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Variations in verbal and non-verbal message systems as a function of deviance attribution in small groups.

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VARIATIONS IN VERBAL AND NON-VERBAL
MESSAGE SYSTEMS AS A FUNCTION
OF DEVIANCE ATTRIBUTION
IN SMALL GROUPS

by

Donald D. Grant
B.A. (Hons.), University of Windsor, 1971

A Thesis
Submitted to the Faculty of Graduate Studies
through the Department of Psychology in Partial
Fulfillment of the Requirements for
the Degree of Master of Arts at
the University of Windsor

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1972
ABSTRACT

Twelve 3-man groups were randomly assigned to either an experimental (9 groups) or a control condition (3 groups). In the experimental group, two members were told that the third was an epileptic. All groups were video-taped during a 15-minute discussion and afterwards each subject filled out forms rating each other on influence and providing a measure of the perception of communicational conflict. A variety of verbal and non-verbal communicative behaviors were scored and the results supported three hypotheses:

(1) Subjects sat farther from deviants than controls and talked less to the deviant than the other group member. This practice served to isolate the deviant.

(2) A conflict existed between the negative non-verbal messages and the positive verbal messages directed to the deviant. This conflict placed the deviant in a "double-bind".

(3) The deviant member did not become the "alpha person" in the group even though he defined a social dominance layer via large territorial movements, talked more and was rated as more "active" and "contributing" by external judges.

Additionally, it was found that naive external judges could accurately identify the deviant group member in a triad of strangers. The results are discussed with reference to a deviance-amplification model of interpersonal communication.
PREFACE

The author wishes to express his particular gratitude to the Chairman of his thesis committee, Dr. J.A. Malone, friend and mentor, for his invaluable advice and comments on all aspects of the study. The author is also indebted to the other members of his committee, Meyer W. Starr for his help in solving some rather thorny methodological and statistical problems, and Dr. C.P. Crowley who devoted his valuable time to provide a variety of constructive comments. Additionally, thanks are due to John Gray for his technical assistance, and to Roger Thibert, Dana Kacinskas and Rosemary Carter for their assistance as tape scorers and judges. Finally, the author wishes to express his thanks to those students whose voluntary participation as subjects made this study possible.
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CHAPTER I
INTRODUCTION

The general purpose of this study is to examine the effect of a stigmatizing condition, the attribution of deviance, on several measures of verbal and non-verbal communication. More specifically, the experiment focuses on the process whereby the application of a label is reflected in the communicative behaviors of the individuals interacting in a small group. Thus, an attempt is made to integrate two major areas of social theory: the sociological theory of deviance; and social-psychological communication theory.

The latter body of theory provides the frame of reference of the study and is perhaps best expressed by Birdwhistell (1959, p.109):

Communication as a system, then, is not to be understood on a simple model of action and reaction, however complexly stated. As a system, it is to be comprehended on the transactional level.

Such a viewpoint is reflected in the operationalization of the variables of interest (e.g. chair distance), all of which have meaning only when seen in their interactional context. Moreover, the meaning of these behaviors, both verbal and non-verbal, can only be inferred by the observer on the basis of their pragmatic effect on the ongoing interaction. One major implication of this approach is that the reader must revise his notions of causality. As Watzlawick, Beavin and Jackson (1967, p.46) have stated,

while in linear, progressive chains of causality it is meaningful to speak about the beginning and end of a
chain, these terms are meaningless in systems with feedback loops. There is no beginning and no end to a circle.

An interaction, then, must be seen as a process, the "beginnings" and "ends" of which are, to a large extent, convenient ways to punctuate the sequence for purposes of study. This point is clearly illustrated in the following sections which review the literature relating to deviance, verbal and non-verbal communication, double-bind theory and territoriality.

Deviance

A variety of terms have been used by social scientists to indicate variance from group norms, such as "abnormality", "pathology", "deviance", and "social pathology". Linde smith and Strauss (1968) have indicated that recent work in the area has been characterized by two divergent theoretical positions. The position advocated by Robert Merton, Albert K. Cohen and Robert Dubin has been called the functionalist, or social systems approach. The other approach, called the social psychological position, is represented by the viewpoint of Lindesmith and Strauss (1968) and emphasizes the behavior of individuals as the focus of attention.

This approach is consistent with Goffman's (1963, p.140) definition of deviance:

Starting with the very general notion of a group of individuals who share some values and adhere to a set of social norms regarding conduct and regarding personal attributes, one can refer to any individual member who does not adhere to the norms as a deviator, and to his peculiarity as a deviation.

The definition, it must be noted, makes no distinction between those
who are deviant by election (e.g. homosexuals) and those who bear some physical stigma (e.g. amputees). The present study has adopted Goffman's definition of the deviator.

Lindesmith and Strauss (1969) have pointed out that,

Deviant behavior is not identical with disorganized or maladaptive behavior. People and behavior are inherently neither deviant nor non-deviant, but come to be labeled one way or another by virtue of the reactions of others. (p.342)

and they conclude,

Deviance, then, is a complex and pervasive phenomenon and occurs throughout the whole range of human relationships. (p.342)

Given that such deviation is characterized by some form of verbal labelling and that its occurrence is so pervasive in our society, it would seem logical to expect the labelling process to involve, in some way, non-verbal signals as well as the actual label. Wilkins (1968) implies as much in his model of deviance amplification. He hypothesizes an escalating process of isolation which is initiated by the application of a deviant label to one individual in interaction with others. The very act of definition, whether the deviator is immediately aware of it or not, serves to isolate him from the parent system. The individual then comes to perceive himself as a deviator via feedback from other persons. Such perception and acceptance of the label then leads to further isolation and alienation of the deviant. The process subsequently continues to escalate with the formation of deviant groups. The banding together of isolated deviants is perceived by the parent system as an even greater deviation, which brings about further isolation (e.g. laws). Thus, the process continues in an amplifying circuit. Clearly, then, as Becker (1964, p.2) has pointed out, deviance is "an interactive process
involving both deviants and non-deviants".

Of central importance in Wilkin's model is the concept of feedback. Its presence in the system changes the nature of the system from one where unidirectional causality exists to one where it does not. Magoroh Maruyama, as cited in Wilkins (1964, p.91) states,

"The law of causality may now be revised to state A SMALL INITIAL DEVIATION WHICH IS WITHIN THE RANGE OF HIGH PROBABILITY MAY DEVELOP INTO A DEVIATION OF A VERY LOW PROBABILITY or (more precisely) into a deviation which is very improbable within the framework of probabilistic unidirectional causality."

Therefore, in feedback systems it is possible for a seemingly trivial event (high probability) to result in consequences which are grossly out of proportion (low probability) when compared with the initial event.

The primary concern of the present study is with the initial interaction between the deviant and the non-deviant following the attribution of deviance via some label. How is the deviator isolated from the parent system? It would seem naive to assume that such isolation is achieved only on a verbal level. In fact, since isolation is a relationship state and, as will be pointed out in the next section, the language of relationships is essentially non-verbal, it is more likely that isolating messages will be non-verbal in nature.

The evidence in the literature which bears on this problem, though scant, is fairly consistent. When interacting with individuals stigmatized by physical disability, the physically normal person usually reports feelings of discomfort and uncertainty (Davis, 1961; Richardson, Hastorf, Goodman, & Dornbusch, 1961; Kleck, 1966) and will terminate the interaction sooner than similar interactions with normals (Kleck, Ono, & Hastorf, 1966). These avoidance responses, when perceived by the devia-
tor, would probably serve to isolate him from the other communicants.

A more specific description of how such isolating messages are transmitted behaviorally is found in two experiments reported by Kleck, Buck, Goller, London, Pfeiffer, and Vukcevic (1968). In an attempt to relate deviance to measures of personal space in small groups, Kleck and his associates found that individuals employed a greater interaction distance with those they believed to be epileptic than with those they did not. In the first experiment, the subjects completed a Levinger figure-placement task in which they were required to place a figure representing "self" in any position on a prepared sheet. In the center of the page a printed rectangle was located which was described by the experimenter as a specific category of person (e.g. good friend, epileptic, etc.). In all, nine categories were used. It was found that the figure representing "self" was placed at significantly greater distances from stigmatized persons than from affectively positive persons. Moreover, it was found that those stigmatized figures with no external physical signs (epileptic, mental patient) were placed further from "self" than the physically stigmatized (e.g. amputee).

In the second experiment the authors sought to establish whether or not the results of the figure placement task would be replicated in a face-to-face interaction. Following a pre-experimental briefing during which it was casually mentioned that a confederate with whom the subject would interact was epileptic, S was asked to take his chair into the experimental room and sit wherever he wished. The results confirmed the hypothesis that Ss in the epilepsy condition would sit further away from a confederate than control Ss. An additional hypothesis that Ss in the epilepsy condition would maintain less eye contact with the confederate
than Ss in the control condition was not supported.

Another study, by Meisels and Canter (1970), also sought to estab-
lish a relationship between interaction distance and deviance. Scores
on three subscales of the MMPI and a score measuring "subjectively felt"
deviancy were obtained for 96 undergraduate females. Sometime later the
Ss were asked to take part in an interaction study. They were required
to choose a seat from a variety of chairs placed at different distances
from a confederate. The authors found no significant correlation between
interpersonal distance and deviancy.

While Meisels and Canter interpreted their findings in a way which
is antagonistic to the conclusions of Kleck et al. (1968) there is one
major methodological dissimilarity which would indicate that the Meisels
and Canter results are not particularly relevant. Essentially, the mea-
sures of interpersonal distance are not the same since in the Kleck
study it is the behavior of the non-deviant which is measured and in the
Meisels and Canter experiment the distance measure is that used by the
deviant. The notion that a person will maintain greater distance from a
deviant does not necessarily imply that a deviant will maintain greater
distance from a non-deviant. If anything, Wilkins (1968) leads us to be-
lieve that a deviant, isolated in this behavioral way, may attempt to
overcome his isolation by moving closer. Such a tactic is known as de-
viance disavowal (Davis, 1961). Sommer (1969) noted it in a study where
schizophrenics sat either farther away or closer than non-schizophrenics,
indicating either complete withdrawal or a possible attempt at deviance
disavowal, respectively. It would, therefore, seem that the strongest
evidence suggests that there is a relationship between interpersonal
distance and deviance when the measure of interpersonal distance is
based on the position chosen by the non-deviant in his relationship with the deviant.

**Messages: Verbal and Non-verbal Communication**

Two of the six "critical areas of knowledge about interpersonal communication" (Barnlund, 1968) are verbal and non-verbal behaviors. As regards the former, Barnlund has indicated that a systematic analysis of the many types of messages has yet to be completed. Non-verbal communication, however, as Duncan (1968) points out, is a relatively new area of inquiry, dating from the 1950's. For that reason, perhaps, research in the field has tended to be more systematic. He identified two broad research strategies by which most of the available literature can be classified: (a) the structuralist approach, which uses a linguistic model and is exemplified by the works of Trager, Hall and Birdwhistell; and (b) the external variable approach, which seeks to establish statistical relationships between non-verbal behaviors and is represented by the work of Ekman and Friesen. The latter approach is characterized by the rigorous manipulation of isolated, unitary variables, often implying some form of cause-effect relationship. Bearing in mind the previously cited comments of Birdwhistell and Watzlawick et al., there is some doubt as to whether or not the external variable approach can be used to study an ongoing interaction as adequately as the structuralist strategy.

It is in the structuralist work that a valuable explanation of the relationship between the verbal and non-verbal forms of communication is found. A given message is conceived of as a complex interaction of verbal and non-verbal forms of expression. Simply stated, the verbal part of a message is defined as the spoken words as they might appear
in a written transcript. All other behaviors such as tone of voice, inflection, duration of pronunciation, facial expression, eye contact, and body movements fall into the category of non-verbal communication. Watzlawick, Beavin and Jackson (1967), following Ruesch and Bateson (1951), have indicated that the verbal part of a message corresponds to the content or report aspects of the message which convey information. Likewise, the non-verbal parts of a message may be referred to as the command aspects since they serve to define the nature of the relationship between the interactants. Thus, the content of the message conveys information and the command aspect refers to how the message is to be taken, "ultimately to the relationship between communicants" (Watzlawick et al., 1967, p.52). Essentially, then, the non-verbal forms of communication constitute the language of relationship and if a state of relationship, such as isolation, is to be defined in an interaction it will occur primarily on the non-verbal level. The next two sections deal with the major non-verbal forms of communication germane to the present study.

Personal Territory

Hall (1959), in his analysis of culture, developed ten Primary Message Systems, each of which he indicated was (a) deeply rooted in a widely shared continuum of biological activity; (b) capable of analysis in its own right; and, (c) reflected in and was reflected by the rest of culture. Territoriality as one of the Primary Message Systems and a form of non-verbal communication, fulfills all three criteria (Ardry, 1966; Sommer, 1969) and is defined by Hall (1959) as the

...technical term used by the ethologist to describe the taking possession, use, and defense of a territory on the part of living organism. (p.51)
Related to territory, but distinct from it, is personal space which Sommer (1969) defines as

...an area with invisible boundaries surrounding a person's body into which intruders may not come. (p.26)

While territoriality is conceived of as relatively fixed in some geographical sense (Hall, 1966), personal space is carried with the individual and surrounds him like a bubble (Little, 1965).

Fehrenbach (1971), in a study of territorial movements as related to dominance in small groups, integrated the concepts of territoriality and personal space and defined "personal territory" as

...that territory which is personalized by an occupant, marked in some visible way, movable and temporary. (p.9)

Such a personal territory is neither fixed nor is it a constant envelope around the individual. Rather, it is irregular and may be marked out by the placement of personal belongings, the physical posture of the person, or momentary visual markers such as body movements. Moreover, the body movements have been found, by a number of investigators (Ekman, 1965; Ekman & Friesen, 1967, 1968; Schefflen, 1964), to be significant non-verbal cues to affective states.

In the present experiment two types of territorial movements, adapted from Fehrenbach (1971), were identified. Small territorial movements are arm, leg or body movements which slightly increase the territory a person occupies for a short period of time. Large territorial movements are those arm, leg or body movements which greatly increase the territory a person occupies for a short period of time. Fehrenbach noted that large territorial movements served to define a "social dominance" layer surrounding the individual, which was found to be related to dominance or leader-
ship.

The Alpha Person

The "alpha person" is defined as that individual within the group who is judged to be the highest ranking member on some scale of dominance, influence or leadership. Such a member usually defines, via large territorial movements, a social dominance layer. Additionally, Fehrenbach (1971) found that three other types of measures adequately defined the alpha person. Such an individual spent more time talking than other group members, was judged highest on a group influence scale by other group members, and had significantly higher scores on four scales as determined by external judges. The four scales were as follows: Does-not-contribute-to-group - Contributes-to-group (NC-C); Submissive-Dominant (S-D); Passive-Active (P-A); and, Weak - Strong (W-S). Normally, one would expect a certain consistency between the behavioral index and the several ratings as regards the degree to which an individual is alpha. A marked disparity among these measures would seem to indicate the operation of some mediating factor.

Social dominance, then, is a relationship state which is primarily achieved via non-verbal behaviors. In order to more fully explain the importance of the non-verbal forms of communication in an interaction, the following section presents a discussion of double-bind theory.

Double-Bind

The pragmatic importance of the interaction of the content and relationship aspects in communication was first noted by Bateson, Jackson, Haly and Weakland (1956) in their formulation of the double-bind hypothesis. Essentially, the ingredients of the double-bind situation are
as follows: (a) two or more persons are interacting, of which one is identified as victim; (b) there is repeated experience over time; (c) a primary injunction is given which is negative, such as, "If you do so and so, I will punish you."; (d) a secondary negative injunction is given, conflicting with the first but at a higher level of abstraction and with negative implications for survival; and, (e) a tertiary injunction is present preventing the victim from escaping the field.

Subsequently, Watzlawick et al. (1967) modified and expanded the situational characteristics in the following way: (a) two or more persons are involved in an intense relationship which has physical and/or psychological survival value; (b) a message is given which asserts something, asserts something about its own assertion and the two assertions are mutually exclusive; (c) the victim cannot withdraw from the situation or metacommunicate (i.e. comment) about the message. The victim therefore finds himself in a pragmatic paradox. The authors maintained that continued double-bind experience would result in the development of a schizophrenic family system characterized by the display of schizophrenic symptoms by one member of the family, usually the victim or child.

In a review of some of the attempts to validate the double-bind hypothesis empirically, Schuham (1967) noted that only five studies fall into the category of controlled investigation (Berger, 1965; Ciotola, 1961; Loeff, 1966; Potash, 1965; Ringuette & Kennedy, 1966). Schuham concluded that no support was found for the hypothesis that schizophrenics could be differentiated from normals on the basis of double-bind experience.

A more recent study (Yeomans, Clark, Cockett, & Gee, 1970) agreed with Schuham's (1967) evaluation of the evidence cited, except that the
investigators found five items on Berger's (1965) double-bind questionnaire which did differentiate between schizophrenics and normals. In their own study, Yeomans et al. (1970) constructed a Conflicting Communication Scale (CCS). The scale was administered to samples of psychiatric patients, of mixed diagnosis, and normals. The results indicated that there was a relationship between conflicting communications (i.e. instances in which one aspect of a message negated another) and psychopathology. The authors state,

People who communicate contradictory injunctions may be described as binders. It is suggested that being caught in interactions with binders constitutes an unstable ground for personality development and behavior, and that it leads to the confused identity and disturbances of feeling, thought and action typical of psychiatric illness. (p.275)

Additional support for the theory has been found for mother-child relationships (Bugental, Love, Kaswan, & Aprii, 1970; Bugental, Kaswan, & Love, 1970) and indirect support in studies where schizophrenics were unable to detect emotions from photographs (Vandenburg, 1960), tones of voice (Davitz, 1964), and posture of stick figures (Sarbin & Hardvck, 1953). The last three studies are deemed supportive since one would expect an inability to interpret non-verbal messages on the part of an individual for whom the meaning of every message is uncertain. In effect, the schizophrenic, due to continued exposure to double-binds, cannot understand the language of relationships.

The question then arises as to how an instrument such as the CCS can be of value in measuring the perception of normals. Yeomans et al. (1970) found that the scale appeared to be accurate for the sample of normals they studied. They base this conclusion on the evidence provided by a validating lie scale which was administered with the test.
The scores on the lie scale indicated that the subjects were accurate in their reports on other matters, therefore, the authors reasoned, their responses on the CCS were accurate. The scale was administered on two occasions. Means and standard deviations were 30.4 ± 9.1, N=36 and 29.1 ± 6.9, N=61. The short form of the scale (9 items) contained those items from the larger scale that had at least a correlation of 0.65 with the total score. As administered by Yeomans et al., the scale differentiated between those who had a history of interactions characterized by conflicting communications (i.e. double-binds) and those who did not. Therefore, if the scale was adapted to make it specific to a given interaction, it seems probable that those respondents who found themselves in a double-bind in that situation would score higher than interactants who had not been in the double-bind. More simply stated, an adapted version of the scale could indicate whether or not a normal person perceived that he had been in a double-bind during a specific conversation.

Statement of Problem and Hypotheses

Previous studies have indicated that a person designated as deviant will be kept at a greater distance from subjects than will controls. Such findings support Wilkin's (1968) theory of deviance which emphasizes the process of isolation that occurs following the attribution of deviance. The isolation of the deviant is most probably achieved via non-verbal messages which alienate him from the parent system. Forms of non-verbal behavior where this should be evident include territoriality and factors determinant of group leadership (alpha). Moreover, the constraints to interact in a given situation coupled with non-verbal isolating messages may constitute a double-bind which Watzlawick et al. (1967)
have hypothesized will exist in the case where verbal and non-verbal aspects of a message are in conflict. The CCS has been found by Yeomans et al. (1970) to be a fairly reliable indicator of the perception by an individual of such conflicting communications.

This line of reasoning suggested that the attribution of deviance would result in specific variations in the verbal and non-verbal message systems in a small group. Specifically, three hypotheses were formulated:

1. A labelled deviant will be defined, behaviorally, by the other members of a group, by non-verbal isolating messages.
2. The verbal and non-verbal messages within a group will interact to place the deviant member in a double-bind, characterized by verbal messages of acceptance and non-verbal messages of isolation or rejection.
3. A labelled deviant will not become the alpha member of a group even though he establishes an explicit social dominance layer via the use of large territorial movements.

In order to validate hypothesis (1), the following relationships would have to be present:

(a) Subjects will sit farther away from a deviant than from a control.
(b) Each non-deviant subject will spend less time talking to the deviant than to the other group member.
(c) The two non-deviant group members will form a dyad facing each other which will exclude the deviant.

For hypothesis (2) to be validated the relationships (a), (b) and (c) must obtain and additionally the following two:

(d) The content of the individual statements directed to the deviant will be of a nature that invites participation and indicates acceptance.
(e) The deviant member will score higher on the CCS than either the
other members of his group or the control members.

The following relationship must be found to validate hypothesis (3):
(f) The deviant will not be judged, by the other group members, as the alpha person, even though he defines an explicit social dominance layer via large territorial movements and is judged as such on the external scales.
CHAPTER II

METHOD

Subjects

The subjects were 36 white, male undergraduate students attending the University of Windsor. They were randomly assigned to twelve groups of three males, with the proviso that no one group member was acquainted with the other two members. Two undergraduate female students from the University of Windsor served as judges.

Apparatus

All the group discussions took place in a small "taping" room (14 x 20 ft.) within a square measuring eight feet on a side. The square was situated in one corner of the room and the other two sides were bounded by an adhesive tape perimeter laid on the floor. Three armless chairs were stacked to one side of the square. A long narrow table was placed against the opposite wall with three additional chairs. All sessions were recorded using a Sony video-taping system (Sony Video Camera DXC-200A, a 12.5 mm Cosmicar television lens, a Sony Solid-State Videocorder AV-3650 using a Sony Solid-State Transistor Video Monitor CVM-110VA). Audio input to the system was achieved using a Miniature FM transmitter unit, Superior Model AT-99 and a Biotelemetry Receiver supplied by E&M Instrument Co., Houston, Model FM 1100-6. The camera was positioned in plain view approximately ten feet from the subjects.
Procedure

The experimenter randomly assigned 9 groups to the experimental condition and 3 groups to the control condition. It was felt that the 3 groups provided an adequate control sample since each member of those groups could be considered as a control on the deviant members of the experimental groups. Thus, the 9 deviant subjects were balanced with 9 control subjects (3 groups of 3 members).

Each group was assembled in the taping room and asked to take a seat at the long table. Subjects were told by E that the major purpose of the study was to examine communication in small groups using videotape recording equipment. A mimeographed "Opinion Questionnaire" (see Appendix I), adapted from Wallach and Kogan (1964, p.256), containing three situations was then given to each subject and E requested that each read the form and follow the printed instructions.

While Ss were completing the Opinion Questionnaire, E asked each in turn to step outside the room in order to provide some necessary background information. The first S to be interviewed in each group was chosen at random. It was explained to each S that certain physiological measurements would be taken after the group discussion and that the instruments used were highly sensitive electronic devices. For purposes of calibration, it was indicated that E had to know if S had any medical disability which he thought might bias the readings. During the interchange, it was casually mentioned that the first S interviewed was either an epileptic (deviant) or had no serious medical condition (control). The first S interviewed in the experimental (deviant) condition was given the same information as the control Ss and did not know that he had been labelled as epileptic.
When all Ss had been interviewed and completed the Opinion Questionnaire, they were asked to take one of the stacked chairs and sit within the taped square. It was explained that the taped boundaries were there for technical reasons (i.e. camera angle). The group was then told that they would have 15 minutes to discuss all three situations on the Opinion Questionnaire and were asked to arrive at a consensus probability level for each one. In the event that a consensus was reached for all three situations before the time expired, Ss were told to discuss any topic they wished. The experimenter left the room during the discussion and observed the interaction on the video monitor.

Following the discussion, E returned to the taping room and inquired if the group had reached a consensus for each situation. Each S was then instructed to indicate the probability level he then felt appropriate for each case. Next, Ss were asked to complete a "Discussion Questionnaire" (see Appendix II), consisting of two parts: Part A, adapted from Fehrenbach (1971) provided a Group Influence Score (GIS) for each S; and, Part B, adapted from Yeomans et al. (1970), the short form of the CCS, provided an index of agreement between verbal and non-verbal communications. The CCS had been adapted to refer specifically to the interaction in which S had just participated.

Once the questionnaire had been completed, a debriefing was held. The subjects were informed of the actual purpose of the experiment and the deceptive labelling was explained. Questions were answered, during which time E ascertained whether any member had been aware of the deception. Following this, the group was allowed to watch their video-tape if they wished. While Ss were viewing the tape, E returned to the taping room and measured the distance in inches from the center of each chair to
the center of each of the other two seats.

Judging

Having read the Opinion Questionnaire, the individual judges were told that the groups had completed a 15 minute discussion during which they had reached a consensus regarding the chance levels for each situation. Each judge was asked to rate each subject on four 8-point scales: (a) Does-Not-Contribute-to-Group - Contributes-to-Group (NC-C); (b) Submissive - Dominant (S-D); (c) Passive - Active (P-A); and, (d) Weak - Strong (W-S). Judges were instructed to rate each subject within each group and not to make across-group comparisons.

The judges first viewed the tapes without filling out the scales, but keeping them in mind. On the second viewing, the judges were asked to record their ratings. Next, each judge was told that two of the members of the group had been told that the other member was a deviant. The experimenter then instructed the judges to view the tapes a third time and to score the individuals on an 8-point scale of Not Deviant-Deviant (ND-D). Ratings were collected for subjects in both experimental and control groups.

Measurement and Scoring

The experimenter recorded the distance between chairs in inches, noting the chair which was occupied by the deviant member. A stopwatch was used to determine the total time spent talking by each subject to each of the other two members of his triad. For comments directed to both members, or in cases where the direction of statements could not be ascertained, the time for that comment was evenly divided between the other two participants. Body position referred to the period of time
during which a subject "faced" either of the other members of his group. By "faced" is meant a situation in which the position of the body is such that a line drawn at right angles to the center of the plane of the chest intersects the torso of another member. These times were entered in a direction matrix.

A content analysis (CA) was done on each statement directed to the deviant and was scored as to whether or not it invited him to participate in the discussion and implied acceptance. Messages of rejection were scored as \(-1\), neutral messages as 0, and positive messages were scored as \(+1\). A mean score was computed to yield an invariant index of invited participation, ranging from \(-1\) to \(+1\). The score on the CCS was calculated by adding together the numerical ratings on nine items, yielding a score which could range from 9 to 45.

The GIS for each subject consisted of the total of the three individual member ratings. Thus, the GIS could range from a low of 3 to a high of 18. The territorial movements were classified into the categories in Table 1. Each movement was assigned a value of 1 point and a total score was computed for large and small movements for each group member. Likewise, the number of self-defining movements (SDM) were calculated. These were defined as movements either directed to the self or those characterized by a movement from a state of rest to some part of the body and back to a state of rest, such as touching the face. The scores of the two judges on the first four scales (NC-C; S-D; P-A; W-S) were combined to yield a measure of "judged social dominance", ranging from a possible low of 4 to a possible high of 32. The combination of the judges' ratings on the fifth scale (ND-D) constituted a measure of "judged deviance" with minimum and maximum possible values of 2 and 16.
respectivey.

TABLE 1

TERRITORIAL MOVEMENTS

<table>
<thead>
<tr>
<th></th>
<th>Small</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm</td>
<td>Movement of one or both arms but the upper arm does not leave contact with the body.</td>
<td>Movements of both arms together if they leave contact of body or one arm fully extended.</td>
</tr>
<tr>
<td>Leg</td>
<td>Movements of one leg not fully extended or both legs in unison but not fully extended.</td>
<td>Movements of one or both legs fully extended.</td>
</tr>
<tr>
<td>Body</td>
<td>Complete body shift to a new position or an upper body lean without an arm movement.</td>
<td>Complete body shift through approximately 45 degrees or more in any direction.</td>
</tr>
</tbody>
</table>

The procedures in this section yielded the variables listed in Table 2.

Calculations and Expectancies

In order to allow subjects as much freedom of behavior as possible, there were practically no constraints placed on the interaction. This practice yielded measures of various types. Wherever possible, parametric tests (t-test, one-way analysis of variance, etc.) were employed. The available data, however, did not always meet the requirements of such tests and it was therefore necessary to make use of certain non-parametric tests (Siegel, 1956). An $\alpha$ level of .05 was required for significance in all comparisons. Table 3 presents a summary of the analyses in the order in which they are reported in Chapter III. The
# TABLE 2

**LIST OF VARIABLES**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chair Distance</td>
<td>(CD)</td>
</tr>
<tr>
<td>2. Time Talking</td>
<td>(TT)</td>
</tr>
<tr>
<td>3. Body Position</td>
<td>(BP)</td>
</tr>
<tr>
<td>4. Content Analysis</td>
<td>(CA)</td>
</tr>
<tr>
<td>5. Conflicting Communication Scale</td>
<td>(CCS)</td>
</tr>
<tr>
<td>6. Group Influence Score</td>
<td>(GIS)</td>
</tr>
<tr>
<td>7. Total Territorial Movements</td>
<td>(TTM)</td>
</tr>
<tr>
<td>8. Large Territorial Movements</td>
<td>(LTM)</td>
</tr>
<tr>
<td>9. Small Territorial Movements</td>
<td>(STM)</td>
</tr>
<tr>
<td>10. Self-Defining Movements</td>
<td>(SDM)</td>
</tr>
<tr>
<td>11. Judges' Scales:</td>
<td></td>
</tr>
<tr>
<td>a. Does-not-contribute</td>
<td>Contributes</td>
</tr>
<tr>
<td>b. Submissive</td>
<td>Dominant</td>
</tr>
<tr>
<td>c. Passive</td>
<td>Active</td>
</tr>
<tr>
<td>d. Weak</td>
<td>Strong</td>
</tr>
<tr>
<td>e. Not-Deviant</td>
<td>Deviant</td>
</tr>
</tbody>
</table>
hypothetical expectancies of relationships have been indicated in Ch.I, pp.14-15, supra. Raw data can be found in the following appendices: CD and TT scores (Appendix III); BP and CA scores (Appendix IV); CCS, GIS and Movement scores (Appendix V); and, Subject Scale Scores are in Appendix VI.
<table>
<thead>
<tr>
<th>Prediction</th>
<th>Subjects</th>
<th>Measurement</th>
<th>Statistical Test</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.(a) Ss will sit farther away from a deviant than a control.</td>
<td>9 deviant triads; 3 control triads.</td>
<td>Mean distance between triad members.</td>
<td>One-tailed t-test of difference between means for independent samples (Ferguson, 1966, p.165)</td>
<td>$H_1$: The distance is greater in deviant triads. ($\alpha = .05$)</td>
</tr>
<tr>
<td>1.(b) Non-deviant will talk less to deviant than other member.</td>
<td>18 non-deviants from deviant triads.</td>
<td>Time spent talking to deviant and non-deviant group mates.</td>
<td>One-tailed t-test of the significance of differences between means for correlated samples (Ferguson, 1966, p.169)</td>
<td>$H_1$: The mean for deviants is smaller than the mean for non-deviants. ($\alpha = .05$)</td>
</tr>
<tr>
<td>1.(c) Dyad of non-deviants will exclude deviant.</td>
<td>9 deviant triads (Within triad)</td>
<td>Frequency of dyad formation by non-deviants.</td>
<td>Binomial test of observed frequencies. (Siegel, 1956, p.36)</td>
<td>$H_1$: Proportion of dyads to non-dyads is greater than would normally be expected. ($\alpha = .05$)</td>
</tr>
<tr>
<td>Prediction</td>
<td>Subjects</td>
<td>Measurement</td>
<td>Statistical Tests</td>
<td>Hypotheses</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------</td>
<td>---------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2.(d) Verbal messages invite deviant's participation.</td>
<td>9 non-deviants</td>
<td>CA index</td>
<td>One-tailed t-test of the difference between means for independent samples.</td>
<td>H₁: CA scores will be higher for deviants. ( (\alpha = .05) )</td>
</tr>
<tr>
<td></td>
<td>9 controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Between triads)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.(e) Deviants will score higher on the CCS than controls or non-deviants</td>
<td>9 deviants; 18 non-deviants; 9 controls</td>
<td>Total score on the CCS</td>
<td>Single-factor ANOVA for unequal sample sizes. ( (\text{Winer, 1962, p.96}) )</td>
<td>H₁: CCS scores are higher for deviants than non-deviants or controls. ( (\alpha = .05) )</td>
</tr>
<tr>
<td></td>
<td>(Within &amp; Between triads)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.(f) The deviant will not be judged alpha.</td>
<td>9 deviants; 18 non-deviants</td>
<td>Total of 2 GIS scores of other members.</td>
<td>One-tailed t-test of the significance of difference between means for independent samples.</td>
<td>H₁: Score for deviants will be lower than score for non-deviant ( (\alpha = .05) )</td>
</tr>
<tr>
<td></td>
<td>(Within triads)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naive judges will discriminate deviants.</td>
<td>9 deviants; 18 non-deviants; 9 controls</td>
<td>Ratings on five different scales.</td>
<td>Single-factor ANOVA for unequal Ns for each judge on each scale.</td>
<td>H₁: Deviants as a group will be rated differently on all scales. ( (\alpha = .05) )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER III

RESULTS

The attribution of epilepsy to the "deviant" subject in the experimental condition was deemed a success since it did not lead any of the non-deviant subjects to become suspicious of the deception. One S indicated that he wondered why E would divulge such information about another participant, but he also indicated that he did not doubt that the statement was true. Subjects' reactions when informed of the deceptive labelling were favorable in that no one found it objectionable and all seemed interested in and eager to discuss the study. Following are the results of the individual analyses for each hypothesis as indicated in the summary Tables 3 and 4.

The data relevant to the analysis of mean seating distances, time spent talking by non-deviants, formation of non-deviant dyads, and chair position of deviants in the triads are presented in Tables 5, 6, 7, and 8, respectively.

In order to support the first major hypothesis, it was expected that Ss would maintain a greater interaction distance when in a discussion with a deviant than when interacting with a control [hypothesis (1a)]. Mean interaction distances for the two groups were calculated and subjected to a one-tailed t-test of the significance of the differences between means for independent samples (Ferguson, 1966, p.165). Support for the (a) part of hypothesis (1) was significant (t=1.75, df=34, p < .05, 1 tail) and in the predicted direction.
TABLE 5
MEAN SEATING DISTANCES IN INCHES
FOR DEVIANT AND CONTROL GROUPS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Deviant (N=27)</th>
<th>Control (N=9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means</td>
<td>49.2*</td>
<td>47.0</td>
</tr>
</tbody>
</table>

*(t=1.75, df=34, p < .05, 1 tail)*

Hypothesis (1)(b) anticipated that non-deviants in a triad would spend less time talking to the deviant member than to each other. A one-tailed t-test of the differences between means for correlated samples was used and indicated significant support for the hypothesis *(t=1.74, df=17, p < .05, 1 tail).*

TABLE 6
MEAN TIMES, IN SECONDS, FOR NON-DEVIANTS TALKING TO DEVIANTS AND OTHER NON-DEVIANTS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Deviants (N=18)</th>
<th>Non-Deviants (N=18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means</td>
<td>93.28*</td>
<td>113.31</td>
</tr>
</tbody>
</table>

*(t=-1.74, df=17, p < .05, 1 tail)*
In the (c) part of hypothesis (1), it was expected that the deviant member of a group would be isolated via the formation of a dyad by the non-deviant members. Dyads, based on body position, were identified by inspection of the direction matrix for each group (see Appendix IV). However, the results, presented in Table 7, did not support the hypothesis and were not in the direction expected.

During examination of the data, a phenomenon related to body position was observed. It was noticed that eight times out of nine, the labelled deviant occupied the "B" position (see Figure 1) during the group discussion. It was decided to use the binomial test to determine if the observation was significant ($<.05$). The results of the analysis are presented in Table 8 and indicate that the deviant occupied position "B" in the triad a significantly greater number of times ($p<.05$) than would normally be expected.

![Diagram](image)

**Fig.1.** A typical group seating arrangement.
TABLE 7
FORMATION OF NON-DEVIAN
DYADS IN DEVIAN GROUPS

<table>
<thead>
<tr>
<th>Dyad Formation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formed</td>
<td></td>
</tr>
<tr>
<td>Not-Formed</td>
<td></td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

(Probability associated with \(x \geq 2\) is \(p = .09\))

TABLE 8
CHAIR POSITION OF A DEVIAN IN A TRIAD

<table>
<thead>
<tr>
<th>Position of Deviant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>B'</td>
<td></td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

(Probability associated with \(x \geq 1\) is \(p = .04\), two tails)
The second major hypothesis refers to the nature of messages received by deviants during the interaction. Specifically, hypothesis (d) maintains that the content of the verbal messages directed to the deviant will invite his participation in the discussion and imply acceptance. It was expected that a comparison of mean CA scores for deviant and control groups would reveal either no difference or a positive difference. A positive difference would exist if the CA scores for deviant groups were significantly higher than for control groups. A one-tailed t-test of the difference between means for independent samples was done and is presented with the data in Table 9. A positive difference was found to exist for CA scores for deviant and control groups. Support for (d) was highly significant (p<.005), indicating that deviants received more messages inviting participation and implying acceptance than did comparably situated controls.

**TABLE 9**

**MEAN CA SCORES FOR MESSAGES DIRECTED TO DEVIANAT AND CONTROLS IN DEVIANT AND CONTROL TRIADS**

<table>
<thead>
<tr>
<th>Triads</th>
<th>Deviant</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean CA</td>
<td>+.83*</td>
<td>+.77</td>
</tr>
</tbody>
</table>

*(t=9.063, df=34, p<.0005)*

The (e) part of hypothesis (2) referred to the CCS scores. A mean CCS score was calculated for each of three groups (Deviant, Non-Deviant, Control) and subjected to a one-way analysis of variance for use with
unequal sample sizes (Winer, 1962, p. 96). The means and summary of the analysis of variance are presented in Table 10. Hypothesis (2)(e) was not supported by the data.

TABLE 10

<table>
<thead>
<tr>
<th>Groups</th>
<th>Deviant</th>
<th>Non-Deviant</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means</td>
<td>19.56</td>
<td>20.5</td>
<td>20.9</td>
</tr>
</tbody>
</table>

Summary of the Analysis of Variance

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>4.35</td>
<td>.209</td>
<td></td>
</tr>
<tr>
<td>Within Groups</td>
<td>33</td>
<td>20.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis (3)(f), which is concerned with whether or not a labelled deviant will be judged as the alpha person in a group, was supported. The relevant data are presented in Tables 11 and 12. Since it was specifically expected that deviant Ss would score lower on the scale, a one-tailed t-test was done. The means (Table 11) were significantly different (t=2.26, df=25, p < .025, 1 tail). An additional analysis was done indicating that in six of the experimental groups the deviant member both defined a social dominance layer and talked the most. However, in only one of them (Group #12) did he also become the alpha person as determined by the GIS. A binomial test (Table 12), although not significant, yielded results in the predicted direction.
TABLE 11
GIS VALUES FOR SUBJECTS IN DEVIANT GROUPS

<table>
<thead>
<tr>
<th>Groups</th>
<th>Deviants</th>
<th>Non-Deviants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means</td>
<td>6.67*</td>
<td>8.11</td>
</tr>
</tbody>
</table>

*(t=2.26, df=25, p < .025, 1 tail)

TABLE 12
CHOICE OF ALPHA AMONG SOCIALLY DOMINANT DEVIANTS

<table>
<thead>
<tr>
<th>Choice</th>
<th>Alpha</th>
<th>Not Alpha</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

(Probability associated with x ≥ 1 is p = .109)

The last series of measures were the scales completed by the external judges. Each judge provided ratings on five scales yielding ten sets of scale values for the subjects in the three "treatment" conditions (Deviant, Non-Deviant, Control). An inter-judge correlation was calculated for the NC-C and ND-D scales and yielded "r's" of .74 and .83 respectively. On that basis it was decided to group the first four scales...
(NC-C; P-A; S-D; W-S) together. A correlation of r=.05 was found for the combined scale scores and the score on the ND-D scale.

A one-way analysis of variance for unequal sample sizes was calculated for each set of scores. Tables 13, 14, 15, 16, and 17 present these analyses. It can be seen that only two of the ten scales (Judge #1, ND-D; Judge #1, P-A) supported the final hypothesis (p<.05), while seven other scales (Judge #1, NC-C; Judge #2, NC-C; Judge #2, P-A; Judge #2 S-D; Judge #2 ND-D) tended in the predicted direction. Means for deviant and non-deviant samples are plotted for each scale in Figure 2.

![Graph showing profiles of mean scores for deviant and non-deviant groups as rated by two judges.](image)

Fig. 2. Profiles of mean scores for deviant and non-deviant groups as rated by two judges.
### TABLE 13
NC-C SCALE SCORES OF JUDGE #1

<table>
<thead>
<tr>
<th>Groups</th>
<th>Deviant</th>
<th>Non-Deviant</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Means</strong></td>
<td>6.1</td>
<td>5.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Summary of the Analysis of Variance**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>4.17</td>
<td>1.58</td>
<td>p &lt; .25</td>
</tr>
<tr>
<td>Within Groups</td>
<td>33</td>
<td>2.63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### NC-C SCALE SCORES OF JUDGE #2

<table>
<thead>
<tr>
<th>Groups</th>
<th>Deviant</th>
<th>Non-Deviant</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Means</strong></td>
<td>6.1</td>
<td>6.2</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Summary of the Analysis of Variance**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>4.725</td>
<td>2.22</td>
<td>p &lt; .25</td>
</tr>
<tr>
<td>Within Groups</td>
<td>33</td>
<td>2.125</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 14
P-A SCALE SCORES OF JUDGE #1

<table>
<thead>
<tr>
<th>Groups</th>
<th>Deviant</th>
<th>Non-Deviant</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means</td>
<td>5.0</td>
<td>5.06</td>
<td>3.4</td>
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Summary of the Analysis of Variance

<table>
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<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
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<tbody>
<tr>
<td>Between Groups</td>
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<td>8.58</td>
<td>4.08</td>
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<td>Within Groups</td>
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P-A SCALE SCORES OF JUDGE #2

<table>
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<tr>
<th>Groups</th>
<th>Deviant</th>
<th>Non-Deviant</th>
<th>Control</th>
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<tbody>
<tr>
<td>Means</td>
<td>4.56</td>
<td>4.56</td>
<td>3.56</td>
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Summary of the Analysis of Variance

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<td>3.28</td>
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<td>Within Groups</td>
<td>33</td>
<td>1.37</td>
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</tr>
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### TABLE 15

**S-D SCALE SCORES OF JUDGE #1**

<table>
<thead>
<tr>
<th>Group</th>
<th>Deviant</th>
<th>Non-Deviant</th>
<th>Control</th>
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<tr>
<td>Means</td>
<td>4.22</td>
<td>4.94</td>
<td>4.22</td>
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**Summary of the Analysis of Variance**

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<td>Between Groups</td>
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<td>2.35</td>
<td>1.17</td>
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<td>Within Groups</td>
<td>33</td>
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### S-D SCALE SCORES OF JUDGE #2

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<th>Deviant</th>
<th>Non-Deviant</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means</td>
<td>5.22</td>
<td>5.5</td>
<td>4.67</td>
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**Summary of the Analysis of Variance**

<table>
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<tbody>
<tr>
<td>Between Groups</td>
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<td>2.08</td>
<td>1.81</td>
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<td>Within Groups</td>
<td>33</td>
<td>1.15</td>
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</tbody>
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### TABLE 16

**W-S SCALE SCORES OF JUDGE #1**

<table>
<thead>
<tr>
<th>Group</th>
<th>Deviants</th>
<th>Non-Deviants</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Means</strong></td>
<td>4.0</td>
<td>4.61</td>
<td>3.67</td>
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#### Summary of the Analysis of Variance

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<tr>
<td>Between Groups</td>
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<td>2.97</td>
<td>1.69</td>
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<tr>
<td>Within Groups</td>
<td>33</td>
<td>1.76</td>
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### W-S SCALE SCORES OF JUDGE #2

<table>
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<th>Deviants</th>
<th>Non-Deviants</th>
<th>Controls</th>
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</thead>
<tbody>
<tr>
<td><strong>Means</strong></td>
<td>5.0</td>
<td>5.39</td>
<td>4.4</td>
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#### Summary of the Analysis of Variance

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<td>Within Groups</td>
<td>33</td>
<td>1.41</td>
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### Table 17

**ND-D Scale Scores of Judge #1**

<table>
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<th>Groups</th>
<th>Deviants</th>
<th>Non-Deviants</th>
<th>Controls</th>
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</thead>
<tbody>
<tr>
<td>Means</td>
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<td>3.56</td>
<td>4.78</td>
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**Summary of the Analysis of Variance**

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<td>Between Groups</td>
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<td>13.05</td>
<td>4.29</td>
<td>.05</td>
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<tr>
<td>Within Groups</td>
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**ND-D Scale Scores of Judge #2**

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<th>Controls</th>
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<tbody>
<tr>
<td>Means</td>
<td>5.4</td>
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**Summary of the Analysis of Variance**

<table>
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<th>Source of Variation</th>
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<th>MS</th>
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</thead>
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<td>2.079</td>
<td>.25</td>
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<tr>
<td>Within Groups</td>
<td>33</td>
<td>2.82</td>
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CHAPTER IV
DISCUSSION

It was generally concluded that the results provided substantial support for all of the three major hypotheses. The discussion will consider this support and the role played by each minor hypothesis and its implications toward the major validations.

The first major hypothesis predicted that a labelled deviant would be behaviorally defined by other members of his group via non-verbal isolating messages. Three relationships were expected in order to confirm this position. The results clearly support hypotheses (a) and (b), that is, that subjects maintained a greater interaction distance with labelled deviants than with other non-deviants, and that subjects talked less to deviants than non-deviants. Both of these findings are in agreement with results previously reported in the literature (Davis, 1961; Richardson et al., 1961; Kleck, 1966; Kleck et al., 1966; Kleck et al., 1968).

The (c) part of the first hypothesis postulated the formation of exclusive non-deviant dyads on the basis of mutually facing body positions. Although support was not found for this hypothesis, there are several factors which might account for the failure. Body position as a measure may not accurately reflect the formation of a dyad. The results, in fact, indicate that non-deviant Ss did form some kind of dyad simply by talking more to each other than they did to the deviant.
Moreover, the body's function in terms of dyad formation may be minimal when compared with other modes of expression (e.g. face, eyes, etc.); therefore, it would not be as consistently used as those parts of the anatomy which are capable of greater subtlety of expression. Conversely, the body may be otherwise involved, in communicative behaviors which are more in its province (e.g. territorial movements).

Another mediating factor may have been the seating arrangement of Ss. Of significant note is the fact that in eight out of nine groups the deviant S sat in position "B" (see Figure 1). With the non-deviant Ss in positions A and C, the deviant S may be geographically isolated. Therefore, while exclusive non-deviant dyads did not form, the same effect may have been achieved as a result of the deviant's chair position combined with his exclusion from the degree of verbal interaction enjoyed by the non-deviants. It was concluded that the argument bore enough merit to warrant the acceptance of the observation as equivalent to the third criteria for purposes of validating hypothesis (1).

The second major hypothesis postulated that the verbal and non-verbal message systems would interact to place the labelled deviant in a double-bind. Since the messages at the non-verbal level were ones of isolation or rejection, it was expected that the verbal messages would be of a conflicting nature and would invite participation and imply acceptance of the deviant. Indeed, the results confirmed this expectation and in fact indicated that the content of the messages directed to the deviant were much more salutary than those occurring in the control network. It was, therefore, concluded that the deviant Ss had been placed in a double-bind. While certain features of the classical double-bind were missing (i.e. physical and/or psychological survival value; repeat-
ed experience over time), the essential ingredient of conflict between
two different aspects of a message was demonstrably present.

There was, however, either a failure on the part of the deviant to
perceive his situation or a failure on the part of the testing instru-
ment (CCS) to measure the deviant's perception of his plight. It is more
than likely that both contributed in some degree to the failure to achieve
significance on the CCS scores. The subject's perception of the feedback
he was receiving may have been blunted by the fact that he did not know
either of his group-mates. The adaptation of the CCS may have radically
affected its usefulness, although subject scores were comparable with
those reported elsewhere for groups of normals using the original short
form (Yeomans et al., 1970). Although Yeomans has indicated that the scores
are stable, data has not been provided regarding reliability and/or
validity coefficients. It was concluded that the scale, as it stands,
requires additional refinement and testing before it can become a
useful research tool. For the purposes of this study, the question of
whether or not the deviant realized he was in a double-bind is not of
central concern. More important, though, was the demonstration that the
double-bind arose spontaneously in an interaction between normals and a
deviant.

As regards the third major hypothesis, some significant support was
found for the view that group leadership will be denied the deviant even
though he engages in those behaviors which characterize the alpha person.
The mean GIS for deviants was significantly lower (p .025) than the non-
deviants' score, yet six of the nine deviants in the sample displayed
more large territorial movements than their respective group mates and
dominated their groups verbally (Total-time-talking). Available re-
search indicates that both large territorial movements and time talking are highly correlated with group leadership (Fehrenbach, 1971). Given that an individual both talks more and uses more territorial movements, he should have been chosen alpha. The fact that five of the six deviants who had those characteristics were not rated highest on the GIS supports the third hypothesis and it was concluded that a labelled deviant will not be chosen alpha by other members of his group, even though he defines a social dominance layer via large-territorial movements and talks the most.

The final set of results were based on the judges' ratings of the video-tapes. The lack of correlation noted between the combined social dominance scales and the deviancy scale suggested that different criteria were used in making the two kinds of judgements. Indications in previously cited research are that social dominance is defined in terms of magnitudes of given behaviors (e.g. time talking), while the present study offers evidence to suggest that deviance is more often defined in qualitative terms (e.g. CA scores).

Examination of the ratings indicated that although only two sets of scores varied significantly over the three subject groups, there tended to be some pattern in the profiles of the means (see Figure 2). Moreover, the observed pattern can be accounted for on the basis of other data. Both judges rated the deviants higher on NC-C and P-A scales. Thus, deviant Ss were rated as having contributed more to the group and as being more active. This judgement, it was decided, reflects the fact that six of the nine deviant members used more territorial movements and talked more than other group members. It was also decided that the scale ratings further support hypothesis (3). Ratings on the S-D and W-S
scales are very similar, indicating, possibly, that they defined the same dimension for the two judges. No clear relationship between deviant and non-deviant groups emerges. The ND-D scale indicates the clearest separation of the two groups and it was concluded that the judges were able to identify accurately the deviant members.

To summarize, it was concluded that the labelled deviant was defined via non-verbal isolating messages which, when combined with verbal invitations to participate, placed him in a double-bind. Subjects sat farther from the deviant member than controls and talked to him less than to the other non-deviant. Deviant subjects were not chosen as the alpha person, even in cases where they defined a social dominance layer via large territorial movements, talked more and were rated more contributing and active by external judges. Behavioral indices of social dominance are probably more quantitative, while those defining deviance are primarily qualitative. Judges' ratings indicated that a naive observer could determine, accurately, who, in a group of strangers, was the deviant.

Several implications of the study were noted. First of all, it would seem necessary to revise the present notion about causality as it operates in a social system characterized by feedback. The results suggested that a deviance-amplification model (Wilkins, 1969) of social behavior might be best suited for that purpose. Within the framework of such a model, it should be possible to examine events previously considered trivial and to determine how their amplification into low probability events takes place. Essentially, a redefinition of the word "trivial" must be effected, which takes into account the fact that no event in a communication network is trivial. Rather, events can be scaled in terms
of the probabilities associated with their occurrence. What is demanded is a different conceptual framework within which "trivial" events are evaluated. Within a system lacking feedback, unidirectional causality may obtain and certain events may, indeed, be of minor importance. However, the inclusion of feedback in a system allows for the operation of processes such as deviance-amplification. Therefore, the important consideration is no longer the determination of the value of an event when compared with others, but rather, the nature and functioning of the system within which such events occur. Re-evaluation of much of the traditional social-psychological literature from this new perspective would undoubtedly be illuminating.

One example of just such a redefinition is the double-bind hypothesis, which attempts to explain schizophrenic behavior within the context of a communication system. It has been previously indicated that the formulation of the double-bind has been expanded and modified (Ch.I, p. 11, supra.). Moreover, Thorne (1970) has indicated that the double-bind's situational characteristics are to be found in a variety of circumstances, from interpersonal relations to institutional practices. It seems that everyone, at some time, has been in a double-bind. For some, however, the double-bind is a more common experience than for others and may, in fact, characterize the communicational milieu within which they must function. So it is for the deviant, who finds himself, automatically as it were, in a double-bind when he is communicating with others. Obviously, it could prove valuable to determine how the deviant copes with such a situation. Deviance disavowal (Davis, 1961) or some other, as yet undefined, communicational pattern may serve that purpose.
An examination of the communicational patterns in deviant - non-deviant relationships must also involve a reexamination of the process by which people are labelled and defined within their communication networks. It is suggested that the present study offers a potent example of the effects of labelling in such a network. Of particular relevance in this connection is the work of Thomas S. Szasz (e.g. 1967, 1970). He aptly describes the labelling process when he observes, as regards "hysteria",

...that certain patterns of human behavior--or, more precisely, certain modes of nonverbal communication--resembled neurological illnesses, yet differed from them in crucial ways. For historical and social reasons, the phenomena in question were defined and classified as members of the class "disease". Thus, hysteria as a quasi-neurological illness formed the nucleus around which the vast structure of "psychopathology" gradually crystallized. (Szasz, 1967, p.294)

He continues,

The notion of illness, at first used mainly with a socially promotive aim in mind, rapidly became accepted as the correct description of "facts." The expression "mental illness" was not understood in a metaphorical sense as it should have been, but attained a high degree of concretization and began to lead a life of its own. Now it is a pancreas (Hardin, 1956), a word that is supposed to explain everything, whereas it explains nothing and serves only to hinder our critical understanding. (Szasz, 1967, pp.295-296)

More generally, the label or labels which are applied to an individual become very concrete in terms of their pragmatic consequences in the communication networks within which that individual moves. Tannenbaum (1969, p.354) characterizes the situation at the societal level:

The community cannot deal with people whom it cannot define. Reputation is this sort of public definition. Once it is established, then unconsciously all agencies combine to maintain this definition even when they apparently and consciously attempt to deny their own implicit judgment.

The point is perhaps most simply stated, in a quotation from Szasz (1970,
p.xvi), by substituting "deviancy" for "insanity", "non-deviant" for "sane", and "deviant" for "insane":

The concept of deviancy...enables the "non-deviant" members of society to deal as they see fit with those of their fellows whom they can categorize as "deviant".
APPENDIX I

OPINION QUESTIONNAIRE

1. Mr. B is currently a college senior who is very eager to pursue graduate study in chemistry leading to the Doctor of Philosophy degree. He has been accepted by both University X and University Y. University X has a worldwide reputation for excellence in chemistry. While a degree from University X would signify outstanding training in his field, the standards are so very rigorous that only a fraction of the degree candidates actually receive the degree. University Y on the other hand, has much less of a reputation in chemistry, but almost everyone admitted is awarded the degree, though the degree has much less prestige than the corresponding degree from University X.

Imagine that you are advising Mr. B. Listed below are several probabilities or odds that Mr. B would be awarded a degree at University X, the one of greater prestige.

Please check the probability that you would consider acceptable to make it worthwhile for Mr. B to enroll in University X rather than University Y.

___ The chances are 1 in 10 that Mr. B would receive the degree.
___ The chances are 2 in 10 that Mr. B would receive the degree.
___ The chances are 3 in 10 that Mr. B would receive the degree.
___ The chances are 4 in 10 that Mr. B would receive the degree.
___ The chances are 5 in 10 that Mr. B would receive the degree.
___ The chances are 6 in 10 that Mr. B would receive the degree.
___ The chances are 7 in 10 that Mr. B would receive the degree.
___ The chances are 8 in 10 that Mr. B would receive the degree.
___ The chances are 9 in 10 that Mr. B would receive the degree.
___ The chances are 10 in 10 that Mr. B would receive the degree.

2. Mr. C, a competent chess player, is participating in a national chess tournament. In an early match he draws the top-favoured player in the tournament as his opponent. Mr. C has been relatively low ranked as a player in view of his performance in previous tournaments. During the course of play with the top-favoured man, Mr. C notes the possibility of a deceptive, though risky maneuver which might bring him a quick victory.
At the same time, if the attempted maneuver should fail, Mr. C would be left in an exposed position and defeat would almost certainly follow.

Imagine that you are advising Mr. C. Listed below are several probabilities or odds that Mr. C's deceptive play will succeed.

Please check the probability that you would consider acceptable for the risky play to be attempted.

- The chances are 1 in 10 that the play would succeed.
- The chances are 2 in 10 that the play would succeed.
- The chances are 3 in 10 that the play would succeed.
- The chances are 4 in 10 that the play would succeed.
- The chances are 5 in 10 that the play would succeed.
- The chances are 6 in 10 that the play would succeed.
- The chances are 7 in 10 that the play would succeed.
- The chances are 8 in 10 that the play would succeed.
- The chances are 9 in 10 that the play would succeed.
- The chances are 10 in 10 that the play would succeed.

3. Mr. D, a college senior, has studied the piano since childhood. He has won amateur prizes and given small recitals, suggesting that Mr. D has considerable musical talent. As graduation approaches, Mr. D has the choice of going to medical school to become a physician, a profession which would bring certain prestige and financial awards; or entering a conservatory of music for advanced training with a well known pianist. Mr. D realizes that even upon completion of his studies which would take many more years and a lot of money, success as a concert pianist would not be assured.

Imagine that you are advising Mr. D. Listed below are several probabilities or odds that Mr. D would succeed as a concert pianist.

Please check the probability that you would consider acceptable for Mr. D to continue with his musical training.

- The chances are 1 in 10 that he would succeed as a pianist.
- The chances are 2 in 10 that he would succeed as a pianist.
- The chances are 3 in 10 that he would succeed as a pianist.
- The chances are 4 in 10 that he would succeed as a pianist.
- The chances are 5 in 10 that he would succeed as a pianist.
- The chances are 6 in 10 that he would succeed as a pianist.
- The chances are 7 in 10 that he would succeed as a pianist.
- The chances are 8 in 10 that he would succeed as a pianist.
- The chances are 9 in 10 that he would succeed as a pianist.
- The chances are 10 in 10 that he would succeed as a pianist.
APPENDIX II

DISCUSSION QUESTIONNAIRE

Name: ____________________________

Position: ________________

Position refers to the chair you occupied during the session. The letters A, B, and C will serve to indicate the chairs, starting with A as the chair which is on the group's extreme right.

This questionnaire is being administered to derive added information about the discussion in which you have just participated. It is important that you try to answer each of the questions as adequately as you can only in reference to the preceding discussion. Please answer both parts.

Part A
1. Would you please indicate on the 6 point scales below, the degree or amount to which you feel both yourself and the other members influenced the discussion.
   Position A:   Low influence ______ High influence ______  
   Position B:   ________________  
   Position C:   ________________

2. Would you please indicate which person you felt most in agreement with in reference to the opinions which were expressed during the discussion. Position A, B, or C.

3. Would you please indicate with which person you would most like to carry on a discussion in a similar type of setting. Position A, B, or C.

4. Would you please rate yourself on the 6 point scale below as to how comfortable or uncomfortable you felt during the discussion.

   Uncomfortable ______ Comfortable ______

5. Would you please indicate with which person you felt least in agreement with in reference to the opinions expressed. Position A, B, or C. ________________.

Part B
Instructions: Please complete the following information by putting a circle around the statement which best describes the other members of the group.

1. They tended to pull in opposite directions at the same time.

   (1) (2) (3) (4) (5)
   Never rarely sometimes often always

2. They seemed to feel one way but said they felt another way.

   (1) (2) (3) (4) (5)
   Never rarely sometimes often always
3. They seemed to feel one thing but did something else.

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<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>Never</td>
<td>rarely</td>
<td>sometimes</td>
<td>often</td>
<td>always</td>
</tr>
</tbody>
</table>

4. They tended to feel one way but think the opposite at the same time.

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<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>Never</td>
<td>rarely</td>
<td>sometimes</td>
<td>often</td>
<td>always</td>
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</tbody>
</table>

5. They asked people to do one thing but expected another.

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<th></th>
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<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>Never</td>
<td>rarely</td>
<td>sometimes</td>
<td>often</td>
<td>always</td>
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</table>

6. They covered up things when they really didn't need to.

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<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>Never</td>
<td>rarely</td>
<td>sometimes</td>
<td>often</td>
<td>always</td>
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</tbody>
</table>

7. They seemed to believe one thing should be done but did something else.

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<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>Never</td>
<td>rarely</td>
<td>sometimes</td>
<td>often</td>
<td>always</td>
</tr>
</tbody>
</table>

8. They gave the impression they would do one thing and then do something else.

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9. They seemed to think one thing and later said that they thought something else.

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REFERENCES


Ciotola, P. V. The effect of two contradictory levels of reward and censure on schizophrenics. (Doctoral dissertation, University of Missouri) Ann Arbor: University Microfilms, 1961, No. 61-2278.


Kleck, R. Emotional arousal in interactions with stigmatized persons. Psychological Reports, 1966, 19, 1226.

Kleck, R., Buck, P. L., Goller, W. L., London, R. S., Pfeiffer, J. R., and Vukcevic, D. P. Effect of stigmatizing conditions on the use


Watzlawick, P., Beavin, J. H., and Jackson, D. D. Pragmatics of human communication: A study of interactional patterns, pathologies, and

Wilkins, L. T. Social Deviance: Social policy, action and research.

Winer, B. J. Statistical principles and experimental design. Toronto:

Yeomans, N. T., Clark, A. W., Cockett, M., and Gee, K. M. Measurement of
conflicting communications in social networks. British Journal of
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