

PSYCHOLOGICAL DIMENSIONS OF ARMY STUDENTS ATTENDING THE US ARMY WAR COLLEGE: AN ANALYSIS

by

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(Note regarding photographs: The uncaptioned photographs contained in this article show some members of the War College Class of 1972.)



A considerable number of studies have been conducted to determine the characteristics of the American soldier. He has been scrutinized by sociologists, psychologists, nutritionists, anthropologists, and has been punched and prodded by investigators of almost every discipline imaginable to determine what makes him tick, and by so doing, to find ways and means to utilize his talents to the advantage of the Army and the soldier himself. However, there are very few studies that limit themselves exclusively to the psychological dimensions of field grade Army officers. Commander William H. Robinson¹ conducted a study of the psychological dimensions of students

attending the US Naval War College, Class of 1970. In comparing officers attending the Naval War College with a group of civilian executives he found many similarities in the two groups. Generally speaking, the individuals in both groups were optimistic, self-confident and persuasive.

Early in academic year 1972, a psychological questionnaire similar to the one used by Commander Robinson was administered to students attending the US Army War College. Those tested completed the questionnaire on a voluntary basis with the understanding that the information obtained therefrom would be privileged. In view of this, responses were averaged rather than identified with any individual.

In designing this research project, the principal motive was to determine the characteristics of individuals who will occupy top leadership positions in the Army during the late 1970's and 1980's. The following questions seemed relevant to such an undertaking:

1. What sort of a person is the Army officer who attends the US Army War College?
2. How does he compare with other groups of personnel?
3. Do the findings contain any surprises?

METHOD

To answer these questions, the first action after the test was administered was to compare the test results obtained by the 183 Army members of the Army War College class with the norms of the test; then these test results were compared with the results of five

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other groups of personnel. Unlike the Naval War College study, this study was not concerned with the 40 individuals from other services and other governmental agencies in the class. It was felt that the scores of the Army students would be distorted by lumping them with the results obtained by the non-Army students attending the Army War College. These other individuals were considered separately after the results of the Army students were analyzed.

The Test Instrument

The test used in this study was the Job Analysis and Interest Measurement (JAIM), which contains 125 multiple choice questions and is distributed for research purposes by the Educational Testing Service, Princeton, New Jersey. It is designed to measure personal qualities (other than aptitudes, training or knowledge), and has evolved over a 16-year period:

... through a series of studies of mature workers in over forty occupations and professions, including business executives, juvenile court judges, ambassadors, physicists, social workers, policemen, engineers, lawyers, and secretaries. The beginning point for the development of the JAIM was the discovery that certain self-description items answered by U.S. Department of State personnel when they entered on duty were useful in discriminating among employees assigned to different jobs, and in predicting both staying power and performance ratings within these jobs. These results led to the conclusion that the achievement of a satisfactory level of job satisfaction and performance requires an adequate psychological match between the job and the individual and that self-reported beliefs, typical behaviors, preferences, and values provide useful information for judging the adequacy of the match.²

There are no right or wrong answers for this test. For example, the answers given by a chief librarian will and should be different

from the answers given by a locomotive engineer.

RESULTS

The results obtained from the test administered to the Army War College Class of 1972 indicate that Army members of the class differed significantly from the norms of the test, which are used only as a point of reference. As an aid in analyzing the results of the many scales of the test, they have been organized into nine categories which pertain to an issue common to several scales. The first category, "Personal Orientations," for example, pertains to such scales as optimism and self-confidence. The results in terms of the nine categories used are listed below:

1. Personal Orientations.

Important determinants of an individual's behavior are his beliefs about how he relates to his environment and to the nature of control and change. Army members of the Army War College Class of 1972 scored significantly higher than the norms of the test instrument in the areas of optimism, self-confidence, perseverance, orderliness, and belief in moral absolutes. They did not differ substantially from the norm concerning their need for extensive prior planning. In addition, they scored high in their belief that changes should be implemented slowly rather than in a disruptive fashion; and they scored exceptionally high in their belief in moral absolutes. In this particular scale, persons who score high believe that moral principles come from an outside power higher than man and that it is most important to have faith in something. Individuals who score low believe that moral principles are not absolute and unchanging but depend upon circumstances. Army War College students scored slightly lower than the norm in the scale "Prefers to Plan Ahead." This is not so unusual when one realizes that they pride themselves on flexibility and a capacity to react coolly to unexpected, fragmentary orders.

2. Interpersonal Influence.

Some situations call for a considerable

amount of personal leadership or persuasiveness. Other situations call for behavior which tends to be supportive and understanding of other people, and which contributes to the maintenance of harmonious relations. Still other situations require the individual to be assertive in the pursuit of his own goals when they are in competition with the goals of others. Finally, there are situations in which there is only a minor need for personally influencing the behavior of others. Scales that measure two major aspects of interpersonal influence are "Persuasive Leadership," and "Self-Assertiveness." The test group considered here scored exceptionally high on the scale "Persuasive Leadership." They showed that they have no difficulty expressing their opinions before a large group and often assume leadership roles in group seminars. Direct observations of this group support the test results in that these individuals seem to enjoy the opportunity to get results through persuasion or negotiations. These students scored exceptionally high on the "Self-Assertiveness." scale. The competitive nature of their profession is probably reflected in this score. Again, direct observations of these students by this researcher substantiates that they do well under conditions of competition and stress.

3. Reaction to Aggression.

Job assignments differ in their requirements for dealing with aggressive behavior by others, and individuals differ in their behavioral styles. Some people respond to aggressive behavior by attempting to win over or appease the aggressor; others respond by psychological or physical withdrawal; and still others respond by counterattacking. It is obviously desirable to be able to vary the strategy depending on the situation. It is assumed, however, that most individuals tend to rely on one strategy more than others. The test used measures three styles for dealing with an aggressor: "Move Toward Aggressor," "Move Away from Aggressor," and "Move Against Aggressor."

a. *Move Toward Aggressor.* The extent to which an individual attempts to behave

diplomatically when someone acts toward him in a belligerent or aggressive manner is measured by this scale. The Army students of the 1972 class scored significantly lower than the norm of the test instrument.

b. *Move Away from Aggressor.* This scale pertains to the extent to which the individual withdraws when someone acts toward him in a belligerent or aggressive manner. The scores of the War College students were exceptionally lower than the norm.

c. *Move Against Aggressor.* The extent to which the individual counterattacks when someone acts toward him in a belligerent or aggressive manner is measured by this scale. The test group differed by scoring exceptionally higher than the norms in this scale. Observations of these individuals indicate that if someone acts toward them in a dictatorial or domineering fashion, they will confront the belligerent person and resolve the issue.

4. Relationship to Authority.

The War College students tested do not prefer routines. Instead their performance is at its best when they determine their own procedures. In an examination of the extent to which they identify with their superior and try to please him, these students scored lower than the norm. Instead, their goals are in terms of excellent performance rather than in pleasing their superior. Their preference for independence was close to the norm.

5. Leadership Styles and Strategies.

Authority in an organization can be exercised in a number of ways. The leader can make all the decisions, or he can delegate a portion of them to individuals or to the group. Various styles of leadership are appropriate for different types of situations. This paper focuses on the following three leadership styles: "Directive Leadership," "Participative Leadership," and "Delegative Leadership." It is recognized that there are other leadership styles that might be equally appropriate, but they are beyond the scope of this paper.

Leaders differ in the types of controls they impose and the types of incentives they offer.



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Two relevant scales are: "Motivate by Knowledge of Results," and "Believes in External Controls."

Army members of the Army War College Class of 1972 preferred a directive leadership style, were tolerant of a delegative leadership style, and were not in favor of a participative leadership style. With respect to motivation they maintained that a leader gets the best results through rewards or punishment rather than through intrinsic motivation. In addition, they believed rather strongly that people require external controls.

6. Information Processing Style.

Decisions may require only an intuitive approach or may require extensive analysis of the facts. The tested individuals do not usually prefer systematic methodical methods for processing information and for reaching decisions. Their response was most appropriate, considering their need for making rapid decisions.

7. Work Preferences.

Army War College students scored slightly

higher than the norm in their preference for tasks that enable them to analyze situations and develop ingenious solutions. They also scored slightly higher than the norm pertaining to their preference for social activities involving interactions with people, and they indicated a keen interest in working as a member of a group rather than apart from others. They had an exceptionally strong preference for supervisory activities and indicated also that they enjoyed mechanical activities. They expressed a preference for being actively engaged in work providing excitement and variety.

8. Values.

Values are the criteria used by an individual when he judges his behavior.

Each of us has a set of standards or values about what is worthwhile and what is not, what we would like to be and what we would not. We use our standards to judge ourselves and our activities. These values are essential components of our self-concepts and are reflected in the

meaning work has for us. Identical tasks performed in different contexts often differ dramatically in the degree to which they are valued. For example, to individuals who value helping others, clerical work in a hospital has quite a different meaning from clerical work in a real estate office.³

It is acknowledged that the values represented by the test are only a small portion of a person's total set of values. The following six values will be considered: "Status Attainment," "Social Service," "Approval from Others," "Intellectual Achievement," "Maintain Societal Standards," and "Role Conformity."

a. *Status Attainment*. This scale measures the extent to which the individual values himself by his achievement of the status symbols established by his culture. Scores for Army War College students were considerably higher than the norm. It is interesting to note that many of these individuals have in fact already achieved many of the elements of status connected with their profession.

b. *Social Service*. The extent to which the individual values himself by contributing to social improvement is determined by this scale. It is to be expected that there will be a noticeable difference between the subjects in this study and those charitable types of individuals who are associated with a life's work of social service. Compared with the norm of the test instrument, Army students attending the US Army War College place a significantly lower value on the "Social Service" scale.

c. *Values Approval from Others*. This scale measures the degree to which the individual values the approval of others. The Army students scored significantly lower than the norm on this scale. In the process of arriving at their decision, it appears that mission accomplishment takes considerable priority over pleasing others.

d. *Values Intellectual Achievement*. This scale measures the extent to which the individual values intellectual achievement. Results indicated that a goal of intellectual achievement per se does not play a primary

role within this group's set of values. However, it was noted that this group does exceptionally well in academic situations and places high value on academic achievement.

e. *Values Maintenance of Societal Standards*. This scale measures the degree to which the individual values helping to maintain standards established by the society of which he is a part. The scores pertaining to this scale for Army students attending the US Army War College were substantially higher than the norm. Results on this scale indicate that the individuals tested believe that it is important to have the opportunity to apply professional standards. Also, that when they conduct a military operation it is important for them to have competent contemporaries.

f. *Values Role Conformity*. This scale measures the degree to which the individual values conforming to the role requirements of society. Army students scored substantially higher on this scale. They prefer to be considered reliable, dependable, trustworthy, and industrious.

9. Other.

Academic Achievement. The extent to which the individual does well in academic situations is measured by this scale. Army students attending the US Army War College scored exceptionally higher than the norm for this scale.

COMPARISON OF SIX GROUPS OF PERSONNEL

While it is interesting to compare these Army students with the norms of a test, it might be even more meaningful to compare this group with five other groups of people associated with the Army. These intergroup comparisons will add meaning to the findings reported previously in this paper. The Army members of the Army War College Class of 1972 will be compared with the following five other groups of personnel:

1. Non-Army members of the Army War College Class of 1972.

This group of 40 individuals has a degree of experience and grade level that is comparable



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to their 183 Army classmates reported previously in this paper. These non-Army students consist of 10 Naval officers, 6 Marine officers, 16 Air Force officers and 8 civilian employees of the Federal Government.

2. Engineer Captains Tested During 1970.

These individuals completed the test in 1970 in connection with a study pertaining to the suitability of leadership training.⁴ All members of this 358 man group had graduated from Engineer Officer Candidate School (OCS) at Fort Belvoir, Virginia, during 1967.

3. Infantrymen in Combat in Vietnam During 1969.

The 316 individuals tested in this group were members of rifle companies of an infantry battalion, engaged in combat operations in the Mekong Delta. Observations pertained to the behavioral styles of combat infantrymen and focused on the findings of an earlier study concerning the development of a behavioral style in leadership training.⁵

4. OCS Graduating Students Tested at Fort Belvoir During 1970s.

These 148 men were examined while they were completing their last few weeks of OCS training. They were all subsequently commissioned. These individuals were tested in connection with an earlier study pertaining to a comparison of behavioral styles between entering and graduating students in OCS.⁶

5. Former Officer Candidates During 1967 Who Did Not Graduate and Were Tested as Civilians During 1970.

These 182 men were tested in connection with a doctoral dissertation pertaining to the effect of training.⁷

Results

The table contained in this article presents a summary of the results of this comparison.

Zero is the norm for the table. This was determined by setting zero in place of the average scores of individuals representing over 50 occupations. Theoretically, no

occupational group fits the norm. This is evidenced by the fact that there are usually very few zeros on tables like the one shown. The purpose of the norm is to establish a "bench mark" or "baseline" so that the scores of different occupations will have a relative meaning. For example, the reader's attention is invited to the first scale on the table ("Optimism"). Both Army students and non-Army students in this study reported that they are optimistic. Inasmuch as their scores are positive (31 and 36 respectively), they placed a value higher than the norm on their optimism. Conversely the other four groups of individuals varied negatively from the norm (-2, -105, -21, and -30 respectively). The group with the strongest value for optimism is the one composed of non-Army members of the Army War College Class of 1972. Next would be their Army classmates. Conversely, the group that placed the lowest value on optimism was the infantrymen in combat in Vietnam during 1969. Next to the lowest were the non-graduate officer candidates of 1967, who were tested as civilians during 1970. Second from the lowest was the group of OCS graduating students at Fort Belvoir during 1970. The group with the negative score closest to zero was the group of engineer captains tested during 1970. Stated differently, it can be concluded that the range of optimism from highest to lowest by group was reported as follows:

1. Non-Army members of the Army War College Class of 1972.
2. Army members of the Army War College Class of 1972.
3. Engineer captains tested during 1970.
4. OCS graduating students, Fort Belvoir 1970.
5. Former OCS students tested as civilians 1970.
6. Infantrymen in combat in Vietnam during 1969.

The reader should keep in mind when making an analysis of these scores that while it may be understandable that students attending the Army War College are optimistic, the same intensity of optimism

would hardly be expected of a group of soldiers confronting the reality of an armed enemy in combat. It should be recognized that major differences in response may be essential for top performance in different fields. Therefore, the reader should not make a general assumption that "lowest" means "worst."

It seems understandable that the scores of the Army students and the non-Army students attending the US Army War College are somewhat similar. However, an examination of the table shows there are a few noticeable differences.

The range of differences between the six groups seems to emphasize that the psychological dimensions of various groups associated with the same profession can be quite diverse. These findings tend to agree with the views of Stouffer, Janowitz, and Huntington⁸ that various groups of American soldiers are quite different in terms of their psychological dimensions. The value of these data is that it reveals specific differences between the selected groups. These differences have direct implications for the formulation of personnel policies affecting these six groups. It appears that policies which have an impact on different groups within the same profession should consider these differences and be developed accordingly.

DISCUSSION

The following answers the three questions posed earlier in this paper:

1. WHAT SORT OF PERSON ATTENDS THE US ARMY WAR COLLEGE?

a. Compared with the norms of the test used in this study Army officers attending the Army War College placed a significantly higher than average value in the following self-reported beliefs:

- (1) Optimism
- (2) Self-confidence
- (3) Perseverance
- (4) Orderliness
- (5) Belief in Moral Absolutes

TABLE
SCORES⁹ FOR SIX GROUPS OF PERSONNEL WITH THE NORM BEING ZERO

	183 ARMY MEMBERS OF THE ARMY WAR COLLEGE CLASS OF 1972	40 NON- ARMY MEMBERS OF THE ARMY WAR COLLEGE CLASS OF 1972	358 ENGINEER CAPTAINS DURING 1970	316 INFAN- TRY MEN IN COMBAT IN VIETNAM DURING 1969	148 OCS GRAD- UATING STUDENTS BELVOIR 1970	182 FORMER OFFICER CANDI- DATES DURING 1967 DID NOT GRADUATE, TESTED AS CIVILIANS 1970
1. Personal Orientations						
a. Optimism	31	36	- 2	-105	-21	- 30
b. Self-Confidence	68	58	20	-120	23	- 12
c. Perseverance	29	- 6	32	- 8	39	30
d. Orderliness	57	10	46	2	37	28
e. Prefers to Plan Ahead	- 15	-27	- 12	- 43	2	- 10
f. Belief in Moral Absolutes	71	62	20	17	- 5	- 16
g. Belief in Slow Change	39	17	19	11	-13	- 5
2. Interpersonal Influence						
a. Persuasive Leadership	88	61	52	- 73	51	- 6
b. Self-Assertiveness	100	90	114	19	99	84
3. Reaction to Aggression						
a. Move toward Aggressor	- 62	-64	- 64	- 10	-48	- 48
b. Move away from Aggressor	- 53	- 6	- 60	11	-42	- 22
c. Move against Aggressor	69	22	69	13	63	38
4. Relationship to Authority						
a. Prefers Routines	- 17	14	- 4	61	- 6	- 5
b. Identifies with Authority	- 24	- 4	- 29	- 9	-14	- 32
c. Prefers Independence	2	- 5	20	- 55	21	24
5. Leadership Styles and Strategies						
a. Directive Leadership	37	11	88	52	84	40
b. Participative Leadership	- 24	2	- 63	- 55	-59	- 26
c. Delegative Leadership	- 6	-11	- 20	14	-25	- 20
d. Motivates by Knowledge of Results	- 20	- 5	- 7	0	-25	5
e. Believes in External Controls	20	19	86	75	81	76
6. Information Processing Style						
Prefers Being Systematic-Methodical	- 34	-39	19	38	16	38
7. Work Preferences						
a. Problem analysis	9	22	18	- 30	18	45
b. Social Interaction	13	27	14	- 6	- 1	- 33
c. Mechanical Activities	43	10	87	86	46	100
d. Supervisory Activities	123	68	85	- 22	48	3
e. Activity-Frequent Change	51	72	58	- 51	28	34
f. Group Participation	17	5	- 9	0	-24	- 49
8. Values						
a. Status Attainment	51	29	29	- 12	35	16
b. Social Service	- 78	-56	- 66	- 19	-27	- 44
c. Approval from Others	- 84	-65	- 90	18	-57	- 58
d. Intellectual Achievement	- 16	1	- 14	- 60	18	21
e. Maintains Societal Standards	22	10	30	10	42	9
f. Role Conformity	39	7	67	24	8	29
9. Other						
Academic Achievement	23	-14	- 78	-101	- 7	- 52



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- (6) Belief in Slow Change
- (7) Persuasive Leadership
- (8) Self-Assertiveness
- (9) Move Against Aggressor
- (10) Directive in Leadership
- (11) Belief in External Controls
- (12) Mechanical Activities
- (13) Supervisory Activities
- (14) Activity-Frequent Change
- (15) Group Participation
- (16) Status Attainment
- (17) Maintains Societal Standards
- (18) Role Conformity
- (19) Academic Achievement

- (7) Prefers Being Systematic-Methodical
- (8) Social Service
- (9) Approval From Others
- (10) Intellectual Achievement

b. Compared with the norms of the test Army officers attending the Army War College placed a significantly lower than average value in the following self-reported beliefs.

- (1) Move Toward Aggressor
- (2) Move Away From Aggressor
- (3) Prefers Routines
- (4) Identifies with Authority
- (5) Participative Leadership
- (6) Motivates by Knowledge of Results

c. The following self-reported beliefs held by Army members of the Army War College Class of 1972 were at or near the average level compared with the norms of the test.

- (1) Prefers to Plan Ahead
- (2) Prefers Independence
- (3) Delegative Leadership
- (4) Problem Analysis
- (5) Social Interaction

2. HOW DOES HE COMPARE WITH FIVE OTHER GROUPS OF PERSONNEL?

a. *Personal Orientation.* The group of Army students attending the Army War College scored higher than all other groups pertaining to self-confidence, orderliness, a belief that changes should be executed slowly, and a belief in moral absolutes. They scored next to highest in optimism (their non-Army classmates scored highest). They were generally similar to other groups pertaining to

perseverance, and in their negative value for their capability to plan ahead.

b. *Interpersonal Influence.* The Army members of the Army War College class scored higher than all other groups concerning persuasive leadership. They scored next to highest in self-assertiveness (the group of engineer captains scored the highest).

c. *Reaction to Aggression.* When given the choice of appeasing, avoiding, or counterattacking a belligerent individual, Army members of the Army War College Class of 1972 would prefer to counterattack. Along with engineer captains they received the highest score pertaining to a preference for counterattacking.

d. *Relationship to Authority.* The group of Army students attending the Army War College scored lower than all other groups concerning a preference for routines. It is interesting to note that persons scoring low on a preference for routines indicate that they do not like to have a clear-cut written guideline or manual which tells them clearly what they are supposed to do. All of the groups scored generally the same in their negative value for an identification with authority. Rather than pleasing their superiors, the goal of these groups tends to be excellent performance. With regard to a preference for independence, Army members of the Class of 1972 scored closest to the norm. Other groups received a wide range of scores.

e. *Leadership Styles and Strategies.* Army members of the Class of 1972 preferred a directive leadership style, were tolerant of a delegative leadership style, and were not in favor of a participative leadership style. Compared with other groups in this study, however, they placed next to the lowest value on directive leadership (their non-Army classmates placed the lowest). While their value for participative leadership was negative, it was next to the highest (highest value by their non-Army classmates). Their preference for delegative leadership (slightly negative) was next to the highest. The highest preference for delegative leadership was indicated by the group of infantrymen tested

in Vietnam. Compared with other groups, Army members of the Class of 1972 scored next to the lowest in the belief that a leader gets the best results through intrinsic motivation (OCS graduating students scored the lowest). While they believed rather strongly that people require external controls, their score was next to the lowest (lowest score was by their non-Army classmates).

f. *Information Processing Style.* Army War College students received next to the lowest score in a preference for being systematical-methodical (lowest score by their non-Army classmates).

g. *Work Preferences.* The students tested scored higher than all other groups pertaining to their preference for supervisory activities and group participation. While they placed a high value in their preference for mechanical activities and problem analysis, their scores, compared with the other five groups, were next to the lowest in each case. They placed a high value in social interaction; however, engineer captains placed a slightly higher value, and non-Army members of the Army War College placed the highest value, in social interaction. Their strong preference for activity-frequent change was second from the highest (their non-Army classmates scored the highest and engineer captains scored next to the highest).

h. *Values.* Compared with other groups, Army members of other groups, Army members of the Class of 1972 received the highest score on the attainment of status and the lowest score in their preference for social service. They received next to the lowest score in their value of the approval from others and their relative value of the importance of intellectual achievement. All of the groups placed a high value in the maintenance of societal standards and in role conformity. In both cases, Army students attending the Army War College received a score generally the same as the other groups.

i. *Other.* Compared with all other groups Army members of the Army War College Class of 1972 received the highest score concerning their ability to do well in academic situations.

3. DO THESE FINDINGS CONTAIN ANY SURPRISES?

The results of this study might be surprising to critics of the military who would expect to find all manner of surprises. In a search for surprising differences it is interesting to find that these individuals are quite similar to both Navy War College students and to business executives in the civilian community. As a group, Army members of the Army War College Class of 1972 were found to be optimistic, self-confident, persuasive individuals who have a strong preference for leadership. While they are aggressive and highly competitive in actions with their peers, they are strongly sensitive to the needs of their subordinates. In arriving at a decision they tend to consider the facts rather than the relative popularity of various courses of action. In cases where the mission conflicts with the approval from others, they place little value in the approval from others. The responses of six groups of individuals associated with the Army are quite different. Each group with its own set of characteristics is probably best suited for its own particular role.

NOTES

1. William H. Robinson, "An Element of International Affairs--The Military Mind," *Naval War College Review* (November 1970), pp. 4-15.

2. Regis H. Walther; Shirley D. McCune; and Peter B. Petersen, "The Shaping of Professional Subcultures: A Study of Student Groups from Five Professions" (The George Washington University, 1968)

3. Regis H. Walther, "The Psychological

Dimensions of Work: A Research Approach Through Use of a Self-Report Inventory" (The George Washington University, February 1972), p. 4.

4. Peter B. Petersen, "Effect and Stability of Leadership Training," *Research in Education*, Eric Processing and Reference Facility, Leaser Systems and Research Corporation (Bethesda, Maryland, December 1971).

5. Gordon L. Lippitt and Peter B. Petersen, "Development of a Behavioral Style in Leadership Training," *Training and Development Journal* (July 1967), pp. 9-17.

6. Peter B. Petersen and Gordon L. Lippitt, "Comparison of Behavioral Styles Between Entering and Graduating Students in Officer Candidate School," *Journal of Applied Psychology* (February 1968), pp. 66-70.

7. Peter B. Petersen, "An Investigation of the Effect of Training," Doctoral Dissertation (The George Washington University, February 15, 1971).

8. Samuel A. Stouffer, *et. al.*, *Studies in Social Psychology in World War II*, Volume II, "The American Soldier: Combat and its Aftermath" (Princeton, N.J.: Princeton University Press, 1949).

Morris Janowitz, *The Professional Soldier* (New York: The Free Press, 1960).

Samuel J. Huntington, *The Soldier and the State. The Theory and Policies of Civil-Military Relations* (Cambridge, Massachusetts: Harvard University Press, 1967).

9. Inasmuch as the groups of individuals vary in size, standard scores are used in this comparison. The standard scores for each group are determined by comparing the average response within each group pertaining to each scale with the norm of the test for that scale. The norms of the test are equated to zero and the standard deviation to 100. Norms for the test instrument are based on a wide variety of occupational groups.

