

"D" doesn't believe in the religious fatalistic ideas of "C" but he does feel, like "C", that he need not worry a lot about whether to build a shelter. He also seems convinced, like "B", that filtering the fallout dust out of the air will not make the air safe to breathe.

He likes the idea of community shelters, but the government must make them because "you can't get people around here interested in building a thing like that."

"D" does not believe that nuclear war would mean the wiping out of mankind. He thinks that the chances of a big war are small, but is afraid that somebody might push the wrong button at the wrong time.

"D" is the only type who does not rank the President (then Kennedy) highest as a trusted source of information and opinion about fallout shelters. We don't know why. Instead, he gives top rank to the Federal director of civil defense and very high trust to "a pamphlet prepared by the Civil Defense people in the Department of Defense." The local director of civil defense is also among "D"'s highly trusted sources. He seemed impressed, too, by scientists -- for example, "famous nuclear scientist." And even the head of the American Medical Association he puts slightly above the President. He most rejects the president of the Ford Motor Company.

"D"'s choice of things he wants to learn more about is highly consistent with the fallout shelter views he expresses. He thoroughly rejects items about peace marchers and Russian soldiers on our main streets and the sterilization potential of radiation and the question as to whether radiation might



be contagious. He also says he is quite uninterested in shelter-building supplies, as we would expect since he hopes the government will take care of the whole thing. He doesn't care at all to learn about possible tax credits for building his own shelter, though he does want to know how Uncle Sam will foot the bill for those who do. He says he is least interested of all in reasons why he shouldn't build a shelter.

He says he wants very much to learn more about likely conditions under nuclear attack and what he should do. How much time will he have after the warning? How can he get himself and family out of attack zones? What first aid techniques should he know? Where are some nearby shelters he can get into? What should he do immediately after the alarm? What will conditions be like after the attack? And anything else the Civil Defense people feel he should know in order to be prepared.

The "D" pattern was the least stable of all. Even so, the June array for the top "D"s correlated .70 with their December array. But, of 10 persons whose arrays were most closely associated with the "D" pattern in December, only one had this closest association in June. Seven shifted closer to the "A" pattern and one changed to "B".

#### Summary of "D"

In general, "D" seems to be somewhat like a sheep, perhaps most easily led by authoritative voices. He seems to have somewhat a feeling of helplessness, and looks to the government to take complete charge of such stupefying matters as protection from nuclear attack.

He doesn't want to build his own shelter, but instead wants the government to see to it that he and his family and everybody else have adequate shelter space they can get into, just in case. He says that he would trust very much a pamphlet on fallout shelters and radiation put out by the Civil Defense people, but he paid no more attention to it than anyone else when one was sent to his home.

#### Summary of a Summary

From our original study of fallout shelter beliefs we developed Q blocks, crucial for a next stage of research. Q blocks are sets of items which most clearly distinguish among types. A positive Q block is one in which there is an item for each type which that type endorses much more strongly than it does any other item in the block. A negative Q block is one in which there is an item for each type which that type rejects much more strongly than it does any other item. These Q blocks then highlight the meaningful beliefs of each type and the differences in beliefs among the types. Thus they provide a useful way of summarizing Q belief arrays. For example, let's take the most discriminating Q block.

- 1A. I think that everyone should find out as much as he can about fallout shelters and other civil defense matters so that he can be prepared in case of attack.
- 1B. Fallout shelters just won't do the job. All shelters do is to make people think that they are safe when they really aren't.
- 1C. My fate is in the hands of God. There is no use building shelters or anything like that, since what God wills will be done.
- 1D. The government should lend money to communities so that community shelters can be built.

We can see how differently Types "A", "B", "C" and "D" believe about fallout shelters. Person "A" asserts a kind of civic duty. "B" believes shelters are a fraud. "C" is wrapped up in God. And "D" is wrapped up in the government.

Let's take another block, not so discriminating as the first, but still very good.

- 2A. If I had the money, I'd get a fallout shelter built for my family right away.
- 2B. I don't think there is really anything an ordinary citizen like me can do to protect himself in case of a nuclear war.
- 2C. I think that if all of us prayed for peace there would be nothing to worry about.
- 2D. It is the federal government's responsibility to protect all citizens by supplying them, rich and poor, with shelters.

The Type A person will agree much more with Statement 2A than with any of the other three statements. "B" will agree much more with Statement 2B. And so forth. "A" wants a shelter right now. "B" is sure there's nothing he can do to protect himself. "C" feels the solution is more prayer. And "D" says let the government do it.

Let's look now at a disbelief or negative Q block. In this the item for each type is rejected much more strongly by that type than is any of the other three items.

- 3A. There is no real protection against radioactive fallout -- not even a concrete shelter. The stuff is like a gas that can get at you wherever you are.
- 3B. Everyone in this country should have a fallout shelter he can get into if and when we are attacked.
- 3C. Radiation sickness is not contagious. There is no harm in getting close to somebody who has it.
- 3D. It seems to me that the Russians are more likely to use germ warfare than they are to attack us with nuclear weapons.

If you were to ask an "A" person which one of the above statements he disagrees most with, he would almost certainly say 3A. And "B" is convinced that everyone in this country should not have a fallout shelter. "C" thinks radiation sickness is contagious. And "D" does not consider a germ attack from the Russians more likely than a nuclear one.

And there are many more such Q blocks which can be drawn from our original study. Five or six of these, used in a national probability survey, can assign people quite accurately to the four fallout shelter belief types about whom we have learned so much in this study. Thus, we can learn further what proportions of our adult population have the various belief patterns. We can learn more about each type in terms of important demographic characteristics.

These same blocks can be used in experimental studies where we can vary message-situation treatments to test out some of our ideas about how people learn to see things differently or can find reinforcement for their present beliefs.

In the meantime, the imaginative communicator can make use of the results of this study in determining what might be the most appropriate strategies for effective communication with these major types.

This summary is based on the research presented in the following reports:

MacLean, Malcolm S., Jr., Thomas Danbury, Albert D. Talbott.

CIVIL DEFENSE BELIEF PATTERNS: (I) PEACE AND DEFENSE, April, 1963.

\_\_\_\_\_. CIVIL DEFENSE BELIEF PATTERNS: (II) SOURCE CREDIBILITY,  
April, 1963.

\_\_\_\_\_. CIVIL DEFENSE BELIEF PATTERNS: (III) FALLOUT SHELTERS AND  
RADIATION, April, 1963.

MacLean, Malcolm S., Jr., Thomas Danbury, Albert D. Talbott, and Neil R. Bernstein.

CIVIL DEFENSE BELIEF PATTERNS: (IV) TOPIC APPEALS, September, 1963.

MacLean, Malcolm S., Jr., Thomas Danbury, Albert D. Talbott, and Robert O.

Engbretson. CIVIL DEFENSE BELIEF PATTERNS: (V) THE CHANGE IN BELIEFS,  
PART A, September, 1963.

\_\_\_\_\_. CIVIL DEFENSE BELIEF PATTERNS: (VI) CHANGE IN BELIEFS,  
PART B, February, 1964.

MacLean, Malcolm S., Jr., Thomas Danbury, and Albert D. Talbott.

CIVIL DEFENSE BELIEF PATTERNS: (VIII) TECHNICAL SUMMARY, March, 1964.

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