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OF ATTITUDES AND PERSONALITY CHARACTERISTICS.**

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AN EXTENSION AND COMPARISON OF THE OWN-CATEGORIES PROCEDURE IN THE  
MEASUREMENT OF ATTITUDES AND PERSONALITY CHARACTERISTICS

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DOCTOR OF PHILOSOPHY

BY  
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Norman, Oklahoma

1967

AN EXTENSION AND COMPARISON OF THE OWN-CATEGORIES PROCEDURE IN THE  
MEASUREMENT OF ATTITUDES AND PERSONALITY CHARACTERISTICS

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AN EXTENSION AND COMPARISON OF THE OWN-CATEGORIES PROCEDURE IN THE  
MEASUREMENT OF ATTITUDES AND PERSONALITY CHARACTERISTICS

CHAPTER I

INTRODUCTION

The purpose of this chapter is to examine material in the area of attitude theory and attitude measurement relevant to the following problems: an extension of the Own-Categories Procedure beyond the measurement of a single attitude and one level of ego involvement, a comparison of this extension with the open and closed belief systems indicated by Rokeach's Dogmatism Scale, and an evaluation of the relationship of high ego involvement to both placement and content of extreme communication.

The review is divided into the following sections: (a) the general nature of attitude theory within the area of social psychology; (b) a historical review of theory and research on the development of psychophysical and psychosocial scales; (c) a definition and properties of attitude and ego involvement as specified by M. Sherif and C. W. Sherif; (d) the theory and research fundamental to the Own-Categories Procedure; (e) the theory and research fundamental to the judgment of extreme communication by ego-involved subjects; (f) transition research

between the Own-Categories Procedure and the Dogmatism Scale; (g) the theory and research fundamental to Rokeach's concept of dogmatism; and (h) the extension and integration of the Own-Categories Procedure with general personality measures.

The General Nature of Attitude Theory Within the  
Area of Social Psychology

The importance and relevance of attitudes has been recognized by early as well as contemporary researchers. Thomas and Znaniecki (1918) emphasized the importance of social attitudes as vital in understanding the social impact upon individual behavior. F. H. Allport (1924) viewed attitudes as giving a needed flexibility to mechanistic theories of man which were currently developing. J. B. Watson (1925) designated social psychology as the specialized area which centered its study upon attitudes. G. W. Allport (1935) and G. Murphy, L. B. Murphy, and Newcomb (1937) saw attitudes as "indispensable" and "central" to social psychology. Recognition of the importance of attitudes in the social perspective of the individual continues through more recent textbooks--such as Krech, Crutchfield, and Ballahey (1962), Newcomb, Turner, and Converse (1965), Sargent and Williamson (1966), Secord and Backman (1964), M. Sherif and C. W. Sherif (1956).

There is no complete unanimity as to the exact delineation of attitude and attitude theory within the field of social psychology. However, there are some rather specific criteria which are generally accepted from theoretical and empirical investigations that greatly aid in the general comprehension of the concept of attitude and its application to the broader personality aspects of total belief systems.

Doby (1966), Festinger (1957), Katz and Stotland (1959), Krech et al. (1962), W. W. Lambert and W. E. Lambert (1964), McGrath (1964), Sargent and Williamson (1966), Secord and Backman (1964), C. W. Sherif, M. Sherif, and Nebergall (1965), and G. Watson (1966) all indicate that cognitive, affective, and action tendencies are three main components of the concept of attitude.

The social-psychological concept of attitude has moved a long way from the position of being simply a neuromuscular predisposition to certain types of stimuli. Attitudes now represent an affective, cognitive set functioning in terms of the psychological frame of reference and judgmental scales of the individual rather than a strict reductionistic explanation of stimulus-response energies.

This integrative interaction approach to social psychology has left its impact upon attitude theory and research. Starting back with the Gestalt influences, this approach to a "wholistic" integration of field and idiosyncratic factors of the external and internal experience and behavior of the individual has gained strong support through the efforts of Asch (1952), E. L. Hartley and R. E. Hartley (1952), Krech and Crutchfield (1948), Lewin (1936; 1951), Newcomb (1950), and M. Sherif (1935). The result of this impact is the focusing upon the individual in a psychosocial stimulus situation as the unit of analysis for social psychology. This type of unit of analysis dictates that the social psychologist operates on different interdisciplinary levels in order to synthesize the pertinent factors that influence the social, psychological, and cultural experience and behavior of the individual. When this dynamic integrative approach

is centered on the area of attitudes, the resulting interpretation is that attitudes are formed, maintained, and changed through the functional interaction of the individual within his sociocultural-physical environment.

There is a diverse background from which the study of attitudes has developed, in part because of being associated in the eclectic developmental trend of social psychology. Although attitudes can be studied through a priori theoretical models of attitude systems or in isolated laboratory studies, these separate methodological approaches to attitudes are not generally recommended by attitude researchers. A combined theory-and-laboratory methodology grounded in a natural, realistic context has been advocated by both early and contemporary sources. Bartlett (1932), Brown (1965), Festinger and Katz (1953), Hovland (1959), G. Murphy et al. (1937), Sargent and Williamson (1966), Secord and Backman (1964), and M. Sherif (1963) all express the need for a research methodology which combines laboratory and field approaches. Festinger makes the point quite distinctly when he states:

It is important to remember, however, that laboratory experiments, as a technique for the development of an empirical body of knowledge, cannot exist by itself. Experiments in the laboratory must derive their direction from studies of real-life situations, and results must continually be checked by studies of real-life situations. The laboratory experiment is a technique for basic and theoretical research and is not the goal of an empirical science (Festinger, 1953, pp. 169-170).

These common agreements of the components of attitude and the overall methodology necessary to study these problems does not mean that complete agreement pervades the area of attitude research.

Attitude research is too recent in its development for full agreement on terminology, theories, or scales of measurement. It is a diverse developmental trend within the accepted elements of attitude research that has set the backdrop for further exploration of the Own-Categories Procedure and its relationship to other research in belief systems of personality and the influence of communication.

The Own-Categories Procedure culminates from a line of research focusing upon psychophysical and psychosocial scale evaluations which originated in the 1920's and interests of M. Sherif and Hovland. These interests took the form of integrating the social judgmental categorization of the individual within his interaction pattern and with his reaction toward persuasive communication. The Own-Categories Procedure reflects the view that attitudes are a product of the individual's ability to make categorical distinctions and make comparisons on the basis of learned scales, which have been established through prior experience. These scales operate in the present situation to aid in determining the individual's interpretation and behavioral response toward a given situation.

The development of the Own-Categories Procedure runs parallel to another movement in attitude theory and research which has been greatly influenced by Lewin (1936; 1951). This is the development of balance theory.

Heider (1946; 1958), who developed the first clear contemporary balance theory, commented that he was indebted to Lewin in the early evolution of the concepts of balance theory. The concept of the necessity of the individual to seek a structural and emotive balance

or consistency of interaction in a given situation has led to a great deal of research and theoretical exploration by Brehm and Cohen (1962), Cartwright and Harary (1956), Festinger (1957), Helson (1964a), McGuire (1960), Newcomb (1953; 1961), Osgood and Tannenbaum (1955), and Rosenberg and Abelson (1960).

This approach to attitude change and the extension of balance, consistency, adaptation, and symmetry to a general attitude theory is now prominent in attitude research. The trend has concentrated on the positive and negative factors presented to the individual which create an imbalance in a given situation and the resolution of these factors with his internal cognitive and motivational set. This type of research has centered on how to reduce the psychological tension or strain that develops from obverse (counterpart) circumstances. Strain, dissonance, and asymmetry are all terms indicating the pattern which the individual attempts to change once his tolerance for psychological incongruity has been overcome.

The key to part of the integration between balance theory and the social judgment approach lies in the trend of analysis stated by Secord and Backman (1964), and that of Helson (1964b), M. Sherif, Taub, and Hovland (1958), and Whittaker (1964b; 1965).

Secord and Backman (1964) point out that when the magnitude of dissonance is increased beyond the ratio where dissonant elements are less or equal to consonant elements, then less and less change occurs toward the new position causing psychological tension. In fact, great increases cause moves away from the new position which is interjected, producing a boomerang effect. The boomerang effect, or movement away

from a dissonant position after dissonant elements greatly exceed the number of consonant elements, indicates a curvilinear relationship which is compatible with psychophysical and psychosocial research on the effect of anchorages close and distant in relation to previously established scales.

Helson (1964b), M. Sherif et al. (1958), and Whittaker (1964a; 1965) showed with scales established through the judgmental comparison and classification of weights, autokinetic anchorages, and discrepant communication that change toward the new anchorage exhibits a curvilinear relationship. When anchorages of the established scale and the new position are close together, a very minimal change occurs; when the anchorages and the new position are a moderate distance apart, the greatest change occurs; and with extreme differences between the established scale and the new position, a small positive change, no change, or extreme negative change takes place, depending on the experiment and the commitment of the individual to the scale being compared.

At times the two movements of balance theory and social judgment-involvement approach have dealt with different variables and on different theoretical and experimental levels. These differences in findings are not always incongruous when taken in a broader context. The merger of these two trends through further augmentation, clarification, and comparison of the approaches within an expansion of general attitude theory and research has become a distinct possibility.



A Historical Review of Theory and Research on the Development  
of Psychophysical and Psychosocial Scales

It was in the early 1900's that much of the development of attitude theory, measurement, and experimentation began. Research on psychophysical scales was taking place as well as the transition from the measurement of psychophysical to psychosocial scales. Bogardus (1925), Likert (1932), and Thurstone and Chave (1929) all developed pioneer scales with which to measure psychosocial attitudes. It was in this Zeitgeist that the specific experimental and theoretical developments of attitude measurement and the functioning of attitude as an intervening variable began to emerge--an emergence that was to set the stage for an explicit social judgment-involvement approach.

The individual's ability to make discriminate judgments or comparisons into differentiated categories which establish a scale is a key factor of similarity between psychophysical and psychosocial scales. These scales of comparison have developed both in differentiating psychophysical dimensions of weights or differing lengths along a continuum and in the psychosocial dimensions where people, social objects, groups, or the individuals themselves are used as comparative points of differentiation.

Critical parts of the evaluation scale itself were identified by Needham (1935), Rogers (1941), Tresselt and Volkmann (1942), Volkmann (1936; 1951), and Wever and Zener (1928). These researchers emphasized the importance of anchorages, and points, and judgmental categorizations along a range or scale which is comparatively established and manipulated in experimental situations. These studies revealed that the psychophysical and psychosocial comparisons of an individual form a series

of relevant, differentiated items or anchorages along a given dimension.

The studies by Needham (1935) and Volkman (1951) showed that when stimuli within a given series were judged one against the other that the boundaries, or end-point anchors, were learned first and remained as critical focal points. Tresselt and Volkman (1942) and Volkman (1936; 1951) found that, when the method of single stimuli was used, the middle stimuli in the series exhibited the greatest variability and error of placement. Judgmental comparisons along a psychophysical dimension often brought constant errors which could be methodologically reduced or tended to go in a similar direction for all subjects involved in the experiment. However, such psychosocial experiments as Hovland and M. Sherif (1952) and M. Sherif and Hovland (1953) revealed that the constant error varied systematically in degree and direction depending upon the social orientation and ego involvement of the individual. This phenomenon of the constant error, or consistent displacement of mid-region anchors in a predicted direction, played an important part in the development of the Own-Categories Procedure.

As pointed out by M. Sherif and Hovland (1961), these early experiments on psychophysical and psychosocial scales took the following three general forms: (a) the development of a well-graded scale of anchorages utilizing an explicit standard stimulus within the scale; (b) the development of a well-graded scale of anchorages without the use of an explicit standard stimulus within the scale; and (c) the development of a scale without the functioning of a graded scale of anchorages. Studies by Bressler (1933), M. Sherif (1935), and Wever and Zener (1928)

exemplified the three different general forms of scales.

The trend of psychophysical and psychosocial scale research indicates that an individual's judgmental evaluations of objects, other people, groups, himself, etc., is due in part to his attitude which functions as a range or categorical yardstick. The end anchors of the yardstick and other meaningful anchorages along the scale are learned and shifted through relative ordering brought about in meaningful social interaction. Thus, membership groups, key individuals, or reference groups with whom the individual identifies or interacts all become influential in developing, maintaining, or changing the psychological evaluation scale and anchorage points which the individual maintains.

Studies by Harvey and Campbell (1960), Heintz (1950), McGarvey (1943), Rogers (1941), M. Sherif et al. (1958), Tresselt (1948), White (1960), and Whittaker (1964a) showed both an extension and a contraction of the scale through shifts in the location and number of the categories or anchors utilized in the scale depending on the distance of the new anchor from the established scale. These findings established that the introduction of a new anchor close to the existing scale causes a shift in the scale toward the new anchor, but, as the difference between the new anchor and the end of the existing scale increases, displacement in the original scale begins to occur in the opposite direction. This effect is in contrast to the location of the prior anchors and the existing scale. The end of the scale nearest the new anchor is affected the most. These directional shifts toward and away from the new anchor stimuli result in predictable displacements

of the existing scale in terms of assimilation or contrast.

The function of anchorages in categorized psychosocial and psychophysical scales has several important implications for the operational measurement of attitudes. A new anchor which is outside of the established range of the scale and not close to the end point is in a judgmentally relevant area of contrast and rejection. New anchorages very close to the existing scale end up through assimilation displacement as acceptable. A third area, where new anchorages appear as neither acceptable or rejected, is an area of noncommitment.

M. Sherif and Hovland (1961) make use of the functions of both psychophysical and psychosocial scales in studies which establish the foundation for the contention that an individual's ego involvement causes a predictable difference in his judgmental assessment of an issue, especially when employing a scale which has no clear anchors in the mid-region.

A Definition and Properties of Attitude and Ego Involvement  
as Determined by M. Sherif and C. W. Sherif

The social judgment-involvement approach to attitude theory and attitude change, as presented by C. W. Sherif et al. (1965), focuses upon the established scales of a relevant attitude or attitude cluster, the degree of ego involvement which the individual has with the given situation, his identification and membership within the actual social and cultural context, and the nature of the new anchor which he is evaluating. The Own-Categories Procedure functions within this perspective as an operational measurement of attitudes through latitudes of acceptance, rejection, and noncommitment, which result from the

individual's positive, negative, or neutral judgment of issues, events, or people.

M. Sherif and C. W. Sherif earlier had indicated the general nature of the measurement of the Own-Categories Procedure in their statement:

When an individual with a definite attitude is presented with some stimulus situation or communication, both his own attitude and the stand represented may function as anchorages in structuring his perception and evaluation. We may be able to analyze reactions to a given stimulus (communication) in terms of the reciprocal relationships between these anchorages and the reference scale of existing stands of the issue (M. Sherif & C. W. Sherif, 1956, p. 573).

The consequent of this type of measurement is a range that is designated by the positions and statements which are categorized as acceptable, the positions and statements categorized as objectionable, and the positions and statements which are not categorized as either acceptable or objectionable.

The Sherifs' measurement of attitudes by the Own-Categories Procedure is founded upon both their definition of attitude and a basic set of assumptions about attitudes and ego involvement. They define an attitude as:

. . . a set of evaluative categorizations formed toward an object or class of objects as the individual learns, in interaction with others, about his environment, including evaluations of other persons. Through attitude formation, the individual relates himself, psychologically, to these objects. His attitudes become constituent parts of his self (ego) system. By definition, therefore, attitudes have emotional and motivational aspects inseparably intertwined with cognitive content. Their function in the self system partially accounts for the fact that attitudes are not momentary affairs. The relative stability of the social world in which the individual moves also contributes to the more or less lasting character of social attitudes (C. W. Sherif et al, 1965, p. 20).

M. Sherif and Cantril (1947) elaborated upon the importance of the relationship between ego, ego involvement, and attitude. M. Sherif and

C. W. Sherif (1956) built upon this earlier study holding ego and self to be synonymous terms which designate a developmental subsystem of the individual. This subsystem functions on a psychological level as a series of attitudes forming an interrelated structure which is not always completely integrated.

Ego involvement is elicited when one or more ego attitudes are aroused or utilized in the social judgment and goal-directed activity of the individual. Ego attitudes become major anchorages for the individual once they are aroused. The arousal of ego attitudes leads the individual to more consistent behavior. This continuity is established by the situational relatedness of ego attitudes. The internalization of norms and roles through language classifications from key membership and reference groups becomes critical as evaluative classifications that aid the individual in understanding and reacting to his social stimulus situation. Thus, ego involvement, consistency, and group identification are directly related to the acceptance, rejection, and noncommitment of particular referents being compared in a given attitude scale of the individual.

The arousal of ego involvement causes the individual to use his own position or particular ego attitudes as key classifications, which in turn modify his judgments, especially in extreme cases of ego involvement. It is this type of influence which has been studied and reported by Hovland and M. Sherif (1952) and M. Sherif and Hovland (1953; 1961). Attitudes form an internal psychological judgmental scale from which the individual makes judgmental comparisons. The function of anchorages and regions of the scale then becomes critical in understanding how an

attitude is formed and the manner in which the attitude functions. M. Sherif and Hovland have utilized past research dealing with psychophysical and psychosocial scales and categorization of anchorages to aid them in the development of measurement techniques which express a more accurate index of an individual's judgmental evaluations as related to ego involvement.

The Theory and Research Fundamental to the  
Own-Categories Procedure

In 1952 and 1953, Hovland and M. Sherif collaborated on two studies which seriously questioned several of the concepts which had been established by the earlier studies in the transition of attitude scale development from psychophysical to psychosocial scales.

Thurstone and Chave (1929) established techniques for developing psychosocial scales through the extension of the similarity of an individual's categorization and evaluation of psychophysical weights and intervals to the categorization and evaluation of social issues. They devised a scaling approach for measuring social attitudes through fixed, equal-appearing interval scales. These scales were established by judges who sorted various statements along the full dimension of an issue. Thurstone and Chave assumed that judges had the ability to independently sort statements while remaining uninfluenced by their own stand on the issue.

One of the earliest verifications of the independent sorting assumption was Hinckley's 1932 study which measured pro- and anti-Negro attitudes with a Thurstone equal-appearing interval scale established by statements sorted by both white and Negro subjects. Hinckley observed

that in some extreme instances his subjects displaced over 30 of 114 statements in one category. He eliminated these subjects as he felt they had sorted carelessly or misunderstood directions.

Hovland and Sherif (1952) repeated Hinckley's study without excluding subjects using the same equal-appearing interval scales. They hypothesized that the extreme displacement of judgmental categorization is due to high ego involvement, which causes subjects to displace the general range of statements. The results of the 1952 study indicated that more neutral mid-region items are displaced significantly toward the end of the scale which is rejected by high ego-involved subjects.

M. Sherif and Hovland (1953) further explored the displacement phenomenon caused by ego involvement by using imposed category conditions of an equal-appearing interval scale and a method of attitude measurement whereby the individual established the number of categories and statement positions necessary to span the issue being evaluated. The unrestricted technique provided a means of letting the individual's own categorization of statements become the behavioral index of his judgmental attitude--an index that exhibited the latitude of categories and statements with which the individual agreed, disagreed, or had no commitment.

Key assumptions in the M. Sherif and Hovland (1953) study were as follows: Subjects do not sort independently of their own positions in matters of high ego involvement; the attitude scale is not necessarily of equal intervals; and the positions of the scale are not cumulative.

The basic hypotheses of displacement and influence of ego involvement were upheld. The effect of high ego involvement was operationally



revealed by the position of ambiguous mid-region statements, which were accepted and rejected, and the reduction of the number of categories used to evaluate the issue.

The 1953 study by M. Sherif and Hovland instigated a series of studies on the effectiveness of the unrestricted Own-Categories Procedure and the use of the social judgment-involvement approach.

LaFave and M. Sherif (1962) used the Own-Categories Procedure in a similar manner to that utilized by M. Sherif and Hovland (1953) to further explore the importance of mid-region statements. New statements were employed dealing with the segregation issue. The study focused on the displacement effect of the intermediate statements. LaFave developed a conversion formula to compute the variability of mid-region statements regardless of the number of categories used. High ego-involved Negro and white subjects significantly displaced the mid-region statements of the segregation issue. The study of LaFave and M. Sherif verified the earlier findings of the Own-Categories Procedure and revealed again the shifting latitudes of acceptance and rejection as well as the constricted use of total categories as a result of high ego involvement.

Reich and M. Sherif (1963) utilized the Own-Categories Procedure measuring women between forty and fifty years of age on the issue of legislative reapportionment. Reich and M. Sherif verified earlier findings of the Own-Categories Procedure with subjects who were not college students and with an issue which did not involve ethnic affiliation. This study showed that highly ego-involved subjects significantly displaced the more unstructured mid-region statements. Reich and M.

Sherif found that latitudes of rejection and noncommitment differed significantly between highly ego-involved subjects and lower ego-involved subjects but that there was no significant difference in the latitude of acceptance.

C. W. Sherif (1961) studied the comparison of individuals' own categorizations of both psychophysical and psychosocial scales when the cultural backgrounds of their reference groups varied. The number of categories used in sorting a numeral psychophysical scale did not vary, but significant variation was noted when the psychosocial scale was categorized. This study showed the functioning of psychophysical and psychosocial scales in the context of a cross-cultural intergroup comparison. It corroborated the usefulness and similarity of judgmental categorization effects when the Own-Categories Procedure was used in a different cultural setting.

Vaughan (1961) replicated the 11 imposed categories of the Hovland and M. Sherif (1952) study and also employed the Own-Categories Procedure. She found that subjects with high anti-Latin involvement used fewer categories and piled more statements into extreme opposite categories. This study was important in extending the Own-Categories Procedure beyond the use of white-Negro issues and in showing that people with opposite viewpoints consistently categorize statements and exhibit profiles which are influenced by their ego involvement. This study indicated an answer to a question raised by Zavalloni and Cook (1963) when they suggested that the use of fewer categories and extreme displacement might be found only in subjects favorable to the judgmental issue.

The theory and research on the Own-Categories Procedure establishes the feasibility of obtaining the profile range of social judgment toward a particular issue. This profile indicates the full operational dimension of an attitude rather than relying on a single summarized score.

Prior studies on the Own-Categories Procedure have found both similarities and differences between the functioning of judgments on psychophysical and psychosocial scales. The displacement of a psychosocial scale when a new anchor is introduced is predictable depending on knowledge of the position of the new anchor, the range of the previously established scale, and the involvement of the individual in the social-judgmental comparison being measured.

The use of the Own-Categories Procedure is based upon the following assumptions: (a) individuals do not categorize the statements of an issue independently of their commitment to the issue; (b) ego involvement plays an important part in the judgmental categorization of social issues; (c) disguised testing of attitudes is critical; and (d) there is no assurance that psychosocial scales have equal intervals, are cumulative, or need fixed categories.

Previous studies of the Own-Categories Procedure have demonstrated that the operational range of the Own-Categories Procedure--as indicated by acceptance, rejection, and noncommitment regions--measures attitude and attitude change through a disguised method of testing. The method of free selection of the number of categories and placement of statements reveals the influence of high ego involvement through the displacement of ambiguous mid-region statements, changes in the dimensions of noncommitment and rejection regions, and the total number

of categories used in judging the issue.

The Own-Categories Procedure has been replicated and generalized through studies on legislative reapportionment, the social position of the Negro, segregation, anti-Latin issues, ethnic and political issues, and cross-cultural applications, and with subjects who vary in sex and age (C. W. Sherif et al., 1965, Ch. 4).

The next phase in the investigation of the use of the Own-Categories Procedure is the extension of single attitudes to the measurement of a series of attitudes and varying degrees of ego involvement.

Theory and Research Fundamental to the Judgment of Extreme  
Communication by Ego-Involved Subjects

Previous studies by Hovland, Harvey, and M. Sherif (1957), C. W. Sherif et al. (1965), M. Sherif and Hovland (1961), and Whittaker (1964b; 1965) have found that highly ego-involved subjects judge extreme communication in a predictable manner. Their findings indicated that the degree of ego involvement and the position of the subject's own stand on the issue has no significant effect upon the placement of extreme communication when it is clearly presented and the source is not identified. Moderate communication is subject to systematic displacement as a function of the subject's own stand on the issue and his degree of ego involvement. The studies covered ego-involving issues of prohibition, reapportionment of farm land, and the presidential elections of 1956 and 1960. They focused upon attitude change and the effectiveness of communication to alter previously established attitudes. These studies revealed that the judgmental evaluations of highly involved subjects displace the position and content of moderate communication

inversely to their own stand on the issue.

These communication studies suggest that the evaluation of such ambiguous content as propaganda, bias, or impartiality may be displaced by highly ego-involved subjects even when judging extreme communication. It is possible for the evaluation of the position of communication to remain unaffected by high ego involvement and own position on the issue, but these factors may have a significant effect upon content evaluations due primarily to the more ambiguous nature of the type of content judgments which the subjects are asked to make.

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- Transition Research Between the Own-Categories Procedure  
and the Dogmatism Scale

The studies by Miller (1963), Ward (1965), and White, Alter, and Rardin (1965) indicated the feasibility of a transition beyond the single measurement of attitudes and ego involvement by the Own-Categories Procedure.

Miller (1963) found that the attitude change of ego-involved subjects varied when they were tested on issues of differing importance. His findings indicated that only those subjects who had involvement treatments on irrelevant issues exhibited more change. Highly ego-involved subjects who boomeranged away from antagonistic communication on the relevant issue did not exhibit any significant relationship with their high and low dogmatism scores. There was a trend of less mean change toward the communication for those who were against the relevant issue and who obtained high scores of dogmatism.

Ward (1965) employed three fixed attitude scales to test selected subjects on issues of militarism-pacifism, the Cuban revolution, and

the social position of the Negro. Subjects were all favorably ego involved on the issue of the social position of the Negro, with 40 having picketed for open theaters and 20 more holding equal views although not participating in the picketing. Ward used the Charters and Newcomb (1952) technique for manipulating salience. Involvement was varied in three conditions of picket-salient, picket-nonsalient and nonpickets. Ward found that highly involved subjects displaced more statements away from their own position. The effect was not significant for statements on the two irrelevant issues. However, these findings with a series of fixed scales and subjects who were committed to an actual social issue showed that it is possible for a series of attitude tests to be administered without distortion and for varying attitude profiles to result due to differing ego involvement on social issues.

White et al. (1965) found that the personality syndrome of dogmatism and authoritarianism did not influence the classification of all judgmental tasks but only the classifications of "syndrome-relevant stimuli." They compared authoritarianism and dogmatism with the sorting of the two conceptual categories of undesirable social acts and occupational names. The instructions for sorting the conceptual categories were similar to those employed in the Own-Categories Procedure. Subjects who were in the upper and lower 15 per cent on both D and F Scales differed only in their sorting of undesirable social acts. The study showed a combined usage of unrestricted categorization of two separate topics and varying significance between issues. Ego involvement was not designated as an explicit variable, but the small number of categories

used by the subjects in the sorting of the undesirable social acts indicated that ego involvement may well have been a primary factor.

This study revealed that it is possible to measure two judgmental issues and also compare the obtained profiles with another aspect of a broader personality dimension.

White and Alter (1965) employed a psychophysical weight task to measure the variations in sorting classifications of authoritarian and dogmatic subjects. Differential resistance to change was found in the judgment of lifted weights with the presence of a remote anchor, but there was no tendency for authoritarian and dogmatic subjects to use fewer or broader categories in lifting weights, in course-fineness of categories, or absolute number of categories used.

Powell (1966) found significant relationships as indicated by positive correlations between level of dogmatism and the extremeness of the subject's own position and negative correlations between dogmatism and the range of the rejection region. He obtained a prior measurement of dogmatism and several weeks later presented subjects with three random series of attitude statements on issues of alcohol, the 1964 Presidential Election, and the Church. The alcohol and Election statements were taken from M. Sherif and Hovland's (1961) fixed attitude scales, and the Church statements, from Thurstone and Chave (1929). Subjects indicated their own position and the statement with which they agreed most, disagreed most, and other statements with which they also agreed or disagreed.

The research by White et al. (1965) and White and Alter (1965) showed different results than those obtained by Frenkel-Brunswik (1949),

Harvey (1963), Pettigrew (1958), and Wright and Harvey (1965). All of the latter studies indicated that a general effect due to personality syndromes prevailed in judgmental categorization. However, the studies varied as to what personality syndrome caused a narrowing or lack of change in opinion.

Frenkel-Brunswik (1949) found that authoritarian personalities used fewer and cruder steps in judging a stimulus series of hues.

Harvey (1963) clarified and synthesized his earlier studies dealing with the relationship of authoritarianism to behavioral indexes of conceptualization, concept change, and discrimination. He found that authoritarianism disposed the individual toward increased closedness in his conceptual system.

Pettigrew (1958) found that F and D Scales failed to correlate with the category width scale which he developed. He obtained a significant relationship with narrow-mindedness and self-concept span. This finding led him to state that category width was a constant characteristic of an individual. Pettigrew believed there were consistent patterns of narrow, medium, or open category evaluations by individuals but that these consistent patterns did not correlate with authoritarianism or dogmatism.

Wright and Harvey (1965) showed in their study of attitude change, authoritarianism, and punitiveness that authoritarianism was positively related to opinion change in cases of high-status and low-target involvement and negatively related to opinion change in cases of low-status and high-target involvement.



The transition studies between the Own-Categories Procedure and the concept of dogmatism indicate mixed findings. White and Alter (1965), and White et al. (1965) found that the effect of dogmatism and authoritarianism on judgmental categorization was significant only on issues directly relevant to particular personality syndromes. Frenkel-Brunswik (1949), Harvey (1963), and Wright and Harvey (1965) showed a consistent pattern of authoritarianism as a general personality characteristic. Pettigrew (1958) indicated that there was no correlation between dogmatism or authoritarianism and category width but that consistent category widths were found relating to general personality characteristics. Miller (1963) found no significant relationship between high and low dogmatism and high ego involvement.

The studies by Miller (1963), Powell (1966), Ward (1965), and White et al. (1965) indicate the possibility of extending the Own-Categories Procedure beyond the measurement of single levels of ego involvement and single attitudes.

The extension of the Own-Categories Procedure to measure diversified attitudes and varying degrees of ego involvement gives the means by which to compare these variables with consistent patterns that are dependent upon such general personality traits as Rokeach's concept of dogmatism. An expansion of the Own-Categories Procedure allows the verification of those personality variables which have a lasting, partial, or negligible effect upon the width and functioning of an individual's social judgment scales.

The Theory and Research Fundamental to  
Rokeach's Concept of Dogmatism

Rokeach's experimental investigation of dogmatism extends back into the late 1940's and ranges up to the mid-1960's. His study on generalized mental rigidity in 1948 led to the further analysis of narrow-mindedness and dogmatism (Rokeach, 1951a; Rokeach, 1951b; Rokeach, 1954; Rokeach, 1956; Rokeach, 1960; Rokeach, 1961; Rokeach & Fruchter, 1956; Rokeach, McGovney, & Denney, 1955; Rokeach & Rothman, 1965).

Rokeach (1948) analyzed the ethnocentric thinking of individuals toward religious and racial outgroups. He felt that one of the characteristics of ethnocentric thinking was rigidity and inflexibility of the thinking process. Rigidity is defined by Rokeach as the inability to change one's set when the objective situation demands it. Rokeach used the California Ethnocentrism Scale and found consistent and significant differences for high- and low-scoring subjects on the E Scale. His findings indicated that the rigidity of an ethnocentric person was not an isolated phenomenon.

Rokeach (1951a; 1951b) explored the function between narrow-mindedness and personality. He defines narrow-mindedness operationally in terms of the degree of narrowness when compared to a continuum of comprehensiveness-isolation. The main emphasis in these studies was upon the part and whole organization between religious and political-economic concepts and the isolation and narrow organization separating these concepts. His findings revealed significant relationships between low ethnocentrism and broad comprehensive organization and

high ethnocentrism with narrow organization. The findings of these experiments showed that narrow-mindedness functioned as an underlying cognitive structure, which resulted in more concrete definitions of religious concepts and an organization of concepts that was less comprehensive than open-minded concept organization. There was no significant difference between subjects designated as open- or narrow-minded on the conceptualization of political-economic concepts.

Rokeach (1954) developed the theoretical perspective for his construct of dogmatism. He defines dogmatism as a relatively closed cognitive system organized around a group of beliefs about absolute authority which gives an individual a structural set from which to judge other people or groups. Rokeach hypothesized that dogmatism is a broader concept than the authoritarianism studied by Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950). Rokeach set forth the proposition that dogmatism is a structure of closed cognitive belief and disbelief systems with a narrowing of the time perspective.

Rokeach (1956) and Rokeach and Fruchter (1956) offered evidence that, when the specific scales of dogmatism and opinionation were compared with the E and F Scales used in The Authoritarian Personality (1950), the E and F Scales measured only fascist, or right, types of authoritarianism. The indications were that dogmatism measured general authoritarianism which was related to both right-of-center and left-of-center forms of intolerance and that strong group pressures to commitment led to greater dogmatism and opinionation regardless of right or left ideologies.

These studies showed that the Dogmatism Scale measured the openness-closedness of cognitive systems, general authoritarianism, and general intolerance; whereas the Opinionation Scale measured general intolerance and left and right opinionation.

Rokeach, in his book The Open and Closed Mind (1960), further extends his elaboration on the research and theoretical positions of the Dogmatism and Opinionation Scales and their application to the structure of belief and disbelief systems. This book is a general summary of all the previous studies culminating in the Dogmatism Scale and gives further evidence to corroborate his position on the functioning of the concept of dogmatism.

Rokeach (1961) elaborated upon the concepts of authority, authoritarianism, and conformity. Conformity is designated as a state of mind where the authoritarian individual relates to the source of his information and the authority as a guide rather than distinguishing between the information and the authority dispensing or communicating the information.

Rokeach et al. showed in their 1955 experiment that there was a distinction between dogmatic and rigid thinking. Subjects were given two cognitive tasks of overcoming sets and the integration of new sets. Subjects high in rigidity were slower in overcoming sets, but subjects high and low on dogmatism showed no differentiation in overcoming sets. Subjects high in dogmatism were slower to integrate new sets, but persons high and low in rigidity did not differ in the speed of integration.

Rokeach and Rothman (1965) extended the principle of belief congruency and congruity to the level of cognitive interaction models. They compared and contrasted their congruency principle with that of Osgood and Tannenbaum (1955). Rokeach and Rothman found that their principle, based on the hypothesis that cognitive interaction is not accurately predicted from the knowledge of evaluative meaning of two elements judged in isolation, was more accurate.

In Rokeach's 1960 publication he develops a theoretical and an empirical approach to the exploration of the open and closed belief system of the individual. His work represents both a description and the development of an operational measure of dogmatism that give indications of the overall structural differences of individual belief-disbelief systems.

Rokeach indicates that the belief system of the individual is a lasting, consistent pattern which exhibits both a range of acceptance and rejection. Rokeach believes that individuals organize their ideas and relationships with people and authority basically through belief congruence.

The belief system is designated as having the three major dimensions of belief-disbelief, central-peripheral, and a time-perspective. Rokeach designates an open belief system as one which is characterized by the following: (a) relatively low rejection along various points of the disbelief subsystem continuum; (b) communication within and between belief and disbelief systems; (c) a small amount of differentiation between belief and disbelief systems; and (d) a high degree of relative differentiation within the disbelief system. The central-

peripheral dimension indicates openness when the specific content of the primitive beliefs in the central region is established as friendly and when the formal content of the beliefs in the intermediate region, which deals with authority, is not absolute and people are not evaluated by their agreement or disagreement with authorities. The peripheral structure is open when the belief substructures are interrelated through communication with each other. The time perspective of an open belief system is designated by a relatively broad time dimension, which includes an awareness and interrelationship between the past, present, and future.

When belief systems are closed, the belief-disbelief continuum is represented by the following: (a) a high degree of rejection of subsystems all along the disbelief continuum; (b) isolation of components within and between the belief and disbelief systems; (c) a large discrepancy between the differentiation of belief and disbelief systems; and (d) comparatively little differentiation within the disbelief system. The central-peripheral dimension of a closed organization is indicated by a central region, where the specific primitive belief content centers around a world of threat; an intermediate region, where formal belief contents are oriented around absolute authority and the acceptance and rejection of people in terms of their agreement or disagreement with authorities; and a peripheral structure of beliefs and disbeliefs, which are isolated from each other. The time perspective of the closed belief system is narrow and fixed upon one aspect of the past, present, or future, although often it takes the form of a future-oriented perspective.

There have been five editions of the Dogmatism Scale with the last edition, Form E, containing the best 40 items. The test items, which take the form of simple statements, are scored from +3, indicating that the subject agrees very much; through +2, indicating moderate agreement; +1, indicating little agreement; -1, indicating little disagreement; -2, indicating moderate disagreement; to -3, indicating strong disagreement. The scale for rating each item is fixed interval and forced choice with no neutral region. General or high agreement with items is an indication of closedness; whereas general disagreement with items is an indication of openness. The total score, which signifies closedness or openness, is the sum of the scores on all items. The range of scores is adjusted by adding a constant of four to obtain a positive numerical evaluation. The adjusted range runs from a minimum of 40 to a maximum of 280.

The theory and research instigated by Rokeach on the concept of dogmatism and its operational scale of measurement indicates that dogmatism is a consistent personality syndrome present throughout the belief-disbelief system of the individual.

The Integration and Extension of the Own-Categories  
Procedure with General Personality Measures

Rokeach's open and closed belief-disbelief system is presented on a broader and more inclusive level than much of the work by C. W. Sherif et al. (1965) and M. Sherif and Hovland (1961) who concentrate more on the measurement, function, and change of specific attitudes. However, these authors are at the same time exploring a more general social judgment-involvement approach which allows an integration with

a more inclusive belief-disbelief system through the expansion of the Own-Categories Procedure. This expansion permits the comparison of a series of attitudes and an indicant of the effect of dogmatism upon the social judgment process.

The extension of the Own-Categories Procedure to multiple attitudes and varying degrees of ego involvement gives the operational means to reveal consistent patterns which cut across the entire belief-disbelief system of the individual. The functioning of anchors along the attitude scale gives a precise perspective of the profile and profile changes which occur within the dimension of the attitude cluster being analyzed. This perspective is reflected through the decrease or increase of categories and statements in the acceptance, rejection, and noncommitment regions. Thus, the measurement of a series of attitudes by the extension of the Own-Categories Procedure enables the reflection of both general personality variables, such as dogmatism, and the effect of ego involvement.

The modification of the Own-Categories Procedure allows the measurement of a series of related and diverse attitudes as compared with varying degrees of ego involvement. The expanded procedure becomes a versatile tool for measuring, verifying, and comparing the complex judgmental processes of the individual. This extension offers a very promising possibility for generalizing the results of judgmental categorization of the individual to divergent studies and theories of attitudes and to more complex personality syndromes.



## CHAPTER II

### PROBLEM

The problem of this study was to extend the use of the Own-Categories Procedure beyond the measurement of single attitudes and to compare this extension with varying ego-involvement issues, communication evaluations, and the general personality trait of dogmatism.

The major studies and theoretical generalizations dealing with the Own-Categories Procedure have been those of Hovland and M. Sherif (1952), LaFave and M. Sherif (1962), Reich and M. Sherif (1963), C. W. Sherif (1961), C. W. Sherif et al. (1965), M. Sherif and Hovland (1953), M. Sherif and Hovland (1961), and Vaughan (1961).

These investigations established the following criteria: the importance of high ego involvement in influencing the categorical judgment of a related series of statements; the usefulness of a disguised attitude test; the predictable directional displacement of ambiguous statements appearing in the mid-region of a scaled series; and the usefulness of the operational profiles of acceptance, rejection, and noncommitment.

C. W. Sherif et al. (1965) have indicated that the noncommitment and rejection regions offer the best measures of comparison in research utilizing the Own-Categories Procedure. Significant categorizational

shifts in these regions by highly ego-involved subjects, differing in age, education, and sex, were evident in single issues of ethnic and political importance.

The next step for investigation was to extend the research employing the Own-Categories Procedure beyond the level of single measurements by comparing judgmental categorizations of highly ego-involved subjects on different issues which elicited varying degrees of ego involvement.

The extension of the Own-Categories Procedure allows the operationalization of a series of connected judgmental profiles as well as a comparison of attitudes forming separate regions of evaluation. Since many judgmental areas are multidimensional, the successful extension of the Own-Categories Procedure in measuring diversified issues gives added flexibility to attitude measurement techniques and a more realistic means of assessing the complex profiles of attitude clusters. Thus, the possibility of using multiple testing in one session offers a method of measuring a series of an individual's ego-hierarchy attitudes and allows a comparison of varying patterns of judgmental categorization by the individual.

When a series of operational latitudes of acceptance, rejection, and noncommitment are obtained, opportunities are created for investigating such questions as whether an individual extends his latitude of noncommitment and reduces his latitude of rejection on separate evaluations of low or moderate ego-involving issues. The procurement of several attitude profiles offers the opportunity of raising and answering questions about the difference and similarity between these profiles and findings of general personality inventories. The regions

of rejection and noncommitment offer precise attitude comparisons to personality characteristics which cut across various attitude dimensions.

Previous use of the Own-Categories Procedure (Hovland & M. Sherif, 1952; LaFave & M. Sherif, 1962; Reich & M. Sherif, 1963; C. W. Sherif, 1961; C. W. Sherif et al., 1965; M. Sherif & Hovland, 1953; M. Sherif & Hovland, 1961; Vaughan, 1961) indicates that if ego involvement is decreased then an increase in the total number of categories and noncommitment regions occurs with the rejection region and displacement of ambiguous mid-region statements decreasing. Conversely, if ego involvement is increased, then the total number of categories and noncommitment regions decrease with the rejection region and displacement of mid-region statements increasing. C. W. Sherif et al. (1965) state that present evidence indicates that acceptance regions do not appear to change significantly, although M. Sherif and Hovland (1961) point out that it is theoretically possible for acceptance regions to become smaller as ego involvement increases.

The predicted variation in profile regions may also designate a consistent pattern due to particular personality characteristics. Studies of dogmatism (Rokeach, 1951a; Rokeach, 1951b; Rokeach, 1954; Rokeach, 1956; Rokeach, 1960; Rokeach, 1961; Rokeach & Eglash, 1956; Rokeach & Fruchter, 1956; Rokeach et al., 1955; Rokeach & Rothman, 1965) indicate the existence of general rigid or flexible belief systems.

The Dogmatism Scale has been developed by Rokeach to measure the structural and formal differences between the openness or closedness

of an individual's belief system. It is a fixed scale where high agreement with items is an indication of closedness and high disagreement with items is an indication of openness.

Rokeach (1960) suggests that openness-closedness carries over to permeate the entire belief-disbelief system of the individual. For Rokeach, the belief region indicates an area of all beliefs and expectancies which the individual accepts and the disbelief region is designated by a series of subsystems on a continuum where rejection by the individual is a matter of degree and is differentiated depending upon the particular disbelief system.

Own-Categories Procedure research concentrates upon acceptance, rejection, and noncommitment regions, which represent a single attitude that can be operationally measured and defined. Thus, both the work of Rokeach (1960) and that of C. W. Sherif et al. (1965) and M. Sherif and Hovland (1961) are focusing upon acceptance and rejection regions. However, three of the main differences in their approaches are (a) the level of abstraction which the acceptance-rejection regions indicate, (b) the different independent variables of dogmatism and ego involvement, and (c) the different nature of the tests as fixed and flexible.

The inclusion of a series of subsystems along the disbelief continuum by Rokeach is due primarily to his concentration upon the total belief-disbelief structure. It is conceivable that if the social judgment theory (C. W. Sherif et al., 1965; M. Sherif & Hovland, 1961) were expanded it too could utilize a continuum of different rejection scales within the rejection region as well as a continuum of the

acceptance and noncommitment regions. C. W. Sherif et al. (1965) hypothesize that an individual has clusters of attitudes which are considered open minded and clusters which are more closed. These clusters are related to content area, ego involvement, the position in the ego-hierarchy structure of the individual, and important values of his reference group.

The extension of operational profiles of the Own-Categories Procedure beyond a single attitude allows the possibility of comparing the specific effect of ego involvement and the general effect of rigid or flexible belief systems. Thus, if individuals possess closed or open belief systems as designated by Rokeach's Dogmatism Scale, then these characteristics may be reflected in the noncommitment or rejection regions obtained by a series of profiles from the Own-Categories Procedure.

The use of communication treatments in the form of tapes discussing issues which elicit various degrees of ego involvement also has a predictable effect upon ego-involved subjects. Hovland et al. (1957) and M. Sherif and Hovland (1961) indicate that high ego involvement does not appreciably distort objective placement of extreme, undisguised communication, although high ego involvement can cause displacement of communication content evaluation.

On the basis of prior research, an extension of the Own-Categories Procedure was developed through the measurement of two issues of varying degrees of ego involvement. A high ego-involving issue of war was identified along with a lesser involving issue of building change. The following hypotheses were made:

1. Experimental subjects highly ego involved with a war issue use more rejection categories and statements, the same number of acceptance categories and statements, fewer noncommitment categories and statements, and fewer total categories than less ego-involved control subjects.

2. Experimental subjects less ego involved in a building change issue use more noncommitment categories and statements, more total categories, the same number of acceptance categories and statements, and fewer rejection categories and statements than in previous evaluations of a high ego-involving war issue.

3. Experimental subjects less ego involved in a building change issue use the same number of acceptance categories and statements, the same number of rejection categories and statements, the same number of noncommitment categories and statements, and the same number of total categories as less ego-involved control subjects.

4. Less ego-involved control subjects use the same number of acceptance categories and statements, rejection categories and statements, noncommitment categories and statements, and total categories in evaluating separate issues of war and building change.

5. Experimental subjects highly ego involved with a war issue displace ambiguous mid-region statements to a greater extent than less ego-involved control subjects; whereas experimental subjects less ego involved with building change displace ambiguous mid-region statements equally as compared to less ego-involved control subjects.

6. Noncommitment statements of experimental subjects highly ego involved with a war issue correlate positively with scores obtained on the Dogmatism Scale.

7. Experimental subjects highly ego involved with a war issue and not committed to mid-region positions locate their position on the war issue differently than less ego-involved control subjects; whereas experimental subjects less involved in a building change issue will locate their position similar to less ego-involved control subjects.

8. The position of clear, extreme communication will not be subject to appreciable displacement regardless of degree of ego involvement; whereas experimental subjects highly ego involved with a war issue will displace the content of communication further than less ego-involved control subjects.

## CHAPTER III

### METHOD

This study utilized the Own-Categories Procedure to measure the judgmental categorization of individuals identified in existing formal membership groups opposed on two separate issues which elicited varied degrees of ego involvement. Profile scores were compared with scores obtained on Rokeach's Dogmatism Scale. The effect of communication treatments were also studied in terms of varying degrees of ego involvement.

The issue of war was chosen because it was of major importance to formal groups polarized into differing factions. This issue focused on the necessity or uselessness of war and whether or not the United States should be fighting in Viet Nam. The building change issue was chosen because it was not a major issue, although it offered a similar polarized position to the natural groups. The issue centered around traditional or progressive campus building change.

#### Subjects

The main criteria for experimental subject selection were natural formal group affiliation, high ego involvement in the war issue, and lower ego involvement in the building change issue. High involvement



was indicated by actual membership in formal groups known to be committed on the war issue and by independent observer identification. Observers were operative for a period of eight months in formal and informal group activities, allowing them to verify membership participation and degree of commitment to the issues measured in the study. Experimental subjects were matched in terms of general age and educational levels, group affiliation, and ego involvement. Experimental subjects were selected from four formal student groups, naturally divided according to membership affiliation and opposing sides of the war and building change issues.

The control group consisted of subjects randomly selected from sections of Introductory Psychology. This course contained a cross section of the general student body, as it was required of all undergraduate students. Control group subjects lacked any common formal group identification other than course affiliation and differed in degree of ego involvement concerning the war and building change issues. Control subjects were similar to experimental subjects in general education level and age.

#### Apparatus

Extreme arguments for and against building change and war were recorded separately on magnetic tapes. The tapes were matched for time, number of arguments, order of arguments presented; recorded by the same speaker; and played on a standard tape recorder. Arguments used on the tapes contained the same major themes which were used in the formation of statements for the Own-Categories Procedure.

Measurements were conducted in modified classrooms. Subjects were seated at separate tables, furnished with thirty to forty paper clips, a pencil, and table partitions. Partitions were made of plywood, 22 1/4 inches long, 18 inches high, with a 2-by-4-inch base. These partitions enabled independent work without observation of other experimental participants. Tables and chairs were arranged in a block-U, allowing no direct visibility of other tables. Statements were sorted on tables, 48 inches wide by 24 inches long. Categorized statements were placed in Manila envelopes, 7 1/2 inches by 11 inches, and each subject's experimental data were placed in a larger 10-by-12 1/2-inch Manila envelope.

#### Design

The experiment was designed to identify and measure two differing attitudes with varying degrees of ego involvement of natural formal group members and to relate these differentiations to both a broader indicator of personality belief systems and to extreme, undisguised communication. The plan of the experiment was to find an actual issue important to natural groups and then to measure individuals in the most actively opposed formal groups by using the Own-Categories Procedure, the Dogmatism Scale, and communication evaluation scales. Measurements of experimental subjects were compared with random subjects not affiliated with the identified formal membership groups.

During the period of the study, three participant observers and two ~~listeners~~ observers gave independent verification of the formal and informal activity of group members. These observers provided initial

and continual information throughout the study as to critical issues, direction and strength of group commitment, and the flow of inter- and intragroup behavior. The issues, statements, and subjects were selected on the basis of observer information of the existing environmental situation. At no time were groups, statements, or issues selected without regard for natural happenings or actual information being employed, debated, or discussed.

During the measurement session, treatments in the form of tapes were introduced to the subjects in order to focus attention upon the specific issue in question, to insure the arousal of ego involvement, and to compare the effect of extreme, undisguised communication to judgmental evaluations of subjects who varied in their degree of ego involvement. The tapes presented strong arguments opposite to the identified position of the subjects' group affiliation. The source of the tape and the communicator were not identified. The lesser ego-involving issue was given first and followed later by the higher ego-involving issue, thus avoiding any strong carry-over effect which might be present if the higher ego-involving issue were introduced first. Tape evaluation scales were given immediately following the communication treatment. The Own-Categories Procedure was then administered following each tape evaluation, and the Dogmatism Scale was introduced upon completion of the second issue measurement.

All information and experimental measurements were gathered in one session. The average time for each session was 1 hour and 45 minutes. The fastest time was 1 hour and 5 minutes, and the slowest time, 2 hours and 20 minutes.

Experimental subjects were assigned to Groups A, B, C, D, according to similar membership affiliations and opposing sides of the issues. There were 49 experimental subjects tested, of which 39 were male and 10 were female. Groups C and D were comprised of 26 subjects, identified as committed to the necessity of war and traditional building change. Each experimental group contained members from a single formal membership group, so that there were 15 subjects in Group C and 11 subjects in Group D. Experimental Groups A and B contained 23 subjects, identified as committed to the uselessness of war and progressive building change. These groups were further divided by membership affiliation, resulting with 12 subjects in Group A and 11 subjects in Group B.

There were 58 control subjects, of which 22 were male and 36 were female. The control subjects were divided into four groups, designated as Groups 1, 2, 3, and 4. Group 1 contained 13 subjects; Group 2, 16 subjects; Group 3, 14 subjects; and Group 4, 15 subjects. The treatment order was counterbalanced so that Groups 2 and 3 heard a different order of the same tapes. Group 2 received the order of building change followed later by war; whereas Group 3 received the order of war followed later by building change. The counterbalanced order was repeated for Groups 1 and 4. The tapes did not necessarily present an opposite treatment to the control subjects, as their commitment to the issue and degree of ego involvement varied due to random selection (see Table 1).

#### Procedure

An examination was made of community and campus activity for formal groups polarized on highly ego-involving issues through observers,

Table 1

## Treatment Order of Experimental and Control Group Subjects

Subjects	<u>N</u>	Tape order	Tape treatment
<b>Experimental</b>			
Group A	12	First Second	Traditional Building Change Pro-War
Group B	11	First Second	Traditional Building Change Pro-War
Group C	15	First Second	Progressive Building Change Anti-War
Group D	11	First Second	Progressive Building Change Anti-War
<b>Control</b>			
Group 1	13	First Second	Progressive Building Change Anti-War
Group 2	16	First Second	Traditional Building Change Pro-War
Group 3	14	First Second	Pro-War Traditional Building Change
Group 4	15	First Second	Anti-War Progressive Building Change

local newspapers, and disguised interviews with local residents, faculty, and students. During a period of eight months, five observers located four formal groups, identified varying issues of ego involvement, and took part in the daily routine of formal and informal membership interaction patterns.

The first observers used were participant observers, who infiltrated existing groups to study actual role-status relationships, norms, goals, and general group activity. Later, liaison observers were utilized when existing group members could be converted to give information about their groups. Neither the participant nor the liaison

observers were identified to the groups or to each other.

It took the participant observers three months to penetrate the inner informal friendship nucleus of the groups. It was there that the greatest activity, secretness, and most representative reactions were encountered. Once penetration and acceptance had occurred, then reliable checks on issues, ego involvement and representative membership were made.

It was established through observation that the necessity or uselessness of war was a crucial issue to Groups A, B, C, and D. A series of 104 statements dealing with the main themes of the war issue were compiled by the observers and the experimenter. These statements had their origin in literature circulated by the groups, speeches, and relevant comments consistently made in conversation by group members. The statements were dittoed, coded on the reverse side with capital alphabet letters for placement identification, cut into 1-by-7-inch slips of paper, and randomly placed in bundles containing one copy of each statement.

Pretesting of statement scale position was done by 56 subjects who were randomly selected from the Introductory Psychology subject pool. Statements were sorted along the dimension from the end point identified as the "most favorable to necessity of war" to the end point identified as "most favorable to the uselessness of war." The choice of 60 statements for the final scale was determined by median and  $Q$  values. The 15 lowest and highest median statements having the smallest variance were selected to represent the extreme end portions of the issue continuum. The 30 mid-region statements were selected by median scores

and a high degree of variance with  $Q_1 - Q_3$  range cut-off points of 73.3 and 42.5. Thus, the final scale consisted of 15 statements most consistently judged as strongly favorable to the necessity of war, 15 statements most consistently judged as strongly indicating the uselessness of war, and 30 statements consistently in the middle of the continuum and exhibiting the greatest amount of variance (see Appendixes A and B).

Essentially the same procedure was repeated for the statements dealing with the issue of building change. The issue was chosen because of its divergence and lower ego-involving motivation as compared to the issue of war. The theme of traditional or progressive building change had been of brief interest the previous year but died from a lack of concern. Observers determined that there was no immediate interest in the building change issue within the experimental groups or among random samples of the general student body.

The observers and experimenter gathered 104 statements representing traditional or progressive campus building changes. Statements and comments from the previous year were used as well as any general reactions elicited from the current student body. Statements were more difficult to obtain as no speeches, literature, or general comments were being circulated on the campus concerning building changes. The pilot sample of statements was constructed in a similar manner to the war issue and placed into individual bundles. The statements were given to 44 students from the psychology subject pool. Subjects sorted the statements along the dimension of building change from end points identified as "very favorable traditional building

change" to "very favorable progressive building change." Again, 60 statements were chosen according to median and Q values. The completed scale contained 15 extreme traditional building change statements, 15 extreme progressive building change statements, and 30 moderate, mid-region statements having a high degree of variability with Q<sub>1</sub> - Q<sub>3</sub> range cut-off points of 66.8 and 36.8 (see Appendixes A and B).

Independent checks through observers, interviews, and demand characteristic sheets were used to determine subjects' reactions to measurement methods and the degree of ego involvement of the subjects. Typical reactions were "who cares about building changes," "it doesn't matter to me," or "this is the most boring experiment I have ever seen."

The subjects who determined the representative scale statements were used in only one pilot study and not in the final experimental and control group measurements.

A story explaining general information about a coming survey of student groups was released in the student newspaper two weeks prior to the beginning of measurements. The story read as follows:

#### Cabinet Conducts Survey of Groups

The President's Cabinet will be conducting a survey on a random selection of campus organizations within the next three weeks.

The purpose of the survey is to determine student opinions regarding the campus and suggestions for future improvements.

Next, the leaders of Groups A, B, C, and D were contacted. They were told the study was a general survey of student opinion, asked to participate in the study, and requested to submit a list of all group members. Each group consented to participate and submitted a



membership list.

A second story was then released to the student paper, which stated:

Cabinet to Administer Survey on  
Subjects of Student Concern

A questionnaire with random questions relating to current campus issues will be administered to selected members of ten organizations as part of a survey conducted by the President's Cabinet.

The purpose of the survey is to obtain a general consensus of student opinion concerning pertinent issues and subjects of student concern.

Participating organizations include . . . .

Students will be contacted by phone next week to take the survey.

Experimental subjects were contacted by phone and given an explanation that a general survey of campus groups was being conducted. Subjects were asked to participate and appointments were established, at which time they were measured alone or with other members of their group. The average number of members measured at one time was 3; with the highest total number, 6, and the smallest, 1.

Control group subjects were contacted through Introductory Psychology classes, and appointment times were established. The average number of control subjects run simultaneously was 10; with the highest total, 12, and the smallest, 3.

A pilot study incorporating all of the planned measurement techniques was run two days prior to the start of the experimental measurements. Checks were made on procedures, time, and difference of issue ego involvement of 12 subjects.

At the beginning of the experimental measurement session, subjects were seated individually at partitioned tables. They were read the

following general orientation statements:

This is a general survey of campus groups and their student members. The purpose of the study is to gain a better understanding of general student consensus on the campus. The results of this study will not identify any particular individual.

You will be given several different types of questionnaires dealing with a variety of issues which have been of interest to students this year or which are just starting to be of interest to students on campus.

Through the use of a variety of questionnaires and issues, an overall perspective can be gained of actual student viewpoints. You may agree or disagree with various viewpoints presented. Your reaction to these questionnaires is important in realizing representative student opinion. Your participation is greatly appreciated.

Subjects then filled out information sheets indicating their age, sex, major, year in school, and group affiliation (see Appendix C). The sheet also contained a 9-centimeter horizontal-line index (see Appendix D). Subjects checked the line indicating their position regarding active group participation. The ends of the scale were designated as "very active participant" and "very inactive participant." The next phase of the study was not introduced until all subjects had completed the information sheet.

Subjects were informed they would hear a brief tape on building changes, which they would evaluate upon its completion. The content of the tapes was always opposite to the stand identified by the observers as common to the subjects' membership group. The source of the communication and communicator were not identified. Subjects were given tape evaluation sheets upon completion of the first tape, and the following instructions were read:

Below are some questions about the tape you just heard and a list of possible answers under each question. Please give your opinion on each question by checking the one

answer that comes closest to your own idea.

1. For the tape you just heard, please indicate on the line below your rating of its position in terms of its favorableness or unfavorableness to building changes. The position at the left-hand end is most favorable to traditional building changes, and the position at the opposite (right hand) end is most favorable to the progressive building changes. You may check anywhere on the line between the two extremes, depending on whether you think the tape was more favorable to traditional changes or more favorable to the progressive changes.

The sheet contained four scales (see Appendix D). The first was a 9-centimeter horizontal line with end points designated as "very pro-traditional" and "very pro-progressive." Each subject indicated his evaluation of the position of the tape by drawing a vertical line at a point along the continuum. The second scale required the subjects to indicate their pleasure or irritation with the tape by checking the most appropriate line opposite one of five vertical headings which read in order from "very pleased," "pleased," "neither pleased nor displeased," "irritated," and "very irritated." The third scale asked subjects to check the category closest to their idea of whether the speaker's opinions were biased or unbiased. The order of headings was "very biased," "biased," "I am not quite sure," "unbiased," "very unbiased." The last scale asked subjects to indicate the category which was closest to their evaluation of whether the speaker's arguments were propaganda or fact. The choices were "all propaganda," "more propaganda than fact," "cannot say for sure," "more fact than propaganda," and "all fact." All subjects finished the tape evaluation sheet before any further measurements were taken (see Appendix E).

Subjects were given an instruction sheet for the Own-Categories Procedure and a packet of 60 statements in random order dealing with

the issue of building change.(see Appendix F). The following instructions were read to the subjects:

You have been given a number of statements expressing opinions in regard to traditional or progressive building changes on the . . . campus. These statements are to be sorted into different piles along the continuum from those most favorable to traditional building change to those most favorable to progressive building change.

Sort the statements into the number of piles that you believe express different positions. You may sort the statements into any number of piles which in your judgment is necessary so that each pile represents a different stand on the issue. Put statements into the same pile which you believe belong together in terms of their relative stand on the issue. This will determine how many piles you have when the sorting is finished. When you are through, you will have the number of piles of statements arranged in order from those most favorable to traditional building change to those most favorable regarding progressive building changes on the . . . campus.

When you are through sorting, put a paper clip on each of the piles. Then write the number 1 on top of the pile of statements which is most favorable to traditional building changes. Write 2 on the top of the next pile. Continue numbering each pile in sequence. The last pile you number will have the highest number and will be the pile of statements which is the most favorable for progressive building changes. After placing a clip on each pile and numbering it in the arranged order, raise your hand. You will then be given further instructions.

Upon completion of the instructions, any questions were answered, and subjects sorted the statements. Subjects then raised their hands as they completed the task, their work was checked, and new sets of instructions were given out and read. The instructions asked the subjects to classify their categorized statements into regions of agreement, disagreement, and noncommitment. The instructions read as follows:

Select the pile of statements which is most objectionable from your point of view. Pick up the pile of statements which is most objectionable from your point of view and write "disagree most" on the margin. If there are any other

piles of statements which are also objectionable, indicate this by writing "disagree" on all of these piles.

Next, select the pile of statements which is closest to your own position. Pick up this pile of statements and write "agree most" on it. Indicate all other piles with which you agree by writing "agree" on each of them. Again, raise your hand, and you will be given an envelope in which to place your statements. Please sit quietly until the other students are finished.

Subjects classified the categories indicating their evaluations on the margin of the top statement of each category (see Appendix G). When subjects finished, they were each given a Manila envelope and a self-evaluation horizontal-line scale (see Appendix D) with instructions to check the position along a 9-centimeter line with regard to the issue of building change (see Appendix H). The instructions were:

Check that point along the line which you believe best indicates your position on the issue of building change. The position on the left end is the most favorable to the need for traditional building change. The position on the right end is most favorable to the need for progressive building change.

The end points were designated as "very pro-traditional building change" and "very pro-progressive building change." Subjects waited until everyone had completed the Own-Categories Procedure and the self-evaluation scale.

At this point the measurement procedures were repeated. Subjects were informed they would hear a brief tape dealing with the issue of war and that they could evaluate the tape upon its conclusion. The tape was played, and subjects were given a tape evaluation sheet. The instructions were similar to those of the earlier evaluation sheet except for the substitution of the war issue terminology. The 9-centimeter horizontal-line scale had end points labeled "very pro-necessity of war" and "very pro-uselessness of war" (see Appendix D).

The next three scales on the evaluation sheet were identical to the ones described earlier, i.e., measuring pleasure or irritation, bias or unbiasedness, and propaganda or fact (see Appendix D).

Subjects were then given a packet of 60 statements in random order on the war issue (see Appendix F) and instructions to sort the statements along the dimension from the "most favorable to the necessity of war" to the "most favorable toward the uselessness of war." The instructions were read together and any questions answered. The instructions were similar to those of the building change issue except for the substitution of the war terminology.

Subjects sorted the statements into categories, numbered the categories, placed paper clips on each pile of statements, and then raised their hands. Their work was checked, and they were given a second instruction sheet asking them to evaluate the categories into regions of acceptance, rejection, and noncommitment (see Appendix G). Instructions were identical to those described earlier. Subjects again raised their hands when finished. Each was given a Manila envelope in which to place the categorized statements and a self-evaluation scale for the war issue (see Appendix D). Subjects indicated their position on the scale by drawing a vertical line at a point intersecting the 9-centimeter continuum (see Appendix H). The ends of the scale were labeled "very pro-necessity for war" and "very pro-uselessness of war." Subjects raised their hands upon completion of the self-evaluation scale.

Subjects were then given Form E of the Rokeach Dogmatism Scale (see Appendix I), an instruction sheet, and an answer sheet. The instructions were read, clarified, and the answer sheet filled out (see Appendix J).

The instructions were as follows:

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others; whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

+1: I AGREE A LITTLE	-1: I DISAGREE A LITTLE
+2: I AGREE ON THE WHOLE	-2: I DISAGREE ON THE WHOLE
+3: I AGREE VERY MUCH	-3: I DISAGREE VERY MUCH

Subjects were given a demand characteristic sheet (see Appendix D) upon completion of the Dogmatism Scale. The demand characteristic sheet asked them to respond to four open-ended questions concerning what was being measured in the experiment and the subjects' reactions to the experiment.

Subjects answered each question and raised their hands. They were given large envelopes in which to place all test materials. This completed the testing session.

## CHAPTER IV

### RESULTS

This study concentrated upon the judgmental categorizations of individuals who evaluated separate issues which elicited differing degrees of ego involvement. These categorizations were compared (a) between experimental and control groups; (b) within experimental groups; (c) within control groups; and (d) to a separate personality dimension. The crux of these comparisons lay in the variation or lack of variation of the categories and statements within the regions of acceptance, rejection, and noncommitment.

Areas judged significant were .05 or less, areas judged similar were .20 or greater, and the area in between .05 and .20 was judged questionable or uncertain.

The first hypothesis that experimental subjects highly ego involved with the war issue use more rejection categories and statements, the same number of acceptance categories and statements, fewer noncommitment categories and statements, and fewer total categories than less ego-involved control subjects was analyzed by Mann-Whitney U Tests to determine differences of judgmental evaluations between combined experimental and combined control groups.

Predicted results were found in the following comparisons:



1. The use of fewer total war issue categories by highly involved experimental subjects was compared to that of less ego-involved control subjects by a Mann-Whitney U Test. The z score of 2.70 was obtained ( $p < .007$ ). In addition, E vs. C means were 6.5 and 8.5. Table 2 summarizes the total number of war categories used by experimental and control groups.

Table 2

Number of Categories Used by Experimental and  
Control Subjects on the War Issue

Number of categories	Experimental	Control	<u>N</u>
5 or less	24 (48.9%)	16 (27.6%)	40
6 or more	25 (51.0%)	42 (72.4%)	67
<u>N</u>	49	58	107

This table reveals that 49 per cent of the combined experimental groups used five categories or less, whereas 28 per cent of the combined control groups used five categories or less.

2. The use of fewer noncommitment war issue categories by highly ego-involved experimental subjects was compared to that of less ego-involved control subjects by a Mann-Whitney U Test. The z score of 1.970 was obtained ( $p < .0488$ ). In addition, E vs. C means were .8 and 2.1.

3. The use of fewer noncommitment war issue statements by highly ego-involved experimental subjects was compared to that of less ego-involved control subjects by a Mann-Whitney U Test. The z score of 2.32

was obtained ( $p < .0202$ ). In addition,  $\bar{E}$  vs.  $\bar{C}$  means were 5.2 and 12.3.

4. The use of the same number of war issue acceptance statements by highly ego-involved experimental subjects was compared to that of less ego-involved control subjects by a Mann-Whitney  $U$  Test. The  $z$  score of .62 was obtained ( $p > .4352$ ). In addition,  $\bar{E}$  vs.  $\bar{C}$  means were 23.5 and 22.5.

Predicted results not confirmed were found in the following comparisons:

5. The use of more war issue rejection categories by highly ego-involved experimental subjects was compared to that of less ego-involved control subjects by a Mann-Whitney  $U$  Test. The  $z$  score of .1344 was obtained ( $p > .8966$ ). In addition,  $\bar{E}$  vs.  $\bar{C}$  means were 3.1 and 3.3.

6. The use of more war issue rejection statements by highly ego-involved experimental subjects was compared to that of less ego-involved control subjects by a Mann-Whitney  $U$  Test. The  $z$  score of .5815 was obtained ( $p > .5620$ ). In addition,  $\bar{E}$  vs.  $\bar{C}$  means were 3.1 and 3.3.

Predicted results found questionable were as follows:

7. The use of the same number of war issue acceptance categories by highly ego-involved experimental subjects was compared to that of less ego-involved control subjects by a Mann-Whitney  $U$  Test. The  $z$  score of 1.76 was obtained ( $p < .0784$ ). In addition,  $\bar{E}$  vs.  $\bar{C}$  means were 2.6 and 3.1.

The second hypothesis that experimental subjects less ego involved in the building change issue use more noncommitment categories and statements, more total categories, the same number of acceptance categories and statements, and fewer rejection categories and statements than in previous evaluations of the high ego-involving war issue was analyzed by Wilcoxon Matched-Pairs Signed-Rank Tests to determine differences of judgmental evaluations within the combined experimental groups.

Predicted results were found in the following comparisons:

1. The use of more statements of noncommitment by experimental subjects less ego involved in the building change issue than in previous evaluations of the high ego-involving war issue was compared by a Wilcoxon Test. The  $z$  score of 3.22 was obtained ( $p < .0018$ ). In addition,  $\bar{E}$  vs.  $\underline{E}$  means were 11.3 and 5.2.

Predicted results not confirmed were found in the following comparisons:

2. The use of more categories of noncommitment by experimental subjects less ego involved in the building change issue than in previous evaluations of the high ego-involving war issue was compared by a Wilcoxon Test. The  $z$  score of .681 was obtained ( $p > .4966$ ). In addition,  $\bar{E}$  vs.  $\underline{E}$  means were 1.3 and .8.

3. The use of a larger number of total categories by experimental subjects less ego involved in the building change issue than in previous evaluations of the high ego-involving war issue was compared by a Wilcoxon Test. The  $z$  score of .508 was obtained ( $p > .6100$ ). In addition,  $\bar{E}$  vs.  $\underline{E}$  means were 7.2 and 6.5.

4. The use of fewer rejection categories by experimental subjects less ego involved in the building change issue than in previous evaluations of the high ego-involving war issue was compared by a Wilcoxon Test. The  $z$  score of .783 was obtained ( $p > .4354$ ). In addition,  $\bar{E}$  vs.  $\underline{E}$  means were 3.6 and 3.1.

5. The use of fewer rejection statements by experimental subjects less ego involved in the building change issue than in previous evaluations of the high ego-involving war issue was compared by a Wilcoxon

Test. The  $\underline{z}$  score of .338 was obtained ( $\underline{p} > .7414$ ). In addition,  $\underline{E}$  vs.  $\underline{E}$  means were 30.6 and 31.5.

6. The use of the same number of acceptance statements by experimental subjects on both the less ego-involving building change issue and the high ego-involving war issue was compared by a Wilcoxon Test. The  $\underline{z}$  score of 2.64 was obtained ( $\underline{p} < .0082$ ). In addition,  $\underline{E}$  vs.  $\underline{E}$  means were 18.8 and 23.5.

Predicted results found questionable were as follows:

7. The use of the same number of acceptance categories by experimental subjects on both the less ego-involving building change issue and the high ego-involving war issue was compared by a Wilcoxon Test. The  $\underline{z}$  score of 1.89 was obtained ( $\underline{p} < .0588$ ). In addition,  $\underline{E}$  vs.  $\underline{E}$  means were 2.2 and 2.6.

The third hypothesis that experimental subjects less ego involved in the building change issue use the same number of acceptance categories and statements, the same number of rejection categories and statements, the same number of noncommitment categories and statements, and the same number of total categories as less ego-involved control subjects was analyzed by Mann-Whitney  $\underline{U}$  Tests to determine differences of judgmental evaluations between combined experimental and combined control groups.

Predicted results were found in the following comparisons:

1. The use of the same number of rejection categories by both experimental and control subjects less ego involved in the building change issue was compared by a Mann-Whitney  $\underline{U}$  Test. The  $\underline{z}$  score of .028 was obtained ( $\underline{p} > .9760$ ). In addition,  $\underline{E}$  vs.  $\underline{C}$  means were 3.6 and 3.1.

2. The use of the same number of rejection statements by both

experimental and control subjects less ego involved in the building change issue was compared by a Mann-Whitney U Test. The z score of .932 was obtained ( $p > .3524$ ). In addition, E vs. C means were 11.3 and 12.5.

3. The use of the same number of noncommitment categories by both experimental and control subjects less ego involved in the building change issue was compared by a Mann-Whitney U Test. The z score of 1.07 was obtained ( $p > .3124$ ). In addition, E vs. C means were 1.3 and 2.0.

4. The use of the same number of noncommitment statements by both experimental and control subjects less ego involved in the building change issue was compared by a Mann-Whitney U Test. The z score of .485 was obtained ( $p > .6242$ ). In addition, E vs. C means were 11.3 and 12.5.

Predicted results not confirmed were found in the following comparison:

5. The use of the same number of acceptance categories by both experimental and control subjects less ego involved in the building change issue was compared by a Mann-Whitney U Test. The z score of 2.42 was obtained ( $p < .0156$ ). In addition, E vs. C means were 2.2 and 2.8.

Predicted results found questionable were as follows:

6. The use of the same number of acceptance statements by both experimental and control subjects less ego involved in the building change issue was compared by a Mann-Whitney U Test. The z score of 1.82 was obtained ( $p < .0688$ ). In addition, E vs. C means were 18.8 and 22.0.

7. The use of the same number of total categories by both experimental and control subjects less ego involved in the building change issue was compared by a Mann-Whitney U Test. The z score of 1.47 was obtained ( $p < .1416$ ). Table 3, in which the total number of categories used by

Table 3

Number of Categories Used by Experimental and Control  
Subjects on the Building Change Issue

Number of categories	Experimental	Control	<u>N</u>
5 or less	18 (36.7%)	18 (31.0%)	36
6 or more	31 (63.3%)	40 (68.9%)	71
<u>N</u>	49	58	107

experimental and control groups is summarized, reveals that 37 per cent of the combined experimental groups used five or fewer categories, whereas 31 per cent of the combined control groups used five categories or less.

The fourth hypothesis that less ego-involved control subjects use the same number of acceptance categories and statements, rejection categories and statements, noncommitment categories and statements, and total categories in evaluating separate issues of war and building change was analyzed by Wilcoxon Matched-Pairs Signed-Rank Tests to determine differences of judgmental evaluations within the combined control groups.

Predicted results were found in the following comparisons:

1. The use of the same number of acceptance statements in evaluating separate issues of war and building change by less ego-involved control subjects was compared by a Wilcoxon Test. The  $z$  score of .0419 was obtained ( $p > .9680$ ). In addition,  $\bar{C}$  vs.  $\bar{C}$  means were 22.5 and 22.0.

2. The use of the same number of noncommitment categories in evaluating separate issues of war and building change by less ego-involved

control subjects was compared by a Wilcoxon Test. The  $z$  score of .1201 was obtained ( $p > .9044$ ). In addition,  $\bar{C}$  vs.  $\bar{C}$  means were 2.1 and 2.0.

3. The use of the same number of noncommitment statements in evaluating separate issues of war and building change by less ego-involved control subjects was compared by a Wilcoxon Test. The  $z$  score of .526 was obtained ( $p > .5962$ ). In addition,  $\bar{C}$  vs.  $\bar{C}$  means were 12.3 and 12.5.

4. The use of the same number of rejection categories in evaluating separate issues of war and building change by less ego-involved control subjects was compared by a Wilcoxon Test. The  $z$  score of .268 was obtained ( $p > .7872$ ). In addition,  $\bar{C}$  vs.  $\bar{C}$  means were 3.3 and 3.1.

5. The use of the same number of rejection statements in evaluating separate issues of war and building change by less ego-involved control subjects was compared by a Wilcoxon Test. The  $z$  score of .421 was obtained ( $p > .6744$ ). In addition,  $\bar{C}$  vs.  $\bar{C}$  means were 25.1 and 26.1.

Predicted results found questionable were as follows:

6. The use of the same number of acceptance categories in evaluating separate issues of war and building change by less ego-involved control subjects was compared by a Wilcoxon Test. The  $z$  score of 1.68 was obtained ( $p < .0930$ ). In addition,  $\bar{C}$  vs.  $\bar{C}$  means were 3.1 and 2.8.

7. The use of the same number of total categories in evaluating separate issues of war and building change by less ego-involved control subjects was compared by a Wilcoxon Test. The  $z$  score of 1.46 was obtained ( $p < .1442$ ). In addition,  $\bar{C}$  vs.  $\bar{C}$  means were 8.5 and 7.9.

The fifth hypothesis that experimental subjects highly ego involved with the war issue displace ambiguous mid-region statements to a greater extent than less ego-involved control subjects, whereas experimental

subjects less ego involved with the building change issue displace ambiguous mid-region statements equally as compared to less ego-involved control subjects, was analyzed by  $t$  tests to determine the displacement of mid-region statements by the combined experimental and combined control groups.

Predicted results were found in the following comparisons:

1. A  $t$  test for correlated means was used to compare mid-region war statements which were accepted or rejected by highly ego-involved subjects from combined experimental groups and less ego-involved subjects from combined control groups. The  $t$  score of 3.71 was obtained for the experimental groups ( $p < .01$ , 96  $df$ ). The  $t$  score of .07 was obtained for the control groups ( $p > .30$ , 114  $df$ ).

2. A  $t$  test for correlated means was used to compare mid-region building change statements which were accepted or rejected by less ego-involved subjects from combined experimental groups and less ego-involved subjects from combined control groups. The  $t$  score of 7.17 was obtained for the experimental groups ( $p < .01$ , 96  $df$ ). The  $t$  score of 4.33 was obtained for the control groups ( $p < .01$ , 114  $df$ ). The results of these tests are summarized in Table 4.

A comparison of mid-region and extreme end-region statements in Tables 5, 6, and 7 reveals displacement patterns of experimental and control groups.

The sixth hypothesis that noncommitment statements of experimental subjects highly ego involved with the war issue correlate positively with scores obtained on the Dogmatism Scale was analyzed by a Spearman Rank Correlation Coefficient.



Table 4

## Mid-Region Statements Judged as Accepted or Rejected

Subjects	Mean number rated		<u>t</u>	<u>p</u>
	Accepted	Rejected		
War issue				
Experimental (N = 49)	11.65	15.51	3.71	<.01 96 <u>df</u>
Control (N = 58)	12.17	12.10	.07	<.30 114 <u>df</u>
Building change issue				
Experimental (N = 49)	7.86	16.18	7.17	<.01 96 <u>df</u>
Control (N = 58)	8.70	13.78	4.33	<.01 114 <u>df</u>

Table 5

## The Placement of Mid-Region Statements by Experimental and Control Group Subjects

Subjects	Agree	Disagree	Noncommitment	<u>N</u>
War issue				
Experimental (31 X 49 = 1519)	571	720	188	1519
Control (31 X 58 = 1798)	726	702	370	1798
Building change issue				
Experimental (30 X 49 = 1470)	385	790	293	1470
Control (30 X 58 = 1740)	505	799	436	1740

Table 6

The Placement of Extreme End-Region Statements by Experimental  
and Control Group Subjects on the War Issue

Position of statements	Judgments by experimental subjects (14 X 49 = 686)			Judgments by control subjects (14 X 58 = 812)		
	Necessity categories 1 & 2	Uselessness categories <u>N</u> & <u>N</u> -1	Moderate categories mid-region	Necessity categories 1 & 2	Uselessness categories <u>N</u> & <u>N</u> -1	Moderate categories mid-region
Necessity for war	376 (54.7%)	67 (9.9%)	243 (35.4%)	383 (47.2%)	56 (6.9%)	373 (45.9%)
Uselessness of war	37 (5.4%)	539 (78.6%)	110 (16.0%)	43 (5.3%)	498 (61.3%)	271 (33.4%)

Table 7

The Placement of Extreme End-Region Statements by Experimental  
and Control Group Subjects on the Building Change Issue

Position of statements	Judgments by experimental subjects (15 X 49 = 735)			Judgments by control subjects (15 X 58 = 870)		
	Traditional categories 1 & 2	Progressive categories <u>N</u> & <u>N</u> -1	Moderate categories mid-region	Traditional categories 1 & 2	Progressive categories <u>N</u> & <u>N</u> -1	Moderate categories mid-region
Traditional	586 (79.74%)	6 (.08%)	143 (19.45%)	675 (77.6%)	5 (.06%)	190 (21.8%)
Progressive	22 (3.0%)	488 (66.4%)	225 (30.6%)	22 (2.5%)	603 (69.3%)	245 (38.2%)

Predicted results not confirmed were found in the following comparisons:

1. A Spearman Rank Correlation was used to compare the Dogmatism Scale scores and war noncommitment statements of the total experimental groups. The rho score of 0.0139 was obtained.

2. A  $t$  test was used to compare the Dogmatism Scale scores of the total experimental and control groups. The  $t$  score obtained was 1.60 ( $p > .20$ , 107  $df$ ).

The seventh hypothesis that experimental subjects highly ego involved with the war issue and not committed to mid-region positions locate their position on the war issue differently than less ego-involved control subjects, whereas experimental subjects less involved in the building change issue will locate their position similar to less ego-involved control subjects, was analyzed by a series of  $t$  tests.

Predicted results were found in the following comparisons:

1. A  $t$  test was used to compare own positions of highly ego-involved subjects from combined experimental Groups A and B with those of less ego-involved subjects from combined control Groups 2 and 3 on the war issue. The  $t$  score of 9.58 was obtained ( $p < .01$ , 51  $df$ ).

2. A  $t$  test was used to compare own positions of highly ego-involved subjects from combined experimental Groups C and D with those of less ego-involved subjects from combined control Groups 1 and 4 on the war issue. The  $t$  score of 3.02 was obtained ( $p < .01$ , 52  $df$ ).

3. A  $t$  test was used to compare own positions of less ego-involved subjects from combined experimental Groups C and D, with those of less ego-involved subjects from combined control Groups 1 and 4 on the building

change issue. The  $t$  score of .98 was obtained ( $p > .20$ , 52  $df$ ).

Predicted results not confirmed were found in the following comparison:

4. A  $t$  test was used to compare own positions of less ego-involved subjects from combined experimental Groups A and B with those of less ego-involved subjects from combined control Groups 2 and 3 on the building change issue. The  $t$  score of 3.79 was obtained ( $p < .01$ , 51  $df$ ).

The experimental and control groups were compared by matching groups who received the same tape treatments regardless of order. Tables 8 and 9 summarize the mean evaluations which the group members made of their own positions on the total issue continuum.

Table 8

Mean Self-Evaluation Position Scores of Matched Experimental Groups A and B with Control Groups 2 and 3

Issue treatment	Experimental Groups A & B	Control Groups 2 & 3	$t$	$p$	$df$	$N$
Necessity for war	7.85	3.25	9.58	< .01	51	53
Traditional building change	4.89	2.54	3.79	< .01	51	53

The eighth hypothesis that the position of clear extreme communication will not be subject to appreciable displacement regardless of degree of ego involvement, whereas experimental subjects highly ego involved with the war issue will displace the content of communication further than less ego-involved control subjects, was analyzed by an analysis of

Table 9

Mean Self-Evaluation Position Scores of Matched Experimental Groups C and D with Control Groups 1 and 4

Issue treatment	Experimental Groups C & D	Control Groups 1 & 4	<u>t</u>	<u>p</u>	<u>df</u>	<u>N</u>
Uselessness of war	3.23	4.92	3.02	<.01	52	54
Progressive building change	3.26	2.65	.98	>.20	52	54

variance and a Mann-Whitney U Test.

Predicted results were found in the following comparisons:

1. An analysis of variance was used to compare the mean of combined experimental Groups A and B with that of combined control Groups 2 and 3 and the mean of combined experimental Groups C and D with that of combined control Groups 1 and 4 on their evaluations of the position of the war communication. The F score of .15 was obtained for the evaluation of Groups A and B with Groups 2 and 3. The F score of .07 was obtained for the evaluation of experimental Groups C and D with control Groups 1 and 4.

2. An analysis of variance was used to compare the mean of combined experimental Groups A and B with that of combined control Groups 2 and 3 and the mean of combined experimental Groups C and D with that of combined control Groups 1 and 4 on their evaluation of the position of the building change communication. The F score of .37 was obtained for the evaluation of experimental Groups A and B with control Groups 2 and 3. The F score of .00 was obtained for the evaluation of experimental Groups C and D with control Groups 1 and 4.

Table 10 summarizes the experimental and control groups evaluation of communication position.

Table 10

## Evaluation of Tape Position

Issue	Experimental groups	Mean score	Control groups	Mean score	F	p
Necessity for war	A & B	.39	2 & 3	.65	.15	<u>ns</u>
Uselessness of war	C & D	7.60	1 & 4	7.71	.07	<u>ns</u>
Traditional building change	A & B	1.18	2 & 3	1.23	.00	<u>ns</u>
Progressive building change	C & D	7.60	1 & 4	7.78	.37	<u>ns</u>

3. A Mann-Whitney U Test was used to compare irritated or pleased content evaluations of the war communication (see Appendix E). The z score of 5.2 was obtained ( $p < .00006$ ).

4. A Mann-Whitney U Test was used to compare biased or unbiased content evaluations of the war communication. The z score of 3.57 was obtained ( $p < .00046$ ).

5. A Mann-Whitney U Test was used to compare propaganda or fact content evaluations of the war communication. The z score of 2.59 was obtained ( $p < .0096$ ).

6. A Mann-Whitney U Test was used to compare irritated or pleased content evaluations of the building change communication. The z score of .821 was obtained ( $p > .4122$ ).

7. A Mann-Whitney U Test was used to compare biased or unbiased content evaluations of the building change communication. The z score

of .897 was obtained ( $p > .3734$ ).

Predicted results found questionable were as follows:

8. A Mann-Whitney U Test was used to compare propaganda or fact content evaluations of the building change communication. The z score of 1.93 was obtained ( $p < .0536$ ).

In *summary* of results, the following findings were obtained:

Significant results at the .05 level showed that highly ego-involved experimental subjects used fewer noncommitment categories and statements and fewer total categories than less ego-involved control subjects as well as a predicted lack of significance in the statements of the acceptance region. The expected use of more rejection categories and statements and the same number of acceptance categories by highly ego-involved experimental subjects was not confirmed.

Experimental subjects less ego involved in the building change issue exhibited significant differences at the .002 level in the use of more noncommitment statements than in previous evaluations of the high ego-involving war issue. The predicted use of more noncommitment and total categories, the same number of acceptance categories and statements, and fewer rejection categories and statements was not confirmed.

As predicted, experimental subjects less ego involved in the building change issue used the same number of rejection categories and statements, and the same number of noncommitment categories and statements as less ego-involved control subjects. A significant difference at the .05 level was found for the use of acceptance categories which was contrary to expectations. The predicted similarity of acceptance statements and total categories was not confirmed.

Less ego-involved control subjects were found to use the same number of noncommitment categories and statements, rejection categories and statements, acceptance statements, and total categories when evaluating separate issues. Predicted similarity of acceptance categories was not confirmed.

It was found that highly ego-involved experimental subjects significantly displaced ambiguous mid-region statements to a greater extent at the .01 level than less ego-involved control subjects; whereas experimental subjects less ego involved with the building change issue displaced mid-region statements equally as compared to less ego-involved control subjects.

No significant relationship was found between Dogmatism scores and the noncommitment war statements of experimental subjects, nor was there any significant difference between Dogmatism Scale scores of the total experimental and control groups.

Experimental subjects highly ego involved with the war issue indicated a significantly different scale position than less ego-involved control subjects at the .01 level. When experimental subjects located their position on the building change issue, their position was similar to that of the less ego-involved control subjects.

The position of clear extreme communication was not appreciably displaced by either experimental or control subjects. However, there was a significant difference in the displacement of the content of communication at the .01 level by highly ego-involved experimental subjects as compared to less involved control subjects.



## CHAPTER V

### DISCUSSION

The confirmation of hypotheses dealing with the noncommitment categories and statements, the significant displacement of mid-region statements, and the number of total categories used by high ego-involved subjects support earlier findings through the use of the Own-Categories Procedure by LaFave and M. Sherif (1962), Reich and M. Sherif (1963), C. W. Sherif (1961), M. Sherif and Hovland (1953), and Vaughan (1961).

Confirmation of the shifting regions of within-group experimental comparisons and the comparison of experimental and control group subjects on issues of varying importance showed that several attitude profiles can be obtained by extending the use of the Own-Categories Procedure. This study revealed that the Own-Categories Procedure can be expanded beyond the measurement of one attitude profile, allowing the experimenter to obtain an indication of differing attitude dimensions along with varying degrees of ego involvement. This type of extension enables measurement of either one general cluster of attitudes or separate attitudes within the individual's judgmental frame of reference.

Confirmation of the hypothesis regarding the judgment of the position and the content of clear extreme communication supported earlier studies and theoretical positions by Hovland et al. (1957), C. W. Sherif

et al. (1965), M. Sherif and Hovland (1961), and Whittaker (1964; 1965). High ego involvement did not affect the ability of experimental subjects to place the location of clear extreme communication, but the influence of own position and ego involvement did affect the evaluation of communication content.

#### Dogmatism and Ego Involvement

The lack of significance between the experimental measure of war issue noncommitment statements and dogmatism scores was due primarily to two factors: the reaction of Group A during the general experiment and the fact that there were very few high- or low-scoring dogmatic subjects in the experiment.

Some of the members in Group A recognized the dogmatism test as one dealing with personality characteristics. Independent checks by participant and liaison observers established that some members of Group A attempted to project an image of flexibility and reasonableness so that they would not be identified as committed to the extreme end of the liberal continuum, as they believed they were being tested along the dimension of liberal-conservative with authoritarianism as a major comparative index.

The lack of any meaningful number of high and low dogmatic subjects in the experimental or control groups was a decisive factor in prohibiting a clear comparison between (a) profile widths of ego-involved subjects and dogmatism and (b) the consistency of attitude patterns in the latitude regions of high and low dogmatic subjects. The design of this study, which focused on natural groups, precluded the assured selection of both ego-involved and dogmatic subjects. High and low cut-off

points for dogmatism scores were established from the precedent set by White et al. (1965). High dogmatism was distinguished as scores of 170 or above, and low dogmatism, by scores of 123 or lower. In the present study there were 5 experimental and 7 control subjects who were classified as high dogmatic and 14 experimental and 7 control subjects classified as low dogmatic. Group A had 7 of the 14 low dogmatic scorers; however, this was the experimental group which intentionally was manipulating scores on the dogmatism test. Thus, their scores may just as well have indicated successful manipulation rather than actual low dogmatism.

The general lack of either high or low dogmatic subjects must be carefully considered, since several members of one group identified the general content area of the Dogmatism Scale while others recognized the scale as some form of a personality test. These factors make any meaningful analysis of the data highly questionable.

#### A Severe Trial for the Disguised Characteristic of the Own-Categories Procedure

There was a rather concerted attempt by members of Group A to discover the nature of the Own-Categories Procedure and to distort their performance on the test. Due to the disguised character of the Own-Categories Procedure, the obtained measurements were not so seriously affected, although some repercussions were evident. Independent observation by the participant and liaison observers and a "group sort" of the war issue statements verified that subjects of Group A did not know what the test was measuring or what the critical variables were. The disguised nature of the Own-Categories Procedure was further upheld by general comments of Group A members, which represented typical reactions from all

groups as indicated on the demand characteristics sheets. These comments were "didn't really measure anything," "innocuous," and "could not possibly measure anything worth while."

The main effect upon the Own-Categories Procedure was the increased use of total categories by ego-involved subjects of Group A and five members of Group B who had informal friendship ties with Group A members. The trend of fewer total categories was significantly less than the control groups but averaged at least one category or more than the high ego-involved subjects in earlier studies by LaFave and Sherif (1962), Reich and Sherif (1963), C. W. Sherif (1961), M. Sherif and Hovland (1953), and Vaughan (1961).

Some of the Group A members and several Group B members were establishing one extra category on each side of the war scale as too extreme from their point of view. This alteration came to light during a severe and unplanned trial of the disguised nature of the Own-Categories Procedure, which gave both an indication of the subjects' lack of understanding of what was being measured and an insight as to how the scale was being evaluated.

The desire to understand the nature of the experiment was so strong that on the first day of measurement one of the Group A members stole a packet of war issue statements. He and four other members of the major informal friendship clique of Group A attempted to analyze the statements. The liaison observer was present during the analysis and was able to record the members' evaluations and reactions to the statements. The members as a group sorted and categorized the statements. They established five rejection categories and two categories of acceptance,

with no noncommitment region. The statements were displaced toward the rejection region with 46 rejected and 14 accepted. The main reason given for using seven categories was that the group felt the need to make special designations of the end categories on both sides of the sort as extreme and unreasonable and the next category on each side as a more reasonable position for that phase of the issue. The group labeled the end categories and statements in them as "extreme liberal" and "extreme conservative" and the next category on each side of the sort as "reasonable liberal" and "reasonable conservative." The group established these designations as they were very concerned about not being evaluated as a radical extremist group which was very narrow in its viewpoints.

There were a few statements which the group designated as irrelevant to the war issue. This finding was similar to pilot subject reaction in Vaughan's 1961 study. However, neither pilot subjects nor control or experimental subjects in the present study, other than several members of Group A, made this distinction. The statements considered irrelevant came from literature circulated by the groups concerned with the war issue and from Group A's general conversations. It was apparent from the results of the "group sort" and observer reports that the only distorting effect that occurred from the manipulation of Groups A and B was the increase in number of categories used by these ego-involved subjects. They were unaware that ego involvement was a major variable or that a functional comparison of the number of statements and categories in the regions of acceptance, rejection, and noncommitment was being used in the study.

Rejection Region Evaluations and the Building Change Issue

The issue of building change was chosen because observer checks, demand characteristics sheets, and direct interviews with subjects indicated very little concern over the issue itself and also showed that building change was not as important an issue as war.

The predicted lack of significant difference between the experimental and control groups' rejection region evaluations of the building change issue was brought about primarily by the slight shifting toward less ego involvement by the experimental group and the increased ego involvement by the control groups. This resulted in a similarity of agreement due to a medium degree of ego involvement rather than the expected similarity caused by a low degree of ego involvement. Tables 2, 3, and 5 give an indication of this shift.

There was a trend on the building change issue in the direction of increased total number of categories used by experimental subjects as well as a significant increase in the number of noncommitment statements. There was, however, no decrease in the rejection region but a decrease in the number of acceptance statements. The increased use of categories by Groups A and B also tended to balance their evaluations in the rejection region of both issues. The statements of Group A went in the predicted direction but were not significant; whereas Group B had no meaningful shift at all.

The control subjects did not appreciably reduce the total number of categories used on the building change issue, but they did show a definite shift of 97 statements in the direction of the rejection region and a decrease of 221 statements in the acceptance of mid-region

statements. These shifts indicated an increase in ego involvement from the low ego-involvement profiles established on the war issue.

The extreme positions favoring traditional or progressive building change presented in the tapes appear to have unexpectedly focused the subjects' attention on elements touching on conservative or liberal themes in several of the statements. This factor, as well as general suspicion and some negative feeling toward the experiment, may well have contributed to the profile of moderate ego involvement.

The lack of significance between the experimental and control subjects in the rejection region of the war issue stems from another set of factors. The main condition which restricted the clear emergence of rejection region differences in the war issue was the unavoidable change in experimental groups committed to the necessity for war. The original Group Z, which was chosen and observed, had to be dropped from the study. This necessitated a substitution of Groups C and D, which were the most highly committed groups available, but not as committed to war nor located as far out along the scale in their position on the necessity for war. Evaluation of the data by Group C indicated fairly high ego involvement, but Group D counteracted part of the effect of Group C. The substitution of groups resulted in somewhat less committed subjects, causing less difference in rejection region evaluations, but these group substitutions did not cause a lack of significance in the noncommitment and total categories.

The second main factor which affected the rejection regions was brought about through the rapid change and loss of active interest in the war issue before measurement of the subjects could be completed.

Due to the swift shift in overt participation on the war issue shortly after the loss of the original Group Z and the resulting need for a careful independent verification of the new substitute groups' commitment and position on the war and building change issues, it was not possible to measure the experimental group members until after the highest point of explicit group activity on the campus. The effect of the delayed measurement was more predominant in Groups C and D, which were slightly less involved all through the study and showed itself in the lack of significant differences in the rejection regions.

Many of the members of Groups A and B continued their activities, focusing on the war issue through informal friendship interaction, and these members were used in the study. There was not as much informal activity with Groups C and D, although Group C continued to sustain its prior commitment over a longer period; whereas Group D more quickly lost its high degree of interest which had peaked when members tore down an effigy hung by opposing factions at a war and free speech rally.

#### Observer Activities and Evaluations

A brief description of the part which the observers played in the study and their observations clarifies the necessity for shifting groups and the reasons for the rapid lessening of group activity centering around the war issue. The three participant observers investigated general group activities in the community and on the campus and infiltrated existing formal membership groups and informal friendship clusters of groups identified as important to the study. The two liaison observers were members of existing formal and informal groups on which the study was focusing.



Participant observers were first utilized to infiltrate identified Groups A and Z, which were the most active and committed to opposite viewpoints on the war issue. Group A was identified as part of a larger movement which had grown throughout the country in opposition to war and the war in Viet Nam. This group had a campus membership of both students and faculty as well as members from the general community. The president of the group was a community member, but informal leadership was directly exerted from the campus membership. Group Z was comprised almost entirely of community members and was one of a series of small work groups of ten to twenty members organized to carry out the conservative political doctrine of their local and national leadership. Group Z had formal affiliation ties with its state, district, and national levels of organization.

The participant observers were never identified to the groups or to each other and at this stage of the study did not know that other groups were being observed. Protective background stories were devised, and in both instances participation necessitated a shift for observers in their allegiance to several membership groups and a change in political party affiliations. These observers were chosen for their ability to interact easily in groups, their maturity, age, and general community standing which fit the norms of the particular group with which they were to work. In the case of the Group Z observer, this meant a person who was fifteen to twenty years older than the average student on campus and a married man; whereas the observer of Group A needed to be single and have an active student image.

Both participant observers were successful in penetrating their

groups and in becoming accepted as regular members. It was not until the third month that observers gained full acceptance in informal friendship and leadership clusters which functioned outside of the regular formal meetings. Observers began to gain information and insights of behind-the-scenes happenings, decisions, and operations which had not been evident at the regular meetings or other formal gatherings.

At this stage of the study, the observer in Group Z began to lose his allegiance to the study and become more identified with the group which he was observing. The danger of overidentification had been stressed before and during the observation but this was to no avail, since the observer became more and more committed to Group Z. It was at this point the observer related that his protective background story had been exposed, and his reaction to this incident was to move more strongly toward the approval of the group and to disassociate himself from the study. He became a completely dedicated member of the organization and was no longer willing to reveal any information.

The structure of alternate Groups C and D, which replaced Group Z, was stable and well organized and remained the most stable during the study. The formal leadership patterns were well established with an average membership of about fifty students in each group. The number of years that the different groups had been formally established varied: Groups C and D, over fifteen years; Groups Z and B, five years; Group A, only around two years.

During the fourth month of the study, group activity centering on the war issue reached its peak and then rapidly shifted from group participation to individual membership participation on an informal

level. At the height of commitment, Groups A and B were active as identified organizations with a high percentage of individual membership participation; whereas Groups C and D did not often participate as overt groups but more through their individual members. These activities included teach-ins, public debates, demonstrations, and effigy hangings. Involvement centered around the war and free speech issues and culminated in an incident where two professors and three students were placed in jail. The incident led to a court decision against the defendants and subsequently to a loss of formal and informal leaders in Groups A and B.

There was a sudden and unexpected drop in the activity of Groups A and B following the trial and resignation of several faculty members. Participant and liaison observers determined that this rapid loss of active group participation was due to two primary factors: first, the disappointment of members of Groups A and B over apathy shown by the general student body in refusal to become highly committed to the position of Groups A and B on the war issue and the arrest of fellow students and faculty; and, second, the immediate withdrawal of formal and informal community, student, and faculty leadership in these organizations.

The president of Group A was suddenly away from town for long periods and never exerted any sustained effort during the rest of the school year. Several high-ranking, formal student leaders of Group A left school. The informal lieutenants, three of which were faculty members, dropped overt support in the group's major activities. These rapid shifts of the formal and informal group structure happened within a matter of three to four weeks. The loss of interest and leadership had an immediate effect upon the weekly attendance of Group A's formal

meetings. The attendance dropped from 30 members per meeting to 6, one of whom was the participant observer. There was a severe loss of direct communication among the formal members of Group A. Activity in the group now shifted to center on an informal friendship cluster of campus students who kept up daily face-to-face contacts with each other and who planned one or two activities on their own. These students would informally gather in several meeting places which had spontaneously become central points of daily contact. The friendship cluster maintained its informal organization, which included social activities, formal campus expressions on the war issue, and trips by several members to rallies at another campus. The formal group structure remained the same in Groups C and D during this period; whereas in Group B there were alterations which took the form of less direct communication, less effective influence by formal leaders, and lower attendance in formal meetings.

The disintegration of communication and formal activities of Group A and Group B had an adverse effect upon the influence of the formal leaders to circulate positive information about the study or to motivate them to participate. Consequently, a much higher degree of hostility and misunderstanding about the study arose than would have occurred in more open circumstances.

#### Experimental Group Resistance

The resistance in Group A took several forms: direct refusal to participate in the study due to lack of interest; suspicion of the study and its stated purpose in the student newspaper; suspicion of the student body president, who was identified as helping to conduct the study; fear

that the study was being conducted by the administration to procure evidence which would be used to revoke the campus privileges of the group. There were several spontaneous discussions by some of the members in the informal friendship cluster about not participating in the study. Members of Group A were reassured by the observers, and this, plus the fact that the disguised Own-Categories Procedure appeared harmless and their belief that they had the ability to alter the scores on the Dogmatism Scale, allowed subject participation to continue.

There was no high resistance encountered in the formal leaders of either Groups A or B; the resistance came from the most active informal leaders and members in the friendship clusters. The formal leaders were not effective in directly influencing or communicating their positive support for the study. The opposite effect of formal leadership was encountered in Groups C and D. In both of these groups, the formal leaders exerted a strong positive influence upon their members to participate in the study. The formal structure of these groups was generally open to communication between high and low status members; whereas in Groups A and B the formal leadership and communication patterns had broken down.

#### Self-Evaluation Scale Measures

The self-evaluation measures on the war issue indicated a significant difference in the mean positions of the experimental and control groups' location along the centimeter scale. The experimental groups' mean scores were farther out on the scale in the predicted direction corroborating the observers' identification of the groups' general stands on the war issue. There was a significant difference on the

building change issue between the mean scores of experimental Groups A and B and their equivalent control groups but no significant difference between experimental Groups C and D and their equivalent control groups. This indicates that the difference of polarity between experimental and control groups on the war and building change issue was greater for Groups A and B and that the significant difference on the war issue between Groups C and D and their controls did not carry over to the building change issue. The mean positions of the control groups on the building change self-evaluation scale were closer to the selected position of Groups C and D than to the position selected by Groups A and B.

As the study progressed, it became apparent that there was more interest and a closer proximity to the traditional side of the building change issue. The self-rating scales showed that all groups moved toward the left or traditional side of the scale. Experimental Groups A and B still positioned themselves right of the center of the scale but closer to the middle than their average war issue position. The control groups moved in the direction of their respective treatment during the war issue but moved consistently toward the traditional side of the scale on the building change issue.

#### Suggested Changes in Design

The length of time taken to complete two Own-Categories Procedures and a comparative personality test averaged 1 hour and 45 minutes. Although significant measures were obtained over this time duration, a reduction in the total length of time seemed desirable. The point where the greatest time loss occurred was when subjects had to wait

until everyone had completed sorting the first Own-Categories Procedure and the first self-evaluation scale before hearing the second tape. A change in design to allow subjects to progress at their own speed or the single measurement of subjects would overcome part of this time lag. Since the measurement of several subjects in one session is a decided advantage to the experimenter, the use of ear phones to introduce the tape treatments would allow group measurements but enable the subjects to proceed directly at their own pace. The elimination of this type of delay would reduce the total time of the experiment on the average of ten to fifteen minutes.

It appears that the number of statements could be reduced, decreasing the time factor and enabling the smoother measurement of a series of attitudes. This decrease in the statements would be appropriate only if the mid-region displacement and stability of the extreme end-region statements were not jeopardized. A reduction of the end-region statements from 15 to 12 and the mid-region, from 30 to 24 would allow a quicker sort and perhaps a more precise overview of the total statement dimension without losing the effectiveness of the ambiguity of the mid-region and the stability of the end-region. This reduction would mean 12 less statements or a total of 48 instead of the present 60 and would result in an average of eight minutes less time in sorting the entire series of statements. The time reduction for two Own-Category sortings would be about sixteen minutes plus the elimination of a boring wait between test measurements.

The length of the tapes could be shortened to four or five minutes. This would cut at least a minute and a half off of each tape. This

reduction seems appropriate since observations of the subjects during the experiment showed that involvement was elicited well before the end of the tapes.

The total time reduction including the subject moving at his own speed, statement reductions, and tape reductions would be over thirty-two minutes.

The use of real student membership groups who had a degree of sophistication in recognizing personality tests points out the need for the utilization of disguised personality tests to be used in comparison with the shortened Own-Categories Procedure. Such tests as Pettigrew's Category Width Scale or Harvey's This I Believe Test offer a more disguised vehicle for measuring personality characteristics.

The ability to run independent tests on formal group members to verify the desired personality variable which was to be compared with the Own-Categories Procedure would insure a fuller control over the selection, measurement, and manipulation of the personality variable. It would also aid in controlling the selection and measurement of key groups and their participation, commitment, and position on critical issues.

The use of observers was essential in this type of study. Vital information on intragroup participation and intergroup activity was gathered which would not have been obtained otherwise. The influence of the observers also kept the subjects from becoming too resistant for any cooperative measurement.

The ability to measure important nucleus members of each group and both the informal and formal active participants can transpire only



through a direct knowledge of group activities, communication, and role-status patterns. The use of observers in key groups provides not only a clear focus on major group members but also an independent check and control over meaningful measurements of these members. A measurement of predominantly fringe members of a group would not reflect the true picture of the influence of group norms nor yield a representative sample of the psychological attitude profiles of the individuals within the group.

#### Implications of Findings

The most useful information gathered in this study was the success of extending the Own-Categories Procedure to include more than one issue with varying ego involvement and also the retention of valid measurements in extremely diverse circumstance due to the disguised nature of this procedure. However, there is still a need to compare the varying attitude profiles of the extended Own-Categories Procedure with key personality variables.

The generalization of the results of this study beyond the particular groups and subjects must be done with much caution due to the high degree of resistance encountered and the lack of random selection or complete matching of experimental subjects. There should be several replications or extensions of the design in order to verify the consistent change in profile effects found in natural group members. These replications should be carried on with different subjects in other stimulus situations and varying sociocultural circumstances.

The lack of correlation between Rokeach's Dogmatism Scale and indicants of ego involvement does not necessarily mean that further

comparisons of general personality tests with the Own-Categories Procedure would be a wasted endeavor. The lack of sufficient high and low dogmatic subjects and the extenuating circumstances surrounding the measurement of dogmatism made any clear assessment of correlation between ego involvement and dogmatism impossible. Still unanswered is the interesting question of how ego involvement covaries with dogmatism and other general personality dimensions. The use of disguised personality tests, which allow the subject to express his natural responses and characteristics of personality, appear to be the best type of measure to utilize in studies comparing the Own-Categories Procedure with other techniques.

The operationalization of the regions of acceptance, rejection, and noncommitment offers a more flexible indicant in comparing the shift of these profiles to other personality dimensions. These functionings can hopefully be explored in more detail by further extensions of the Own-Categories Procedure to measure the profiles of a particular attitude cluster, comparative attitude clusters, the ego-hierarchy of an individual, and the relation of all of these to single and multifaceted aspects of personality.

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## CHAPTER VI

### SUMMARY

The problem of investigation in this study was twofold: first, the extension of M. Sherif and Hovland's Own-Categories Procedure to include the measurement of more than one attitude with varying degrees of ego involvement; and then to compare (a) the resulting operational profiles of acceptance, rejection, and noncommitment with the effect of ego involvement, (b) the evaluation of the location and content of extreme communication by experimental and control subjects in terms of their position and ego involvement on the issue, and (c) the general personality characteristic of dogmatism as measured by Rokeach's Dogmatism Scale with the noncommitment region of the Own-Categories Procedure as an indicator of ego involvement.

The study focused upon formal groups in their natural setting, the identification and measurement of the most actively opposed groups, and the issues to which the group members were committed. Participant and liaison observers were used to gain direct and independent checks of four groups and their formal and informal membership structure--exhibited in roles, status, power, and communication--as well as to ascertain which issues were important to the groups and the degree of involvement for the members.

Once the existing context of intra- and intergroup participation was determined, then two Own-Categories Procedures were developed and a series of measurements were obtained in a formal experimental setting. There were 49 experimental subjects selected from four formal student groups and matched according to general age and education levels, group affiliation, and ego involvement. There were 58 control subjects randomly selected from an Introductory Psychology subject pool. The control group was split into four subsections, allowing reverse presentations of tape communications and issues. Experimental subjects were given extreme communication treatments opposite to their known positions on the issues with the low ego-involving issue introduced first. Communication evaluations followed the treatment, and then an Own-Categories Procedure was administered. This sequence was repeated for both issues, followed by a Dogmatism Scale and a demand characteristic sheet.

The first hypothesis that experimental subjects highly ego involved with the war issue use the same number of acceptance categories and statements, fewer noncommitment categories and statements, and fewer total categories than less ego-involved control subjects was analyzed by Mann-Whitney U Tests and supported with significant differences at the .05 level for the noncommitment statements, noncommitment categories and total categories. The expected use of more rejection categories and statements by highly ego-involved experimental subjects and the same number of acceptance categories was not confirmed when analyzed by Mann-Whitney U Tests.

The second hypothesis that experimental subjects less ego involved in the building change issue use more noncommitment statements and the same number of acceptance categories as in previous evaluations of the

high ego-involving war issue was analyzed by Wilcoxon Matched-Pairs Signed-Rank Tests, which revealed significant differences in the noncommitment region at the .002 level. The expected use of more noncommitment and total categories, the same number of acceptance statements and categories, and fewer rejection categories and statements than in previous evaluations of the high ego-involving war issue by experimental subjects less involved in the building change issue were not confirmed when analyzed by Wilcoxon Tests.

The third hypothesis that experimental subjects less ego involved in the building change issue use the same number of acceptance statements, the same number of rejection categories and statements, the same number of noncommitment categories and statements, and the same number of total categories as less ego-involved control subjects was analyzed by Mann-Whitney U Tests and supported with the exception of the same number of total categories and acceptance categories and statements. Questionable or significant comparisons were at or slightly greater than the .05 level. The predicted use of the same number of acceptance categories by experimental and control subjects less ego involved in the building change issue was analyzed and found significant at the .05 level. This significant difference was contrary to predictions.

The fourth hypothesis that less ego-involved control subjects use the same number of noncommitment categories and statements, rejection categories and statements, acceptance categories and statements, and total categories in evaluating separate issues was analyzed and confirmed by Wilcoxon Tests with the exception of acceptance and total categories.

The fifth hypothesis that experimental subjects highly ego involved

with the war issue displace ambiguous mid-region statements to a greater extent than less ego-involved control subjects, whereas experimental subjects less ego involved with the building change issue displace ambiguous mid-region statements equally as compared to less ego-involved control subjects, was confirmed by t tests, indicating significance at the .01 level in the high involvement issue and a predicted lack of significance in the less ego-involving issue.

The sixth hypothesis that noncommitment statements of experimental subjects highly ego involved with the war issue correlate with scores obtained on Dogmatism Scales was analyzed by a Spearman Rank Correlation and not significantly confirmed.

The seventh hypothesis that experimental subjects highly ego involved with the war issue and not committed to mid-region positions locate their position on the issue differently than less ego-involved control subjects was analyzed by a t test and significantly confirmed at the .01 level. The hypothesis that experimental subjects less involved in the building change issue locate their position similar to less ego-involved control subjects was analyzed by t tests, which confirmed a lack of difference between two of the experimental and control groups but revealed a significant difference at the .01 level between two of the experimental and control groups.

The eighth hypothesis that the position of clear, extreme communication is not subject to appreciable displacement regardless of degree of ego involvement was analyzed by an analysis of variance and confirmed as not significant, with F scores of .15, .07, .00, and .37; whereas the prediction that experimental subjects highly ego involved with a war

issue displace the content of communication further than less ego-involved subjects was analyzed by a Mann-Whitney U Test and significantly confirmed at the .01 level.

The results of the study showed that the Own-Categories Procedure can be successfully extended to measure a series of attitudes in one experimental session and give indications of shifting profile dimensions. The profile effects offered a precise indicator of differing attitudes and the influence of ego involvement.

The evaluation of the content of extreme communication by highly ego-involved subjects reflected the difference in their position from that taken in the communication. Differences in the content evaluations of the experimental subjects disappeared with lower ego involvement and the existence of a closer position to the stand taken in the communication.

The relationship between ego involvement and dogmatism remained undefined in this study due to the lack of high or low dogmatic subjects in the experimental and control groups.

Further replications and expansion of this study extending the Own-Categories Procedure to other samples of representative subjects and groups in a variety of social-stimulus circumstances is needed to determine the generalization and limitations of the findings in this study.

However, the successful extension of the Own-Categories Procedure in measuring diversified issues in this study indicates that this disguised procedure and the resulting operational profiles may give added flexibility and precision to attitude measurement techniques and

a more realistic assessment of complex profiles of attitudes, allowing the comparison of varying attitudes and the function of ego involvement with other variables and broader systematic approaches.

It is likely that the use of the Own-Categories Procedure may be further extended to indicate a series or cluster of attitudes and serve as an operational tool for the comparison of these profiles with more general personality characteristics as measured by disguised personality tests. Fruitful leads for comparison appear to be those personality measures which are both disguised and multidimensional taken in conjunction with a series of appropriate operational profiles resulting from the Own-Categories Procedure. It is also possible that comparative profiles of acceptance, rejection, and noncommitment could now reveal important shifts in individual judgment as they relate to variables of ego involvement, psychological tension, and broader general concepts of balance or adaptation.

The use of the Own-Categories Procedure has proved effective in the measurement of a series of attitudes with varying degrees of ego involvement. This extension may now be replicated to ascertain the degree of generalization and expanded to include investigations of single attitude clusters, comparative attitudes in different domains, key attitudes in the ego-hierarchy structure of the individual, and critical personality variables, as well as give indications of the meaningful relationships between different theories currently being utilized in attitude research.



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APPENDIX A

Table 11

Scale Values of Building Change Issue Statements

State- ment	Median	Q <sub>1</sub>	Q <sub>3</sub>	Q <sub>1</sub> - Q <sub>3</sub> range	Tradi- tional	Progres- sive	Mid-region
A	52.5	21.4	81.4	60.0			x
D	12.5	7.5	21.8	14.3	x		
E	12.5	7.4	24.9	17.5	x		
F	10.8	7.2	25.0	17.8	x		
G	16.7	9.5	30.0	20.5	x		
H	16.7	10.0	30.0	20.0	x		
K	49.9	25.0	69.1	44.1			x
L	50.0	23.1	72.2	49.1			x
M	36.7	15.0	61.2	46.2			x
N	12.5	8.2	30.0	21.8	x		
O	50.0	16.7	70.0	53.3			x
R	49.9	27.5	64.3	36.8			x
S	84.5	62.5	90.0	27.5		x	
T	38.8	16.7	69.0	52.3			x
V	50.0	38.7	78.5	39.8			x
Z	62.5	25.0	70.0	45.0			x
AB	58.3	30.0	83.3	53.3			x
AE	37.5	12.5	62.5	50.0			x
AI	38.8	25.0	75.0	50.0			x
AJ	12.5	8.3	24.9	16.6	x		
AK	81.3	65.6	87.5	21.9		x	
AM	82.1	64.3	90.0	25.7		x	
AN	30.0	16.7	70.0	53.3			x
AO	24.0	10.0	39.3	29.3	x		
AP	72.2	62.5	87.5	25.0		x	

(Table 11 continued on next page.)



## Scale Values of Building Change Issue Statements

State- ment	Median	Q <sub>1</sub>	Q <sub>3</sub>	Q <sub>1</sub> - Q <sub>3</sub> range	Tradi- tional	Progres- sive	Mid-region
AS	70.0	27.8	83.3	55.5			x
AU	12.5	7.1	25.0	17.9	x		
AX	82.0	69.0	87.5	18.5		x	
AY	39.3	16.8	70.0	53.2			x
BA	39.0	16.8	78.5	61.7			x
BC	83.3	70.0	89.3	19.3		x	
BD	75.0	61.1	85.0	23.9		x	
BE	14.5	7.1	30.0	22.9	x		
BF	48.2	27.7	75.0	47.3			x
BH	16.8	10.0	35.7	25.7	x		
BI	24.9	12.5	38.9	26.4	x		
BJ	26.3	12.5	35.7	23.2	x		
BM	78.5	61.2	87.5	26.3		x	
BN	75.0	61.2	87.5	26.3		x	
BO	12.5	8.3	25.0	16.7	x		
BP	83.3	58.3	89.2	30.9		x	
BQ	37.5	16.7	70.0	53.3			x
BR	38.8	17.7	70.0	52.3			x
BS	44.0	32.1	70.0	37.9			x
BU	62.5	35.0	83.3	48.3			x
EW	12.5	8.3	21.7	13.4	x		
EX	75.0	64.4	87.5	23.1		x	
EY	75.0	64.4	87.5	23.1		x	
BZ	87.5	75.0	91.5	16.5		x	
CA	58.3	38.8	87.5	48.7			x
CB	37.5	21.4	61.1	39.7			x
CD	83.3	62.7	90.0	27.3		x	
CP	50.0	27.7	70.0	42.3			x
CR	38.9	16.7	83.5	66.8			x
CS	53.8	27.7	75.0	47.3			x
CT	50.0	25.0	72.0	47.3			x
CU	83.4	70.0	87.5	17.5		x	
CX	38.9	18.8	61.2	42.4			x
CY	46.4	30.0	75.0	45.0			x
CZ	39.3	10.0	72.3	62.3			x

Table 12

## Scale Values of War Issue Statements

State- ment	Median	Q <sub>1</sub>	Q <sub>3</sub>	Q <sub>1</sub> - Q <sub>3</sub> range	Pro-war	Anti-war	Mid-region
D	37.5	20.8	70.0	49.2			x
E	20.8	9.6	37.5	27.9		x	
F	81.3	61.9	90.0	28.1	x		
H	30.0	12.5	53.2	40.7		x	
J	25.0	10.0	57.4	47.4		x	
L	69.0	29.2	89.0	59.8			x
O	78.5	62.5	90.0	27.5	x		
P	50.0	25.0	81.0	56.0			x
Q	12.5	8.3	50.0	41.7		x	
S	87.5	58.1	90.0	31.9	x		
T	62.5	37.6	85.0	47.4			x
U	70.0	50.0	87.5	37.5	x		
V	83.3	62.5	90.0	27.5	x		
W	70.0	37.5	90.0	52.5			x
X	62.5	29.2	85.0	55.8			x
Y	60.4	37.5	87.5	50.0			x
Z	41.9	24.9	70.0	45.1			x
BA	62.5	34.2	87.5	53.3			x
BE	81.3	56.3	90.0	33.7	x		
BF	70.0	37.5	83.3	45.8			x
BI	37.5	16.7	62.5	45.8			x
BJ	15.0	10.0	37.5	27.5		x	
BP	87.5	65.7	91.6	25.9	x		
BT	69.0	50.0	87.5	37.5	x		
BU	79.6	57.4	90.0	32.6	x		
CB	50.0	29.2	71.6	50.4			x
CF	50.0	27.5	70.0	42.5			x
CG	16.7	10.0	41.7	31.7		x	
CH	47.1	21.4	78.1	56.7			x
CK	12.5	7.1	37.5	30.4		x	
CN	84.7	62.5	90.0	27.5	x		
CS	50.0	25.0	73.7	48.7			x
CW	62.5	29.4	90.0	60.6			x
CX	70.0	53.2	84.4	31.2	x		
CY	62.5	16.7	87.7	71.0			x
CZ	87.7	62.8	91.6	28.8	x		

(Table 12 continued on next page.)

## Scale Values of War Issue Statements

State- ment	Median	Q <sub>1</sub>	Q <sub>3</sub>	Q <sub>1</sub> - Q <sub>3</sub> range	Pro-war	Anti-war	Mid-region
DA	87.5	62.5	90.0	227.5	x		
DC	30.0	12.5	49.5	37.0		x	
DE	58.3	31.3	85.5	54.2			x
DH	26.5	12.5	46.0	33.5		x	
DJ	62.5	38.3	87.5	49.2			x
DK	70.0	35.0	87.5	52.5			x
DM	75.0	67.7	90.0	22.3	x		
DN	12.5	8.3	41.7	33.4		x	
DP	10.0	6.2	12.5	6.3		x	
DQ	32.4	10.0	86.0	76.0			x
DT	58.9	35.0	88.0	53.0			x
DW	21.4	11.6	41.7	30.1		x	
DZ	76.5	30.0	90.0	60.0			x
EB	30.0	12.5	57.7	45.2		x	
EH	25.0	12.5	50.0	37.5		x	
EK	50.0	21.4	83.3	61.9			x
EL	52.5	30.0	81.3	51.3			x
EM	75.0	62.5	90.0	27.5	x		
EQ	39.7	16.7	87.5	70.8			x
QA	69.5	20.4	90.0	69.6			x
OB	58.1	30.0	81.3	51.3			x
OD	12.5	8.3	37.6	29.3		x	
OG	55.0	30.0	78.5	48.5			x
OH	62.5	16.7	90.0	73.3			x
OI	37.5	12.5	62.5	50.0			x

APPENDIX B

Table 13

Evaluation of Mid-Region Building Change Issue Statements  
for Control Group 1

State- ments	Subjects													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	
A	R	NC	R	A	R	A	R	A	NC	NC	A	NC	R	
K	A	NC	NC	R	A	R	R	A	R	A	R	R	R	
L	R	A	R	A	A	A	A	A	A	A	A	NC	A	
M	A	A	A	A	NC	A	A	A	NC	NC	A	A	A	
O	R	NC	A	A	R	R	A	R	R	A	R	R	R	
R	A	NC	NC	R	A	R	R	R	R	A	R	R	A	
T	R	A	NC	R	A	A	R	A	NC	NC	R	NC	R	
V	A	NC	A	R	A	R	R	A	R	A	R	R	R	
Z	R	R	NC	R	A	A	A	R	R	R	A	R	R	
AB	A	R	NC	A	R	A	R	A	R	NC	R	NC	R	
AE	A	NC	A	A	A	A	R	R	A	A	A	NC	A	
AI	A	A	NC	A	A	A	A	A	NC	A	R	A	A	
AN	A	A	A	A	A	R	A	R	NC	A	A	NC	A	
AS	R	NC	R	R	R	R	R	R	R	A	R	R	A	
AY	A	A	A	A	NC	A	A	A	NC	R	A	NC	NC	
BA	A	R	R	R	R	A	R	A	NC	R	A	NC	A	
BF	R	R	NC	R	A	R	R	A	R	NC	R	NC	R	
BQ	R	R	NC	A	NC	R	R	R	R	A	R	R	A	
BR	R	R	NC	R	NC	R	A	R	R	R	R	R	R	
BS	R	R	NC	R	NC	R	R	R	R	R	A	NC	A	
BU	NC	NC	NC	A	A	R	R	A	A	R	R	NC	R	
CA	A	NC	NC	R	A	R	R	R	R	A	R	NC	A	
CB	R	A	NC	A	R	R	A	R	NC	A	R	A	A	
CP	R	R	NC	R	A	R	A	A	R	NC	R	NC	A	

(Table 13 continued on next page.)

Evaluation of Mid-Region Building Change Issue Statements  
for Control Group 1

State- ments	Subjects													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	
CR	NC	R	NC	R	A	R	A	A	A	R	A	NC	R	
CS	R	NC	NC	R	R	R	R	A	R	NC	R	A	A	
CT	R	A	NC	R	A	R	R	A	R	NC	R	NC	R	
CK	A	A	NC	A	R	A	R	A	NC	NC	A	A	A	
CY	NC	R	NC	R	NC	A	R	A	NC	NC	A	NC	R	
CZ	A	A	A	R	A	A	R	R	A	R	A	NC	R	
Total A	13	10	7	13	16	13	11	18	5	12	13	5	15	151
Total R	14	10	4	17	8	17	19	12	15	8	17	8	14	163
Total NC	3	10	19	0	6	0	0	0	10	10	0	17	0	75

Note.--A = acceptance, R = rejection, NC = noncommitment.

Table 14

Evaluation of Mid-Region War Issue Statements  
for Control Group 1

State- ments	Subjects													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	
D	A	A	A	A	NC	A	A	A	A	A	A	A	R	
L	R	R	A	R	R	NC	R	R	NC	R	R	NC	A	
P	D	R	D	D	R	A	D	D	R	R	D	D	D	
T	R	R	A	R	R	NC	A	R	A	NC	A	A	A	
W	A	R	A	R	R	R	R	R	R	R	R	R	A	
X	R	R	R	R	R	R	R	R	NC	R	R	R	R	
Y	A	R	R	A	R	A	A	A	A	A	A	A	A	
Z	A	A	R	A	NC	A	A	A	A	A	A	A	A	
BA	R	R	R	A	R	NC	R	A	R	R	A	R	A	
BF	A	R	A	R	R	NC	R	A	NC	NC	R	R	R	
CB	R	R	R	R	A	NC	R	R	R	R	R	R	A	
CF	R	NC	R	R	R	A	R	A	R	A	R	R	R	
CH	A	A	R	A	R	A	A	R	A	A	A	R	R	
CS	R	NC	NC	R	R	R	R	R	R	NC	R	NC	A	
CW	R	R	R	R	R	R	R	R	A	R	A	R	A	
CY	R	R	R	R	A	NC	R	A	NC	R	R	NC	A	
DE	A	R	A	A	A	A	A	A	A	NC	A	A	A	
DJ	R	A	A	A	R	R	R	A	A	A	A	A	A	
DK	A	NC	A	A	R	R	R	A	R	NC	R	A	A	
DQ	A	A	R	A	R	A	R	R	A	R	A	R	A	
DT	A	A	A	A	R	A	A	A	A	A	A	A	A	
DU	A	R	A	A	A	A	A	A	A	A	A	A	A	
DZ	R	R	R	R	R	R	R	R	R	NC	R	R	R	
EK	A	R	A	A	A	A	A	A	A	A	A	NC	A	
EL	A	R	A	A	A	A	A	A	R	A	A	NC	A	
EQ	R	R	NC	R	R	NC	R	R	R	R	R	NC	A	
OA	R	R	R	R	R	R	R	A	R	R	R	R	A	
OB	R	R	R	R	A	R	A	A	A	NC	R	NC	A	
OG	A	A	A	R	A	A	A	A	A	A	A	A	A	
OH	R	R	R	R	R	NC	R	A	R	R	R	R	D	
OI	R	A	R	R	R	R	A	A	A	R	R	A	A	
Total A	14	8	13	13	8	13	13	19	15	11	15	11	23	176
Total R	16	20	15	17	21	10	17	11	12	13	15	12	6	185
Total NC	0	3	2	0	2	8	0	0	4	7	0	7	0	33

Note.--A = acceptance, R = rejection, NC = noncommitment, D = duplicate evaluation as both A and R.

Table 15

Evaluation of Mid-Region Building Change Issue Statements for  
Control Group 2

State- ments	Subjects														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
A	R	R	A	R	R	A	A	R	R	A	NC	A	R	NC	
K	R	R	A	NC	R	R	A	R	R	R	R	R	R	NC	
L	R	A	R	A	R	NC	A	A	A	A	NC	A	A	NC	
M	R	R	A	NC	A	NC	A	A	A	A	R	A	R	NC	
O	R	R	R	NC	A	A	R	R	R	NC	R	A	A	A	
R	R	R	A	NC	R	R	A	R	R	R	NC	R	R	NC	
T	R	R	R	NC	R	NC	R	R	R	NC	R	R	R	NC	
V	R	R	A	NC	R	R	A	R	R	R	R	R	R	NC	
Z	R	R	R	NC	R	NC	R	R	R	A	R	A	R	NC	
AB	R	R	R	NC	R	NC	A	R	R	NC	R	R	R	R	
AE	R	A	A	NC	A	R	A	A	NC	NC	R	A	A	NC	
AI	R	R	R	NC	R	A	A	R	A	A	R	R	R	A	
AN	R	A	R	NC	A	A	R	A	A	A	A	A	A	A	
AS	A	R	R	R	R	R	R	R	R	NC	A	R	R	R	
AY	R	R	A	A	R	A	A	R	R	NC	A	A	R	A	
BA	R	R	A	A	R	NC	A	A	R	A	A	A	R	NC	
BF	R	R	R	NC	R	NC	R	R	R	NC	R	R	R	R	
BQ	R	A	R	NC	R	NC	R	R	R	NC	R	A	R	NC	
BR	R	R	R	NC	R	NC	R	R	R	A	R	A	R	NC	
BS	R	R	R	NC	R	NC	R	R	R	A	R	A	R	A	
BU	R	R	A	NC	R	A	A	A	A	R	R	R	R	NC	
CA	R	R	A	NC	R	R	A	R	R	NC	R	R	A	NC	
CB	R	A	R	NC	R	R	A	R	R	NC	R	R	R	NC	
CP	R	R	R	NC	R	NC	R	R	R	NC	R	R	R	R	
CR	R	R	A	NC	R	R	R	A	A	R	R	A	A	NC	
CS	R	R	R	NC	R	R	R	R	R	NC	R	R	R	NC	
CT	R	R	R	NC	R	NC	R	R	R	NC	R	R	R	NC	
CX	R	R	R	NC	R	NC	R	R	R	A	R	R	R	NC	
CY	R	R	R	NC	R	NC	R	A	R	NC	R	A	R	NC	
CZ	R	A	A	A	R	NC	A	A	R	A	A	A	A	A	
Total A	1	6	12	4	4	6	15	9	6	11	5	15	7	6	107
Total R	29	24	18	2	26	9	15	21	23	5	22	15	23	4	236
Total NC	0	0	0	24	0	15	0	0	1	14	3	0	0	20	77

Note.--A = acceptance, R = rejection, NC = noncommitment.

Table 16

## Evaluation of Mid-Region War Issue Statements for Control Group 2

State- ments	Subjects														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
D	R	A	A	A	A	A	R	A	R	A	NC	A	A	NC	
L	R	R	R	R	R	NC	A	R	A	NC	A	A	R	A	
P	D	A	A	A	R	NC	A	D	D	NC	R	A	A	A	
T	A	A	R	R	R	A	R	A	R	NC	A	D	R	NC	
W	R	A	R	R	R	A	A	R	A	R	R	A	A	A	
X	A	R	R	R	R	NC	A	R	A	NC	R	R	A	A	
Y	R	A	A	A	R	A	A	R	A	NC	R	R	A	A	
Z	R	A	A	R	A	A	A	A	A	A	NC	R	A	NC	
BA	A	R	R	R	R	NC	A	R	R	NC	NC	A	R	A	
BF	A	A	R	R	R	NC	A	R	A	A	R	A	R	A	
CB	R	R	R	R	R	A	A	R	A	NC	R	A	A	R	
CF	R	A	R	R	R	NC	A	A	R	A	NC	R	A	NC	
CH	A	R	A	R	A	NC	A	A	A	A	R	R	A	NC	
CS	R	A	R	A	R	NC	A	A	A	NC	NC	R	A	A	
CW	R	R	R	R	R	R	A	R	R	NC	R	A	A	NC	
CY	A	R	R	A	R	R	NC	R	A	NC	R	R	A	A	
DE	R	A	A	A	R	A	R	A	A	NC	NC	A	A	NC	
DJ	A	A	A	R	R	NC	A	A	R	A	NC	R	A	R	
DK	A	A	A	A	R	R	A	R	A	NC	NC	A	A	A	
DQ	R	R	R	R	A	R	A	A	A	A	NC	A	R	R	
DT	R	A	A	A	A	A	R	A	A	A	NC	R	A	NC	
DU	A	A	A	R	A	NC	R	A	R	A	NC	R	R	NC	
DZ	R	R	R	A	R	R	A	R	R	R	R	R	A	A	
EK	A	A	A	R	A	A	R	A	A	A	A	A	R	NC	
EL	R	A	A	A	R	A	R	A	R	A	A	A	A	NC	
EQ	A	R	R	R	R	NC	A	R	A	NC	A	A	R	NC	
QA	A	R	R	A	R	R	A	R	R	R	R	R	A	A	
OB	A	A	A	R	R	A	A	A	A	NC	R	R	R	NC	
OG	A	A	A	R	R	NC	A	A	R	NC	R	R	R	NC	
OH	R	R	R	A	R	R	A	R	A	R	R	R	A	A	
OI	R	A	R	R	A	NC	R	A	A	A	A	R	A	NC	
Total A	14	19	14	12	38	11	22	16	19	12	6	14	21	13	201
Total R	16	12	17	19	23	7	8	14	11	4	14	16	10	3	174
Total NC	0	0	0	0	0	13	1	0	0	15	11	0	0	15	55

Note.--A = acceptance, R = rejection, NC = noncommitment, D = duplicate evaluation as both A and R.



Table 17

Evaluation of Mid-Region Building Change Issue Statements  
for Control Group 3

State- ments	Subjects																Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
A	NC	A	NC	R	R	R	R	R	A	A	R	NC	R	NC	A	NC	
K	A	NC	R	NC	NC	R	R	R	R	R	NC	R	R	A	R	NC	
L	A	A	NC	R	NC	A	R	R	A	A	R	R	A	NC	A	A	
M	NC	NC	R	NC	NC	NC	A	A	A	A	NC	NC	R	NC	R	NC	
O	NC	A	R	NC	R	R	R	R	A	A	NC	NC	A	NC	A	NC	
R	A	NC	NC	NC	NC	R	R	R	R	R	R	R	R	NC	R	R	
T	NC	A	NC	NC	R	NC	R	R	R	NC	R	R	A	R	A	NC	
V	A	NC	R	NC	R	R	R	R	A	R	R	NC	R	NC	R	NC	
Z	NC	NC	R	NC	NC	A	R	A	R	A	R	R	A	R	A	R	
AB	R	NC	R	A	NC	NC	R	R	R	NC	R	R	R	R	A	NC	
AE	A	R	R	NC	NC	NC	R	R	A	NC	NC	R	R	NC	R	NC	
AI	NC	NC	A	A	NC	NC	R	R	A	A	NC	NC	A	R	A	R	
AN	NC	A	NC	A	A	NC	A	R	A	A	NC	A	A	NC	A	A	
AS	A	R	NC	NC	R	NC	R	R	A	A	R	R	R	R	R	NC	
AY	NC	A	A	A	A	NC	A	R	A	A	R	A	A	R	A	R	
BA	NC	NC	NC	A	A	NC	A	R	A	A	NC	A	A	R	A	NC	
BF	R	NC	R	A	R	NC	R	A	R	NC	R	R	R	R	A	R	
BQ	R	NC	R	A	NC	NC	A	A	A	A	R	R	A	R	A	R	
BR	NC	NC	R	NC	NC	NC	R	R	R	NC	R	R	A	R	A	R	
BS	A	NC	R	NC	NC	NC	R	A	R	A	R	R	A	R	A	R	

(Table 17 continued on next page.)

Evaluation of Mid-Region Building Change Issue Statements  
for Control Group 3

State- ments	Subjects																Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
HU	NC	A	NC	NC	NC	NC	R	R	A	NC	R	NC	R	NC	R	NC	
CA	A	NC	R	NC	R	R	R	R	A	R	R	R	R	NC	R	NC	
CB	NC	NC	R	A	NC	NC	A	R	A	A	R	NC	A	R	A	R	
CP	R	NC	R	A	NC	NC	R	A	R	NC	R	R	R	R	A	R	
CR	NC	A	R	R	R	R	R	R	R	NC	NC	R	R	NC	R	NC	
CS	R	R	R	NC	R	NC	R	R	R	NC	R	R	R	R	A	R	
CT	R	NC	NC	A	NC	NC	R	R	R	NC	R	R	R	R	A	NC	
CK	NC	A	NC	NC	NC	NC	R	R	R	NC	R	R	A	R	A	A	
CY	NC	NC	NC	A	A	NC	A	R	R	A	R	R	A	R	A	A	
CZ	NC	NC	NC	NC	NC	A	A	R	A	A	NC	NC	A	NC	A	NC	
<b>Total A</b>	8	9	2	11	4	3	8	6	15	15	0	3	15	1	21	4	125
<b>Total R</b>	6	3	16	3	9	7	22	24	15	4	21	19	15	17	9	11	201
<b>Total NC</b>	16	18	12	16	17	20	0	0	0	11	9	8	0	12	0	15	154

Note: A = acceptance, R = rejection, NC = noncommitment.

Table 18

Evaluation of Mid-Region War Issue Statements  
for Control Group 3

State- ments	Subjects																Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
D	NC	A	A	A	NC	NC	R	A	R	A	NC	NC	A	NC	A	A	
L	R	NC	A	A	NC	R	R	R	A	NC	NC	R	R	NC	A	R	
P	D	R	D	D	A	D	R	R	D	NC	A	R	A	NC	A	A	
T	A	NC	A	A	R	A	R	R	R	NC	NC	A	R	NC	R	A	
W	R	R	R	R	R	A	A	R	R	NC	NC	R	A	R	A	R	
X	R	R	R	R	R	A	A	R	R	NC	NC	R	A	NC	A	R	
Y	A	A	A	A	A	A	A	R	A	NC	NC	A	R	A	A	NC	
Z	NC	R	A	A	NC	A	A	A	R	A	NC	NC	R	NC	R	NC	
BA	R	R	R	A	R	A	R	R	R	NC	NC	R	A	NC	A	R	
BF	NC	NC	A	R	A	A	A	R	A	R	NC	A	A	NC	A	NC	
CB	R	R	R	R	R	A	A	R	R	NC	NC	R	A	R	A	A	
CF	NC	NC	NC	A	R	NC	A	R	A	R	NC	NC	A	NC	A	NC	
CH	NC	R	NC	NC	A	A	A	R	R	NC	NC	R	R	NC	R	NC	
CS	NC	NC	R	R	NC	A	A	R	A	NC	NC	R	R	NC	R	R	
CW	R	R	A	R	NC	R	A	R	R	NC	R	R	A	NC	A	R	
CY	R	R	R	R	A	A	R	R	R	NC	R	R	R	NC	A	NC	
DE	A	A	A	R	NC	A	A	R	A	A	NC	A	R	NC	A	A	
DJ	A	NC	A	A	NC	NC	A	R	R	NC	NC	A	A	A	R	NC	
DK	R	NC	A	R	NC	R	A	R	A	NC	NC	R	A	NC	A	A	
DQ	NC	R	R	NC	R	NC	R	R	R	NC	NC	R	NC	R	R	NC	

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(Table 18 continued on next page.)

Evaluation of Mid-Region War Issue Statements  
for Control Group 3

State- ments	Subjects																Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
DT	A	A	A	A	NC	A	A	A	A	A	NC	NC	R	NC	A	A	
DU	A	A	A	A	NC	A	A	A	A	A	NC	A	A	NC	R	A	
DZ	R	R	R	R	R	A	R	R	A	NC	R	R	A	R	A	NC	
EK	NC	A	NC	A	NC	A	A	R	A	NC	NC	A	A	NC	R	A	
EL	A	A	A	R	NC	NC	A	A	A	A	A	A	R	NC	A	NC	
EQ	R	NC	R	R	NC	R	A	R	A	NC	NC	R	NC	NC	A	R	
QA	R	R	R	R	R	A	R	R	R	R	NC	A	A	R	A	R	
OB	A	A	A	A	NC	R	A	R	R	NC	NC	A	A	NC	A	NC	
OG	A	NC	A	A	NC	R	A	R	R	NC	A	A	A	NC	A	NC	
OH	R	R	R	R	R	R	R	R	A	NC	NC	R	A	R	A	R	
OI	A	R	NC	NC	NC	R	R	R	R	NC	NC	A	A	R	R	A	
Total A	10	8	15	13	4	17	20	5	14	6	3	12	19	2	22	10	180
Total R	12	14	11	14	11	8	11	26	16	3	3	15	10	7	9	9	179
Total NC	8	9	4	3	16	5	0	0	0	22	25	4	2	22	0	12	132

Note.--A = acceptance, R = rejection, NC = noncommitment, D = duplicate evaluation as both A and R.

Table 19

Evaluation of Mid-Region Building Change Issue Statements  
for Control Group 4

State- ments	Subjects															Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
A	R	NC	NC	R	R	A	A	A	A	R	R	R	R	R	NC	
K	A	NC	NC	NC	A	R	A	R	A	A	R	NC	NC	R	NC	
L	R	A	NC	NC	A	A	A	A	A	A	R	A	NC	A	NC	
M	R	NC	NC	NC	R	R	A	R	A	NC	A	R	NC	A	R	
O	R	NC	NC	A	A	A	A	A	NC	R	R	NC	R	A	NC	
R	A	NC	NC	NC	A	A	A	R	A	A	R	NC	NC	A	NC	
T	R	NC	NC	A	R	R	R	R	NC	R	R	R	NC	R	R	
V	R	NC	NC	NC	A	R	A	R	A	R	R	NC	NC	R	NC	
Z	R	NC	NC	A	R	R	A	R	A	R	R	R	NC	R	R	
AB	A	NC	NC	R	R	R	R	R	A	R	R	R	NC	A	R	
AE	A	NC	NC	R	A	A	NC	A	A	NC	R	A	NC	A	A	
AI	R	NC	NC	A	R	R	A	R	A	R	R	R	NC	R	R	
AN	R	NC	NC	A	NC	A	A	R	A	R	A	A	A	A	NC	
AS	R	NC	NC	R	R	R	R	A	A	R	R	R	NC	R	R	
AY	R	A	NC	R	A	A	A	A	A	A	A	R	A	A	NC	
BA	R	NC	NC	R	A	A	NC	R	A	A	R	A	NC	R	NC	
BF	R	NC	NC	R	R	R	A	R	NC	R	R	R	NC	R	R	
BQ	R	NC	A	A	R	A	A	R	A	R	R	R	NC	A	R	
BR	R	NC	NC	A	R	R	A	R	A	R	R	R	NC	R	R	
BS	R	NC	NC	A	R	R	A	R	A	R	R	R	NC	A	R	

(Table 19 continued on next page.)

Evaluation of Mid-Region Building Change Issue Statements  
for Control Group 4

State- ments	Subjects															Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
BU	A	NC	NC	R	R	A	R	R	NC	A	R	A	NC	R	A	
CA	R	NC	NC	NC	R	R	R	R	R	A	R	A	NC	R	A	
CB	R	NC	NC	A	R	R	R	R	A	R	R	R	NC	A	R	
CP	R	NC	NC	R	R	R	A	R	NC	R	R	R	NC	R	NC	
CR	A	NC	NC	R	A	R	R	A	R	NC	A	A	NC	R	NC	
CS	R	NC	NC	R	R	R	R	R	A	R	R	R	NC	R	R	
CT	R	NC	NC	R	R	R	R	R	NC	NC	R	R	NC	R	R	
CK	R	NC	A	A	NC	R	R	R	NC	NC	A	R	A	R	R	
CY	R	NC	A	A	R	R	A	R	NC	NC	A	R	NC	A	R	
CZ	A	NC	NC	NC	A	A	A	R	NC	R	R	NC	A	R	NC	
Total A	7	2	3	11	10	11	18	7	19	7	6	7	4	12	3	127
Total R	23	0	0	12	18	19	10	23	2	17	24	18	2	18	15	201
Total NC	0	28	27	7	2	0	2	0	9	6	0	5	24	0	12	122

Note.--A = acceptance, R = rejection, NC = noncommitment.

Table 20

Evaluation of Mid-Region War Issue Statements  
for Control Group 4

State- ments	Subjects															Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
D	NC	NC	NC	A	A	A	NC	R	A	NC	A	NC	NC	A	A	
L	R	R	R	NC	R	R	NC	R	NC	R	R	NC	R	R	R	
P	D	R	NC	NC	D	R	R	D	NC	NC	D	NC	NC	D	NC	
T	A	NC	A	NC	A	A	R	R	A	R	A	NC	D	R	NC	
W	A	R	R	NC	R	A	R	R	NC	R	A	A	R	R	NC	
X	R	R	R	R	R	R	A	R	NC	NC	A	NC	R	R	NC	
Y	A	NC	NC	NC	A	A	A	A	A	R	A	NC	NC	A	A	
Z	NC	A	A	A	A	A	A	A	A	NC	R	NC	NC	A	NC	
EA	R	R	R	NC	A	A	R	R	NC	R	A	NC	NC	R	R	
EF	A	R	R	R	A	A	A	R	NC	R	A	R	NC	R	R	
CB	A	R	R	NC	R	R	R	R	A	NC	A	A	R	R	NC	
CF	R	NC	NC	R	R	A	R	A	NC	NC	A	NC	NC	A	NC	
CH	R	NC	A	R	NC	A	NC	A	R	NC	A	A	A	A	NC	
CS	R	NC	NC	A	A	A	A	R	NC	R	R	NC	NC	R	NC	
CW	R	R	R	R	R	A	NC	R	R	R	R	NC	A	R	R	
CY	A	R	NC	NC	R	R	A	R	R	R	A	NC	NC	R	NC	
DE	A	A	NC	A	R	A	NC	R	NC	A	A	NC	NC	A	NC	
DJ	NC	NC	R	NC	A	A	R	A	A	R	R	NC	NC	A	NC	
DK	A	R	R	A	A	R	NC	R	NC	R	A	NC	NC	R	R	
DQ	NC	A	A	NC	A	A	R	A	R	A	R	A	A	R	NC	

(Table 20 continued on next page.)

Evaluation of Mid-Region War Issue Statements  
for Control Group 4

State- ments	Subjects															Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
DT	A	A	A	A	A	A	A	A	NC	A	R	NC	NC	R	NC	
DU	A	A	A	R	A	A	A	A	A	A	R	NC	NC	A	A	
DZ	R	R	R	NC	R	R	R	R	R	NC	A	NC	R	R	R	
EK	A	A	A	R	A	A	A	R	A	A	A	NC	NC	A	NC	
EL	A	A	NC	A	R	A	A	R	A	A	A	NC	NC	A	NC	
EQ	R	R	NC	NC	R	R	NC	R	NC	R	A	NC	R	R	R	
QA	R	R	R	R	R	R	R	R	NC	R	A	NC	R	R	NC	
OB	NC	R	A	NC	A	A	A	A	A	NC	A	NC	NC	A	A	
OG	NC	NC	NC	A	A	A	A	A	NC	A	A	NC	R	A	NC	
OH	R	R	R	R	R	R	R	R	R	R	A	NC	R	R	NC	
OI	NC	A	A	R	A	A	NC	A	NC	NC	A	NC	NC	R	NC	
Total A	12	8	9	8	16	21	12	11	10	7	22	4	3	12	4	159
Total R	11	15	12	10	13	10	11	19	6	14	8	1	9	18	7	164
Total NC	7	8	10	13	1	0	7	0	15	10	0	26	18	0	20	135

Note.--A = acceptance, R = rejection, NC = noncommitment.



Table 21

Evaluation of Mid-Region Building Change Issue Statements  
for Experimental Group A

State- ments	Subjects												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
A	A	A	NC	A	NC	A	NC	A	R	R	A	NC	
K	R	A	A	A	A	R	A	A	R	A	NC	R	
L	NC	R	NC	R	NC	A	NC	A	R	NC	NC	A	
M	A	R	NC	A	R	A	R	A	R	R	R	A	
O	NC	R	NC	R	NC	A	R	A	R	R	R	R	
R	R	R	NC	A	NC	R	R	R	R	A	NC	R	
T	NC	R	NC	R	NC	R	R	R	R	R	R	R	
V	R	R	A	A	NC	R	R	A	R	A	NC	R	
Z	NC	R	NC	R	R	R	R	R	R	R	R	R	
AB	NC	A	NC	A	NC	A	NC	A	R	R	A	A	
AE	R	R	NC	A	A	R	R	A	R	R	R	A	
AI	R	R	NC	R	NC	A	NC	R	R	R	A	A	
AN	NC	R	NC	R	NC	R	R	NC	R	R	R	R	
AS	R	R	NC	A	R	R	R	R	R	R	NC	NC	
AY	A	R	NC	R	A	A	A	R	A	NC	R	R	
BA	R	R	NC	R	A	A	R	R	A	NC	R	R	
BF	NC	R	NC	A	NC	A	NC	A	R	R	A	NC	
BQ	NC	A	NC	A	NC	A	NC	A	R	R	A	A	
BR	NC	R	NC	R	R	R	R	R	R	R	R	R	
BS	NC	R	NC	R	R	A	R	R	R	R	R	NC	
BU	R	R	NC	A	NC	R	NC	A	R	R	R	NC	
CA	R	R	NC	A	A	A	A	A	R	A	NC	R	
CB	NC	A	NC	R	NC	R	R	R	R	R	R	R	
CP	NC	R	NC	A	NC	A	NC	A	R	R	A	NC	
CR	R	R	NC	R	NC	R	R	R	R	R	R	R	
CS	NC	R	NC	R	NC	R	R	R	R	R	A	NC	
CT	NC	R	NC	R	R	R	R	R	R	R	A	R	
CX	NC	R	NC	R	NC	A	R	R	R	R	R	NC	
CY	NC	R	NC	A	A	A	R	A	R	R	A	NC	
CZ	NC	R	R	R	NC	A	R	A	R	R	R	NC	
Total A	3	5	2	14	6	16	3	15	2	4	9	6	85
Total R	10	25	1	16	6	14	19	14	28	23	15	14	185
Total NC	17	0	27	0	18	0	8	1	0	3	6	10	90

Note.--A = acceptance, R = reject, NC = noncommitment.

Table 22

Evaluation of Mid-Region War Issue Statements for  
Experimental Group A

State- ments	Subjects												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
D	A	A	A	A	A	A	A	A	A	A	NC	A	
L	R	R	R	R	R	R	R	R	R	R	R	R	
P	R	R	R	R	D	D	R	R	R	R	R	D	
T	R	NC	NC	R	R	A	A	R	R	R	R	A	
W	R	R	R	R	R	R	R	R	R	R	R	R	
X	R	NC	R	R	R	R	R	R	R	R	R	R	
Y	NC	R	NC	R	R	A	R	R	NC	NC	A	NC	
Z	A	NC	A	A	A	A	A	A	NC	R	R	A	
BH	R	R	R	R	R	R	R	R	R	R	R	R	
BF	R	R	R	R	R	R	R	R	R	R	R	NC	
CB	R	NC	R	R	NC	R	NC	R	R	R	R	R	
CF	NC	A	NC	A	A	A	A	A	R	A	R	R	
CH	NC	A	A	A	A	A	A	A	A	A	A	NC	
CS	NC	R	R	R	R	R	R	R	R	R	R	NC	
CW	A	R	A	R	NC	A	R	A	A	A	R	NC	
CY	R	NC	NC	R	R	R	R	R	NC	R	R	R	
DE	R	NC	NC	A	NC	A	R	R	R	R	A	A	
DJ	NC	A	A	A	A	A	A	R	A	A	R	A	
DK	R	NC	R	R	R	R	NC	R	R	R	R	R	
DQ	A	A	A	NC	NC	NC	A	R	A	A	NC	R	
DT	A	NC	NC	R	R	R	R	R	R	R	A	NC	
DU	NC	NC	A	R	NC	A	A	R	NC	R	A	A	
DZ	R	R	R	R	R	R	R	R	R	R	R	R	
EK	A	NC	A	A	A	A	A	A	NC	R	A	A	
EL	NC	NC	NC	R	NC	A	A	R	A	R	A	A	
EQ	R	R	NC	R	NC	R	R	R	R	R	R	R	
QA	R	R	R	R	R	R	R	R	R	R	R	R	
OB	NC	NC	R	A	A	A	A	R	NC	R	A	A	
OG	NC	NC	A	R	A	A	A	A	R	R	R	A	
OH	R	NC	R	R	R	R	R	R	R	R	R	R	
OI	A	A	NC	R	NC	A	A	A	R	NC	R	A	
Total A	7	6	9	8	8	15	13	8	6	6	8	11	105
Total R	15	11	13	22	14	14	16	23	19	23	21	13	204
Total NC	9	14	9	11	8	1	2	0	6	2	2	6	60

Note.--A = acceptance, R = rejection, NC = noncommitment, D = duplicate evaluation as both A and R.

Table 23

Evaluation of Mid-Range Building Change Issue Statements for  
Experimental Group B

State- ments	Subjects											Total
	1	2	3	4	5	6	7	8	9	10	11	
A	A	A	NC	NC	R	R	R	R	A	R	R	
K	R	R	R	NC	A	A	A	R	A	NC	NC	
L	R	A	A	A	R	R	R	A	R	A	R	
M	A	R	A	NC	R	R	R	R	A	NC	R	
O	R	R	R	NC	R	A	R	A	R	NC	R	
R	R	R	R	NC	R	A	A	R	A	NC	NC	
T	R	R	R	R	R	R	A	R	R	NC	R	
V	R	R	R	NC	A	A	A	R	A	NC	NC	
Z	A	R	R	NC	R	R	R	A	R	NC	R	
AB	A	R	A	R	R	R	A	R	R	NC	A	
AE	R	R	A	A	A	A	A	R	A	NC	A	
AI	A	A	R	R	R	R	R	A	R	NC	R	
AN	A	R	R	NC	R	A	R	A	R	NC	A	
AS	R	R	NC	R	R	R	R	R	A	NC	A	
AY	A	R	A	NC	R	A	R	A	R	NC	R	
BA	A	R	NC	NC	R	R	R	A	R	NC	R	
BE	R	R	R	R	R	R	A	R	R	A	A	
BQ	A	R	R	R	R	R	R	R	A	NC	A	
BR	R	R	R	NC	R	R	R	A	R	NC	R	
BS	A	R	R	NC	R	R	R	A	R	NC	R	
BU	R	R	R	NC	R	R	R	A	R	A	A	
CA	R	R	R	R	A	R	A	R	A	NC	NC	
CB	R	R	R	R	R	R	R	A	R	NC	R	
CP	A	R	R	R	R	R	A	R	R	A	A	
CR	R	R	R	A	R	R	A	R	R	NC	R	
CS	R	R	NC	R	R	R	A	R	R	NC	A	
CT	R	R	R	R	R	R	A	R	R	NC	R	
CK	R	R	R	NC	R	R	A	A	R	NC	R	
CY	A	R	R	NC	R	R	A	A	R	NC	A	
CZ	A	A	NC	NC	R	A	R	R	A	NC	R	
Total A	13	4	5	3	4	8	14	13	10	4	10	88
Total R	17	26	20	11	26	22	16	17	20	1	16	192
Total NC	0	0	5	15	0	0	0	0	0	25	4	49

Note.--A = acceptance, R = rejection, NC = noncommitment.

Table 24

Evaluation of Mid-Range War Issue Statements for  
Experimental Group B

State- ments	Subjects											Total
	1	2	3	4	5	6	7	8	9	10	11	
D	A	A	A	A	A	R	A	A	A	NC	A	
L	R	R	R	R	R	A	R	R	R	R	R	
P	D	R	R	A	R	R	R	R	R	D	R	
T	R	R	R	NC	R	A	R	A	R	A	A	
W	R	R	R	R	R	A	R	R	R	R	R	
X	R	R	R	R	R	R	R	R	R	R	R	
Y	A	R	R	A	A	A	R	A	R	NC	R	
Z	A	A	A	NC	R	A	A	A	A	NC	A	
BA	R	R	R	NC	R	R	R	R	R	R	R	
BF	R	R	R	NC	R	R	R	R	R	R	R	
CB	R	R	R	R	R	A	R	R	R	R	R	
CF	A	R	R	A	A	R	A	A	A	R	A	
CH	A	A	A	A	R	R	A	A	A	R	A	
CS	R	R	R	NC	R	A	R	R	R	A	A	
CW	A	A	R	NC	R	A	R	R	R	NC	A	
CY	R	R	R	R	R	R	R	R	R	R	R	
DE	R	A	R	A	R	A	R	R	R	A	A	
DJ	A	A	A	A	A	A	A	A	A	NC	A	
DK	R	R	R	NC	R	R	R	R	R	A	R	
DQ	A	A	A	A	A	NC	NC	A	NC	NC	A	
DT	A	A	R	A	R	A	R	R	R	A	R	
DU	A	R	A	A	A	A	A	A	A	NC	A	
DZ	R	R	R	R	R	R	R	R	R	R	R	
EK	R	A	A	A	A	A	A	A	A	NC	A	
EL	A	A	R	A	A	A	A	R	R	NC	A	
EQ	R	R	R	R	R	R	R	R	R	R	R	
QA	R	R	R	R	R	R	R	R	R	R	R	
OB	R	A	R	A	R	A	A	R	R	NC	A	
OG	R	R	R	A	R	R	R	R	R	A	A	
OH	R	R	R	R	R	R	R	R	R	R	R	
OI	R	A	A	NC	R	A	A	A	R	R	A	
Total A	11	12	8	14	8	16	10	11	7	6	16	119
Total R	19	19	23	9	23	14	20	20	23	14	15	199
Total NC	0	0	0	8	0	1	1	0	1	10	0	20

Note.—A = acceptance, R = rejection, NC = noncommitment, D = duplicate evaluation as both A and R.

Table 25

Evaluation of Mid-Region Building Change Issue Statements  
for Experimental Group C

State- ments	Subjects															Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
A	R	NC	R	R	A	R	R	A	A	NC	R	NC	R	NC	A	
K	R	NC	A	R	R	A	A	R	R	R	R	NC	A	A	A	
L	A	NC	A	R	A	A	A	R	NC	NC	R	NC	A	NC	A	
M	R	NC	R	R	NC	R	NC	A	NC	A	R	NC	A	NC	R	
O	A	NC	A	NC	A	R	R	A	R	R	R	R	R	NC	A	
R	R	NC	A	A	R	NC	A	A	R	R	R	NC	R	A	R	
T	R	A	R	NC	NC	R	NC	R	NC	A	R	R	R	NC	R	
V	R	NC	A	R	R	NC	NC	A	R	R	R	NC	R	A	A	
Z	R	R	A	R	NC	R	NC	A	NC	R	R	R	R	NC	A	
AB	R	R	R	R	NC	R	R	R	NC	NC	R	R	R	NC	R	
AE	A	NC	A	NC	A	A	A	R	NC	R	A	NC	R	NC	A	
AI	A	NC	R	NC	NC	A	NC	A	A	R	R	R	R	NC	R	
AN	A	A	R	R	A	A	A	A	NC	A	R	R	A	NC	A	
AS	R	NC	A	R	NC	R	R	R	R	R	R	R	R	NC	A	
AY	R	A	R	R	A	A	NC	A	A	A	R	NC	A	NC	R	
BA	R	A	R	R	NC	R	NC	A	A	A	R	R	A	NC	A	
BF	R	R	R	R	NC	R	R	R	NC	A	R	R	R	A	R	
BQ	R	NC	A	R	NC	R	R	R	NC	R	R	R	R	NC	A	
BR	R	R	A	R	NC	R	R	A	NC	R	R	R	R	NC	R	
BS	R	NC	A	R	NC	R	NC	A	NC	R	R	R	R	NC	A	

(Table 25 continued on next page.)

Evaluation of Mid-Region Building Change Issue Statements  
for Experimental Group C

State- ments	Subjects															Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
BU	A	NC	R	NC	A	NC	NC	R	A	NC	A	NC	R	R	A	
CA	R	NC	A	R	R	R	NC	R	R	R	R	NC	R	A	R	
CB	R	R	R	NC	NC	R	NC	R	NC	R	R	R	R	NC	A	
CP	R	R	R	R	NC	R	R	R	NC	A	R	R	R	A	R	
CR	R	NC	A	A	R	A	NC	A	NC	A	A	A	R	NC	A	
CS	R	R	R	R	NC	R	R	R	NC	A	R	R	R	NC	R	
CT	R	R	R	R	NC	R	R	R	NC	A	R	R	R	NC	A	
CX	R	R	R	NC	NC	R	NC	R	NC	A	R	R	R	NC	A	
CY	R	A	A	R	NC	A	NC	R	NC	A	R	R	R	NC	R	
CZ	A	NC	A	A	A	NC	NC	A	NC	A	A	A	A	R	A	
Total A	7	5	15	3	8	8	5	14	5	13	4	2	7	6	18	120
Total R	23	9	15	20	5	18	10	16	6	13	26	18	23	2	12	216
Total NC	0	16	0	7	17	4	15	0	19	4	0	10	0	22	0	144

Note.--A = acceptance, R = rejection, NC = noncommitment.

Table 26

Evaluation of Mid-Region War Issue Statements  
for Experimental Group C

State- ments	Subjects															Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
D	A	A	A	R	A	R	NC	A	A	A	R	A	R	A	A	
L	R	NC	R	R	A	NC	R	R	A	R	R	R	R	R	R	
P	R	NC	R	D	A	D	A	D	D	D	A	D	D	A	A	
T	R	A	A	A	NC	R	R	A	A	A	A	R	A	R	A	
W	R	NC	R	R	A	R	R	R	A	R	R	R	R	A	A	
X	R	NC	R	R	A	R	R	R	A	R	A	R	R	A	R	
Y	A	R	R	A	A	R	A	R	A	A	A	R	A	A	A	
Z	A	R	A	R	A	R	A	A	A	R	A	A	A	A	A	
BA	R	NC	R	R	A	A	R	R	A	R	R	R	R	A	R	
BF	A	NC	A	A	R	A	NC	A	R	A	R	R	R	A	A	
CB	R	NC	R	R	R	A	A	R	R	A	R	R	R	A	A	
CF	R	A	A	R	A	R	A	R	R	R	R	R	R	R	A	
CH	R	R	R	R	R	A	NC	R	A	R	R	R	R	R	R	
CS	R	NC	R	A	A	A	NC	A	A	A	A	R	R	R	A	
CW	R	NC	R	R	R	NC	NC	R	NC	R	R	R	R	R	R	
CY	R	NC	R	R	R	R	R	R	A	R	R	R	A	A	R	
DE	A	R	R	R	R	R	A	A	R	A	A	A	R	A	A	
DJ	R	NC	A	R	A	R	A	R	A	A	A	R	A	A	A	
DK	R	R	R	A	A	A	A	A	R	R	A	R	A	R	A	
DQ	R	R	R	R	R	R	NC	A	R	R	A	R	R	NC	NC	

(Table 26 continued on next page.)

Evaluation of Mid-Region War Issue Statements  
for Experimental Group C

State- ments	Subjects															Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
DT	A	R	A	R	A	R	A	A	A	A	A	A	A	A	A	
DU	A	NC	A	R	R	R	R	A	NC	A	A	A	A	R	A	
DZ	R	NC	R	R	A	A	R	R	NC	R	R	R	R	R	A	
EK	A	R	A	R	R	R	R	A	NC	A	A	A	R	R	A	
EL	A	R	R	R	A	R	NC	A	R	A	A	A	A	A	A	
EQ	R	A	R	R	R	NC	R	A	A	A	R	R	R	R	R	
QA	R	NC	R	R	A	NC	A	R	NC	R	A	R	A	A	A	
OB	R	NC	A	R	A	A	A	A	A	A	R	A	R	R	A	
OG	R	A	A	R	R	A	R	A	A	A	R	A	A	A	A	
OH	R	NC	R	R	A	A	R	R	NC	R	A	R	R	A	A	
OI	A	R	A	R	A	R	R	A	A	R	R	R	R	A	R	
Total A	10	5	12	5	19	10	11	16	16	15	16	9	11	18	22	195
Total R	21	10	19	25	11	16	13	14	8	15	15	21	19	12	8	226
Total NC	0	16	0	0	1	4	7	0	6	0	0	0	0	1	1	36

Note.--A = acceptance, R = rejection, NC = noncommitment, D = duplicate evaluation as both A and R.



Table 27

Evaluation of Mid-Region Building Change Issue Statements  
for Experimental Group D

State- ments	Subjects											Total
	1	2	3	4	5	6	7	8	9	10	11	
A	NC	R	R	A	NC	R	A	R	A	R	R	
K	A	A	A	A	R	A	NC	R	A	R	R	
L	R	R	R	A	R	R	NC	R	A	A	A	
M	R	A	R	A	R	R	NC	A	A	A	R	
O	A	R	R	R	NC	A	R	A	A	R	R	
R	A	A	A	R	NC	R	NC	R	NC	R	R	
T	R	R	R	A	NC	R	NC	R	R	R	R	
V	A	A	A	A	R	R	NC	R	A	R	A	
Z	R	R	A	R	R	R	NC	R	R	A	A	
AB	R	R	R	A	NC	R	R	R	R	R	R	
AE	NC	A	A	R	R	R	R	R	A	R	A	
AI	R	R	R	R	NC	A	A	R	NC	A	R	
AN	NC	R	A	R	R	A	A	A	NC	A	A	
AS	NC	R	R	A	NC	R	R	R	R	R	R	
AY	NC	R	R	A	NC	R	A	R	A	A	R	
BA	NC	R	R	A	A	A	A	R	A	R	R	
BF	R	R	R	R	NC	R	NC	R	R	R	R	
BQ	R	R	R	R	R	R	R	R	R	R	R	
BR	R	R	A	A	R	R	NC	R	R	A	R	
BS	R	R	A	A	R	R	NC	R	R	A	R	
BU	A	A	NC	A	R	R	NC	R	R	R	R	
CA	A	A	A	A	R	R	NC	R	R	R	R	
CB	R	R	R	A	R	R	R	A	R	R	A	
CP	R	R	R	R	NC	R	R	R	R	R	R	
CR	R	A	R	A	NC	R	NC	R	A	R	R	
CS	R	R	R	R	NC	R	R	R	R	R	R	
CT	R	R	R	A	NC	R	R	R	R	R	R	
CX	R	R	R	A	R	R	A	R	R	R	A	
CY	R	R	R	A	NC	R	NC	A	A	A	A	
CZ	NC	A	A	A	A	R	NC	R	A	R	A	
Total A	6	9	10	20	2	5	6	5	12	9	9	93
Total R	17	21	19	10	14	25	9	25	15	21	21	197
Total NC	7	0	1	0	14	0	15	0	3	0	0	40

Note.--A = acceptance, R = rejection, NC = noncommitment.

Table 28

Evaluation of Mid-Region War Issue Statements  
for Experimental Group D

State- ments	Subjects											Total
	1	2	3	4	5	6	7	8	9	10	11	
D	R	R	A	R	NC	NC	R	NC	A	A	NC	
L	A	A	A	R	A	R	R	R	R	R	A	
P	A	D	D	D	D	A	A	D	A	D	A	
T	A	A	R	A	A	R	R	NC	A	A	A	
W	NC	A	R	R	A	R	NC	NC	A	R	R	
X	NC	A	R	R	R	R	R	R	R	R	R	
Y	A	A	A	A	A	A	NC	A	A	A	NC	
Z	A	A	A	R	A	A	NC	R	A	A	R	
BA	R	R	R	A	A	R	A	R	A	R	A	
BF	A	A	R	R	A	R	A	NC	R	A	NC	
CB	NC	A	R	R	R	R	R	R	A	R	R	
CF	R	A	R	R	A	R	NC	A	A	R	NC	
CH	NC	R	A	R	A	R	A	NC	A	R	A	
CS	NC	A	R	R	A	R	NC	R	A	R	A	
CW	A	A	A	R	R	R	A	NC	A	R	A	
CY	A	A	R	R	R	A	R	NC	R	R	NC	
DE	A	A	R	A	A	NC	A	A	A	A	A	
DJ	NC	A	A	R	A	R	R	A	A	R	NC	
DK	NC	A	R	R	A	A	A	A	A	A	A	
DQ	A	R	NC	R	R	A	NC	R	A	R	NC	
DT	A	A	R	A	NC	NC	NC	A	A	A	A	
DU	NC	R	A	A	A	A	R	A	A	A	NC	
DZ	NC	A	R	R	R	A	R	R	A	R	NC	
EK	NC	R	A	A	A	NC	R	NC	A	A	A	
EL	A	A	A	A	A	NC	R	NC	A	A	R	
EQ	A	A	R	R	R	R	R	NC	A	R	R	
QA	NC	A	R	R	R	R	NC	R	A	R	A	
OB	NC	A	R	R	A	R	NC	NC	A	R	NC	
OG	A	A	R	R	A	R	A	A	A	R	A	
OH	NC	A	R	R	R	R	R	R	A	R	NC	
OI	A	R	A	R	A	A	A	R	R	R	R	
Total A	15	23	11	8	19	9	9	8	26	11	13	152
Total R	3	7	18	22	9	17	13	11	5	19	7	131
Total NC	13	0	1	0	2	5	9	11	0	0	11	42

Note.—A = acceptance, R = rejection, NC = noncommitment, D = duplicate evaluation as both A and R.

Table 29

Placement of Extreme End-Region Statements  
on Building Change Issue

Statements	Experimental groups				Statements	Progressive				
	Traditional		N - 1			N		N - 1		N
	1	2			1	2			1	2
D	26	11	0	1	S	2	0	6	22	
E	30	10	0	1	AK	2	0	8	32	
F	42	5	0	1	AM	1	0	11	26	
G	28	17	0	1	AP	2	1	9	18	
H	29	12	0	1	AX	2	0	7	22	
N	26	11	0	1	BC	1	0	4	30	
AJ	28	11	0	1	BD	2	0	6	20	
AO	13	15	0	2	BM	4	0	7	20	
AU	26	11	0	2	BN	4	0	5	25	
BE	25	8	0	1	BP	3	0	3	25	
BH	31	9	0	1	BX	1	0	6	27	
BI	23	10	1	2	BY	1	1	5	26	
BJ	24	12	0	2	BZ	1	0	3	40	
BO	31	12	0	1	CD	5	0	8	18	
BW	26	12	0	1	CU	1	0	11	25	
	<u>408</u>	<u>166</u>	<u>1</u>	<u>19</u>		<u>32</u>	<u>2</u>	<u>99</u>	<u>376</u>	

(Table 29 continued on next page.)

Placement of Extreme End-Region Statements  
on Building Change Issue

Control groups									
Traditional					Progressive				
Statements	1	2	<u>N</u> - 1	<u>N</u>	Statements	1	2	<u>N</u> - 1	<u>N</u>
D	29	12	0	0	S	2	0	7	33
E	36	13	0	0	AK	0	1	19	25
F	46	5	0	1	AM	0	0	11	31
G	33	14	0	0	AP	0	0	21	17
H	27	18	0	0	AX	0	0	12	28
N	27	21	0	1	BC	0	0	7	36
AJ	24	16	0	0	BD	0	0	11	22
AO	14	25	0	1	BM	3	4	10	22
AU	28	14	0	0	BN	4	4	9	27
BE	26	14	0	0	BP	0	0	14	28
EH	37	14	0	0	BK	0	0	14	25
EI	26	20	0	1	BY	0	0	13	27
BJ	25	20	0	0	BZ	0	0	5	45
BO	37	13	0	0	CD	1	2	18	17
EW	22	20	1	0	CU	1	0	17	27
	<u>437</u>	<u>239</u>	<u>1</u>	<u>4</u>		<u>11</u>	<u>11</u>	<u>188</u>	<u>410</u>

Table 30

Placement of Extreme End-Region Statements  
on War Issue

Experimental groups									
Statements	Pro-war				Anti-war				
	1	2	<u>N</u> - 1	<u>N</u>	Statements	1	2	<u>N</u> - 1	<u>N</u>
F	8	7	3	3	E	0	1	15	25
O	16	11	0	1	H	1	0	10	20
S	24	8	0	1	J	8	0	5	22
U	23	10	1	1	Q	2	2	4	37
V	16	14	0	0	BJ	2	2	8	32
BE	13	10	1	0	CG	0	0	14	27
BU	30	10	1	0	CK	4	1	7	32
CN	12	14	0	0	DC	0	0	12	19
CX	8	12	1	2	DE	3	1	14	13
CZ	19	18	0	1	DN	0	0	16	24
DA	19	11	0	3	DP	1	0	4	43
DM	33	5	1	5	DW	0	1	15	23
EM	12	13	0	0	EB	2	2	10	14
BT	15	12	1	0	EH	2	0	13	16
	<u>248</u>	<u>155</u>	<u>9</u>	<u>17</u>	OD	0	0	8	35
						<u>25</u>	<u>10</u>	<u>155</u>	<u>382</u>

(Table 30 continued on next page.)

Placement of Extreme End-Region Statements  
on War Issue

Statements	Control groups				Statements	Anti-war			
	Pro-war		N			N		N	
	1	2	N - 1	N	1	2	N - 1	N	
F	13	8	5	1	E	0	3	10	29
O	7	15	1	1	H	0	0	18	14
S	20	12	0	1	J	10	4	6	12
U	13	22	2	1	Q	1	1	8	40
V	18	16	0	1	BJ	0	1	10	29
BE	17	6	1	1	CG	1	3	13	26
BU	29	12	0	1	CK	3	1	6	32
CN	18	13	0	0	DC	0	2	15	9
CK	4	14	2	1	DH	1	6	14	15
CZ	11	15	1	0	DN	1	1	18	25
DA	13	13	0	1	DP	0	1	6	43
DM	40	8	1	1	DW	0	1	20	20
EM	11	14	0	0	EB	0	1	23	10
BT	18	12	1	0	EH	0	1	14	13
	<u>232</u>	<u>180</u>	<u>14</u>	<u>10</u>	OD	<u>0</u>	<u>1</u>	<u>4</u>	<u>29</u>
						<u>17</u>	<u>27</u>	<u>185</u>	<u>346</u>

APPENDIX C

Table 31

Information Sheet Data for Experimental Groups

	A	B	C	D	Total
<b>Sex</b>					
Male	7	6	15	11	39
Female	5	5	0	0	10
<b>Age</b>					
18	3	1			4
19	2	1			3
20	2	2	6	1	11
21	0	1	3	2	6
22	4	3	3	6	16
23	1	0	3	0	4
24 or older	0	3	0	2	5
<b>Major</b>					
Business	0	0	6	3	9
Agriculture	0	0	6	3	9
Engineering	0	0	0	3	3
Biology	0	0	1	1	2
Chemistry	0	0	1	0	1
Physical Education	0	0	0	1	1
History	2	3	0	0	5
Economics	0	2	0	0	2
Political Science	1	2	0	0	3
Psychology	2	0	0	0	2
Industrial Arts	0	0	2	0	2
Speech and Drama	0	0	1	0	1

(Table 31 continued on next page.)

## Information Sheet Data for Experimental Groups

	A	B	C	D	Total
Fine Arts	0	0	2	0	2
Math	0	1	0	0	1
English	1	1	0	0	2
Undecided	1	0	0	0	0
<b>Class</b>					
Freshman	3	1	0	0	4
Sophomore	3	1	1	1	6
Junior	2	3	7	1	13
Senior	4	4	6	7	22
Graduate	0	2	1	2	5
<b>Group Affiliation</b>					
A	12	0	0	0	12
B	0	11	0	0	11
C	0	0	15	0	15
D	11	0	0	0	11
Athletic	1	0	0	1	2
Interest	1	0	0	0	1
Church	1	0	0	0	1
Miscellaneous	0	2	0	0	2
<b>Average of participation</b>	<b>4.8</b>	<b>3.1</b>	<b>1.5</b>	<b>1.6</b>	

Note.--Position on scale indicated by 1, most active, to 9, least active.



Table 32

## Information Sheet Data for Control Groups

	1	2	3	4	Total
<b>Sex</b>					
Male	7	8	4	3	22
Female	6	8	10	12	36
<b>Age</b>					
18	3	4	10	9	26
19	5	8	3	4	20
20	3	2	1	0	6
21	2	0	0	0	2
22	0	1	0	0	1
23 or older	0	1	0	2	3
<b>Major</b>					
Business	2	2	0	1	5
Engineering	0	0	0	1	1
Math	0	0	1	1	2
Economics	0	0	1	0	1
Home Economics	0	2	0	0	2
Sociology	0	0	1	0	1
History	0	1	1	0	2
English	1	1	2	3	7
Medicine	1	0	2	2	5
French	1	0	0	1	2
Agriculture	0	3	0	0	3
Undecided	1	2	2	4	9
Biology	3	2	0	0	5
Architecture	1	0	0	0	1
Computer Science	1	0	0	0	1
Political Science	1	0	0	0	1
<b>Class</b>					
Freshmen	4	9	13	12	38
Sophomore	6	4	0	3	13
Junior	1	1	0	0	2
Senior	2	2	1	0	5
Graduate	0	0	0	0	0

(Table 32 continued on next page.)

## Information Sheet Data for Control Groups

	1	2	3	4	Total
Group Affiliation					
Psychology class	11	12	3	15	41
Dorm	0	4	2	0	6
Sorority or Fraternity	1	0	1	0	2
Miscellaneous	0	0	1	1	2
None	1	1	5	0	7
Average of participation	4.7	4.5	5.6	3.9	

Note.--Position on scale indicated by 1, most active, to 9, least active.

APPENDIX D

Information Sheet

Male \_\_\_\_\_

Female \_\_\_\_\_

Age \_\_\_\_\_

Major \_\_\_\_\_

Year in school \_\_\_\_\_

Group affiliation \_\_\_\_\_

Very active participant \_\_\_\_\_

Very inactive participant

Evaluation of Building Change Issue TapeVery pro-  
traditionalVery pro-  
progressive

2. Were you pleased or irritated with the tape you just heard?

 Very pleased Pleased Neither pleased nor displeased Irritated Very irritated

3. Was the speaker biased or unbiased in the opinions he expressed?

 Very biased Biased I am not quite sure Unbiased Very unbiased

4. Were the arguments presented by the speaker propaganda or fact?

 All propaganda More propaganda than fact Cannot say for sure More fact than propaganda All fact

Evaluation of War Issue Tape

Very pro-  
necessity of  
war

Very pro-  
uselessness  
of war

2. Were you pleased or irritated with the tape you just heard?

\_\_\_\_\_ Very pleased

\_\_\_\_\_ Pleased

\_\_\_\_\_ Neither pleased nor displeased

\_\_\_\_\_ Irritated

\_\_\_\_\_ Very irritated

3. Was the speaker biased or unbiased in the opinions he expressed?

\_\_\_\_\_ Very biased

\_\_\_\_\_ Biased

\_\_\_\_\_ I am not quite sure

\_\_\_\_\_ Unbiased

\_\_\_\_\_ Very unbiased

4. Were the arguments presented by the speaker propaganda or fact?

\_\_\_\_\_ All propaganda

\_\_\_\_\_ More propaganda than fact

\_\_\_\_\_ Cannot say for sure

\_\_\_\_\_ More fact than propaganda

\_\_\_\_\_ All fact

Evaluation of Own Position on Building Change Issue

Very pro-  
traditional  
building  
change

Very pro-  
progressive  
building  
change

---

Evaluation of Own Position on War Issue

Very pro-  
necessity  
for war

Very pro-  
uselessness  
of war

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APPENDIX E

Table 33

Evaluation of Tape Position

	Building change							
	Experimental groups				Control groups			
	A	B	C	D	1	2	3	4
1	2.0	2.4	5.8	5.5	7.0	1.0	1.2	8.8
2	.3	.2	6.0	6.5	7.3	1.5	2.4	8.6
3	.0	3.2	8.5	8.0	9.0	1.0	2.4	8.4
4	1.0	1.6	7.1	6.0	7.4	.2	.0	6.8
5	1.3	1.9	8.0	8.5	9.0	.8	2.5	5.7
6	2.0	.0	7.9	7.2	7.4	3.2	.5	7.7
7	2.5	.0	8.7	7.7	8.7	.0	4.0	8.5
8	.9	.0	7.0	8.8	7.2	.3	.2	5.3
9	.0	1.9	5.5	8.0	8.9	2.2	.2	8.9
10	2.4	.8	9.0	8.7	7.9	.0	3.2	7.3
11	2.3	.4	8.8	7.1	7.8	1.2	1.6	7.7
12	.0		8.0		8.6	.3	.0	8.8
13			8.6		7.0	.7	.0	6.4
14			8.0			1.8	3.4	7.7
15						.4		8.0
16						.8		
	14.7	12.4	115.7	82.0	103.2	15.4	21.6	114.6

(Table 33 continued on next page.)



## Evaluation of Tape Position

	War							
	Experimental groups				Control groups			
	A	B	C	D	1	2	3	4
1	.8	.6	6.6	7.5	9.0	.8	2.8	8.5
2	.1	.6	8.1	6.1	7.3	.4	.7	8.6
3	.1	.4	8.8	8.8	3.2	2.2	2.4	8.2
4	.0	.4	8.0	6.1	8.0	.0	2.9	7.7
5	.4	.5	8.4	8.2	1.5	.8	.8	8.6
6	.1	.1	8.6	8.6	2.2	2.3	.4	7.2
7	1.1	.0	8.5	8.2	2.0	.9	.0	6.6
8	.3	.0	6.5	8.1	8.7	4.4	.0	8.2
9	.0	.0	8.8	8.9	7.6	.8	1.2	8.1
10	.2	2.1	8.7	7.2	8.9	1.1	.9	6.9
11	.1	.2	6.3	8.0	6.5	1.4	.4	8.7
12	.8		8.8		8.7	.3	1.1	5.4
13			7.7		7.3	.0	2.3	6.2
14			8.0			.8	1.4	8.8
15			7.8			2.7		8.0
16						1.6		
	<u>4.0</u>	<u>4.9</u>	<u>119.6</u>	<u>85.7</u>	<u>100.1</u>	<u>20.5</u>	<u>17.3</u>	<u>115.7</u>

Table 34

## Content Evaluation of Building Change Issue Tape

	Experimental groups					Control groups				
	A	B	C	D	Total	1	2	3	4	Total
Very pleased	0	0	0	0	0	0	0	2	1	3
Pleased	1	5	4	1	11	1	7	6	0	14
Neither pleased nor displeased	4	6	2	5	17	5	6	4	3	18
Irritated	5	0	7	3	15	5	3	2	8	18
Very irritated	2	0	3	2	7	2	0	0	3	5
Very biased	4	4	4	4	16	4	3	2	5	14
Biased	8	5	9	6	28	9	12	7	7	35
I am not quite sure	0	2	1	1	4	0	0	2	2	4
Unbiased	0	0	0	0	0	0	1	2	1	4
Very unbiased	0	0	2	0	2	0	0	1	0	1
All propaganda	1	0	0	1	2	2	1	0	4	7
More propaganda than fact	10	9	11	7	37	7	10	13	9	39
Cannot say for sure	0	1	2	2	5	2	1	7	2	12
More fact than propaganda	1	1	3	1	6	2	4	6	0	12
All fact	0	0	0	0	0	0	0	2	0	2

Table 35

## Content Evaluation of War Issue Tape

	Experimental groups					Control groups				
	A	B	C	D	Total	1	2	3	4	Total
Very pleased	0	0	0	1	1	0	0	1	0	1
Pleased	0	0	2	1	3	2	8	4	4	18
Neither pleased nor displeased	2	1	2	0	5	5	6	6	5	22
Irritated	2	6	6	6	20	3	1	3	6	13
Very irritated	8	4	6	3	21	3	1	0	0	4
Very biased	10	6	5	6	27	5	3	4	0	12
Biased	2	5	10	3	20	6	7	5	12	30
I am not quite sure	0	0	0	1	1	1	3	2	2	8
Unbiased	0	0	1	1	2	1	2	3	1	7
Very biased	0	0	0	0	0	0	1	0	0	1
All propaganda	2	1	3	1	7	2	0	0	0	2
More propaganda than fact	9	9	5	4	27	8	5	5	6	24
Cannot say for sure	0	0	0	3	3	2	6	3	3	14
More fact than propaganda	1	1	8	2	12	1	5	4	5	15
All fact	0	0	0	1	1	0	0	2	1	3

## APPENDIX F

### Building Change Issue Statements

- A Aesthetics is the most important function a building name can have.
- D Building names should be kept in the traditional nature of our campus.
- E Our new buildings should be ivy covered.
- F It is absolutely essential to maintain our "ivy-covered" atmosphere throughout the campus buildings.
- G On the whole, it is best to maintain an "ivy-covered" atmosphere throughout the campus buildings.
- H It seems that it would be better to maintain an "ivy-covered" atmosphere throughout the campus buildings.
- K The issue of building name changes is not important enough to warrant any large concern.
- L The names given to buildings should add to the atmosphere and promote the intentions of the institution.
- M The new buildings being constructed should be given a name to honor an outstanding man, but the old buildings can remain as they are.
- N The college customs and traditions should be maintained and continued when naming future buildings.
- O Functional names undermine the beauty of . . .'s campus.
- R When the issue of building changes comes up, it should be tabled for lack of significance.
- S Change and adaptation are essential in the process of life.
- T Names of past U. S. Presidents are best for college building names.

- V It doesn't really matter what names one gives to buildings.
- Z Some of the buildings should be named after outstanding citizens.
- AB Building names should honor international leaders and humanitarians.
- AE The building names, as they are, are very functional.
- AI Most other colleges have dedicatory names for their buildings; why doesn't this?
- AJ Traditional names would be best for the buildings.
- AK Modern and futuristic names would be most appropriate for a college.
- AM The campus should be organized by buildings and names according to current modern trends.
- AN One of the rooms in the new student union could be designated the Pioneer Room.
- AO Some of the rooms in the new student union should carry out a traditional theme.
- AP Some of the rooms in the new student union should carry out a modern theme.
- AS Lawn areas owned by the college should be used for new buildings instead of buying new land.
- AU Building names on campus should be organized according to its many age old traditions.
- AX It is time for a change in the present environment and arrangement of the campus.
- AY The present environment and arrangement of the campus needs some more change toward patterns which are already established.
- BA The present environment and arrangement of the campus needs a great deal of change toward patterns which are already established.
- BC The present environment and arrangement of the campus needs a great deal of change toward patterns which are new and different.
- BD The present environment and arrangement of the campus needs some change toward patterns which are new and different.

- BE ~~These~~ State College buildings tend to fit the image of the traditional institution.
- BF On the whole, it is best to have building names such as Adlai Stevenson Hall or Bertrand Russell Hall.
- BH The new buildings being built on campus should be constructed in an old brick pattern.
- BI On the whole, it is best that new buildings on campus be constructed in an old brick pattern.
- BJ It seems it might be better to have the new buildings on campus constructed in an old brick pattern.
- BM On the whole, it is best that new buildings on campus be constructed in contemporary materials.
- BN The new buildings being built on campus should be constructed in contemporary materials.
- BO The "ivy" atmosphere of our campus should be maintained for the future.
- BP It is time for a change of campus building names to break age-old traditions.
- BQ Some new college buildings should be named after important faculty members still on campus.
- BR New college buildings should be named after important members of the ~~State~~ community.
- BS Some of the new buildings could be named after important members of the ~~State~~ community.
- BU No new buildings should be named after important members of the ~~State~~ community.
- BW The names of the new buildings on campus should be traditionally oriented.
- BX It seems it would be better to have a more "modern" theme throughout the campus buildings.
- BY On the whole, it would be better to maintain a more "modern" theme throughout the campus buildings.
- BZ It is absolutely essential to have a "modern" theme throughout the campus.

- CA The buildings do not need any names at all for they can be used by all departments as open facilities.
- CB "Kendall Hall" would be a good name for the administration building.
- CD "Expression Square" is an appealing name for the Humanities building.
- CP It seems it would be better to have building names such as Adlai Stevenson or Bertrand Russell Hall.
- CR No new college buildings should be named after important faculty members on campus.
- CS One of the buildings on campus should be called Lyndon Johnson Hall.
- CT One of the buildings on campus should be called Eisenhower Hall.
- CU The names of the new buildings on campus should be up-to-date or modern.
- CX Some new campus buildings should be named after traditional U. S. leaders of the past.
- CY Some new campus buildings should be named after progressive leaders of the past.
- CZ ~~State~~ State College tends to fit the image of an intellectual institution.

#### War Issue Statements

- D An international peace force team should be allowed to conduct free elections in South Vietnam.
- E American policy in Vietnam is abortive and a needless waste of human suffering.
- F We must respect and defend law and order.
- H The more nations spend for defense the less real security their people have.
- J The entire world should be governed by one international body possessing the only military power on earth.
- L Hydrogen bombs are just bigger and better bombs which should be used in war when necessary.

- O Citizens feel a sense of pride and security in our military strength.
- P Neutral nations are actually cowardly.
- Q Human destruction must be avoided at any cost.
- S Men must sacrifice their lives to preserve their country.
- T Nuclear weapons may be used in war only as the last resort.
- U War also has good points such as increased scientific advancement and employment.
- V Wars often have to be fought in order to obtain peace.
- W There will never be an end to war; it is man's nature to fight.
- X War is an effective measure since it provided a winner and a loser.
- Y Those who follow sound principles in the long run, win.
- Z An alternative to war or surrender can be found if man would only compromise.
- BA In war time other countries need to accept our stands or become our enemy.
- BE There are times when war cannot be avoided.
- BF The U. S. must support dictator governments such as those in Vietnam in order to prevent a Communist take-over.
- BJ An immediate cease fire under any circumstances must be attained in Vietnam.
- BP A nation which is attacked should fight back.
- BU We must use force in other countries before it is used on us.
- CB There is little hope for peace in the future since man is by nature belligerent.
- CF The South Vietnam government does not have the support of its people.
- CG The U. S. bombing of North and South Vietnam is comparable to crimes committed by German Nazis.
- CH There is great danger that war in Vietnam will escalate into World War III.



- CK I'd rather be Red than dead.
- CN The North Vietnamese would overrun Vietnam and introduce Communism if it weren't for American war efforts.
- CS The greater the amount of armaments a country possesses the smaller the chance for war.
- CW It makes little difference what type of weapons are employed to kill men in war time.
- CX Relocation of Vietnamese peasants to protected hamlets is a necessary strategic and defensive measure.
- CY The world will have to fight one more war against Communism then we shall have peace.
- CZ We must support our country with courage and dignity to repel the Communist menace.
- DA Right or wrong, a citizen must support his country in times of war.
- DC Protest movements are sometimes effective toward eliminating war.
- DE The U. S. bombing of North Vietnam should be stopped when North Vietnam is willing to cooperate in a peace conference.
- DH The U. S. is acting in Vietnam somewhat as the Russians did in Hungary.
- DJ Peoples throughout the world have the right to control their own destiny.
- DK There is only one way to get the Vietnam Communists to the conference table: we must convince them they cannot win.
- DM Nuclear warfare is necessary.
- DN The U. S. should not be fighting in Vietnam.
- DP War is wrong at any time.
- DQ Nuclear warfare would destroy the civilized world.
- DT The U. S. is ready and willing to negotiate peace in Vietnam.
- DU The control of nuclear weapons should be considered as a possible alternative to reduce the threat of war.
- DW The U. S. intervention in local wars throughout the world is unwarranted.

- DZ The only effective method for settling international difficulties is force.
- EB Continued U. S. involvement in local wars hurts the nation.
- EH The war in Vietnam is an unfortunate error on the part of the state department.
- EK Nuclear weapons should be controlled to avoid an all out war.
- EL Perhaps we should consider stopping bombing raids on North Vietnam if they are willing to cooperate in a peace conference.
- EM At times the U. S. has an obligation to intervene in local struggles throughout the world.
- EQ Nuclear war would only do temporary damage to part of the world.
- QA War brings out the best qualities in man.
- OB War has some benefits; but it's a big price to pay for them.
- OD War is a futile struggle resulting in self-destruction.
- OG Defensive war is justified but other wars are not.
- OH There can be no progress without war.
- OI It is good judgment to sacrifice certain rights in order to prevent war.

APPENDIX G

Table 36

Own-Categories Sort on Building Change Issue  
for Experimental Group A

Categories	Subjects												Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12		
Acceptance	1	1	2	2	2	1	4	1	2	1	1	1	19	1.58
Rejection	5	11	2	1	1	8	3	10	1	1	4	2	49	3.25
Noncommitment	0	5	1	0	0	8	0	0	0	6	0	7	17	2.25
Total	6	17	5	3	3	17	7	11	3	8	5	10	95	7.92

  

Statements	Subjects												Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12		
Acceptance	11	5	23	25	31	4	44	11	28	3	9	4	198	16.5
Rejection	49	50	30	36	29	32	15	23	32	1	52	15	364	28.25
Noncommitment	0	6	7	0	0	25	0	27	0	56	0	42	163	15.66
Total	60	61	60	61	60	61	59	61	60	60	61	61	725	

Table 37

## Own-Categories Sort on War Issue for Experimental Group A

Categories	Subjects												Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12		
Acceptance	2	3	1	2	2	3	3	2	1	2	1	3	25	2.08
Rejection	5	4	3	3	2	6	2	2	2	3	2	5	39	2.66
Noncommitment	0	1	0	2	1	0	0	3	0	3	0	5	15	1.25
Total	7	8	4	7	5	9	5	7	3	8	3	13	79	6.58

Statements	Subjects												Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12		
Acceptance	20	21	11	18	22	28	37	15	22	24	19	19	256	21.3
Rejection	40	35	48	35	36	34	27	24	37	25	41	26	408	31.9
Noncommitment	0	4	0	7	1	0	0	20	0	11	0	15	58	4.7
Total	60	60	59	60	59	62	64	59	59	60	60	60	722	

Table 38

Own-Categories Sort on Building Change Issue  
for Experimental Group B

Categories	Subjects											Total	Mean
	1	2	3	4	5	6	7	8	9	10	11		
Acceptance	2	3	1	1	1	3	2	2	4	1	2	22	2.0
Rejection	2	4	3	1	2	6	7	4	3	1	2	35	3.18
Noncommitment	0	0	1	2	0	0	0	0	0	5	3	11	1.0
Total	4	7	5	4	3	9	9	6	7	7	7	68	6.18

  

Statements	Subjects											Total	Mean
	1	2	3	4	5	6	7	8	9	10	11		
Acceptance	23	5	17	12	13	23	26	43	23	9	22	216	19.64
Rejection	38	56	31	22	48	38	34	18	38	7	31	361	32.82
Noncommitment	0	0	13	27	0	0	0	0	0	45	7	92	8.4
Total	61	61	61	61	61	61	60	61	61	61	60	669	

Table 39

## Own-Categories Sort on War Issue for Experimental Group B

Categories	Subjects											Total	Mean
	1	2	3	4	5	6	7	8	9	10	11		
Acceptance	2	5	2	1	1	5	6	3	2	1	3	31	2.82
Rejection	2	5	2	2	2	6	4	4	3	4	3	37	3.4
Noncommitment	0	0	0	2	0	1	0	0	0	2	0	5	.45
Total	4	10	4	5	3	12	10	7	5	7	6	73	6.63

  

Statements	Subjects											Total	Mean
	1	2	3	4	5	6	7	8	9	10	11		
Acceptance	27	26	23	18	22	29	26	26	23	11	33	264	24.0
Rejection	33	34	37	16	37	29	35	35	36	34	27	353	32.1
Noncommitment	0	0	0	27	0	1	0	0	0	15	0	43	3.9
Total	60	60	60	61	59	59	61	61	59	60	60	660	

Table 40

Own-Categories Sort on Building Change Issue  
for Experimental Group C

Categories	Subjects															Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Acceptance	3	1	1	2	1	2	1	2	3	4	2	4	1	2	2	31	2.07
Rejection	5	1	1	2	1	3	1	2	2	4	4	4	2	2	2	36	2.4
Noncommitment	0	4	0	1	1	1	3	0	2	2	0	4	0	6	0	24	1.6
Total	8	6	2	5	3	6	5	4	7	10	6	12	3	10	4	91	6.07

  

Statements	Subjects															Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Acceptance	24	15	32	19	21	23	14	31	20	19	16	16	25	2	29	306	20.4
Rejection	37	11	29	37	5	28	18	39	18	28	45	32	35	8	32	393	26.2
Noncommitment	0	35	0	5	34	10	29	0	23	14	0	13	0	51	0	214	14.27
Total	61	61	61	61	60	61	61	61	61	61	61	61	61	60	61	913	

Table 41

Own-Categories Sort on War Issue for Experimental Group C

Categories	Subjects															Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Acceptance	1	2	1	1	1	4	2	2	2	3	1	1	3	5	2	31	2.07
Rejection	3	2	2	3	1	4	2	2	2	3	2	2	2	3	2	35	2.33
Noncommitment	0	2	0	0	1	1	1	0	1	1	0	0	0	0	0	7	.47
Total	4	6	3	4	3	8	5	4	5	7	3	3	5	8	4	72	4.8

  

Statements	Subjects															Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Acceptance	14	11	22	16	32	23	25	25	30	26	28	17	24	29	36	358	23.87
Rejection	46	22	38	44	25	30	24	38	23	33	33	44	38	30	25	493	32.86
Noncommitment	0	27	0	0	3	6	11	0	7	1	0	0	0	0	0	55	3.67
Total	60	60	60	60	60	59	60	63	60	60	61	61	62	59	c	906	4.8



Table 42

Own-Categories Sort on Building Change Issue  
for Experimental Group D

Categories	Subjects											Total	Mean
	1	2	3	4	5	6	7	8	9	10	11		
Acceptance	2	4	11	2	2	2	2	2	3	3	2	35	3.18
Rejection	2	8	15	2	3	5	4	5	2	6	3	55	5.0
Noncommitment	3	0	0	0	1	0	4	0	1	0	0	9	.82
Total	7	12	26	4	6	7	10	7	6	9	5	99	9.0

  

Statements	Subjects											Total	Mean
	1	2	3	4	5	6	7	8	9	10	11		
Acceptance	6	18	21	27	7	22	14	14	26	21	24	200	18.2
Rejection	20	42	40	34	30	39	25	47	28	40	36	381	34.6
Noncommitment	34	0	0	0	24	0	22	10	7	0	0	87	7.9
Total	60	60	61	61	61	61	61	61	61	61	60	668	

Table 43

## Own-Categories Sort on War Issue for Experimental Group D

Categories	Subjects											Total	Mean
	1	2	3	4	5	6	7	8	9	10	11		
Acceptance	3	10	1	1	6	2	3	1	5	4	2	38	3.45
Rejection	3	6	2	3	2	4	3	3	1	13	2	42	3.82
Noncommitment	5	0	0	0	2	1	3	2	0	0	1	14	1.27
Total	11	16	3	4	10	7	9	6	6	17	5	94	8.55

  

Statements	Subjects											Total	Mean
	1	2	3	4	5	6	7	8	9	10	11		
Acceptance	25	38	27	17	31	14	20	15	45	14	29	275	25.0
Rejection	8	22	32	43	23	31	19	30	15	46	19	288	26.2
Noncommitment	27	0	0	0	7	15	21	15	0	0	12	97	8.8
Total	60	60	59	60	61	60	60	60	60	60	60	660	

Table 44

Own-Categories Sort on Building Change Issue  
for Control Group 1

Categories	Subjects													Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13		
Acceptance	2	3	1	2	2	2	3	3	3	3	3	2	9	38	2.92
Rejection	2	3	1	2	2	2	3	2	5	3	3	2	6	36	2.77
Noncommitment	1	1	1	0	1	0	4	0	0	4	0	8	0	20	1.54
Total	5	7	3	4	5	4	10	5	8	10	6	12	15	94	7.23

  

Statements	Subjects													Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13		
Acceptance	25	28	22	33	19	27	6	35	26	26	42	6	30	325	25
Rejection	26	28	19	28	31	33	30	26	35	20	18	15	31	340	26.15
Noncommitment	10	4	20	0	11	0	25	0	0	15	0	40	0	125	9.62
Total	61	60	61	61	61	60	61	61	61	61	60	61	61	790	

Table 45

Own-Categories Sort on War Issue for Control Group 1

Categories	Subjects													Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13		
Acceptance	2	2	2	1	1	2	4	4	4	3	3	3	9	40	3.07
Rejection	2	2	2	1	3	2	3	2	4	6	3	2	4	36	2.76
Noncommitment	1	0	1	1	1	0	3	0	0	4	0	2	0	13	1.0
Total	5	4	5	3	5	4	10	6	8	13	6	7	13	89	6.85

  

Statements	Subjects													Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13		
Acceptance	20	25	26	23	9	33	26	37	21	16	37	19	40	332	25.5
Rejection	33	35	32	18	41	27	19	23	38	25	23	29	20	363	27.9
Noncommitment	7	0	2	19	9	0	14	0	0	19	0	12	0	82	6.3
Total	60	60	60	60	59	60	59	60	59	60	60	60	60	777	

Table 46

Own-Categories Sort on Building Change Issue  
for Control Group 2

Categories	Subjects																Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Acceptance	2	1	1	1	2	1	2	2	4	5	1	1	6	1	2	3	35	2.19
Rejection	2	1	4	1	2	1	2	5	3	1	2	3	6	1	3	4	41	2.56
Noncommitment	4	3	6	1	2	5	0	0	0	6	2	6	0	1	0	4	40	2.50
Total	8	5	11	3	6	7	4	7	7	12	5	10	12	3	5	11	116	7.25

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Statements	Subjects																Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Acceptance	14	18	4	25	19	9	23	17	40	27	7	12	33	13	36	15	312	19.5
Rejection	21	17	22	17	22	7	37	43	20	4	32	24	27	29	23	24	369	23.1
Noncommitment	26	26	34	19	20	45	0	0	0	29	21	25	0	19	0	22	280	17.5
Total	61	61	60	60	61	60	60	60	60	60	60	61	60	61	59	61	961	

Table 47

Own-Categories Sort on War Issue for Control Group 2

Categories	Subjects																Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Acceptance	2	1	3	1	1	1	2	1	4	2	1	2	5	1	3	3	33	2.06
Rejection	2	2	2	1	2	1	2	5	5	1	1	2	4	2	3	3	38	2.37
Noncommitment	2	2	2	1	4	2	0	0	0	14	3	5	1	2	0	6	44	2.75
Total	6	5	7	3	7	4	4	6	9	17	5	9	10	5	6	12	115	7.18

Statements	Subjects																Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Acceptance	18	9	28	18	11	25	36	6	29	10	9	17	28	8	36	14	302	18.88
Rejection	25	28	19	28	21	15	24	52	31	6	8	28	29	23	24	18	379	23.69
Noncommitment	17	23	13	15	28	20	0	0	0	44	42	14	3	31	0	28	278	17.37
Total	60	60	60	61	60	60	60	58	60	60	59	59	60	62	60	60	959	

Table 48

Own-Categories Sort on Building Change Issue  
for Control Group 3

Categories	Subjects														Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Acceptance	1	3	3	3	2	3	2	4	4	2	1	6	3	3	40	2.9
Rejection	5	2	3	3	4	3	1	5	7	3	3	5	5	3	52	3.7
Noncommitment	0	0	0	5	0	3	0	0	0	3	1	0	0	5	17	1.2
Total	6	5	6	11	6	9	3	9	11	8	5	11	8	11	109	7.8

Statements	Subjects														Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Acceptance	13	22	27	19	18	21	32	24	21	19	20	30	22	22	310	22.1
Rejection	48	39	34	17	43	24	29	36	41	11	23	30	39	18	432	30.9
Noncommitment	0	0	0	25	0	16	0	0	0	31	18	0	0	20	110	7.9
Total	61	61	61	61	61	61	61	60	62	61	61	60	61	60	852	

Table 49

## Own-Categories Sort on War Issue for Control Group 3

Categories	Subjects														Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Acceptance	4	3	3	2	3	2	3	7	8	3	2	8	6	4	58	4.1
Rejection	6	4	3	2	6	2	2	11	5	1	5	5	4	2	58	4.1
Noncommitment	0	0	0	0	0	3	0	0	0	2	5	0	0	7	17	1.2
Total	10	7	6	4	9	7	5	18	13	6	12	13	10	13	133	9.5

  

Statements	Subjects														Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Acceptance	24	31	23	25	23	17	40	24	39	27	10	38	33	25	379	27.1
Rejection	35	28	37	35	37	18	21	35	21	6	31	22	26	12	364	26.0
Noncommitment	0	0	0	0	0	25	0	0	0	27	20	0	0	23	95	6.8
Total	59	59	60	60	60	60	61	59	60	60	61	60	59	60	838	



Table 50

Own-Categories Sort on Building Change Issue  
for Control Group 4

Categories	Subjects															Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Acceptance	2	2	2	4	4	2	3	8	2	3	2	4	3	2	4	47	3.13
Rejection	3	1	1	4	2	4	3	9	2	2	7	3	5	2	3	51	3.4
Noncommitment	0	8	7	2	0	0	1	0	1	3	0	1	11	0	6	40	2.67
Total	5	11	10	10	6	6	7	17	5	8	9	8	19	4	13	138	9.2

Statements	Subjects															Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Acceptance	20	14	9	26	26	26	36	29	32	17	14	22	15	28	17	331	22.1
Rejection	41	5	3	28	35	35	22	31	7	23	47	34	7	33	20	371	24.7
Noncommitment	0	41	49	7	0	0	3	0	21	19	0	5	39	0	24	208	13.9
Total	61	60	61	61	61	61	61	60	60	59	61	61	61	61	61	910	

Table 51

Own-Categories Sort on War Issue for Control Group 4

Categories	Subjects															Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Acceptance	3	2	3	1	5	4	3	7	2	2	9	1	3	3	3	51	3.4
Rejection	2	4	4	3	7	2	3	10	2	3	5	1	5	3	3	57	3.8
Noncommitment	1	4	5	1	0	0	2	0	1	3	0	11	7	0	12	47	3.1
Total	6	10	12	5	12	6	8	17	5	7	14	13	15	6	18	155	10.3

  

Statements	Subjects															Total	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Acceptance	25	8	13	11	28	41	23	24	13	17	40	5	9	26	8	291	19.4
Rejection	22	25	26	27	31	19	24	36	23	25	19	3	19	34	14	347	23.1
Noncommitment	13	27	20	21	0	0	13	0	24	18	0	52	33	0	38	259	17.3
Total	60	60	59	59	59	60	60	60	60	60	59	60	61	60	60	897	

APPENDIX H

Table 52

Evaluation of Own Position on Metric Scale Measurement  
by Experimental Groups

Group A	War	Building change	Group B	War	Building change
1	8.45	1.90	1	6.95	3.55
2	9.00	4.60	2	8.50	2.80
3	8.85	4.35	3	7.10	3.70
4	6.60	7.05	4	6.20	1.20
5	6.80	2.10	5	8.60	9.00
6	7.60	4.70	6	8.80	.00
7	7.45	4.45	7	7.90	7.35
8	8.90	7.10	8	9.00	5.85
9	9.00	4.90	9	9.00	6.70
10	8.45	3.90	10	3.80	5.40
11	7.10	8.10	11	7.75	5.35
12	<u>8.75</u>	<u>8.40</u>			
Total	96.95	61.55	Total	83.60	50.90
Mean	8.08	5.13	Mean	7.60	4.63
Total X <sup>2</sup>	792.37	365.50	Total X <sup>2</sup>	659.72	307.49

(Table 52 continued on next page.)

Evaluation of Own Position on Metric Scale Measurement  
by Experimental Groups

Group C	War	Building change	Group D	War	Building change
1	4.40	2.30	1	2.80	5.50
2	4.65	1.65	2	1.20	3.50
3	6.75	4.40	3	8.30	3.30
4	2.25	.40	4	3.70	5.40
5	3.45	7.50	5	5.25	5.65
6	1.80	3.20	6	6.05	2.05
7	2.80	1.40	7	1.60	2.30
8	1.45	.40	8	1.85	1.50
9	2.60	7.90	9	2.85	2.50
10	1.90	1.75	10	3.35	4.50
11	3.55	.60	11	.00	1.65
12	3.60	2.00			
13	2.90	2.50			
14	1.55	3.60			
15	3.5	6.75			
Total	47.15	46.35	Total	36.95	38.35
Mean	3.05	2.90	Mean	3.36	3.49
Total X <sup>2</sup>	175.69	230.75	Total X <sup>2</sup>	181.35	158.99

Table 53

Evaluation of Own Position on Metric Scale  
Measurement by Control Groups

Group 1	War	Building change	Group 2	War	Building change
1	3.30	2.10	1	1.50	1.80
2	7.00	2.10	2	4.20	3.00
3	1.50	.00	3	1.20	4.00
4	5.15	2.00	4	6.10	.90
5	3.10	4.00	5	2.50	8.50
6	1.85	.00	6	3.80	3.50
7	2.65	1.65	7	3.70	2.50
8	5.25	9.00	8	--	4.30
9	6.65	5.00	9	1.50	5.10
10	6.40	5.80	10	3.30	.95
11	8.20	6.30	11	1.50	2.35
12	4.40	1.70	12	2.20	2.10
13	6.70	6.50	13	4.60	.10
			14	--	.60
			15	2.00	4.20
			16	1.40	.75
Total	62.15	46.15	Total	39.5	44.55
Mean	4.78	3.55	Mean	2.82	2.78
Total $X^2$	352.95	249.71	Total $X^2$	140.27	192.88

(Table 53 continued on next page.)

Evaluation of Own Position on Metric Scale  
Measurement by Control Groups

Group 3	War	Building change	Group 4	War	Building change
1	2.40	7.45	1	3.25	.00
2	4.05	2.20	2	3.80	2.10
3	2.05	3.00	3	5.30	2.50
4	2.70	.20	4	1.90	1.50
5	8.30	1.10	5	4.45	.45
6	3.10	.90	6	8.25	.20
7	1.80	2.90	7	2.60	.80
8	3.80	2.10	8	6.10	4.30
9	.30	2.15	9	6.60	6.55
10	8.50	3.05	10	4.90	4.30
11	7.30	2.65	11	1.80	1.70
12	1.25	.00	12	6.80	.00
13	4.05	.00	13	7.55	1.50
14	1.80	3.85	14	7.90	2.15
			15	4.40	.00
Total	<u>51.40</u>	<u>31.55</u>	Total	<u>75.60</u>	<u>28.05</u>
Mean	3.67	2.25	Mean	5.04	1.87
Total $X^2$	276.67	119.99	Total $X^2$	444.36	103.44

## APPENDIX I

### Form E of Rokeach's Dogmatism Scale

1. The United States and Russia have just about nothing in common.
2. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
3. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
4. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.
5. Man on his own is a helpless and miserable creature.
6. Fundamentally, the world we live in is a pretty lonesome place.
7. Most people just don't give a "damn" for others.
8. I'd like it if I could find someone who would tell me how to solve my personal problems.
9. It is only natural for a person to be rather fearful of the future.
10. There is so much to be done and so little time to do it in.
11. Once I get wound up in a heated discussion I just can't stop.
12. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
13. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.
14. It is better to be a dead hero than to be a live coward.
15. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.

16. The main thing in life is for a person to want to do something important.
17. If given the chance I would do something of great benefit to the world.
18. In the history of mankind there have probably been just a handful of really great thinkers.
19. There are a number of people I have come to hate because of the things they stand for.
20. A man who does not believe in some great cause has not really lived.
21. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.
22. Of all the different philosophies which exist in this world there is probably only one which is correct.
23. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.
24. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
25. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.
26. In times like these, a person must be pretty selfish if he considers primarily his own happiness.
27. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.
28. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.
29. A group which tolerates too much differences of opinion among its own members cannot exist for long.
30. There are two kinds of people in this world: those who are for the truth and those who are against the truth.
31. My blood boils whenever a person stubbornly refuses to admit he's wrong.
32. A person who thinks primarily of his own happiness is beneath contempt.



33. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
34. In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.
35. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.
36. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.
37. The present is all too often full of unhappiness. It is only the future that counts.
38. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."
39. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.
40. Most people just don't know what's good for them.

APPENDIX J

Dogmatism Scale Scores

<u>Experimental Groups</u>				<u>Control Groups</u>			
<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
97	160	156	160	186	153	117	128
86	136	145	146	134	111	148	148
118	89	146	138	88	145	162	136
135	129	157	157	169	134	137	137
124	105	154	126	141	144	129	180
157	162	162	135	185	140	147	167
186	115	146	119	162	140	152	170
132	130	141	117	138	120	182	132
104	91	185	155	143	170	185	142
109	137	170	162	144	129	133	122
118	154	163	194	118	172	125	150
83		148		160	126	132	166
159		180		173	153	156	162
		168			162	114	130
		164			190		155
		117			155		
<u>1680</u>	<u>1408</u>	<u>2502</u>	<u>1609</u>	<u>1941</u>	<u>2344</u>	<u>2019</u>	<u>2225</u>