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CONTRAST AND ASSIMILATION EFFECTS IN DYADIC INTERACTION

by

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Chapter I

Introduction

A gradual trend from intrapsychic to interpersonal considerations is characteristic of much clinical theory and research. Despite this trend, greater precision in the prediction of interpersonal behavior is still needed. This study is concerned with such a formulation.

Theoretically the first major shift in the direction of the interpersonal is to be found in the work of Sullivan who clearly elucidated the means by which the early interpersonal environment influenced personality. The relative inflexibility of subsequent personality was accounted for by the mechanism of parataxic distortion.

A second major shift was that of social psychologists and specifically in their espousal of role theory. Murphy (1945) in this connection suggested that there were a finite number of mutually exclusive selves and that personality was to a considerable degree a matter of role taking behavior. Roles however are interdependent and the role one assumes in any given situation is dependent upon the roles enacted by others. Thus role theory allowed for the extension of interpersonal influence to the present. Personality was no longer simply stable and pervasive but rather varying with each situation.

This theoretical trend was supported by research in at least 3 major areas (1) studies on the diagnostic-typological model (2) personality assessment and (3) treatment effectiveness:

(1) The typological disease model which regards behavior as though it exists largely in isolation has been severely criticized. Asch (1949, cited in Buss, 1966) comparing diagnoses of pairs of psychiatrists found only 34-44% agreement on specific diagnoses and 58-67% agreement for major categories. Ward (1962, cited in Buss, 1966) noted that interviewers obtained different information leading to different diagnoses, while Peterson (1968) in agreement with Zigler and Phillips (1961, cited in Buss, 1966) noted that the three necessary conditions for typology i.e. homogeneity within class, independence among classes and pertinence to treatment were lacking under the present model. The failure to consider possible interaction between diagnosing psychiatrist and patient may in part account for the discrepancies cited above.

(2) Research on the examiner influence in projective test behavior (Masling, 1960) as well as Rosenthal's (1961) exposition on the experimenter effect all emphasize the interpersonal nature of the assessment situation. Thus, Curtis and Wolf (1951, cited in Masling, 1960) found significant differences for male patients in number of overt versus covert Rorschach sexual responses when the experimenter was female rather than male. Lord (1950, cited in Masling, 1960) found significant differences in the number of responses, amount of creativity etc. when experimenters employed warm as opposed to cold administrative styles. Moreover, Kelly and Fiske (1951, cited in Peterson, 1968) asserted that there is little predictive use in the current

battery of projective tests. Meehl (1960, cited in Peterson, 1968) notes that 83% of all therapists find test data to be of little help.

(3) With respect to treatment, Dymond, Cartwright and Lerner (1963) demonstrated the importance of matching therapist and patient behavior in order that therapeutic outcome be successful and in so doing stress the interpersonal nature of therapeutic contact. The success of new treatment approaches such as community psychology and milieu programs, group treatment procedures and behavior modification techniques likewise highlight the importance of the social situation. As Peterson (1968, pp. 9) notes "if one of the most effective things we can do for disturbed persons is to alter the social environment, then we need to study it systematically as an integral part of assessment." The object of clinical study is not the individual alone but rather the individual in his environment.

Given then the efficacy of this assertion, it becomes necessary to obtain greater precision in predicting this interpersonal influence. For purposes of simplicity, this paper shall confine itself to the study of the dyadic unit. The problem then is to determine the precise way in which one interacts within the dyadic unit and to devise predictive laws. Murphy (1945) attempted such a formulation. Thus he noted that in response to the roles of others a complementary or balancing role was developed. Bateson (1958) in his study of the Iatmuls of New Guinea elaborated further on this. He noted that prescribed sex roles were such that increasing complementarity resulted.

The men acting assertively enhanced the submissiveness of the women which in turn stimulated the men to even greater assertiveness. Bateson developed the concept of schismogenesis to describe this production of cleavage. When a given behavior stimulated more of the same kind of behavior symmetrical schismogenesis was said to occur. When one kind of behavior aroused qualitatively different behavior, the difference in response increasing reciprocally, complementary schismogenesis had occurred. Though Bateson's formulation described two dynamic interpersonal processes it failed to adequately differentiate the conditions leading to complementarity from those leading to symmetrical schismogenesis, and the concept itself appears to have been dropped. Yet, a surprisingly similar formulation appears in the literature within the field of attitude study. The assimilation-contrast phenomena described by Hovland and Sherif not only bear a remarkable resemblance to symmetrical and complementary schismogenesis respectively but adequately differentiate preliminary conditions.

Assimilation as defined by Sherif, Sherif and Nebergall (1965) refers to a shift in judgment towards a presented opinion while contrast refers to a shift away from the presented view. Thus if one were presented with an opinion differing from his own and either judged it to be in greater disagreement than it actually was or if he subsequently shifted his own point even further away from the direction of this communication (boomerang effect) a contrast effect was

said to be operative. Replacing the words in this definition which limit this concept to the realm of attitude study i.e. judgment and opinion with the broader term "behavior" makes the similarity to Bateson's theory more evident. Assimilation then refers to a shift in behavior towards the presented behavior or in Bateson's terms - one behavior stimulates another of the same kind; while contrast refers to a shift in behavior away from the presented behavior i.e. one behavior arouses qualitatively different behavior.

The following sections provide:

(1) the theoretical basis for the assimilation-contrast phenomena

(2) describe studies which demonstrate this phenomenon and

(3) extend this concept to interpersonal behavior where its predictive significance may be examined.

Theoretical Background

Helson's Adaptation Level (AL) Theory

Helson's perceptual theory, an outgrowth of Weber and Fechner's work is concerned with the prediction of psychophysical judgments. Fundamental to Helson's theory is the assumption that at every moment in time there is a stimulus to which the organism is adapted. This stimulus, the adaptation level,(AL) represents that level of stimulation evoking a neutral or indifferent response and serves as a standard in judging other stimuli (Helson, 1947).

Mathematically, the AL is defined as the weighted

geometrical mean of background, series and residual stimuli (stimuli from the subject's past). While use of the log function is in keeping with the Weber-Fechner function, Helson's theory allows for the influence of non-immediate stimuli on judgment.

Dependent as it is upon the entire level of past and present stimulation, the AL is constantly changing. This variability of the neutral region enabled Helson to account for both central tendency and contrast effects. - the former representing the tendency for judgments to cluster about the center of the series.

Central tendency occurs when the AL lies within the series presented. However when either prior stimulation or current standards cause the AL to lie either above or below the series, judgment will be made not with reference to the series mean but with reference to the AL. As a result either assimilation or contrast will occur. AL immediately adjacent to the series being judged will cause displacement of judgment in the direction of the AL (assimilation effect) while ALs considerably beyond stimulus range will produce a displacement of judgment away from the AL (contrast effect). Phenomenologically, contrast would appear to be due to the objective-subjective discrepancy between estimates of the AL. Objectively, the AL has been raised. Subjectively, however, AL represents the neutral or average region. When the neutral or average region has been pulled considerably upwards, for example, stimuli lying objectively below

this level can only be regarded as below average in comparison.

Whether assimilation or contrast effects occur at any event would appear to be a function of the relative distance between AL or anchor and series stimuli. Why this is so is perhaps best accounted for by Peak (1958) in her description of activation patterns.

Assimilation effect:

At short distances she notes that simultaneous activation of two points will result in maximum activation of intermediate rather than objectively activated points and leads to judgment of this point as the one to have been aroused. Figure 1 provides ample demonstration of Peak's assertion.

Contrast effect:

When the distance between activated points increases, two separate non-overlapping activation curves are obtained with maximum arousal located at the peak of each curve (See Figure 2). As the distance between the two points increases, the number of intermediate events between points judged as maximally aroused has increased disproportionately to the actual increase in distance. The disproportionate increase is due to the lack of multiple input of intermediate points and accounts for the contrast effect. Peak's formulation may be regarded as a further elaboration of Helson's theory insofar as AL may represent one point of activation.

Figure 1 -- Activation Pattern of Assmiliation Effect

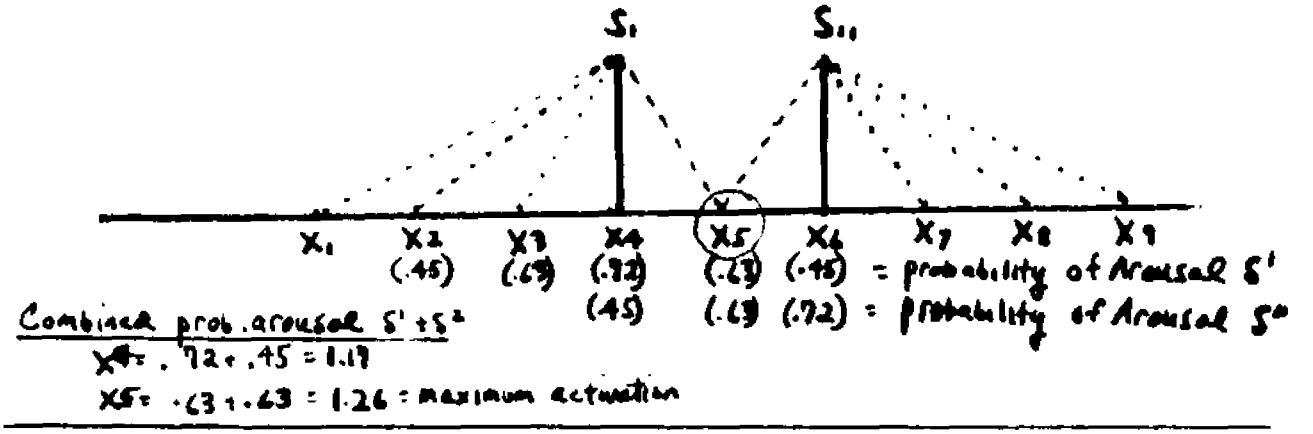
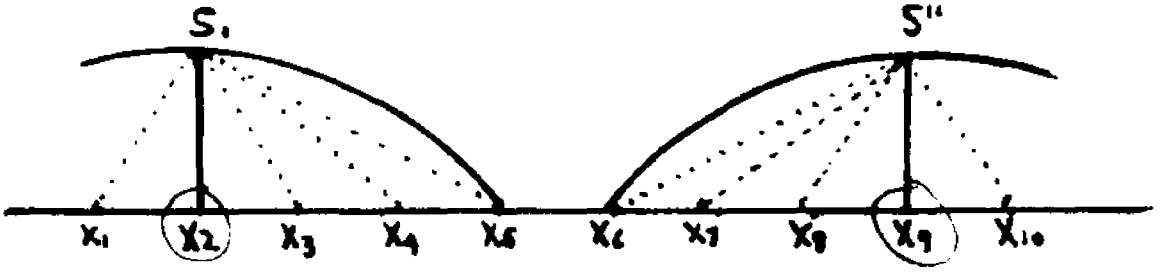


Figure 2 -- Activation Pattern of Contrast Effect



The crucial test of any theory however lies in its predictive power. The evidence here is threefold. Evidence that (1) the series AL lies below the arithmetic midpoint (2) contrast effects occur as a result of discrepant anchors (3) contrast effects may be obtained through introduction of prior stimulation which is discrepant with current stimulation.

(1) In this connection 300 subjects were required to judge five weights ranging from 200-400 grams (gms) by the method of single stimuli (Helson, 1948). Qualitative results were

translated into numerical scale by assigning a score of 90 to a rating of very, very hard; 80 to a rating of very hard and so on. Actual ratings agreed significantly with theoretical scores. Moreover the point of subjective equality (PSE) was found to lie below the midpoint of the series.

(2) In the above study Helson (1948) also introduced a 900 and 90 gm. standard in the 200-400 series. The former shifted judgments downwards and the latter resulted in their upward displacement in accordance with the theory. While Helson's study demonstrated contrast effects through the introduction of discrepant anchors, Sherif, Taub and Hovland (1958) obtained both assimilation and contrast effects by the same means. Using series stimuli ranging from 55-141 gms. in weight, the authors introduced both moderately discrepant standards e.g. 141, 168, 193 gms. and extremely discrepant anchors e.g. 288, 312 and 347 gms. Displacement towards the anchor (assimilation effect) was found when only moderately discrepant anchors were used while use of the extreme anchor resulted in displacement away from the anchor (contrast effect). Again, results were in agreement with theory.

(3) Contrast effects were also found when large discrepancies were created between prior and current stimulation. Campbell, Lewis and Hunt (1958, cited in Dember, 1963) reported that subjects judged the same referent tone to be high when it followed a series of low tones and low when it followed a series of high tones. Nash (1950, cited in Beardslee and

Wertheimer, 1958) found that the judged median of a 100-300 gm. series shifted from 172 (alone condition) to 223 gms. when such judgments followed a 400-600 gm. series.

Helson's theory and its supportive research are important not only to the field of perception where both stability and breadth of discriminative capacity have been accounted for theoretically, but have more general ramifications as well. Most important is the fact that this phenomenon is found in areas other than psychophysics. In the area of social value for example, Marks (1943, cited in Beardslee and Wertheimer, 1958) found evidence of contrast effects. When three groups of colored students were asked to rate skin color of persons they knew, darker subjects rated others lighter than lighter subjects did. In a similar study, Hinckley and Rethlingschafer (1951, cited in Beardslee and Wertheimer, 1958) found tall men (over 6 feet) judged others as shorter than did short men (5 feet 8 inches and under).

It has been suggested (Holtzman, 1954) that assimilation and contrast may indeed reflect general cognitive styles and thus more general modes of functioning. Berkowitz (1960, cited in Doby, 1966) suggested that contrast formation may be conceived of as the psychological mechanism of projection in paranoia. What is most interesting in these studies, however, is the tendency to use the <u>self</u> as an anchor. Thus tall subjects (using themselves as "neutral" value) tend to rate others as

short. The importance of the "self" in making judgments is perhaps central to the Assimilation-Contrast (AC) model evolved by Sherif and Hovland.

Social Application of AL Theory -

Assimilation - Contrast (A-C Model)

Rejecting the Thurstone model of equally spaced rating intervals, the authors assert that the attitude which the subject adopts as his own serves as an anchor in his placement of other items. This was demonstrated in studies conducted by Jackman and Sherif (1963, cited in Sherif, Sherif and Nebergall, 1965) and by La Fove (1963, cited in Sherif, Sherif and Nebergall, 1965). Eighteen statements representing "wet", "dry" and "moderately dry" prohibition positions were presented to 250 subjects. It was found that statements which agreed with the subject's own stand were rated as truer and more factual than were discrepant communications.

Not only were judgments of truthfulness found to be influenced by the rater's own stand, item placement was similarly effected. Webb and Church (1962, cited in Sherif, Sherif and Nebergall, 1965) in agreement with an earlier study (Hovland and Sherif, 1952 cited in Sherif, Sherif and Nebergall, 1965) reported that both assimilation and contrast of pro and anti-Negro statements occurred with respect to the respondent's own stand.

Amount of discrepancy appears to be a key factor in determining whether assimilation or contrast occurs. Attitudes

which are only slightly discrepant tend to be assimilated (are seen as more similar than they objectively are) while those that vary greatly are subject to a contrast effect (either the discrepant attitude or the original attitude is displaced). Hovland and Sherif (1957, cited in Doby, 1966) for example found such an effect when 514 subjects whose views on prohibition were known were presented with wet, dry and moderate communications. Contrast occurred when the advocated position differed widely from the subject's own stand while assimilation occurred with smaller discrepancies. Berkowitz and Goronson (1963, cited in Sherif, Sherif and Nebergall, 1965) obtained similar results using the issue of college fraternities.

When sortings made by extreme and moderate subjects on the same items are compared, similar results are reported. Thus extreme subjects tend to use contrast more readily (Hovland and Sherif, 1952 cited in Sherif, Sherif and Nebergall, 1965) while moderate subjects tend to assimilate (Manis, 1960 cited in Sherif, Sherif and Nebergall, 1965).

Not all studies however are positive. Goldberg (1954, cited in Proshansky and Seidenberg, 1965) and French and Gyr (1956, cited in Proshansky and Seidenberg, 1965) for example report increased assimilation with increased communication-position discrepancies. The failure to obtain contrast effects in such studies has been attributed to such factors as the inclusion of only a limited discrepancy range (Sherif, Sherif and Nebergall, 1965).

Discrepancy of size however is not the only factor related to assimilation and contrast (1) ego involvement and (2) stimulus structure are also important:

(1) Being more involved, subjects high in ego involvement will have developed well learned and well differentiated categories. Insofar as ego involvement represents a state of high arousal, such categories will be less labile i.e. less influenced by arrangement, instruction, etc. Under such conditions there will be a tendency for discrepant communications to be seen more easily as contrasting than under non ego-involved conditions where less discriminate matching may occur. High ego involvement thus "lowers the threshold for rejection" (Sherif, Sherif and Nebergall, 1965, pp. 129). Hovland and Pritzker (1957, cited by Feather, 1965) found greater attitude change with non ego-involving issues than with strong issues. Freedman (1964, cited by Feather, 1965) also reported greater attitude change with low involvement while Hovland, Harvey and Sherif (1957) found that more strongly involved subjects (those publicly committed to stands) tended to assimilate fewer items than did less involved subjects.

(2) Although ego involvement may be regarded as representative of a high degree of internal structure, differences in external structure will operate similarly. Thus as stimulus items become more structured and less ambiguous, displacement away from the standard (contrast) is more likely to result.

Thus given conditions of high ego involvement, stimulus

structure and variability of discrepancy size, contrast and assimilation effects may be demonstrated. In any given situation, whether assimilation or contrast results would seem to be effected in large measure by the subject's own stand. This is true for attitudes, physical attributes and other perceptual data. Given then the efficacy of lawfulness, it should be possible to demonstrate the assimilation-contrast effect in other areas as well and to extend such formulations more directly into the behavioral realm. In place of attitudes, judgment or opinions, actions thus become the focus of study. In place of self-report, direct observation becomes the method of measurement.

Extension of AL Theory To Behavioral Realm

The activities which the subject engages in, like his statements of judgment can be viewed as ordered. If one were to examine a particular kind of behavior such as that which is defined as submissive or dominant, one could assume the existence of an AL for assertiveness which is rooted in the subject's own actions. Behavior of others when compared with this AL could be considered to be markedly different or somewhat similar to his own.

Contrast effect:

Under the markedly different conditions, a contrast effect should be demonstrated. Thus, if submissive and dominant subjects for example are differentiated by specific actions e.g. amount of speech, and the subject is engaged in an interaction

with someone different than himself in this respect, it is hypothesized that he will move further away from the direction of the other. A submissive subject for example engaged in interaction with a dominant subject will move in the direction of greater submissiveness. Similarly a dominant subject engaged in interaction with a submissive subject will move in the direction of greater dominance. If two individuals are simultaneously confronted with the same phenomenon of contrast, they will simultaneously move in opposite directions. Thus, in the instance of dominant-submissive subject interaction, the dominant subject will move in the direction of greater dominance at the same time as the submissive subject moves in the direction of greater submission. As a dyad, their interaction shall be characterized by greater polarity than exists for more evenly matched dyads.

Assimilation effect:

When the behavior of the other is not markedly different than one's own, it is hypothesized that an assimilation effect shall be demonstrated. Subjects with relatively small differences on ascendance, engaged in interaction, will become more similar as the interaction proceeds.

Thus it has been possible to expand Bateson's original concepts of complementary and symmetrical schismogenesis using Helson's AL theory and to evolve predictive hypotheses within the interpersonal realm. AL theory is not the only theory that can be so extended. The following sections elaborate upon two other theories which may be so utilized (Balance Theory and

Imitation Learning Theory) and provide evidence within the research realm in support of the A-C model proposed here.

Balance Theory and Interaction

Central to balance theory is the notion that persons find the state of imbalance intolerable and strive to attain equilibrium. Imbalance is defined as a situation calling forth mutually incompatible actions. The balance model developed by Abelson and Rosenberg is concerned with the relationship between cognitive elements, defining these as persons, institutions, traits, etc. This relationship may be positive (p) (included here is positive affect as well as any similarity or connection between things), it may be negative (n) (included here is negative affect) or the relationship may be null (o) (included here is the absence of a relationship e.g. indifference).

Insofar as the model deals with cognitive elements, the subject's ideas or attitudes have thus far been the objects of study. According to the authors "a state of balance exists when elements of identical sign are linked by positive relations (+p+, -p-) or by null relations (+0+, -0-) and so long as elements of opposite sign are linked by negative relations (+n-) or by null relations (+0-)". (Brown, 1962, pp. 61) In order to illustrate the balance notion Abelson and Rosenberg (cited in Brown, 1962) consider the position of a college student who is in favor of good grades (G+) and who would like to have coeds at his college (C+). A state of balance for such a student provided he believes that having coeds will make it

easier for him to obtain good grades. If however he believed that it would hinder good grades, a state of imbalance would exist (+n+). Abelson and Rosenberg note that imbalance is not a sufficient condition to generate change, insofar as the subject must first be aware of the incongruity in order to act. If however the subject should strive towards a state of equilibrium, three means for so doing are possible (1) change the attitude and hence the sign of one or more elements or change the relationship between them e.g. decide that the idea of having coeds at school is not a good one (2) redefine one of the elements e.g. distinguish between grades and decide that obtaining A's is unnecessary provided one passes (3) stop thinking about the matter in question.

Thus far, we have spoken of balance within one person. Newcomb (1953) however has applied these notions to communication among people. In postulating a "strain towards symmetry" Newcomb (1953) notes that continued interaction leads to a communality of attitude for two people which represents then a state of balance. This similarity of orientation is towards one another as communicators as well as towards objects of communication (Newcomb, 1953, pp. 395).

An important aspect of this co-orientation is to be found in the respective role relationship adopted by each dyad member. Where both partners agree on these roles, co-orientation is said to be symmetrical. Where this is not so, however, the system is in strain. Under the latter condition, tension is

generated which can only be reduced by movement in the direction of greater symmetry. Both participants are under pressure to adopt similar positions towards respective role relations. Since this is facilitated by having clearly distinguished roles, it is expected that both parties will move in the direction of greater differentiation as a means of reducing tension.

In terms of the paradigm proposed here, a dominant-submissive dyad is one in which both parties agree that a particular one of them is to be the less assertive member. Therefore, the dominant-submissive dyad represents a balanced state and no need for change is posited. For the reasons outlined above however, evenly matched dyads e.g. moderate-moderate dyads, constitute an imbalanced state. Since only a state in which one party assumes the ascendant role and the other the submissive role constitutes a state of balance, movement in the direction of greater contrast is posited for the moderate-moderate dyad. It can be seen that an extension of Balance Theory to the interpersonal realm generates predictions at variance with the A-C model. Where the latter predicts assimilation for the moderate-moderate (M-M) dyad, Balance Theory predicts contrast for this pair. Where the A-C model predicts contrast for the dominant-submissive (D-S) groups, Balance Theory posits no change. Still another theory which may be extended is the Imitation Learning Theory of Bandura and Walters (1963).

Imitation Learning Theory and Interaction

Bandura and Walters (1963) assert that behavior acquired through imitation plays an important role in social learning.

They note that when a model is provided, learners often reproduce the entire behavior sequence despite the fact that they merely observed during the demonstration period. The authors (1963) have demonstrated an increase in aggressive acts by children exposed to an aggressive model who is rewarded.

Three effects on the observer have been noted (1) a modeling effect in which new responses are made by the observer (2) an innibitory effect in which certain old responses are discontinued and (3) an eliciting effect in which certain old responses are strengthened and used with increasing frequency.

Most germaine to the present study however is their assertion that reinforcement of the model for his behavior is one of the conditions which facilitates imitation (the authors do not include reinforcement of imitative behavior as a facilitating factor). That self-reward of the model is an important determiner of learning has been demonstrated in a number of studies. In one study for example (Bandura and Walters, 1963) it was found that children, observing an aggressive model who was rewarded, exhibited more aggressive behavior than those observing the aggressive model punished.

In terms of the proposed paradigm, the dominant subject is most often the one who is listened to. Insofar as being respectfully attended to constitutes a satisfying state of affairs, the dominant subject may be regarded as the one who is and has been rewarded most obviously for his behavior. Since imitation is facilitated by self-reward of the model, it is likely that in

the dominant-submissive interaction, the submissive subject will gradually come to copy the responses of his partner and thus will tend to exhibit more assertive behavior as the interaction progresses. This change in behavior however would not be manifested in the minimal difference dyad insofar as both parties are equally rewarded here. Thus an assimilation-type process is predicted for the D-S group while no change is posited for the M-M group.

The three varying theories and their respective predictions are presented below in Table 1 according to dyad classifications:

TABLE 1

SUMMARY OF HYPOTHESIZED CHANGES IN DYAD BEHAVIOR ACCORDING TO THEORETICAL POSITION

Theory	Contrast-Dyad (D-S Interaction)	Similar Dyad (M-M Interaction)
Adaptation Level Theory	Contrast	Assimilation
Balance Theory	No Change	Contrast
Imitation Learning Theory	Assimilation (by Subject)	No Change

Quite obviously one's hypothesis will vary with the theory used. Given then three theories, each predicting different outcomes, the question remains as to which is the most accurate. Examination of the relevant reported research

revealed that the number of studies allowing for comparison with the proposed paradigm was small.

Empirical Studies

The studies to be cited fall under four basic headings: (1) person perception studies (2) studies with children (3) small group research (4) studies in verbal behavior. As expected, some relationship between research tradition and supportive theory exists. Thus there is a tendency for small group researchers to discuss Balance Theory and the equilibrium model. Likewise, studies of verbal behavior, traditionally an area linked with learning tend to be consistent with the Imitation Learning Model. Of the four major areas, only one, studies with small children, utilized an experimental paradigm analogous to the one proposed here. Other studies fail to utilize overt behavioral indices and rely rather on attitude or perception (i.e. person perception studies); fail to utilize the dyadic framework (i.e. small group research) or fail to preselect subjects according to the personality criteria under study (i.e. studies in verbal behavior and small group research). Despite these difficulties of translation and theoretical predeliction, the bulk of studies to be cited appear to support the relevance of A-C model.

Person Perception Studies

With reference to factors influencing perception of people, only a few studies are concerned with dominance of the

perceiver. In one such study, (Smelser, 1961) 748 extreme dominant and submissive subjects (as measured on the CPI) were paired in such a way so as to obtain Dominant-Submissive (D-S), Dominant-Dominant (D-D) and Submissive-Submissive (S-S) dyads. Partner perception was then measured following an interaction situation. It was concluded that "the degree of dominance ascribed to the partner relative to the subject's own dominance is a function of the subject's personal dominance" (Smelser, 1961, pp. 541). This study was in agreement with earlier results reported by Naboisek (1953 cited in Shrauger and Altrocci, 1964) and Leary (1957).

That dominant subjects should perceive others as weaker than non-dominant subjects is consistent with earlier studies reported in which taller subjects perceived others as shorter (Hinckley and Rethlingschafer, 1951, cited in Beardslee and Wertheimer, 1958) or where adherents of the "dry" position regarded more communications as "wet" (Hovland and Sherif, 1952 cited in Sherif, Sherif and Nebergall, 1965) and thus follows directly from the A-C model.

Not all person perception researchers however reported this contrast effect. In a study conducted by Altrocci (1959)subjects differing in dominance rated dominance of stimulus persons after viewing them on film. The author found no differences in attribution of dominance to others as a function of the rater's own dominance. Altrocci's study however differed from those previously cited in that subjects did not interact

here. That this factor is an important one is suggested by the author himself who noted:

> "When interaction does occur, a person may influence others to behave in ways complementary to his own. Therefore the people he interacts with appear to be complementary to him and furthermore, he is justified in perceiving them as complementary to himself, his deviant perceptions of them not necessarily being misperceptions." (1959, pp. 307)

Seen in this light then, Altrocci's results are not wholly inconsistent with those obtained by Leary (1957), Naboisek (1953) and Smelser (1961). Bruner and Tagiuri (1954, cited in Altrocci, 1959) also recognized the cue-evoking power of the perceiver. Given the need for interaction, person perception studies may be consistent with the A-C model.

Studies with Children

Utilizing a design which most closely parallels the present study, Gellert (1962) paired nursery school children varying dyad composition according to teacher's ratings of dominance. A comparison of dominance displayed during two sessions revealed that more dominant behavior was manifested when subjects were paired with their less dominant peers.

In a similar type of study, Anderson (1937) hypothesized that: "dominance will incite resistance or if the balance of power is too great will produce submission" (1937, pp. 341). The author noted that "resistance to dominance is itself dominative behavior" (1937, pp. 341). Anderson's study did not include data on submission but rather focused on dominance and resistance to dominance. Results supported this hypothesis.

The "contrast" effect measured in Gellert's study (1962) where trait differences were sufficiently large is in line with A-C model, as is the "assimilation" type effect reported in the Anderson study (1937) where only a limited discrepancy range may have been utilized. In both studies dominance was measured by such indices as "pushes other child", "commands other", "snatches material", etc. The present study however examined only verbal behavior of young adults. Anderson's hypothesis was similar to those presented here.

Small Group Research

While research in person perception and studies with children supported the A-C model, interpretation of the findings of small group research is less clear. Studies such as those by Bales and Borgatta (1962) and Haythorn (1952 cited in Gibbs, 1954) suggested support for the Balance Theory model while others (Borgatta and Bales, 1953) were more consistent with the A-C model.

Bales and Borgatta (1962) observed groups ranging from 2-7 subjects in size over four sessions using the Bales Interaction Process Analysis. Each size had four groups whose task it was to discuss a human relations case. The authors noted that "in two man groups there was a strong tendency for the roles of the two subjects to become differentiated from each other presumably in a complementary way", (1962, pp. 412). Thus one subject became the leader and others became followers. Similarly, Haythorn (1952, cited in Gibbs, 1954) whose sixteen subjects were placed in varying groups of four reported that as one

member engaged in specialized behavior such as leadership, other members engaged in less of such behavior. The authors utilize homeostatic concepts noting that members behave so as to reduce interpersonal strain. These authors postulate increased differentiation for all dyads, unlike studies by Leary (1957) and Gellert (1962) where only discrepant dyads produced contrast effects. These results are thus discrepant with those reported earlier.

Perhaps the difficulty stems from the failure of many small group researchers to preselect subjects according to trait dimensions under study. In small group studies where preselection was conducted, results were more consistent with the A-C model. Borgatta and Bales (1953) for example classified subjects as High, Middle or Low initiators based on an initial group session and then formed different combinations of three man groups. It was found that a subject's rate of interaction in a new group was positively correlated with his prior level and inversely related to the prior interaction rates of the two other group members. Thus, subjects talked more when placed with Low interactors and less when placed with High interactors. When groups were composed entirely of Low interactors it was found that participants tended to maximize their rates although they did not entirely fill up all of the speaking time available. High interactors on the other hand, when placed together, tended to depress one another's activity.

Thus we find that differentiation does indeed vary with the

initial discrepancy. Two High interactors, for example, in depressing one another's activity produce greater equalization while High and Low interactor's maximize initial differences.

While some small group studies appear discrepant with A-C predictions others yield results compatible with such a model. It was noted, however, that of the studies cited, only the latter included preselection of subjects according to trait dimensions under study.

Studies in Verbal Behavior

Positive relationships in duration of utterances between interviewee and interviewer using a variety of interview type dialogues have been reported (Matarazzo, Weitmann, Saslow and Werns, 1963). Indeed Matarazzo et al (1963) found this relationship to be so stable that he utilized a ratio called the verbal interaction constant. Matching behavior has been found when other aspects of interview interaction such as values are studied as well. Welkowitz, Cohen and Ortmeyer (1967) for example measured values of 38 therapists and 44 patients at two clinics and reported that patients were more similar to their own therapists in values than those randomly paired.

This tendency towards assimilation is consistent with the Learning Theory model espoused by Bandura and Walters (1963). According to Imitation Learning Theory, imitation is facilitated by self reward of the model. Here the interviewer with his higher status may be regarded as the dyad member who has

been the more rewarded and thus the interviewee (the less rewarded member) gradually adopts the behavior of his partner. It is just this status difference however that limits the applicability of such studies to the proposed paradigm. Indeed, when one member is held in higher esteem, the A-C model also predicts a tendency towards assimilation. Only research utilizing equal status dyads would be regarded as critical. Feldstein (1968) attempted such a study in which 30 male and 32 female college students were assembled into same and mixed sex dyads and instructed to talk with each other to resolve pre-determined attitude differences. Direct utterance comparisons as well as mean utterances were used. Such measures did not yield the constant that Matarazzo had reported, and it was thus concluded that the verbal interaction constant was not generalizable but rather was limited to interviewee-interviewer interactions. The question of empirical support for theories dealing with verbal behavior then remains an open one.

In summary, results of studies in person perception studies with small children, and small group research for the most part support the A-C model. Prior verbal behavior research is inconsistent in its support for any one theoretical approach. By controlling for the status and power relationships between subjects, contrast effects in oppositely matched dyads and assimilation in similarly matched dyads should be demonstrable in the present study.

Dominance As An Interaction Variable

Dominance in Interpersonal Behavior

A number of attempts have been made to develop categories for the observation and analysis of interpersonal behavior. Despite the fact that such investigations have proceeded from varying research traditions and have studied different types of groups, there exists a strong accord as to the importance of dominance in interpersonal behavior. Indeed, in most of the studies to be cited, dominance emerges as one of the two major interpersonal factors.

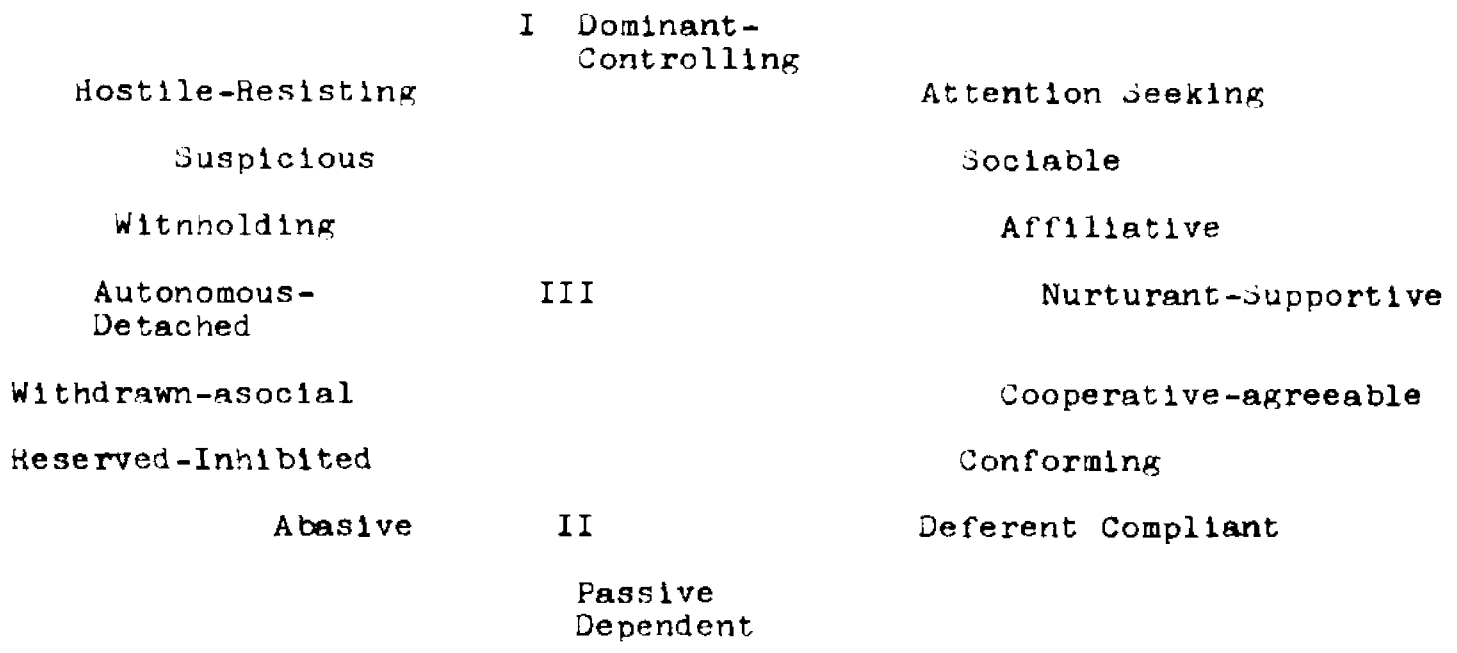
In the field of developmental psychology for example, Shaefer (1959) undertook the study of social and emotional behavior of mothers towards children. Data based on direct observations of mother-child interaction as well as home and test interviews were factor analyzed to yield two factors which were interpreted as Control-Autonomy and Love-Hostility.

Within a clinical psychology tradition, Lorr and McNair (1963) constructed an inventory of Manifest Behaviors. Descriptions of therapy patients' and normals' ratings were then obtained and factor analyzed to yield the three overlapping higher order factors of (1) Dominance (2) Compliant Abasement and (3) Affiliativeness versus Detachment.

These findings bear a striking resemblance to those obtained by Freedman, Leary, Ossorio and Coffey (1951) who, using as data protocols of psychotherapy sessions and personality test scores, plotted sixteen behavior variables in a circular

order along two orthogonal axes of sixteen Dominance-Submission and Hostility-Affection. An illustration of this overlap (as provided by Lorr and McNair (1963, pp. 74) is reproduced below:

Figure 3 - - Illustration of Overlap Between Leary's Factors and Those of Lorr and McNair.



I = Dominance II = Compliant Abasement III = Affiliativeness-Detachment

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It may be observed that Shaefer's dimension of Control-Autonomy can be seen as a segment of the Dominance-Autonomy-Submission continuum.

In the field of small group research similar descriptions are found. Carter (1954) reporting the results of five factor analysis studies of assessment of individuals in small groups or in situational tests concluded that three dimensions could

be utilized to categorize such behavior: (1) Individual Prominence and Achievement i.e. "behaviors of the individual related to his efforts to stand out from others and individually achieve various personal goals" (2) Aiding Attainment by the Group-defined as "behaviors of the individual related to his efforts to assist the group in achieving goals towards which the group is oriented" and (3) Sociability i.e. "behaviors of individuals related to efforts to establish and maintain cordial and socially satisfying relations with other group members (1954, cited in Foa, 1961, pp. 479-481).

In a similar vein, Borgatta, Cottrell and Mann (1958) factor analyzed peer rankings of small group members and found two major factors and three minor ones. The two major factors were (1) Individual Assertiveness and (2) Sociability. These factors corresponded to Carter's factors (1) Individual Prominence and Achievement and (3) Sociability, respectively. Foa (1961) noted that Carter's second factor (Aiding Attainment by the Group) requires observation of a series of interactions insofar as what is defined as enhancement of group attainment varies with context. He suggested that the two other factors (1 and 3) might be sufficient for observation of a single action. Indeed in his own descriptive system which is perhaps among the most detailed, Foa (1961) defined the interpersonal act according to the two bipolar dimensions of Love-Hate and Submission-Dominance.

Concerned more with the theory of group behavior, Shutz (1958) has developed a rationale and measure of expressed and

wanted interpersonal needs. The three categories Shutz utilized were (1) Inclusion (2) Control and (3) Affection. According to the underlying theory, these categories may be viewed as phases of both individual and group development. The predominant area of interaction in both instances is first that of Inclusion followed by that of Control and finally by Affection. This cycle may recur. Shutz (1958) pointed to the similarity between his own hypotheses and those of Leary's (1957). Thus Shutz's "Control" dimension corresponded to Leary's Dominant-Submissive axis while "Affection" corresponded to the "Love-Hate" axis. Shutz noted that perhaps what Leary considered to be the intensity of each behavior might well correspond to his own factor of Inclusion.

The unanimity with which such studies report dominance-submission to be one of the two major factors of interpersonal behavior is most striking. The central role played by dominance in interpersonal theory and research underlies its selection as the personality variable in the current study.

Measures of Dominance

Although researchers agree on the importance of dominance as an interpersonal variable, translation of such a variable into observational categories remains.

Dominance has been defined as "acceptance by others and by groups of others as the task leader" (Argyle, 1967, pp. 14) as synonomous with terms such as autocratic, bossy, dictatorial, leading, forceful, masterful (Shutz, 1958) and as involving

such behaviors as directing, commanding or ordering (Leary, 1957).

Thus, there appears to be agreement that in some way dominance is concerned with interpersonal power. The question of how this influence is measured behaviorally has led to two clear methodological trends.

Within the developmental tradition, observational techniques developed by Jack (1934) have been utilized in computing ascendance scores. The relative frequency of behaviors such as securing materials in one's own interest, directing the behavior of others, boasting, teasing, and the success of such efforts have been recorded (Jack, 1934).

Researchers utilizing these indices have studied such factors as the effect of group composition on dominance behavior (Gellert, 1962; Anderson, 1937), the effect of training on the modification of ascendant and submissive behavior (Page, 1936) and the identification of factors in social behavior that differentiate dominant from submissive children (Jack, 1934).

Evidence for the stability of these indices has been provided by Gellert (1961) whose raters observed 16 pair of nursery school children during three 20 minute play periods and found that the majority maintained fairly stable rank positions within the group.

Psychologists working with an adult population have had to seek out other criteria. Although specific studies vary here, researchers have tended to consistently utilize two major indices: (1) amount of speaking behavior and (2) degree of resistance to change of opinion.

Farina (1960) for example in a study of patterns of parental interaction operationally defined dominance by the following criteria: (1) speaks first (2) speaks last (3) total-first and last (4) passive acceptance of a solution (5) total time spoken (6) yielding-maximum and (7) yielding-minimum. A ratio of mother's to father's index was computed separately for each indice in order to determine the relative ascendance of members, and a relationship between maternal dominance and premorbid condition of schizophrenic child was found.

Hetherington and Frankie (1967) in a study of the effect of parental dominance on imitation in children modified Farina's measures utilizing only five criteria as follows: (1) speaks first (2) speaks last (3) passive acceptance of spouse's solution (4) percent total speaking time (5) amount of yielding from first to final solution. Criteria for dyad classification were also modified such that three or more indices indicating paternal dominance for example resulted in that family's classification as father dominant. Utilizing these criteria, parental dominance was found to be salient in identification, particularly for males.

Becker and Siefkes (1969) repeated Farina's design, but failed to find group differences in parental dominance patterns.

Evidence of concurrent validity for the two major dominance indices has been reported by Strodtbeck (1951, cited in Hare, Borgatta and Bales, 1962) who chose ten couples from each of

three communities that were differentiated in degree of paternal versus maternal dominance as follows: (1) Navaho Indians representing a matriarchial culture (2) Dry farmers from Texas representing an equalitarian culture and(3) Mormon settlers representing a male dominated culture. Couples were then asked to jointly agree on items on which they had privately differed and expected differences in decision making were found. Thus, in the Navaho culture, the wife's private opinions tended to prevail while in the Mormon culture, the husband's responses were accepted by both. Moreover, a relationship between talking time and winning was reported. Insofar as Bass (1949, cited in Hare, Borgatta and Bales, 1962) had found a .93 correlation between talking time and peer designated leadership such a relationship was not surprising.

Construct validity for the two major dominance indices has been provided by Cervin (1957b) who suggested that hypotheses concerning greater participation and less yielding by more ascendant subjects could be derived from a behavior theory model.

According to the proposed model, participation level is representative of activity level and hence related to drive while opinion strength is related to habit strength. The more ascendant subject will be characterized by a higher drive level than the less ascendant subject insofar as reaction potential is an increasing function of drive.

The relationship between resistance to opinion change, ascendance and drive is less straightforward. Here interaction

is regarded as a learning process in which mutual reward or extinction of a a response such as an opinion occurs. Two factors then contribute to the greater resistance of the more dominant subject as follows: (1) extinction takes longer under high drive than under low drive conditions and the ascendant subject is characterized by a higher drive (2) the more active (ascendant) member is less often exposed to positive reinforcement from his opponent and thus the development of a competing response (other subject's opinion) will take longer.

In keeping with this view that ascendance represents a high drive state, Cervin (1957a) developed a paper and pencil scale of emotional responsiveness (ER) which was to differentiate between high and low drive subjects. When participants who differed in ER were paired and asked to discuss a topic on which they disagreed a positive relationship between dominance indices and ER score was obtained. Moreover, those who participated more in the discussion had shorter latency of first statement and fewer opinion changes. Similar results were reported by Carment (1961).

Evidence supporting the stability of at least one of these dominance measures - amount of participation - is available. Matarazzo and Saslow (1956) for example studied the interaction patterns of twenty patients who were interviewed independently by two interviewers and found that this pattern was invariant from one interviewer to another. Mills (1953) compared participation ranks in the first third of a session with those in the last third and found these ranks to be stable.

Thus there appears to be a body of research which suggests that both amount of participation and yielding behavior may well be utilized as observational measures of dominance.

The question of whether such indices constitute a unitary construct appears to have been accepted at face validity by most investigators.

Yet, a recent study performed by Becker and Iwakami (1969) as well as a pilot study performed for this research project (June, 1969) seriously questions such an assumption.

Becker and Iwakami (1969) computed intercorrelations between each of Farina's seven dominance indices and concluded that these variables were unrelated to each other except for passive acceptance of a solution which was negatively related to speaks first and last. The authors noted that "despite their face validity, the intercorrelations among the dominance indices afford negligible support for viewing them as measures of a unitary construct." (Becker and Iwakami, 1969, pp. 334)

In a pilot study intercorrelations were computed for four dominance indices: (1) percent total speaking time (2) speaks first (3) speaks last (4) difference yielding score. These correlations were insignificant.

The apparent discrepancy between the Becker and Iwakami study (1969) and reports by other researchers that participation and yielding behavior appeared to covary (Strodtbeck, 1951 cited in Hare, Borgatta and Bales, 1962) has led to the correlational investigation of the two major indices as well as to

their separate treatment in this study.

Correlates of Dominance

Investigators have been concerned with such dominance correlates as extroversion, neuroticism, intelligence and popularity.

Extroversion

Most studies on extroversion and dominance have found a positive relationship between the two (Mann, 1959: Carment, Miles and Cervin, 1965; Bronzaft, Hayes, Welch and Koltuv, 1960; and Bender, 1928). The study by Carment, Miles and Cervin (1965) where dominance was defined by resistance to opinion change yielded results which were discrepant with Eysenck's expectation that introverted subjects would be more independent of social pressure than extroverts.

While a negative relationship between dominance and neuroticism has been reported by most investigators (Bronzaft, Hayes, Welch and Koltuv, 1960; Stagner, 1932 cited in Bronzaft, Hayes, Welch and Koltuv, 1960; and Allport, 1930 cited in Bronzaft, Hayes, Welch and Koltuv, 1960) the relationship between intelligence and dominance is less clear. Some studies have found a positive relationship (Carment, Miles and Cervin, 1965) while others report no relationship between the two (Janis and Field, 1959 cited in Carment, Miles and Cervin, 1965; and Bender, 1928).

The same ambiguity is characteristic of studies measuring popularity and dominance. Although the trend here is positive, at least two studies have reported significant negative results

(Mann, 1959).

Relatively few studies however are concerned with correlates of dominance and most focus rather on such related dimensions as leadership and conformity. Indeed it is difficult to clearly differentiate dominance from these two variables. Definitions of leadership and dominance for example overlap.

Leadership behavior has been defined as the efforts of one member in changing another's behavior (Bass, 1960), as sparking the membership into action (Gross, 1961), as the initiation or formulation of problems and goals (Bass, 1949).

These definitions are not unlike those of dominance earlier cited. Interpersonal influence or power appears to be characteristic of both, and the distinction seems to be a situational one. Thus the term dominance appears to be utilized primarily in dyadic studies while leadership is used for group research.

Leadership

A similar overlap is found with observational measures as well. A number of leadership studies have used amount of participation as the dependent variable (Hastorf, 1965; Zdep, 1967); just as dominance studies have also used this factor (Farina,1960; Hetherington and Frankie, 1967). Bass (1949) discovered a .93 correlation between amount of participation and leadership ratings in ten person groups. Similar findings have been reported by Peterson (1950); Borgatta and Bales, 1956; and Shelly, 1960).

Moreover Goode (1951) noted that many studies have characterized leaders as possessing verbal skills which enabled them to express themselves clearly. Coates (1952 cited in Bass, McGehee, and Hawkins, Young and Gebel, 1953) reported a .31 correlation between verbal aptitude and leadership status.

Not surprisingly, direct correlations between leadership behavior and personality scales of dominance have yielded positive relationships (Mann, 1959). Bass, Wurster, Doll and Clair (1953) who submitted data on 41 variables for factor analysis noted that attempted leadership activity in a leaderless group discussion was a function of verbality, ascendance and sociability, while Borg (1960) found assertiveness to be the best predictor of leadership behavior.

Other variables have also been studied in connection with leadership. Intelligence and leadership have, for example, been found to be positively related in 88 percent of the studies (Mann, 1959). Eighty percent of the studies relating adjustment and leadership have also been positive as were 72 percent on extroversion and leadership (Mann, 1959). A generally negative association between authoritarianism and leadership has been reported (Mann, 1959). Leaders have been described as more accurate in predicting the opinions of others in 74 percent of the cases cited (Mann, 1959), while a slightly positive association has been found between masculinity and leadership (Mann, 1959).

Conformity

Just as the definitions of leadership and dominance tend to overlap so do those of conformity and submission. Conformity behavior has been defined as "behavior which is influenced by the group the result being increased congruence between the individual and the group" (Allen, cited in Advances for social psychology, 1965). As with dominance, interpersonal influence remains the salient factor. The measure of increased congruence used in conformity studies resembles that of yielding behavior examined in dominance research. As with leadership behavior, conformity is examined within the group context while dominance is studied within the dyadic framework.

Not surprisingly, most studies report a positive relationship between conformity and submission (Mann, 1959; Berg and Bass, 1961). Helson, Blake, Mouton and Olmstead (1956) for example found that both frequency and amount of shift to group opinions correlated with degree of submissiveness as measured by the Allport Ascendance-Submission Reaction Study.

Conformity has been compared with other variables as well. Women for example have been found to conform more than men (Berg and Bass, 1961).

A number of studies report high positive correlations between political conventionality, authoritarianism and conformity (Mann, 1959; Berg and Bass, 1961) and between age and conformity (Berg and Bass, 1961). Conformists have been described as less intelligent (Berg and Bass, 1961), less

original, lower on need achievement, high in need for social approval and low in self confidence (Berg and Bass, 1961).

In summary such studies suggest that factors of sex, age, intelligence, neuroticism, extroversion and authoritarianism to be particularly salient in dominance research.

Chapter 2

Hypotheses

Hypothesis 1:

The subject's (S's) Managerial Scale score on the CPI will be independent of his mean solution score.

Hypothesis 2:

There will be a positive correlation between S's score on the Managerial Scale of the CPI and the amount of speaking behavior displayed in the interaction situation.

Hypothesis 3:

There will be a positive correlation between S's yielding score and amount of speaking behavior in the interaction situation.

Hypothesis 4:

Contrast Dyads will demonstrate a contrast effect in speaking behavior (i.e. differences in amount of speaking between dyad members will increase over the nine situations of the RDT) and an assimilation effect will be demonstrated by members of Similar Dyads (i.e. differences between dyad members in amount of speaking will decrease over the nine situations of the RDT).

Hypothesis 5:

A Contrast effect in yielding behavior will be demonstrated by Contrast dyads while yielding behavior of Similar Dyads will demonstrate an assimilation effect.

Chapter 3

Method

Subjects:

A total of 120 female Ss similar in age, IQ and SE class were selected out of 360 undergraduate Education students at City College of New York. Subject selection was guided by the following criteria:

1) Managerial Score on the CPI(California Psychological Inventory)
   Ss were administered the 206 items in the Managerial scale and divided into High Dominance (H), Moderate Dominance (M) and Low Dominance (L) groups as follows: H = first quartile of those tested. M = second and third quartile of those tested. L = fourth quartile of those tested.
2) General Impression (GI) score on CPI:
   Ss scoring above the 65th centile of the GI scale were to be eliminated from this study.
3) Interaction:
   Although initial dyad pairings were made with reference to the Managerial Scale score (D-S or M-M dyads), determination of whether a particular dyad was to be classified as "Contrast" or "Similar" was to be based upon the percentage of time spoken by one member relative to the other dyad member summed over the first three of the nine situations (PTS score). A median split was then to be performed

such that dyads in the upper half of those tested were to be classified as "Contrast" and those with percentages in the bottom half of those tested classified as "Similar".

Apparatus:

This study was designed to examine those interactions related to role dominance. These verbal interactions were sound recorded on a Sony four channel stereo tape recorder, Model #630.

A stop watch was used to measure duration of each interaction situation.

Two raters scored the tapes with reliability checks made on a random basis.

Procedure:

The experimenter (E) visited all undergraduate Education classes at the City College of New York to obtain volunteers (See Appendix 2 for announcement).

All interested students were given the following items for completion at home:

1) Memo (See Appendix 2).

2) Revealed Difference Test incident form (See Appendix 3).

3) Managerial scale of CPI (See Appendix 4).

4) General Impression (GI) scale of CPI (See Appendix 4).

5) Demographic Information Form (See Appendix 5).

1) Memo:

This form outlines research goal and provides procedural instructions.

2) Revealed Difference Test (RDT) incident form:

This test designed by Strodtbeck (1951, cited in Bales, R. and Borgatta, E., 1962) requires that Ss initially read through various problem situations indicating their solution for each (they are later brought together with instructions to resolve private differences in solution). Application of the RDT has been primarily with families (Strodtbeck, 1951, cited in Bales, R.and Borgatta, C., 1962; Farina, 1960; Jackson, 1956) where parent-child situations have been utilized to ensure ego involvement.

In this study, a series of sixteen classroom situations were devised for use with Education students to ensure ego involvement. Ss were instructed to read through the situations and to select the best solution for each from among eight actions provided. Ss were also asked to indicate their degree of involvement separately for each of the sixteen situations.

The eight solutions consisted of generalized responses made by teachers which were graded along a continuum of authoritarian-permissive. These eight actions were selected from among a larger sample of thirteen which were ranked by twenty teachers. Only those actions showing greatest ranking agreement were retained.

In a pilot study (July, 1969) it was found that for all randomly paired dyads, disagreement on at least nine

situations had occurred. Furthermore, it was demonstrated that the degree of permissiveness in S's action selection was independent of the amount of dominance as measured on the Managerial Scale of the CPI.

3) Managerial Scale of CPI (California Psychological Inventory)

The Managerial scale devised by Goodstein and Schrader (1963) is composed of 206 of the 480 CPI items. It has been found to correlate significantly with amount of talking in a group situation (Zdep, 1967) and as such appears to be the best available predictor of speaking behavior. In a pilot study (July, 1969) it was found to accurately differentiate the more talkative dyad member in four out of four dyads, in contrast with the Dominance Scale of the CPI which showed no significant relationship to dominance behavior as here defined.

4) General Impression Scale of CPI:

This scale was designed to "identify persons capable of creating a favorable impression and who are concerned with how others react to them." (Gough, 1956, pp. 10)

5) Demographic Information Form:

The demographic questionnaire was devised to ensure more accurate matching on dimensions of intelligence, SE status, age, etc. where possible.

Ss who obtained scores above the 65th centile of the GI scale were to be disqualified. Remaining Ss were rated on the Managerial scale and classified as either H, M or L according to criteria for these groups. Eligible Ss were asked to return for the second half of this study. All other Ss were to be sent a letter thanking them for their participation and informing them that they may inquire as to the results of the study after June 1970.

Eligible Ss were assigned to one of the following two dyadic groups (D-S, M-M) such that a total of 30 dyads per condition was obtained:

(1) D-S Dyad: H and L Ss as determined by the Managerial scale of the CPI were paired.

(2) M-M Dyad: M and M Ss as determined by the Managerial scale of the CPI were paired.

Nine situations on which both dyad members disagreed were identified prior to the interaction. Within each dyad type, specific pairings were made according to demographic data and time availability. Insofar as possible, situations in which Ss checked minimal involvement were not used in the interaction situation. Results of the pilot study (July, 1969) indicated that only in rare instances was minimal involvement checked for any situation.

Interaction:

Ss were contacted by an Assistant. E was unaware of the dyad type for any particular dyad.

When Ss arrived at the designated room (which was

soundproofed for accuracy in recording) they were asked to refrain from identifying themselves. All preliminary conversation was ended. Both Ss were then escorted into the test room, seated at equal distances from E who read the following instructions:

> "Both of you have told me on these forms how you would handle problems that come up with children in the classroom when you are by yourselves. We are also interested in knowing how teachers would handle these problems together. I shall read nine of the classroom situations along with your individual responses to you. Imagine now that these same problems come up when both of you are there. I would like both of you to discuss your approaches and reach an agreement as to which of the eight alternative solutions is the best single one to be used, and to tell me what that is. Be sure both of you say 'agreed' when you are finished."

The tape recorder was started and the hypothetical situations read aloud by E. Throughout, E exerted care to insure that she did not influence their behavior. Verbal reinforcement was not given and E fixed her gaze on the paper containing her instructions. E's participation was thus limited to questions designed to determine whether or not agreement has been reached. After four minutes and thirty seconds elapsed, E informed the Ss that thirty seconds remained.

At the end of this procedure, Ss were asked to fill out a post interview form, designed to elicit interaction attitudes and perceptions, while E filled out an observation scale (See appendix 6 and 7).

Ss were then paid for their participation and asked to refrain from discussing the research project with others.

Measures - Indices of Dominance:

The dominance measure was taken exclusively from the interview with both Ss and consisted of:

1) Percent Time Spoken (PTS):

The percent of time spoken by the more talkative dyad member for each of the nine situations was used.

2) Yielding Score:

This score was defined as the relative distance yielded by one member in moving towards acceptance of a joint solution and was expressed as the Percent Yielding score of the more Dominant Dyad member (as determined by PTS) (Example: If during the private response on the Revealed Difference items, the more Dominant S's answer was C and the less Dominant S's was G, and in the joint session if both provided a solution of D, the yielding score would be 75% in favor of the former S. The former in the joint session moved 1 point in a less severe direction while the latter moved 3 points in a more severe direction. Thus the less Dominant subject moved 3/4 or 75% of the initial distance in the achievement of a solution).

Final Dyad Groupings for Statistical Treatment of Data:

Results of the interaction were used in final classification of dyads according to criteria specified. Statistical treatment was based on these classifications which were as follows:

Final Classification of Dyads

(1) Contrast: Percentage of speaking time of more talkative member within upper half of those tested.

(2) Similar: Percentage of speaking time of more talkative member within bottom half of those tested.

Chapter 4

Results

Subject Screening:

All subjects (Ss) were administered the Managerial and General Impression scales of the CPI as well as the Revealed Difference Test (RDT) incident form. Ss were then categorized as High Dominant (H), Moderate Dominance (M) or Low Dominant (L) with those obtaining scores within the first quartile of the Managerial Scale classified as H, those within the second and third quartiles as M, and those within the fourth quartile as L.

Managerial Scale of CPI(California Psychological Inventory)

Table 2 indicates the mean and standard deviation (SD) of the CPI Managerial scores for this population.

TABLE 2

RANGE, MEAN AND S.D. OF CPI MANAGERIAL SCORES FOR H, M, AND L GROUPS

	Group Membership		
	H (N = 30)	M (N = 60)	L (N = 30)
Range	154 - 180	139 - 153	82 - 138
Mean	165.60	146.97	127.00
S.D.	8.17	5.30	12.20

General Impression Scale of CPI:

The distribution of CPI General Impression Scale (social desirability) scores according to Dominance classification appears in Table 3 for H, M and L groups.

TABLE 3

FREQUENCY DISTRIBUTION OF CPI GENERAL IMPRESSION SCALE SCORES FOR H, M AND L SUBJECTS (N = 120)

Centile Score Range	Dominance Category - Frequency Count		
	H	M	L
60-64	4	1	0
55-59	4	1	1
50-54	5	6	2
45-49	5	7	4
40-44	7	17	3
35-39	2	15	7
30-34	3	9	10
25-29	0	4	3
Total	30	60	30

General Impression Scale scores ranged from a raw score of 5 (Centile score = 25) to a raw score of 27 (Centile score = 62). Insofar as subjects all scored below the 65th centile, the General Impression scale did not serve as a basis for eliminating Ss from the study.

Revealed Difference Test:

A mean solution score based on the average RDT response was obtained for each S. This was accomplished by assigning point values to each response A through H such that higher scores coincided with greater permissiveness of response, summing such scores over the nine situations and obtaining an average.

Table 4 presents a frequency distribution of Mean Solution scores according to Dominance classification, for H, M, and L groups.

TABLE 4

FREQUENCY DISTRIBUTION OF RDT MEAN SOLUTION SCORES FOR H, M AND L SUBJECTS (N = 120)

Range of Mean Solution Scores	Dominance Category - Frequence Count		
	H	M	L
6.5 - 6.9	1	0	0
6.0 - 6.4	1	2	0
5.5 - 5.9	0	3	1
5.0 - 5.4	3	4	0
4.5 - 4.9	3	7	2
4.0 - 4.4	9	15	7
3.5 - 3.9	4	9	9
3.0 - 3.4	7	11	5
2.5 - 2.9	1	5	3
2.0 - 2.4	1	4	3
Total	30	60	30

Initial Dyad Formation:

Managerial Score of CPI:

CPI Managerial Scale scores were utilized in initial dyad formation, resulting in 30 H-L and 30 M-M dyads.

Revealed Difference Test Score:

It was hypothesized that S's Managerial Scale Score on the CPI would be independent of his Mean Solution Score on the RDT. A Pearson Correlation Coefficient of .05 ($So = .09$) was consistent with this hypothesis.

Final Dyad Classification:

Mean Percent Time Speaking (PTS) Score:

Final dyad classification was based on the mean Percent of Time Spoken (PTS) by the more talkative dyad member over the first three trials. A total of 29 dyads were classified as Similar dyads (PTS range 47-58%) and 31 dyads were classified as Contrast Dyads (PTS range 59-74%). Table 5 portrays the distribution of PTS scores for Similar and Contrast Dyads.

TABLE 5

FREQUENCY DISTRIBUTION OF MEAN PTS SCORES BASED ON 1-3 TRIALS FOR SIMILAR AND CONTRAST DYADS (N = 60) (PERCENTAGE OF TIME SPOKEN SCORE)

PTS Ranges	Similar Dyad	PTS Ranges	Contrast Dyad
57 - 58	7	73 - 74	2
55 - 56	6	71 - 72	1
53 - 54	6	69 - 70	6
51 - 52	1	67 - 68	1
49 - 50	6	65 - 66	2
47 - 48	3	63 - 64	4
Total	29	61 - 62	6
		59 - 60	9
		Total	31

Reliability of PTS Score(Percentage of Time Spoken)

PTS measures were derived by two raters who simultaneously scored transactions of the interview - each rater being assigned to one dyad member. To determine reliability of such ratings, five tapes were rescored by the same raters without reference to prior estimates and with raters now assigned to the opposite dyad member. In all, a total of 90 comparisons were obtained. A Pearson Correlation Coefficient of .987 ($P < .001$) indicated nearly perfect agreement in inter-rater reliability.

Relationship Between Initial and Final Dyad Classifications:

Insofar as both the CPI Managerial Scale and PTS behavior

purported to measure dominance, it was hypothesized that the two variables would be positively related. This hypothesis was tested by relating it with four behavioral variables.

CPI Managerial Scale and Total Time Spoken (TTS):

A correlation between CPI Managerial Scale scores and TTS behavior (Total Time spoken over the nine situations) for 120 Ss was performed. A Pearson Correlation Coefficient of .32 ($P < .01$) was obtained.

CPI Managerial Score and PTS Behavior:

A t test comparison of the CPI Managerial Scale score means for more Dominant members of Similar and Contrast groups yielded a t value of +1.24 ($P > .10$) indicating that the CPI Managerial Scale scores obtained by these members of the Contrast Group were not significantly different from those obtained by more Dominant members of Similar Dyads.

Although the dyad types based on actual behavior (PTS) for more Submissive members were clearly differentiated, a t test comparison of their CPI Managerial Scale score means yielded a t value of -.38 ($P > .10$) indicating that the CPI scores obtained by more Submissive members of Contrast Groups was not significantly different from those obtained by more Submissive members of Similar Dyads.

Table 6 presents the Means and SDs of CPI Managerial Scale scores separately for more Submissive dyad members and for more Dominant dyad members (as determined by PTS behavior) according to PTS Dyad type.

TABLE 6

MEANS AND SDs OF CPI MANAGERIAL SCALE SCORES FOR MORE SUBMISSIVE AND MORE DOMINANT (PTS) MEMBERS OF SIMILAR AND CONTRAST DYADS

	More Submissive Dyad Members		More Dominant Dyad Members	
Scores	Similar Dyad	Contrast Dyad	Similar Dyad	Contrast Dyad
CPI Means	142.48	144.03	147.83	152.23
SD	20.49	12.81	14.29	13.24
N	29	31	29	31

Predictive Value of CPI Managerial Scale:

To determine the accuracy of the CPI Managerial Scale in prediction of PTS Dyad Type, a Chi Square comparison was performed. The groups originally paired according to CPI Managerial Scale score differences were compared with groups formed on the basis of actual behavior (PTS). The obtained frequencies are presented in Table 7.

TABLE 7

FREQUENCY OF AGREEMENTS AND DISAGREEMENTS BETWEEN CPI AND PTS DYAD CLASSIFICATIONS

	CPI Dyad Type		
PTS Type	MM	DS	Total
Similar Dyad	13	16	31
Contrast Dyad	17	14	29
Totals	30	30	60

The obtained χ^2 was .60 ($P > .30$) which indicated almost pure chance relationship. Of the 30 predicted Contrast Groups, 14 were actually so categorized based on performance. Of the 30 predicted Similar Groups, 13 were so categorized based on performance.

While the above Chi Square tested the accuracy of CPI Managerial Scale scores in the prediction of performance for two subjects within the dyad, an analysis of Dominance based upon individual performance within the entire group is presented below in Table 8.

TABLE 8

FREQUENCY OF AGREEMENTS AND DISAGREEMENTS BETWEEN DOMINANCE TYPE AS MEASURED BY CPI MANAGERIAL SCALE AND DOMINANCE TYPE AS DETERMINED BY PTS CLASSIFICATION

Dominance Type-CPI Man. Scale	Dominance Type (PTS)				
	Dominant	Moderate Dominant	Moderate Submissive	Submissive	TOTAL
High (H)	11	10	6	3	30
Mod (M)	17	13	13	17	60
Low (L)	3	6	10	11	30
TOTAL	31	29	29	31	120

The obtained $\chi^2 = 9.3$ ($P > .10$) indicated that although there was a tendency for CPI H subjects to talk more than CPI Ls, the CPI Managerial Scale as a whole failed to accurately predict Dominance type of subject with respect to PTS behavior.

Yielding Behavior:

Another indice of Dominance utilized was Yielding Behavior. This was defined as the distance yielded by one member relative to that of the other in achieving a solution agreement. This score was expressed in terms of the more Dominant (PTS) member.

Table 9 presents the distribution of Total Yielding Scores for Similar and Contrast Dyads.

TABLE 9

FREQUENCY DISTRIBUTION OF TOTAL YIELDING SCORES* FOR SIMILAR AND CONTRAST DYADS (N = 60)

Range of Total Yielding Scores	PTS Dyad Type	
	Similar Dyad	Contrast Dyad
25.1 - 26.0	0	1
24.1 - 25.0	1	1
23.1 - 24.0	1	2
22.1 - 23.0	3	2
21.1 - 22.0	6	2
20.1 - 21.0	1	9
19.0 - 20.0	3	5
18.1 - 19.0	5	2
17.1 - 18.0	5	6
16.1 - 17.0	3	1
15.1 - 16.0	1	0
Total	29	31

*Scores below 20.0 indicate that the more Dominant member yielded more while scores above 20 reflect greater yielding by the more Submissive dyad member.

Yielding Behavior and PTS(Percentage of Time Spoken)

It was hypothesized that Ss Yielding score would be positively related to PTS behavior. Using the more Dominant member's score, a Pearson Correlation Coefficient r=.14 (So = .13) indicated that these two measures of Dominance were essentially independent. Yielding Behavior and Speaking Behavior were thus treated separately.

Change Over Time - Speaking Behavior:

It was hypothesized that Contrast Dyads would demonstrate a contrast effect (i.e. that differences in Speaking Behavior for dyad members would increase over the nine trials of the RDT) and that an assimilation effect would be demonstrated by members of Similar Dyads (i.e. that differences in dyad Speaking Behavior would decrease over the nine situations of the RDT).

PTS Measures:

Table 10 presents PTS means according to trial and to Final Dyad Classification:

TABLE 10

PTS MEANS BY TRIAL FOR DOMINANT MEMBER

OF SIMILAR AND CONTRAST DYADS AND

MEAN DYAD DIFFERENCES

Trial	Similar Group(N=29)	Contrast Group(N=31)	PTS Contrast - Similar	Total PTS
1	53.34%	65.03%	11.69%	59.38%
2	55.48	62.90	7.42	59.32
3	50.38	64.10	13.72	57.47
4	52.34	62.39	10.05	57.53
5	54.00	60.26	6.26	57.23
6	52.76	63.94	11.18	58.53
7	56.76	58.42	1.66	57.62
8	50.93	61.19	10.26	56.23
9	55.86	62.39	6.53	59.23
Total Mean	54.63	62.29		

It appears that there were no striking mean trends.

Table 11 presents the results of an Interaction Trend Analysis for PTS.

TABLE 11

ANALYSIS OF VARIANCE - PTS BEHAVIOR (N = 60)
(PERCENTAGE OF TIME SPOKEN)

Source	SS	df	MS	F	P
Between Groups	10323.56	1	10323.56	63.81	.0001
SS Within Grps	9382.98	58	161.78		
Between Trials	588.60	8	73.58	.80	
Linear Trials	73.44	1	73.44	.80	
Grps X Trials	1594.39	8	199.30	2.13	.05
Grps X Linear Trials	128.98	1	128.98	1.38	
Error W	43319.47	464	93.36		
Total	65209.00	539			

The significant Between Groups ($F = 63.81$ $P < .0001$) reflected the fact that groups were split on this variable, while the barely significant Groups X Trials ($F = 2.13$, $P < .05$) reflected the variation in MM and DS PTS trends although the Groups X Linear Trials F of 1.38 ($P > .05$) reflected the failure of these PTS means to consistently move closer together or farther apart, and thus the lack of any demonstrable contrast or assimilation effect.

The slight mean decrease for the Contrast Group reflected the presence of a regression effect (See Table 10). The

relatively high means for the first three trials reflected the fact that dyads were chosen for these groups on that criteria to maximize differences in PTS.

A correlation matrix of PTS by trial for both groups combined is shown in Table 12.

TABLE 12

CORRELATION MATRIX OF PTS BY TRIAL AND CORRELATION WITH TOTAL PTS FOR SIMILAR AND CONTRAST GROUP DATA COMBINED (N = 60)

TRIAL	TRIAL								r WITH TOTAL PTS
	2	3	4	5	6	7	8	9	
1	.121	.2212	.35	.24	.29	-.07	.12	-.03	.43
2		.15	.34	.05	.17	.12	.34	.33	.49
3			.38	.18	.27	.24	.34	.10	.60
4				.42	.31	.31	.35	.24	.73
5					.33	.42	.29	.12	.61
6						.14	.33	-.02	.59
7							.20	.02	.49
8								.24	.65
9									.38

* r = .338 (P = .01)
r = .261 (P = .05)

The highest intercorrelations occur between trials 3 through 6. That all trial with total PTS correlations were significant (beyond .05) reflected the stability of PTS as a measure. Trials 4 - 6 correlated most with total PTS while extreme trials 1 and 9 correlated least again reflecting the relationship between central position and predictability.

TTS Measures(Total Time Spoken)

PTS was differentially effected by total time i.e. higher percentages were more easily attained with small total units of speaking time, therefore an exploration of TTS behavior in connection with hypotheses of contrast and assimilation was conducted. Speaking Behavior was examined by dividing the total interaction into thirds such that trials 1-3, 4-6 and 7-9 were treated each as separate units of behavior.

Table 13 presents TTS means for the Similar and Contrast Dyads according to three-trial units:

TABLE 13

TTS MEANS AND MEAN DIFFERENCE SCORES BY THREE-TRIAL UNITS AND BY DOMINANCE TYPE FOR SIMILAR AND CONTRAST DYADS (N = 120) (in seconds)

Dyad Member	Trials 1-3	4-6	7-9
Similar Dyads(N=58)			
More Dominant S	246.31	243.93	250.90
Less Dominant S	216.10	217.82	214.10
Mean Difference	30.21	31.11	36.80
Contrast Dyads(N=62)			
Dominant S	269.61	261.90	234.71
Submissive S	148.09	165.58	200.29
Mean Difference	121.52	96.32	34.42

Examination of Table 13 illustrates the greater discrepancy between Submissive Ss of Contrast and Similar Dyads compared to Dominant members of both groups. TTS scores for Dominant members of both groups were similar while scores for Submissive members differed strikingly between groups. This suggests that dyads were chosen on the basis of who was Submissive rather than on who was Dominant.

Table 14 presents Mean TTS and Difference Scores by three-trial units for both groups combined:

TABLE 14

TTS TOTALS AND MEANS BY THREE-TRIAL UNITS FOR BOTH GROUPS COMBINED (N = 120) (in Seconds)

	Trials - TTS Totals		
TTS Type	1-3	4-6	7-9
Similar Dyads	13,410	13,536	13,485
Contrast Dyads	12,949	13,252	13,536
Total - TTS	26,359	26,788	27,021
Means - TTS	219.66	223.23	225.18

Though Contrast Dyads initially spent less total time speaking, than Similar Dyads, they ended up speaking slightly longer than the latter group. For both groups combined, Mean TTS was 6 seconds longer for trials 7-9 than it was for trials 1-3.

Reclassification of Final Dyads Based on 1-9% PTS (A) (Percentage of Time Spoken Score)

In order to examine TTS data in which regression effects could be discounted, dyads were reclassified by Mean PTS (1-9%) scores of more Dominant Ss with those dyads below the median in Similar Dyads(A) (50-56%PTS) and those above the median in Contrast Dyads(A) (57-79%). Table 15 presents distribution of mean PTS scores based on 1-9 trials for Similar Dyads(A).

TABLE 15

FREQUENCY DISTRIBUTION OF MEAN PTS SCORES BASED ON 1 - 9 TRIALS FOR SIMILAR(A) AND CONTRAST(A) GROUPS (N = 60)

Mean PTS Scores	Similar Group(A)	Mean PTS Scores	Contrast Group(A)
56	4	.. 79..	1
55	4	70	1
54	7	69	1
53	4	68	1
52	6	67	2
51	2	66	0
50	3	65	1
Total	30	64	4
		63	4
		62	2
		61	4
		60	0
		59	4
		58	4
		57	1
		Total	30

TTS For Reclassified Dyads(Total Time Spoken Score)

Table 16 presents TTS Means for Similar Dyad(A) (1-9PTS) by three-trial units.

TABLE 16

TTS MEANS AND MEAN DIFFERENCE SCORE BY THREE-TRIAL UNITS AND BY DOMINANCE TYPE FOR SIMILAR(A) DYADS (1-9PTS) (N=60) (in Seconds)

	Trials		
Dyad Member	1-3	4-6	7-9
More Dominant S	226.63	229.33	230.40
Less Dominant S	191.47	203.03	205.60
Mean Difference	35.16	26.30	24.80

TTS Means for Contrast(A) Dyads (1-9PTS) by three-trial units are presented in Table 17 while Table 18 presents combined TTS Means for both groups by three-trial units:

TABLE 17

TTS MEANS AND MEAN DIFFERENCE SCORES BY THREE-TRIAL UNITS AND BY DOMINANCE TYPE FOR CONTRAST(A) DYADS (1-9PTS) (N=60) (in Seconds)

	Trials		
Dyad Member	1-3	4-6	7-9
Dominant S	289.27	281.83	290.00
Submissive S	169.93	172.67	171.30
Mean Difference	119.34	109.16	118.70

TABLE 18

TTS TOTALS AND MEANS BY THREE-TRIAL UNITS AND BY DYAD(A) TYPE (1-9 PTS) (N = 120) (in Seconds)

Dyad(A)(1-9PTS) Classification	Trial - TTS Totals		
	1-3	4-6	7-9
Similar(A) Dyads	12,543	12,971	13,080
Contrast(A) Dyads	13,776	13,635	13,839
Total - TTS	26,319	26,606	26,919
Means - TTS	219.33	221.72	224.33

While fluctations appear random for Contrast(A) Dyads, Table 16 indicates a steady decrease in Mean TTS Difference Scores for Similar(A) Dyads. At test comparison of 1-3 TTS Difference Scores with 7-9 TTS Difference Scores (1 to 3 - 7 to 9) yielded a t value of -.61 (df=58) which was insignificant ($P > .10$).

Change Over Time - Yielding Behavior:

It was hypothesized that Contrast Dyads would demonstrate a contrast effect (i.e. that differences in amount of yielding would increase over the nine trials of the RDT) and that an assimilation effect would be manifested in Similar Dyads (i.e. that differences in amount of yielding behavior would decrease over the nine trials of the RDT).

Percent Yielding Score:

Table 19 presents Percent Yielding Means according to trial and to Final Dyad Classification:

TABLE 19

PERCENT YIELDING SCORE MEANS BY TRIAL AND BY FINAL DYAD CLASSIFICATION (N = 60)

Trial	Similar Group(N=29)	Contrast Group(N=31)	Contrast-Similar % Yielding	Total %Yielding
1	19.83%	20.42%	+ .59%	20.13%
2	18.96	20.32	+1.36	19.67
3	20.14	18.52	-1.62	19.30
4	18.76	18.26	- .50	18.50
5	20.32	19.68	- .64	19.98
6	21.38	22.32	+ .94	21.87
7	19.14	21.26	+2.12	20.23
8	21.07	21.29	+ .22	21.18
9	19.10	19.84	+ .74	19.48
Total Mean	19.85	20.20		

* Scores below 20.0 indicate that the more Dominant member yielded more while scores above 20.0 reflect greater yielding by the more Submissive dyad member.

The mean total suggested that though yielding was approximately evenly divided regardless of dyad type, Dominant Ss of Contrast Dyads were less likely to yield than Dominant Ss of Similar Dyads.

Table 20 presents the results of an Interaction Trend Analysis for Percent Yielding Behavior:

TABLE 20

ANALYSIS OF VARIANCE - PERCENT YIELDING BEHAVIOR
(N = 60)

Source	SS	df	MS	F
Between Groups	17.19	1	17.19	.22
SS Within Groups	4618.10	58	79.62	
Between Trials	436.80	8	54.60	.65
Linear Trials	51.26	1	51.26	.62
Grps X Trials	154.32	8	20.19	.25
Grps X Linear Trials	.59	1	.59	.01
Error Within	39092.85	464	84.25	
Total	44319.26	539		

F (8,58) = 2.85 (P = .05)

The insignificant Between Groups (F=.22), Groups X Trials (F=.25) reflected the fact that the two groups did not differ with respect to Percent Yielding scores.

The Groups X Linear Trials F of .01 indicated the failure of Percent Yielding scores to consistently move closer together or further apart, and thus the lack of any contrast or assimilation effect.

A correlation matrix of Percent Yielding by trial for both groups combined is presented in Table 21.

TABLE 21

CORRELATION MATRIX OF PERCENT YIELDING SCORES BY TRIAL AND CORRELATION WITH TOTAL YIELDING FOR SIMILAR AND CONTRAST GROUPS COMBINED (N = 60)

Trial	Trial								
	2	3	4	5	6	7	8	9	r With Total Yielding
1	-.32*	-.02	-.12	-.24	-.01	-.03	.01	.11	.11
2		-.29*	-.07	-.05	-.01	-.19	.00	.18	.02
3			.12	.16	.23	.20	-.16	.05	.59
4				.05	.05	.07	-.15	.07	.35
5					.08	.00	-.04	.20	.31
6						-.07	-.04	.20	.50
7							-.15	.10	.33
8								-.05	.07
9									.51
	r = .338 (P=.01) r = 2.61 (P=.05)								

The significant rs of -.32 and -.29 ($P < .05$) between trials 1 through 3 reflected the fact that yielding on the first trial was not a predictor of future yielding. It appeared rather there was an initial alternation in yielding for the the first three trials.

The correlations between third, sixth and ninth trials with total Percent Yielding scores were most significant (r=.59, .50 and .51) ($P < .01$) respectively. The middle trials on the whole

appeared to correlate more with total yielding than did early and late trials. The fluctuation however reflected the instability of Yielding as a measure.

Additional Data Analysis

Ratings

Following the interaction, Ss were asked to provide ratings of self and other on a seven point scale for each of five bipolar dimensions: Quiet-Talkative, Uncomfortable-Comfortable, Unpersuasive-Persuasive, Submissive-Dominant. Quantitative values were assigned to such ratings by assigning a score of 1 to extreme ratings on the non-assertive end of such scales e.g. Quiet, Unpersuasive, etc, a score of 2 on the 2nd step and so on up to a value of 7 for extreme ratings on assertion. Two types of final measures were obtained for each bipolar dimension: (1) self rating - total score obtained on self rating and (2) self-other rating - The difference between assigned score to self and assigned score to other on the same dimension. Positive scores reflected higher self than other ratings while negative scores reflected lower self than other ratings.

Of particular interest was the relationship between subjective ratings and overt behavior. Towards this end, several comparisons were made:

Dominance Ratings:

Self Ratings:

Mean self rating scores for subjects from the Similar Dyads was +4.2 while that of the Contrast Dyads was +4.3. Out of 118 Ss, 67 rated themselves at 4 while 37 Ss rated themselves

at 5 (scores ranged from 2-6). Thus Ss tended to rate themselves on or about the mean on Dominance.

Self Rating and Managerial Scale Score:

CPI Managerial Scale scores were correlated with self-ratings of Dominance for all Ss, yielding a Pearson Correlation Coefficient of .11 (So=.09).

Self-Other Ratings:

Mean Self-Other Ratings for the Similar group was +.14 while that of the Contrast group was +.46. Of 118 Ss, 62 reported no difference between selves and partner on Dominance (range = -4 to +4). Thus Ss tended to report similarity in self - other perception on Dominance.

Self-Other and Managerial Scale Scores:

Self - other ratings on Dominance were correlated with CPI Managerial Scale scores. An obtained Pearson Correlation Coefficient of +.18 (So=.09) reflected the independence of these two measures as well.

Quiet-Talkative Ratings:

Self Ratings:

Table 22 presents mean self ratings on Talkativeness according to Final Dyad Classification and Dominance type:

TABLE 22

MEAN SELF RATING SCORES (QUIET-TALKATIVE) ACCORDING TO DYAD CLASSIFICATION AND DOMINANCE TYPE (N = 119)

Subject Type	Dyad Classification	
	Similar Dyad(N=58)	Contrast Dyad(N=61)
Less Dominant S	5.7	5.1
More Dominant S	5.6	5.7
Mean Both Ss Combined	5.6	5.4

Table 27 reflected the fact that Ss generally tended to rate themselves high on Talkativeness (scale mean = 4.0).

Self Ratings and TTS Score(Total Time Spoken)

Correlations between self ratings on Talkativeness and TTS behavior were computed separately by Final Dyad classification. For the Similar Dyad a Pearson Correlation Coefficient of .007 (So=.13) was obtained while the Contrast Dyad correlation yielded an r of .38 ($P < .01$) (So=.13). The failure of ratings by members of Similar Dyads to be significantly related with TTS behavior may have been a function of the smaller TTS differences which characterized this dyad. In Contrast Dyads where by definition, TTS discrepancies were larger, Ss tended to describe themselves more accurately.

Self-Other Ratings:

Table 23 presents Means, and Ranges of self-other ratings on Talkativeness according to Dyad Classification and Dominance type:

TABLE 23

MEANS, RANGES FOR SELF-OTHER SCORES (QUIET-TALKATIVE) ACCORDING TO DYAD CLASSIFICATION AND DOMINANCE TYPE (N=119)

Subject Type	Dyad Classification		Both Dyads Combined Means
	Similar(N=58)	Contrast(N=61)	
Less Dominant S	-.3	-.23	-.25
More Dominant S	+.1	+.57	+.34
Means Both Ss	-.09	+.16	+.04
Ranges	-3 to +2	-3 + 3	

Table 23 reflected the fact that differences in self-other ratings were minimal both for subject types and dyad types.

It should be noted that of the 58 Ss comprising the Similar Group, 34 indicated no difference between self and partner on Talkativeness. For the Contrast Group (N = 61) no difference in self-other ratings was obtained for 33 Ss. When such ratings were examined by subject type, it was found that of the 60 more Submissive Dyad members, a total of 22 reported no difference in self-other rating while 35 of the more Dominant Ss reported no difference as well (N = 59).

Thus, over half of those tested rated partners and selves equally on Talkativeness.

Self-Other Ratings and TTS Scores(Total Time Spoken)

Correlations between self-other ratings on Talkativeness and TTS scores were computed separately according to Final Dyad

Classification yielding an r of +.07 (So=.13) for the Similar group and an r of +.21 (So=.13) for the Contrast Dyad. Ratings for both dyads were independent of actual speaking behavior in the interaction situation.

Unpersuasive-Persuasive Ratings:

Self Ratings:

Table 24 presents mean self ratings on Persuasiveness according to Dyad Classification and Dominance type:

TABLE 24

MEAN SELF RATING SCORES (UNPERSUASIVE-PERSUASIVE) ACCORDING TO DYAD CLASSIFICATION AND DOMINANCE TYPE (N = 118)

	Dyad Classification	
Subject Type	Similar Dyad(N=57)	Contrast Dyad(N=61)
Less Dominant S	5.0	4.2
More Dominant S	4.3	4.5
Means for Both Ss	4.6	4.4

Table 24 reflected the fact that all Ss tended to utilize ratings close to the mean on Persuasiveness.

Self Ratings and Percent Yielding Scores:

Correlations between self ratings on Persuasiveness and Yielding Behavior were computed separately according to Dyad Classification.

For the Similar Dyad an r of -.24 (So=.13)was obtained while a Pearson Correlation Coefficient of -.03 (So=.13) was

computed for the Contrast Dyad, indicating that for both groups ratings on Persuasiveness were independent of Yielding Behavior in the interaction situation.

The negative direction of these correlations suggests that for both groups there was a tendency in fact for Ss who yielded more to perceive themselves as more Persuasive than their partners.

Self - Other Ratings:

Table 25 presents means and ranges of self-other ratings on Persuasiveness according to Dyad Classification and Dominance type:

TABLE 25

MEANS, RANGES FOR SELF-OTHER RATINGS (UNPERSUASIVE-PERSUASIVE) ACCORDING TO DYAD CLASSIFICATION AND DOMINANCE TYPE (N = 118)

Subject Type	Dyad Classification		Means for Both Dyads Combined
	Similar(N=57)	Contrast(N=61)	
Less Dominant S	+.21	-.03	+.08
More Dominant S	-.04	+.57	+.28
Mean Both Ss	+.09	+.26	+.18
Ranges	-4 + 4	-4 +3	-4 +4

Table 25 reflected the fact that differences in self-other ratings were minimal for both subject and dyad types.

It should be noted that within the Similar Group (N=57)

approximately 1/3 of the Ss (17Ss) reported no difference between self and partner ratings. Twenty eight out of a total of 61 Ss within the Contrast group failed to report differences on Persuasiveness.

Self-Other Ratings and Yielding Scores:

Correlations between self-other ratings on Persuasiveness with Yielding Behavior were computed separately according to dyad classification. For the Similar Dyad (N=57) an r +.58 ($P < .01$) was obtained while for the Contrast Dyad (N=61) a Pearson Correlation Coefficient of +.14 (So=.13) was obtained.

Ss within the Similar Dyad demonstrated some accuracy in self-other ratings on Persuasiveness. For the Contrast Dyad self-other ratings on Persuasiveness appeared to be independent of actual yielding behavior within the interaction situation.

In summary then, overall accuracy of such ratings tended to be low.

Rating and Behavior - Summary of Findings:

Quiet-Talkative

Table 26 presents a summary of obtained correlations between TTS behavior and ratings of self and self-other by Dyad Classification.

TABLE 26

OBTAINED CORRELATIONS BETWEEN TTS BEHAVIOR AND RATINGS OF SELF AND SELF-OTHER ACCORDING TO DYAD CLASSIFICATION(N=119)

	Dyad Classification	
Type Rating	Similar Dyad	Contrast Dyad
Self	.007	.38 *
Self-Other	.07	.21

*(P<.01)

Table 26 reflected the low accuracy of S ratings.

Unpersuasive-Persuasive:

Table 27 presents a summary of obtained correlations between Percent Yielding Behavior and ratings of self and self-other according to Dyad Classification:

TABLE 27

OBTAINED CORRELATIONS BETWEEN PERCENT YIELDING BEHAVIOR AND RATINGS OF SELF AND SELF-OTHER ACCORDING TO DYAD CLASSIFICATION (N=118)

	Dyad Classification	
Type Rating	Similar Dyad	Contrast Dyad
Self	-.24	-.03
Self-Other	+.58*	+.14

*(P<.01)

Of the obtained correlations only one finding was significant - that between self-other and yielding for the Similar Group.

Type of Rating-Self Ratings-Self-Other Ratings:

In order to determine relative efficacy of self ratings versus self-other ratings, correlations are presented separately in Tables 28 and 29 respectively:

TABLE 28

CORRELATIONS BETWEEN SELF RATINGS, TTS AND YIELDING BEHAVIOR ACCORDING TO DYAD CLASSIFICATION

	Dyad Classification	
Kind of Behavior	Similar Dyad	Contrast Dyad
TTS	.007	.38*
Percent Yielding	-.24	-.03

* ($P < .01$)

TABLE 29

CORRELATIONS BETWEEN SELF-OTHER RATINGS, TTS AND YIELDING BEHAVIOR ACCORDING TO DYAD CLASSIFICATION

	Dyad Classification	
Kind of Behavior	Similar Dyad	Contrast Dyad
TTS	+.07	+.21
Percent Yielding	+.58*	+.14

* ($P < .01$)

Summary of Results:

The hypothesis that CPI Managerial Scores and Mean Solution Scores would be independent was supported by the obtained Pearson Correlation Coefficient of .05 (So=.09).

The hypothesis that the CPI Managerial Scale scores would be positively related with Speaking Behavior was tested by relating it with four behavioral variables. One measure PTS, used with the total of 120 subjects, yielded low significant correlations. Other measures did not support the validity of the CPI in predicting this type of behavior. In all, sufficient evidence in support of the relationship between CPI Managerial Scale scores and Speaking Behavior appeared to be lacking for this population.

The hypothesis that Yielding Behavior would be positively related with PTS behavior was not supported by the obtained Pearson Correlation Coefficient of .14 (So=.13).

The hypothesis that Contrast Dyads would demonstrate a contrast effect in Speaking and Percent Yielding Behavior (i.e. that differences in Speaking or Yielding between dyad members would increase over the nine trials of the RDT) and that an assimilation effect would be demonstrated by members of Similar Dyads (i.e. that differences in Speaking or Yielding between dyad members would decrease over the nine situations of the RDT) was not supported.

Measures of rating at the conclusion of the interaction generally did not agree with actual behavior nor did CPI Managerial Scale scores correlate with self ratings on Dominance.

Chapter 5

Discussion

The major outcome of this study has been the failure to obtain demonstrable contrast and/or assimilation effects for this population. Rather, the data points to the constancy of such behavior within the established dyad.

In attempting to account for such findings two possible hypotheses emerge (1) with improved measurement techniques, contrast and assimilation effects could be demonstrated or (2) contrast and assimilation effects, though operative in perception and attitude studies simply do not occur in dyadic interaction.

That contrast and assimilation effects may have been obscured by limitations of existing measurement techniques is suggested by examination of the RDT, CPI and observational indices of Dominance:

Revealed Difference Test

One of the most striking characteristics of the RDT was that of the "politeness effect" i.e. the tendency of Ss to be nice and agreeable. This was demonstrated by the cyclic patterning in yielding behavior (see table 26). Thus, for the first two trials at least, Ss tended to alternate in yielding to one another. It is possible that such a pattern may have existed beyond the first two trials but was obscured by the backlog of varying dyads.

That acceptance of a solution was based upon more than its merits was attested to by many of the recorded statements as well. In one instance for example S1 initiated the discussion by stating that she was not satisfied with her response. When

S2 replied that she was just about to express the same feeling towards her own solution, S1 immediately launched into a series of statements supporting her originally disclaimed view.

Quite often dyads would terminate a discussion within seconds informing E that they agreed. When pressed by E as to the specifics of this agreement, the dyad was unable to respond. The tendency to act "nice" to reduce strain and disagreement was apparent. Members were often concerned with whether E thought they would work well together. In statements following the interaction, most Ss reported feeling that the purpose of the study was to see how reasonable they could be.

When in rare instances one S did not abide by these unspoken rules as for instance by refusing to alternate in yielding, a look of shock and dismay characterized her partner who then reported feeling frustrated and annoyed by the entire RDT procedure.

This concern for most Ss with being liked and being regarded as flexible, reasonable, etc. is consistent with behavior which Shutz (1958) labeled "inclusive" and which for Shutz was characteristic of the first phase of group interaction.

If indeed, dyadic interaction is subject to the same basic laws of development as other groups it seems apparent that concerns with power and relative influence would not be manifested until the dyad had been together for longer than the forty-five minutes allotted in this study.

With reference to the RDT however, it should be noted that this test is predicated on the assumption that a <u>conflict</u>

situation exists and that adoption of a particular solution is related to the interpersonal power of its supporter. The reluctance of most dyads to acknowledge such discrepancies rendered the RDT ineffective as elicitor of dominance behavior.

CPI Managerial Scale

The CPI Managerial Scale was used as a preliminary screening device. The formation of dyads based on CPI scores was expected to greatly improve upon chance pairings and to enhance the likelihood of contrast and assimilation effects. The need for accurate pairing was particularly salient for contrast dyads where failure to obtain sufficiently large discrepancies might cause assimilation effects to be demonstrated, and thus work against the hypothesis.

Of the four statistical tests concerned with the validity of the CPI, only one was significant although at a low level. The utilization of the CPI Managerial scale for initial dyad formation thus did not improve at all upon chance matching.

These findings contrast sharply with those reported by Zdep (1967). Zdep however was concerned with individual behavior which was essentially independent of dyadic groups. In this connection it should be noted that CPI predictions in this study for subject type were better than predictions for dyad type.

Secondly, Zdep (1967) used a sample which was more heterogeneous with respect to Dominance. A comparison of ranges demonstrates that while the dominance range in this study was 38 points, in Zdep's it was 72, or almost twice as large.

Finally, Zdep (1967) measured dominance behavior of extreme High and Low Dominant Ss only while this study used all ranges of dominance. Given then extreme Ss on Dominance, it may be possible to predict such behavior from CPI test data.

What seems essential however is the overall failure of the CPI Managerial Scale to predict performance for typical college students who are not members of preselected extreme groups. In fact, CPI predictions for this population were slightly below those obtained by chance. It is a central point of this study that paper and pencil tests do not consider reactions to the behavioral situation. Role taking which is dependent upon others is one such variable. That complex variables difficult to anticipate may be operative in interpersonal behavior is suggested by the discrepancy between CPI accuracy in predicting individual and dyad performace. In this connection it should be noted that self and other rating data were similarly poor with respect to accuracy even though such ratings followed tangible and concrete situations which Ss could have used as a basis for evaluation.

These results are consistent with those reported by Curtis and Wolf (1951, cited in Masling, 1960) and Kelly and Fiske (1951, cited in Peterson, 1958) and suggests that assertions regarding the unpredictability of projective tests are characteristic of non-projective material and rating scales as well.

Observational Measures of Dominance

Behaviorally, dominance was measured by amount of Speaking

and Percent Yielding. Implicit in the utilization of such indices was the assumption that both represented a unitary construct of dominance. That such a relationship has been regarded as axiomatic is demonstrated by studies such as those by Farina (1960), Hetherington and Frankie (1967) and Strodtbeck (1951, cited in Hare, Borgatta and Bales, 1962) in which both measures were utilized.

The finding in this study that Yielding and Speaking Behavior were independent supports results obtained by Becker and Iwakami (1969) who worked with families and suggests that these two indices measure different things. In this connection, several possibilities emerge (1) only one indice measured personal dominance in this study (2) neither indice was an adequate measure of dominance.

That only one of these indices (PTS) may have measured personal dominance is suggested by certain findings in this study. PTS behavior was found to be relatively stable throughout the nine situations of the RDT (see table 12). That some aspect of behavior should retain a constant level of functioning throughout the interaction suggests that it taps a stable aspect of personality. This report of stability for Speaking Behavior agrees with results obtained by Matarazzo and Saslow (1956) and Mills (1953).

In contrast with PTS, Yielding Behavior was found to be unstable. Low intercorrelations between trial and total were found (see table 26) and evidence suggesting an alternation in

yielding between Ss for at least the first two trials was also obtained. That Yielding was not only unstable but also subject to cyclic patterning suggests that for strangers at least, yielding may have been primarily a function of approved social norms and expectations. Thus while PTJ may have tapped personal dominance, yielding may have tapped situational variables. In this connection, it should be noted that examination of family interaction (Becker and Iwakami, 1969) reveals greater stability in Yielding Behavior.

In brief then, it is suggested that in this study, speaking, but not yielding behavior, measured personal dominance.

That neither indice may have measured dominance was also suggested. The question of how to define dominance is perhaps more subtle than previously considered. It was frequently observed during the RDT that Ss would give their partners non-verbal "permission" to talk by nodding or gesturing. Although ostensibly speaking less, this S retained a certain amount of interpersonal power and it is this factor of interpersonal power that is central to the notion of dominance.

Irrespective of the specific reasons, however, demonstration of contrast and/or assimilation effects in dominance behavior are predicated upon the assumption that speaking and/or yielding constitute measures of dominance. Any evidence contesting the validity of these indices obviates against demonstration of contrast-assimilation effects.

The interrelationship between measurement technique and

outcome is not only relevant for speaking and yielding but is also applicable for the RDT, and CPI tests as well. The lower their effectiveness, the less likelihood there is of obtaining significant findings. That such measures, despite precedent within the literature, have been found to be uniformly poor in the present study has been sufficiently documented.

Given then the ineffectiveness of these measures, it would seem premature at this point to conclude that contrast and/or assimilation effects simply do not occur in interpersonal behavior. Nevertheless the possibility exists that such a formulation may not represent viable descriptions of the interactive process.

Despite the abundant evidence attesting to such effects in attitude (Sherif, Sherif and Nebergall, 1965) and perception (Helson, 1948) it may be that the extrapolation to observation of behavior which is independent of self report is not feasible for several reasons:

Firstly, in studies earlier cited, it was necessary that Ss attend to the dimension under investigation before contrast or assimilation effects could be manifested. Thus, S was instructed to estimate weight, color, fairness etc. of various stimuli. Under the present design, S was unaware of the dimension under investigation. This was necessary in order to obtain behavior samples which were natural and lacking in self-consciousness. Yet, it may well be that S's failure to be informed of and hence to attend to the dominance of his partner may have resulted in his focusing on and responding to other interpersonal factors

in its place.

The question of whether this awareness is necessary for contrast or assimilation to occur in attitude or perception leads to the interesting possibility that exposure to peripheral or subliminal stimuli might well result in non-lawful perceptual changes. Though Helson (1948) notes that background stimuli are assigned lower AL values i.e. that stimuli not directly within S's attention are less influential in determining the anchor point, the assimilation-contrast model of Sherif, Sherif and Nebergall (1965) does not consider such relative weightings. The addition of such relationships if relevant would add much to current theory and to its translation into categories independent of self report.

Still a second difficulty to emerge when extrapolating from perceptual-social theories is concerned with the phenomenon of anchoring. Sherif, Sherif and Nebergall (1965) note that judgments are made with respect to the S's own stand. Thus other stands which are extremely discrepant with this anchor are displaced away while only moderately discrepant stands are subject to an assimilation effect.

In attitude study and perception, both E and S are in agreement on where this anchor is located since these are derived from statements made by S. When the data under investigation however is observable, non self-reported data, the possibility arises that E and S might each interpret the anchor differently. Thus E might, based on quantified observation, classify S as

Submissive or Moderate while S on the other hand, for a variety of reasons, might incorrectly perceive himself to be dominant or as more assertive than his partner. Under such conditions in which the initital data is subject to distortion, complication of systematic changes might then occur. That is, if early in the interaction, S perceives both himself and his partner as moderately dominant while E initially observes that S and his partner are submissive and dominant, S might move in the direction of assimilation (based upon his perception of similarity) while E would anticipate a contrast effect (based upon his observation of dominance discrepancy).

That S distortions did occur is borne out by the failure of the CPI (a self-descriptive inventory) to correlate with PTS and by the low correlations obtained between post-interaction ratings and behavior. Moveover, such ratings indicated the influence that value judgments may have had in bringing about such distortions. All Ss tended to perceive themselves as Moderately Dominant (not too assertive and not too submissive) and as relatively persuasive.

It would be valuable if location of anchoring points could be incorporated into the design of non-projective tests. Additionally, a comparison of performance for Ss high in accuracy on self-perception with those who are low would aid in determining whether differences in the interpretation of one's own behavior do effect subsequent interaction.

Before discussing the ramifications of these suggestions, it

should be noted that an incidental finding of this study concerned the relationship between Dominance and the tendency to rely upon external authority. A brief discussion of these results shall follow:

Dominance and Reliance Upon External Authority

Ss who differed in dominance were instructed to select a best solution from among eight choices which varied with respect to strictness-leniency. It was thought that less dominant Ss might favor stronger punishment against those who transgress the rules (i.e. more authoritarian solutions). Such a finding would have introduced a confounding variable into the research. It was necessary in this study therefore to ascertain that these factors were independent so that dyad differences could be attributed to dominance discrepancies and not to extent of initial disagreement. Independence of the two measures was supported.

That solution choices were independent of personal dominance as measured by the CPI Managerial Scale is at variance with results obtained by Berg and Bass (1961) and Mann (1959)who found negative correlations between dominance and authoritarianism. Several possible explanations may be advanced in accounting for such a discrepancy:

That Ss within the present study represented a relatively homogenous sample with respect to both authoritarianism and dominance was not unlikely insofar as socio-economic, religious and geographic backgrounds were similar.

Still another source of similarity was to be found in the educational background of such Ss. Although not yet experienced teachers, all have attended one or more teacher education course. Such classes imbue teaching aspirants with a child-oriented philosophy which is concerned with understanding children's needs and hence tends to be permissive in approach. It is possible that for more authoritarian Ss obedience to authority becomes transferred to adherence to norms learned from college professors and hence to permissive solutions within the classroom. More experienced teachers on the other hand might differ.

Examination of the data suggests nevertheless a rank order for the three dominance groups such that Dominant Ss tended to utilize more permissive solutions than Moderate Ss who in turn were more permissive than Submissive Ss. This trend however did not attain statistical significance.

Suggestions for Future Research

Though of some interest, the finding of independence between dominance and solution choice is not directed to the major hypotheses of this study - the demonstration of contrast and assimilation effects for Contrast and Similar dyads respectively. With reference to the failure to obtain such effects two possible interpretations were advanced (1) that contrast-assimilation effects do occur in dyadic interaction but have been obscured by limitations of measurement techniques and (2) contrast-assimilation effects are not descriptive of the interactive process. It was noted that with the ineffectiveness of current measurement

techniques, it would be premature to adopt the latter interpretation at this time.

It is in this connection then that a number of suggestions regarding improvements in design shall be posited for future research:

One major source of difficulty concerned the initial selection procedure (CPI). Not only were Ss chosen from within a limited dominance range but resultant "chance" dyad matching did not enhance whatever dominance discrepancies existed.

1) That Ss were chosen from within a limited range was more a reflection of the population tested rather than the techniques utilized. The large number of Ss required as well as practical considerations such as the availability of college students, need for ego involvement, utilization of same-sexed members, etc. contributed to this restriction.

Given such limitations, utilization of a counterbalanced design might be efficacious. Maximization of an initially restricted dominance range could be achieved by selecting High and Low dominant Ss. Though not relevant for Similar dyads, sufficient dominance discrepancies are vital to demonstration of the contrast hypothesis. Under the proposed design, a Dominant S for example would be paired with a Submissive and then Dominant S. Learning and comfort factors could be controlled through counterbalancing the order of pairings. Statistically, utilization of the same S in both instances should reduce Between Group variability. This procedure

however requires that Ss return at least twice, a sometimes difficult attainment.

2) In light of the inadequate dyad predictions generated from the CPI, it would seem advisable to discard this test altogether and base initial S selection on performance in a situation analogous to that being observed. A small group discussion is one such possibility. Extreme High and Low participators would be selected. Although stability of speaking indices support the utilization of this procedure, it once again necessitates that Ss return for re-testing.

3) In addition to selection difficulties the "politeness effect" manifested during interaction was also considered. The inability of Ss to acknowledge discrepancies rendered the RDT ineffective and it was suggested that forty-five minutes may not have been sufficient.

That time extension might be fruitful is suggested by Schutz's (1958) theory in which "inclusive" behavior is followed by concerns with "control". With increased time, dyads should manifest a natural interest in questions of relative power, according to the theory.

The question of sex might also be pertinent. Females have customarily been regarded as higher in "succorance" than males and thus naturally more concerned with "inclusion". It might well be that use of male Ss would shorten this first phase of behavior and precipitate the emergence of "control" issues.

Still another possibility concerns the use of families in place of adhoc dyads. Use of intact dyads leads to natural

extension of interaction time without lengthening of sessions.

The whole question of time is a relatively unexplored one. Just how long it might take for contrast-assimilation effects if present to be manifested requires systematic variation of the time variable.

If applicable to dyads, Schutz's notion of phasic development addresses itself to the problem of attention previously discussed. If at a certain time in development, Ss normally attended to issues of interpersonal power, behavior which is observable and independent of self-report could well be utilized in the examination of perceptual and social theories such as contrast and assimilation.

Chapter 6

Summary

Though it has long been asserted that both acquisition of behavior and its implementation do not exist in isolation, but occur rather in response to other persons as stimuli, many clinical assessment procedures have continued to study behavior largely in isolation.

There has been a need for greater precision in the study of interpersonal influence. For purposes of simplicity, this paper has confined itself to the study of the dyadic unit. The problem then has been to determine the precise ways in which one interacts within the dyadic framework and to derive predictive laws.

Working with submissive and dominant behavior, the assimilation-contrast model of attitude change proposed by Hovland and Sherif (1958) was extended to the interpersonal realm.

A total of 120 female undergraduate education students at City College were individually administered the Managerial and General Impression scales of the CPI, and a Revealed Difference Task which required that subjects select from eight alternatives the best single solution for each of 16 disciplinary classroom situations.

Based upon Managerial Scale scores, 30 Dominant-Submissive and 30 Moderate-Moderate dyads were formed. Subjects were recalled in dyads and asked to arrive at a common solution for each of nine classroom situations on which they had privately

disagreed. Discussions were tape recorded.

The variable of dominance was inferred from two independent measures: (1) PTS - the percent of time spoken by the more talkative dyad member for each of the nine situations and (2) Percent of scale distance yielded by the more talkative member in moving towards acceptance of the other's solution. Dyads were reclassified as "Contrast" or "Similar" based on PTS behavior.

It was hypothesized that oppositely matched dyads (dominant-submissive dyads) would demonstrate a contrast effect while similarly matched dyads (moderate-moderate dyads) would demonstrate an assimilation effect over the nine situations of a revealed difference test. That is, it was hypothesized that in a dominant-submissive dyad, the PTS and Percent Yielding scores of the more dominant subject would increase over the nine situations of the RDT. In the moderate-moderate dyad however, it was expected that initial differences in ascendance would become minimized as the interaction proceeded (i.e. that PTS and Percent Yielding scores of the more Dominant member would decrease over the nine situations of the RDT).

In addition to the hypotheses of contrast and assimilation it was also hypothesized that the Managerial Scale score would be independent of the Revealed Difference Mean Solution score; that the Managerial Scale score would correlate with PTS behavior and that PTS behavior would correlate with Yielding behavior.

Only the hypothesis of independence between Managerial and Revealed Difference test scores was confirmed.

The failure to obtain contrast and/or assimilation effects was considered in light of the limited interaction time (45 minutes per dyad). It was noted that few pairs ventured beyond the "politeness" or "inclusion" stage of their relationship.

Moreover, the failure of a paper and pencil test to predict dominant behavior and the failure of two behavioral measures of dominance (both of which have face validity) to correlate was considered in light of previous research much of which regarded such relationships as axiomatic.

APPENDICES

Appendix 1

Announcement To All Education Students

"Of course you are all aware of the fact that maintaining discipline in the classroom is undoubtedly the greatest problem that faces the educator and teacher in the public school system. This study has been designed to gain better understanding of the problem of classroom discipline. What is quite obvious is that there is not a single best method for disciplining children. The crucial problem for each teacher is to develop an approach that is most effective for him personally.

A number of educators have selected a series of classroom situations which call for intervention by the teacher. We would like to obtain information regarding the approaches selected by students during their training period in order to learn how they would handle the situations described here. However, we believe that the kind of person the teacher is is also important in determining which solution will be most effective.

At present we are working only with female education students. There are two parts to this study. First I'd like you to fill out these forms which as you see consist of sixteen classroom situations and some questions to obtain information about your general attitudes and preferences. The second part of this study involves a somewhat more detailed discussion of the situations described here. Those females in this class who are interested in participating in this study should be prepared to participate in both the written part and oral discussion which will take place in two to six weeks.

People in the past have found this quite an interesting experience, but it does require a time commitment of approximately one hour for the discussion itself. We therefore will pay each person who completes the study five dollars ($5.00) for her time. It may not be possible to include the entire class in the study. Incidently, if you do participate, we urge you not to discuss this information with anyone prior to completing the project.

These forms can be completed at home and brought to the Psychological Center, Room 106 Harris, where they are to be placed in my mail box. Any questions?"

Appendix 2

Fall 1969

Code #_____
Education Class_____

Dear Student:

We are studying the manner in which difficult class situations are resolved. As an education student, we are interested in your opinion and in obtaining some characteristics about you.

Please complete the attached forms and bring them to the Psychological Center, Room 106 Harris where they are to be placed in my mailbox. All information shall remain confidential. Please fill in your name and telephone number along with the hours at which you will be available in the space below: (You will be paid upon completion of the study).

Name:_____ HOURS FREE
Telephone:_____ Mon Tues Wed Thurs Fri Sat
Education Class:_____

- -

INSTRUCTIONS - FORM I

Assume that you are a teacher faced with the 16 classroom situations described on the following pages and are restricted in solving them to the 8 choice actions listed below. After reading each situation, select the action you would use in each (choose from actions A through H listed on following pages) and write in the appropriate letter on the answer sheet. We realize that you will find these choices limiting in many cases. For research purposes though it is necessary to classify your responses.

On your answer sheet also indicate how committed you felt with the answer you chose by checking the degree of involvement that most closely matches your feeling. The 3 categories used are from left to right: "minimally committed", "moderately committed", "strongly committed" to this solution.

Please do not discuss these situations with your friends.

Appendix 3

FORM I Page 1 — Incidents

1. The reading coordinator is in your classroom observing you. While she is there, two children start acting up. What would you do after she left the room?

2. One of your children was in the classroom alone while the rest of your class had gone out. As you return from your prep period you find that the child has gone through your desk and is holding a piece of your property.

3. Your class is in the auditorium and an assembly program is going on. Two of your children are giggling and making alot of noise. All heads have been turned towards your class.

4. The children have been sent for clothes to the clothes closet. As you look in that direction, you see that a little boy is displaying his genitalia to another child.

5. A child vomits in the classroom after having been warned not to eat so much candy, cupcakes and popcorn at a class party.

6. The teacher warns a child to be very careful in carrying a red paint jar that the child insisted he had to have. As he is carrying it, he drops it.

7. A group of children made a beautiful diorama which the teacher prominently displayed on a shelf. Jimmy who has done very poor work and who is terribly disruptive has repeatedly been told that when he walks up the aisle, he is to be careful and not brush against the diorama. One day it becomes quite obvious that he purposedly and maliciously knocked it down causing tremendous shock and disappointment in the children who had made it.

8. A child is brought to your classroom by another teacher for having set fire to a roll of toilet paper in the boysroom. The child had no pass to have gone out of the room with. The other teacher is quite angry.

9. As you are standing by your classroom door, you see a girl push one of your boys who retaliates by grabbing her dress and ripping it.

- -

CHOICE OF ACTIONS TO SELECT: (repeated from instruction page)

A. Call in outside authority (e.g. Principal, Parent, etc)
B. Separate child or children.
C. Keep after school.
D. Give extra assignment.
E. Insist child or children behave properly.
F. Promise reward for compliance.
G. Laugh it off.
H. Permit child or children to continue his behavior.

(CONTINUED ON NEXT PAGE)

10. In the past, you have caught one of your children copying answers from others and have warned him not to do so in the future. As you review a recent set of test papers, you notice that many of his answers are similar to those of his neighbor. When confronted with this the student denies cheating.

11. One of your 5th graders is angry with you because you have punished him. He calls you a "mother fucker" in front of the class.

12. One student in the elementary class throws a pencil across the room at you in a fit of anger.

13. Bill is a fifth grade student and is older and larger than the other boys in the class. Bill is a "bully" and the other boys and girls are afraid of him. As you pass by, you hear Bill threaten one of the boys.

14. An 8th grade pupil ridicules the method used in teaching arithmetic. On several occasions the student returned his test papers to the teacher pointing out where he thought the teacher had made errors in grading and working out the problems. He is now telling others in the class that the teacher is stupid.

15. John is older than his classmates. He is a good worker outside school, a poor student and has repeated the 7th grade. John is recognized as being a leader among the boys. Whenever the teacher has the class working well, John disrupts things with wisecracks.

16. One of your children does excellent work but is unbearably impudent. As you are talking, you hear her mimicking you. The rest of the class starts giggling at this.

- -

CHOICE OF ACTIONS TO SELECT:

A. Call in outside authority (e.g. Principal, Parent, etc)
B. Separate child or children.
C. Keep after school.
D. Give extra assignment.
E. Insist child or children behave properly.
F. Promise reward for compliance.
G. Laugh it off.
H. Permit child or children to continue his behavior.

FORM III

Appendix 4

Instructions

These pages contain a series of statements. Read each one and decide how you feel about it and then mark your answer on the special answer sheet. Make no marks on the question sheets. If you agree with the statement, or feel that it is true about you, answer TRUE. If you disagree with a statement or feel that it is not true about you, answer FALSE. YOU MUST ANSWER ALL QUESTIONS.

In marking your answers on the answer sheet, make sure that the number of the statement is the same as the number on the answer sheet.

Questions:

1. A person needs to "show off" a little now and then.
2. When in a group of people I usually do what the others want rather than make suggestions.
3. I usually go to the movies more than once a week.
4. People can pretty easily change me even though I thought that my mind was already made up on a subject.
5. I often feel that I made a wrong choice in my occupation.
6. I am very slow in making up my mind.
7. I always follow the rule: business before pleasure.
8. Several times a week I feel as if something dreadful is about to happen.
9. There's no use in doing things for people; you only find that you get it in the neck in the long run.
10. I have had very peculiar and strange experiences.
11. In most ways the poor man is better off than the rich man.
12. I always like to keep my things neat and tidy and in good order.
13. It's a good thing to know people in the right places soyou can get traffic tags, and such things, taken care of.
14. It makes me feel like a fdlu failure when I hear of the success of someone I know well.
15. I doubt whether I would make a good leader.
16. I tend to be on my guard with people who are somewhat more friendly than I had expected.
17. Usually I would prefer to work with women.
18. I have very few fears compared to my friends.

20. I get very nervous if I think that someone is watching me.

21. Form most questions there is just one right answer, once a person is able to get all the facts.

22. I sometimes pretend to know more than I really do.

23. It's no use worrying my head about public affairs; I can't do anything about them anyhow.

24. Women should not be allowed to drink in cocktail bars.

25. Most people would tell a lie if they could gain by it.

26. I seem to be about as capable and smart as most others around me.

27. I think I would enjoy having authority over other people.

28. I hate to be interrupted when I am working on something.

29. It is always a good thing to be frank.

30. A windstorm terrifies me.

31. Sometimes I feel like swearing.

32. I feel sure that there is only one true religion.

33. I am embarrassed by dirty stories.

34. I would disapprove of anyone's drinking to the point of intoxication at a part

35. Sometimes I cross the street just to avoid meeting someone.

36. I get excited very easily.

37. Maybe some minority groups do get rough treatment,but it's no business of mine

38. We ought to worry about our own country and let the rest of the world take car of itself.

39. I often feel as if the world was just passing me by.

40. I like to boast about my achievements every now and then.

41. I am afraid of deep water.

42. I don't like to undertake any project unless I have a pretty good idea as to how it will turn out.

43. As long as a person votes every four years,he has done his duty as a citizen.

44. Sometimes I think of things too bad to talk about.

45. People often expect too much of me.

46. I would do almost anything on a dare.

47. With things going as they are, it's pretty hard to keep up hope of amounting something.

48. The idea of doing research appeals to me.

49. I take a rather serious attitude toward ethical and moral issues.

50. People today have forgotten how to feel properly ashamed of themselves.

51. I can be friendly with people who do things which I consider weong.

52. I have no dread of going into a room by myself where other people have alread gathered and are talking.

53. I get pretty discouraged sometimes.

54. The thought of being in an automobile accident is very frightening to me.

55. When in a group of people I have trouble thinking of the right things to talk about.

56. Sometimes I have the same dream over and over.

57. I dan't blame anyone for trying to grab all he can get in this world.

58. Planning one's activities in advance is very likely to take most of the fun out of like.

59. I was a slow learner in school.

60. I like poetry.

61. I am likely not to speak to people until they speak to me.

62. It takes a lot of argument to convince most people of the truth.

63. I wake up fresh and rested most mornings.

64. Most people make friends because friends are likely to be useful to them.

65. I wish I were not bothered by thoughts about sex.

66. I seldom or never have dicas dizzy spells.

67. It is all right to get around the law if you don't actually break it.

68. I gnjoy hearing lectures on world affairs.

69. Parents are much to easy on their children nowadays.

70. Most people will use somewhat unfair means to gain profit or an advantage rat than to lose it.

71. I have a tendency to give up easily when I meet difficult problems.

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72. I would like to wear expensive clothes.

73. I consider a matter from every standpoint before I make a decision.

74. I have strange and peculiar thoughts.

75. A person should adapt his ideas and his behavior to the group that happens to be with him at the time.

76. I have the wanderlust and am never happy unless I am roaming or traveling abou

77. I frequently have notice my hand shakes when I try to do something.

78. Every citizen should take the time to find out about national affairs even if it means giving up some personal pleasures.

79. My parents have often disapproved of my friends.

80. In ;school I always looked far ahead in planning what courses to take.

81. Teachers often expect too much work from the students.

82. I often act on the spur of the moment without stopping to think.

83. My way of doing things is apt to be misunderstood by others.

84. I am never make judgments about people until I am sure of the facts.

85. I commonly wonder what hidden reason another person may have for doing something nice for me.

86. I am certainly lacking in self-confidence.

87. Most people are secretly pleased when someone else gets into trouble.

88. My parents have generally let me make my own decisions.

89. I always tried to make the best school grades that I could.

90. I would rather go without something than ask for a favor.

91. Sometimes I feel as if I must injure either myself or someone else.

92. I have had more than my share of things to worry about.

93. I usually don't like to talk much unless I am with people I know very well.

94. I am quite often not in on the gossip and talk of the group I belong to.

95. Only a fool would ever vote to increase his own taxes.

96. When I meet a stranger I often think that he is better than I am.

97. I like to keep people guessing what I'm going to do next.

98. I would like to be a soldier.

99. If given the chance I would make a good leader of people.

100. I like to plan a home study schedule and then follow it.

101. I have often found people jealous of my good ideas, just because they had not thought of them first.

102. Sometimes at elections I vote for men about whom I know very little.

103. Most people are honest chiefly through fear of being caught.

104. It makes me angry when I hear of someone who has been wrongly prevented from voting.

105. I think I would like the work of a librarian.

106. Most people inwardly dislike putting themselves out to help other people.

107. I feel uneasy indoors.

108. People have a real duty to take care of their aged parents even if it means making some pretty big sacrifices.

109. I keep out of trouble at all costs.

110. I usually expect to succeed in things I do.

111. People pretend to care more about one another than they really do.

112. Most people worry too much about sex.

113. It is hard for me to find anything to talk about when I meet a new person.

114. Sometimes I feel that I am about to go to pieces.

115. A person does not need to worry about other people if only he looks after himself.

116. I am so touchy on some subjects that I can't talk about them.

117. [illegible] the second place.

118. I like to talk before groups of people.

119. [illegible]

120. If I were a reporter I would like very much to report news of the theater.

121. I sometimes feel that I am a burden to others.

122. When prices are high you can't blame a person for getting all he can while the getting is good.

123. I often feel as though I have done something wrong or wicked.

124. I usually feel that life is worthwhile.

125. We ought to let Europe get out of its own mess; it made its bed, let it lie in it.

126. I dread the thought of an earthquake.

127. I think most people would lie to get ahead.

128. I often lose my temper.

129. My parents were always very strict and stern with me.

130. I am bothered by people outside, on streetcars, in stores, etc., watching me.

131. I'm pretty sure I know how we can settle the international problems we face to[illegible]

132. Society owes a lot more to the business man and the manufacturer than it does t[illegible] the artist and the professor.

133. A large number of people are guilty of bad sexual conduct.

134. It is hard for me to act natural when I am with new people.

135. I refuse to play some games because I am not good at them.

136. I have never done anything dangerous for the thrill of it.

137. I think I would like to belong to a motorcycle club.

138. I feel that I have often been punished without cause.

139. I don't seem to care what happens to me.

140. Police cars should be especially marked so that you can always see th[illegible]

141. I have a great deal of stomach trouble.

142. I must admit I try to see what others think before I take a stand.

143. People should not have to pay taxes for the schools if they do not have [illegible]

144. When I was a child I didn't care to be a member of a crowd or gang.

145. I would be willing to describe myself as a pretty "strong" personality.

146. I have never done any heavy drinking.

147. When I am feeling very happy and active, someone who is blue or low will [illegible] it all.

148. It is annoying to listen to a lecturer who cannot seem to make up his mind [illegible] that he really believes.

149. I find it easy to "drop" or "break with" a friend.

150. Much of the time my head seems to hurt all over.

151. I [illegible]

152. My people treat me more like a child than a grownup.

153. I never make judgments about people until I am sure of the facts.

154. A person should not be expected to do anything for his community unless he is paid for it.

155. No one seems to understand me.

156. I dream frequently about things that are best kept to myself.

157. I think I am usually a leader in my group.

158. It is impossible for an honest man to get ahead in the world.

159. I don't think I like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.

160. It bothers me when something unexpected interrupts my daily routine.

161. The future seems hopeless to me.

162. Disobedience to any government is never justified.

163. I enjoy planning things, and deciding what each person should do.

164. I doubt if anyone is really happy.

165. I would rather not have very much responsibility for other people.

166. My mouth feels dry almost all the time.

167. Success is a matter of will power.

168. I usually have to stop and think before I act even in trifling matters.

169. Most people would be better off if they never went to school at all.

170. It is pretty easy for people to win arguments with me.

171. When I [illegible] tell that portion of the [illegible]

172. I have not lived the right kind of life.

173. Once I have my mind made up I seldom change it.

174. Life usually hands me a pretty raw deal.

175. Most young people get too much education.

176. I [illegible] people.

177. [illegible] consequences.

178. People often talk about me behind my back.

179. I would never play cards (poker) with a stranger.

180. I regard the right to speak my mind as very important.

181. I like to give orders and get things moving.

182. I get all the sympathy I should.

183. I don't think I'm quite as happy as others seem to be.

184. Any job is all right with me, so long as it pays well.

185. It often seems that my life has no meaning.

186. I don't really care whether people like me or dislike me.

187. I feel like giving up quickly when things go wrong.

188. If people had not had it in for me I would have been much more successful.

189. The one to whom I was most attached and whom I most admired as a child was a woman (mother, sister, aunt, or other woman).

190. Even the idea of giving a talk in public makes me afraid.

191. I am not afraid of picking up a disease or germs from doorknobs.

192. My skin seems to be unusually sensitive to touch.

193. If the pay was right I would like to travel with a circus or carnival.

194. I would have been more successful if people had given me a fair chance.

195. The members of my family were always very close to each other.

196. I have often been frightened in the middle of the night.

197. My parents never really understood me.

198. People seem naturally to turn to me when decisions have to be made.

199. I set a high standard for myself and I feel others should do the same.

200. I dislike to have to talk in front of a group of people.

201. I work under a great deal of tension.

202. A person is better off if he doesn't trust anyone.

203. It seems that people used to have more fun than they do now.

204. Even though I am sure I am in the right, I usually give in because it is foolish to cause trouble.

205. From time to time I like to get completely away from work and anything that reminds me of it.

206. I have a good appetite.

207. Some people esaggerate their troubles in order to get sympathy.

208. I always follow the rule; business before pleasure.

209. I gossip a little at times.

210. There are a few people who just cannot be trusted.

211. I sometimes pretend to know more than I really do.

212. Sometimes I feel like smashing things.

213. Sometimes I feel like swearing.

214. I like to boast about my achievements every now and then.

215. I must admit I often try to get my own way regardless of what others may want.

216. I must admit that I often do as little work as I can get by with.

217. I like to listen to symphony orchestra concerts on the radio.

218. I do not always tell the truth.

219. I always try to consider the other fellow's feelings before I do something.

220. I feel as good now as I ever have.

221. Criticism or scolding makes me very uncomfortable.

222. If I am not feeling well I am somewhat cross and grouchy.

223. I feel nervous if I have to meet a lot of people.

224. I do not mind taking orders and being told what to do.

225. The most important things to me are my duties to my job and to my fellowman.

226. When things go wrong I sometimes blame the other fellow.

227. Sometimes at elections I vote for men about whom I know very little.

228. I would like to belong to a discussion and study club.

229. I am apt to show off in someway if I get the chance.

230. Sometimes I just can't seem to get going.

231. I must admit that I have a bad temper, once I get angry.

232. Ihave never deliberately told a lie.

233. There have been a few times when I have been very mean to another person.

234. At times I have been very anxious to get away from my family.

235. Sometimes I rather enjoy going against the rules and doing things I'm not supposed to.

236. There have been times when I have worried a lot about something that was not really important.

237. Every now and then I get into a bad mood, and no one can do anything to please me.

* * * * *

Appendix 5

Code #_____

Sex_____ Height_____ Weight_____

Date of Birth:_____Place of Birth:_____

Personal Data:

1. Occupational Goal:_____

2. Grade Point Average Overall:_____

3. Job History:

Your Title	Type of Business	Length of Time Worked	Hours/Week
1)			
2)			
3)			
4)			

4. Hobbies_____

5. Clubs Belong To:_____

Offices Held:_____

6. Living At Home_____Own Apartment_____Roommate_____

Family Data:

Father Living____ Deceased____ (if deceased give date)_____

Mother Living____ Deceased____ (if deceased give date)_____

Father's or Guardian's Occupation_____

Mother's Occupation_____

Give sex and ages of all other siblings
(example F=23 yrs., M=20 yrs., etc.)

_____ _____

_____

Appendix 6

Interview After Interaction

Code #_____

1. Please rate your behavior in this situation by placing a check over the line that most closely corresponds to your perception:

quiet	___ ___ ___ ___ ___ ___ ___	talkative
uncomfortable	___ ___ ___ ___ ___ ___ ___	comfortable
persuasive	___ ___ ___ ___ ___ ___ ___	unpersuasive
submissive	___ ___ ___ ___ ___ ___ ___	dominant

2. Was this behavior characteristic of you? If you were different in this situation, how were you different? In what ways?

3. Please rate your partner's behavior in this situation:

quiet	___ ___ ___ ___ ___ ___ ___	talkative
uncomfortable	___ ___ ___ ___ ___ ___ ___	comfortable
persuasive	___ ___ ___ ___ ___ ___ ___	unpersuasive
submissive	___ ___ ___ ___ ___ ___ ___	dominant

4. How involved did you feel in the issues? Which particular issues were involving?

5. What did you think the purpose of this discussion was? What did you try to do?

6. How important was it to convince the other person of the soundness of your judgment?

7. How successful were you in changing his opinion?

rarely successful	___ ___ ___ ___ ___ ___ ___	most often successful

8. Were you able to communicate everything that you wanted to in this discussion?

9. Would you participate in a similar discussion again?

Appendix 7

E'S IMPRESSION OF
INTERACTION SITUATION

Subject #1 Code: _____ Subject #2 Code: _____

Neat	1.		1.	Sloppy
Attractive	2.		2.	Unattractive
Inarticulate	3.		3.	Fluent Speech
Blocking	4.		4.	Free Association of Ideas
Calm and Relaxed	5.		5.	Fidgeting
Looked at other S	6.		6.	Looked Down
Speaks Softly	7.		7.	Speaks Loudly
Speaks Slowly	8.		7.	Speaks Rapidly
Speaks Often	9.		9.	Speaks Rarely
Directs Conversation	10.		10.	Follows Other's Lead

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