California State University, Northridge

THE EFFECTS OF PROXIMITY AND STARING ON PERCEPTION OF A SOCIAL INTERACTION

A thesis submitted in partial satisfaction of the requirements for the degree of Master of Arts in Psychology by
Susan D. Artof

June, 1972
The thesis of Susan D. Artof is approved:

California State University, Northridge
June, 1972
ACKNOWLEDGEMENT

I wish to dedicate this paper to all of those people who surrounded me and gave me their time and support when I needed it. To Annette Lopez, Phil Ender, Tom Capicotto, Norm Reccius and Marlene Artof, I thank you. I most want to thank my husband, Paul, for his patient encouragement and backing during the many long days and nights I took to complete this study.

I want to acknowledge those members of my committee for their help on this project: Dr. James McMartin, Dr. Stanley Summers, and Dr. Paul Skolnick.
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ABSTRACT

THE EFFECTS OF PROXIMITY AND STARING
ON PERCEPTION OF A SOCIAL INTERACTION

by

Susan D. Artof

Master of Arts in Psychology

June, 1972

This study explored the effects of the nonverbal cues of staring and distance on a variety of perceptual responses of the subjects. 80 Ss were equally divided into eight groups. In a $2 \times 2 \times 2$ factorial design, staring (100% vs. 0%) and distance (2 1/2 ft. vs. 12 ft.) were manipulated. Both males and females were used along with a female E which produced opposite (male-female) and same (female-female) sexed dyads. Instructions were given to Ss leading them to believe they would be giving a counterattitudinal speech. All Ss were given a choice to remain or withdraw from the experiment after the instructions were given. Dependent measures consisted of the decision to remain or withdraw, and six responses from a questionnaire which was designed to tap the S's social perception and interpretation of the interaction with E.

The decision of the Ss was not significantly affected by the experimental treatments. A multivariate analysis of variance was
conducted on the six variables from the questionnaire and a main effect for staring and an interaction between sex and distance was found. Univariate ANOVA's showed significant interactions between sex and distance on how comfortable Ss felt during the experimental situation and where the S would be most comfortable in the room. There were also main effects of staring on both the ability to perceive staring and on how well Ss liked the E. Finally, there was a main effect of distance on where Ss would be most comfortable in the room.
THE EFFECTS OF PROXIMITY AND STARING
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Susan D. Artof
California State University, Northridge

In any social encounter, communication may be achieved both verbally and nonverbally. Past literature has dealt mainly with verbal modes while ignoring nonverbal modes of communication. The purpose of this exploratory study is to investigate the effects proximate and visual nonverbal cues have on perception of a social interaction.

An example of a social encounter which demonstrates the influence of nonverbal cues is the "parking lot solicitor" type of approach. In this instance, victims are selected to solicit donations. During such confrontations there is continual exposure to visual and proximate cues. The combination of these often place the individual in an uncomfortable situation. It becomes difficult to lie and say, "I've already given at the office," when there is any face-to-face or physical interaction between the solicitor and the victim. Both the proximate and visual cues appear to affect the victim's response.

The extent to which these two nonverbal signals demand compliance is dramatically illustrated in Milgram's (1965) study on obedience. Ss were asked to deliver an electric shock to a confederate in an adjoining room. Each time the confederate made an incorrect response to a question asked by the S, the voltage was increased. It was obvious
that Ss were under a great amount of tension. E was instructed to assure Ss that the responsibility for the confederate's condition would fall on those people in charge of the experiment, and he continuously repeated the phrase, "the experiment must go on." Results indicate that there was more compliance generated when E's instructions were relayed face-to-face rather than via telephone. Further, when the confederate interacted with Ss face-to-face, there was more disobedience generated than when there was no such interaction. From these results it appears that, "the concrete visible and proximal presence of the victim acts in an important way to counteract the experimenter's power to generate disobedience" (Milgram, 1965, p. 251). The term obedience and disobedience refers to the:

Subject's overt actions only, and carry no implication for motive or experimental states accompanying the action (Milgram, 1965, p. 244).

Milgram gives no motivational explanation for the observed behavior of his Ss. He only suggests that there is "some form of dominance-subordinate hierarchical element" in the transaction between X and Y (Milgram, 1965, p. 244).

One explanation of Milgram's results was proposed by Modigliani (1971). He suggested that obedience, in this case, is a result of "embarrassment aversion." Modigliani defined embarrassment as a "situational loss of self-esteem" in the presence of others. Thus, the E must be present in the room with the S for embarrassment to be created. Under this condition the S would seek an escape route and avoid the embarrassment created by a low self-image in the eyes of the E.
An alternative explanation of Milgram's study comes from Kleck (1970). Kleck hypothesizes that there is an inverse relationship between the extent one's behavior is affected by another person and the physical and psychological distance separating two people during a social encounter. It is suggested that the liabilities of noncompliance will increase as a function of decreasing distance. Nonverbal cues appear to alter perception of the psychological distance between those interacting. Kleck indicates both psychological and physical distances play an instrumental role in commanding the attention needed for compliance. From Kleck's explanation, it seems that the face-to-face and proximal cues given off during the interaction between E and Ss alter perception of the psychological distances within the encounter. Thus, nonverbal cues can be considered variables capable of influencing social perception. Two friends meeting will interpret the nonverbal signals quite differently than two strangers. The distinguishing difference between nonverbal and verbal communication is the information which is being transmitted. Verbal signals refer to information and events which are external to the individual, and nonverbal signals establish various interpersonal relationships such as territoriality, dominance, affect (Argyle, 1967).

Past literature has examined nonverbal cues as dependent variables (Exline, 1960, 1963; Exline, Grey & Schuette, 1965; Exline & Winters, 1965a, 1965b; Modigliani, 1970; Argyle and Dean, 1965; Goldberg, Kiesler & Collins, 1970; Gibson & Pick, 1965). All of these studies focus on measuring the observed nonverbal behavior, but do not examine the possible influence each signal has on another person. Ellsworth & Carlsmith (1968) are among the first to look at gazing and eye contact.
as possible independent variables capable of affecting behavior. They investigated and tested the hypothesis that the amount of eye contact in a dyadic interaction has a significant effect on Ss' reactions to both the situation and the other person in the dyad. Results show that the affective responses made by Ss toward a confederate interviewer depended on both the content of the interview and the overt behavior of the interviewer. When the interviewer used continuous eye contact and the content of the interview was unfavorable, Ss evaluated the interviewer significantly lower than when the interview was favorable toward Ss. Further, when the interviewer used little eye contact and the interview's content was favorable, Ss evaluated the interviewer lower than when eye contact was used. Ellsworth and Carlsmith (1968) conclude from their study, that eye contact does influence the affective responses made by an individual in a social dyad. Kleinke and Pohlen (1971) suggest that the situation in which the gaze is used greatly affects the reactions to the gaze. Friendly and cooperative atmospheres contribute to friendly attitudes toward the gazing person. Competitive and challenging atmospheres were found to produce attitudes negatively related to affiliation with the gazing person.

Both Ellsworth and Carlsmith (1968) and Kleink and Pohlen (1971) give evidence supporting the idea that the information transmitted during an interaction will depend on the situation surrounding the encounter. There are many possible interpretations for each signal given off. Ellsworth, et al. (1972) suggest that the stare carries with it certain demands. Therefore, it may be perceived as a signal of hostile intent or a salient stimulus with interpersonal implications demanding a particular response. The response which is appropriate
will depend on the implications. Eye contact may be the only form of communication two people have at a great distance. Avoidance of such contact may be interpreted to mean that no social involvement is desired (Hall, 1965; Milgram, 1970).

The previously discussed literature indicates that nonverbal cues act as a source of feedback between people. Argyle and Dean (1965) suggest that eye contact serves as a sign of friendship, social attraction, hate, dominance, and establishes social relationships within a group. The mutual glance may be interpreted as a communion capable of satisfying affiliation needs, or as a sign of challenge and a clash of wills suggesting a struggle for dominance (Exline, 1963; Ellsworth, et al., 1972) depending on the social situation (Kleinke & Pohlen, 1971). Argyle and Dean (1965) found sex differences associated with the importance attached to eye contact and distance cues. When Ss interacted with a confederate of the opposite sex there was significantly less eye contact than when Ss interacted with someone of the same sex. Further, opposite paired groups were more affected by the distance cues than were same sexed groups. Exline (1963) hypothesizes that, "the two sexes generally give different weight to the importance of the visual phenomena in their social fields [p. 18]." Witkin's (1949) earlier evidence supports the notion that women are more attuned to visual fields than men. Thus, women appear to be affected more by the visual structure which contains the figure within the physical field.

Women, that is, may look at other persons more than men, because they value more highly the kinds of information they can obtain through such activity (Exline, 1968, p. 18).

We may now see that nonverbal cues influence behavior, but we have little evidence supporting any motivational theory of why these cues
affect an individual. Argyle and Dean (1965) attempt to give such an explanation in their Affiliation Conflict model. According to this model an individual's need for social feedback or affiliation will affect an equilibrium level previously established for the optimum amount of social contact desired at any given time. Nonverbal cues alter the intimacy balance which has been created. When the situation becomes too intimate or too removed, approach and avoidance forces will act on an individual and cause movements either to increase or decrease the intimacy level and reduce the resulting discomfort. In a visual sense their model takes the form: Intimacy (f) - eye contact, distance, smiling, intimacy of topic, etc. Thus, any component on the right side will cause a shift in the intimacy equilibrium of the individual. To maintain a comfortable level of intimacy, the other components will shift in an opposite direction. For example, if there is too much eye contact during a social encounter, the individual may feel uncomfortable and the situation becomes too intimate. The resulting behavior may be to back away, smile, or avoid the glance entirely. Thus, the nonverbal cues will affect the individual's perception of his social surroundings by increasing or decreasing the perceived amount of intimacy seen in the situation. If the shift is in the direction of too much intimacy, the individual is expected to feel "anxiety about rejection or revealing inner states" (Argyle & Dean, 1965, p. 294). If the balance shifts in the alternative direction of too little intimacy, the individual is expected to "simply feel deprived of affiliation satisfaction" (Argyle & Dean, 1965, p. 294).

Although we may use the Affiliation Conflict model as a possible explanation for behavior which is generated by the use of nonverbal
cues, the model may be criticized as "only a demonstration of what will happen ... not based on theory" (Goldberg, et al., 1970, p. 52). It makes no attempt to explain the "whys" of such behavior, and only discusses the findings in terms of "intimacy" which, in itself, is a hypothetical construct incapable of being directly measured. This would make the theory an untestable statement of underlying variables (Goldberg, et al., 1970). Results from studies conducted by Exline, et al. (1965), Exline & Winters (1965), Argyle & Dean (1965), Modigliani (1970), and Goldberg, et al. (1970) may be explained using the Affiliation Conflict model of intimacy; however, this explanation cannot be used to uncover any of the individual motivations behind the resulting social activity.

It has been established that a change in a social situation will affect the response made to certain nonverbal signals (Ellsworth & Carlsmith, 1968; Kleinke & Pohlen, 1970). Further, the composition of the group which is interacting affects the responses made in the group (Exline, 1963; Exline, et al., 1965; Argyle & Dean, 1965). The present study is an attempt to uncover a more testable variable which motivates these responses than did Argyle and Dean (1965). The perception and interpretation of a given social interaction will be a function of the nonverbal cues given off during that interaction. It is conceivably easier to measure perceptual changes in an individual than a construct like "intimacy."

The following study is designed to examine the effects of distance and staring cues on an individual's social perception in a dyad. For this study, social perception is operationally defined by items on a questionnaire given to all Ss (see Appendix A). These are expected to
tap the individual's social perception. The nonverbal cues used in this study will be defined by using staring and distance signals. In addition, these two cues will be examined for their differential effects on responses made by males and females during the experimental situation.

In view of what previous literature has suggested, the following predictions may be made:

1. Males will be more willing to remain in a counterattitudinal situation than females when staring is used by a female. Further males will be more willing than females to remain in such a situation at a close distance to a female.

2. Males will be more comfortable than females when no staring is used than when staring is used during a social encounter.

3. Both males and females will be more comfortable at a greater distance during a social encounter.

4. Females will show a greater ability to perceive staring cues than males.

5. When staring is not used both males and females will have a greater feeling of psychological distance from another person during a social interaction.

6. Both males and females will feel more control over the situation when no staring is used than when staring is used during a social encounter. Further, both will feel more control when they are at a greater distance during the encounter.

7. Males and females will evaluate a female higher when she stares than when she avoids eye contact. Further, both will evaluate her higher when she is closer to them than when she is farther away.
METHOD

General Overview of Procedure

Upon arriving, Ss were greeted by a female E and asked to have a seat in one of two chairs located in the experimental room. The S's chair was always located near a far corner of the room next to a desk which would be used by the Ss later in the experiment. The E's chair was placed in a predetermined location facing the S's chair and was either 2 1/2 ft. or 12 1/2 ft. away from the S. When both were seated, the E began to present the instructions which led the S to believe that he was going to participate in a study on communication and persuasion. Ss were to prepare and deliver a counterattitudinal speech (see Appendix A) on the topic of raising the tuition in the California State Colleges. Previous pilot work indicated that this topic was actually counter-attitudinal and Ss generally found such a task unpleasant (see Appendix B). The E was trained to give instructions using 100% or 0% staring. After hearing the instructions Ss were given a choice to continue or withdraw from the experiment. Regardless of the decision, E gave everyone a questionnaire to fill out under the guise of it being part of the requirements by the "Faculty Research and Grants Committee." Ss were asked to answer all questions exactly how they felt at the moment and place the questionnaire in a sealed envelop which they were to drop off at the psychology office next door. At this point the E left the room and allowed the Ss to work alone. As the Ss were completing the questionnaire, the E walked back into the room and explained that this was the experiment and no speech was going to be written. Ss were asked their impressions about what was going on. In all cases but one,
Ss appeared ignorant of the purpose and manipulations embedded within the experiment. At the conclusion of the debriefing session, Ss were given their experimental units and cautioned not to discuss the experiment with anyone else.

Subjects. The 80 Ss were students enrolled in psychology classes at California State University, Northridge. Most were from beginning psychology classes and represented a variety of majors and ages. Ss were recruited by posting sign-up sheets entitled, "Communication and Persuasion."

Ss were evenly divided by sex so that 40 males and 40 females were randomly assigned to one of four experimental groups. Eighty-five Ss were originally interviewed, but five were eliminated: two female Ss apparently misunderstood the directions and consequently filled out the questionnaire incorrectly; one male S did not return his questionnaire to the proper place and his data were not available to be analyzed; one male S saw through the experimental manipulations and was not included in the analysis; and one male S was deaf.

Design

In a 2 x 2 x 2 factorial design, Ss were divided by sex, and assigned randomly to one of four groups. Thus, eight experimental conditions, consisting of ten Ss per cell, were run in the experimental procedure.

Independent and Subject Variables. The independent variables consisted of proximity between the E and the S (2 1/2 ft. vs. 12 ft.), and the amount of staring used by the E (continuous vs. avoidance). The sex composition of the interacting dyad (same sexed consisting of female-female vs. opposite sexed consisting of female-male) will be
considered a subject variable. The eight experimental groups may be summarized as shown in Figure 1.

1. Proximity -- Using Hall's (1965) classification of proximity, two distances were chosen to represent the extremes which would be the most effective manipulation. Hall (1965) defines personal distance as ranging from 1 1/2 ft. (close personal distance) to 2 1/2 ft. (far personal distance) and social distance from 4-7 ft. (close social distance) to 7-12 ft. (far social distance). These two distance classifications seem to be the most common in daily interactions. Thus, the distances of 2 1/2 ft. and 12 ft. were utilized. By using two people facing each other in opposite chairs, distances were taken from the face of one person to the face of another. Tape was placed on the floor so that the chairs could be prearranged before the S entered the room.

2. Staring -- In accordance with the literature on visual behavior (Exline, 1963; Exline, et al., 1965; Argyle & Dean, 1965; Ellsworth, et al., 1972) staring was the specific nonverbal visual cue which was manipulated. Staring, as defined by Ellsworth, et al. (1972), is a gaze or look which persists regardless of the behavior of the other person. This is a different type of visual behavior from eye contact which Kleinke and Pohlen (1971) define as mutual glance or gaze. It appears that the stare elicits a withdrawal response (Ellsworth, et al., 1972) when there is no other appropriate response to make in the situation. This type of withdrawal and discomfort seems similar to the behavior caused by spatial invasions (Sommer, 1969; Felipe & Sommer, 1966). In order to maximize possible effects, extremes were chosen in manipulating staring as well as distance. The E was trained to stare
### 40 Females

<table>
<thead>
<tr>
<th></th>
<th>Staring</th>
<th>No Staring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close</td>
<td>n=10</td>
<td>n=10</td>
</tr>
<tr>
<td>Far</td>
<td>n=10</td>
<td>n=10</td>
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### 40 Males

<table>
<thead>
<tr>
<th></th>
<th>Staring</th>
<th>No Staring</th>
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<tbody>
<tr>
<td>Close</td>
<td>n=10</td>
<td>n=10</td>
</tr>
<tr>
<td>Far</td>
<td>n=10</td>
<td>n=10</td>
</tr>
</tbody>
</table>

Fig. 1. Description of Experimental Design.
at Ss either 100% of the time or 0% of the time while giving instructions.

3. Subject Variable: Sex -- Ss consisted of 40 males and 40 females. Because there was a female E in all conditions, dyads were formed which consisted of female-female (same sexed dyad) and female-male (opposite sexed dyad). It was expected that the sex composition of the interacting dyad would have a strong influence and the responses made during the encounter. Opposite sexed dyads have been reported to respond significantly different from same sexed dyads (Argyle & Dean, 1965; Exline, et al., 1965; Goldberg, et al., 1971). Argyle and Dean (1965) found no significant differences in the behavior of Ss when using a male or female E. Thus, sex composition was altered using only a female E which was expected to produce a similar environment as a male E.

Dependent Variables. There were two categories of dependent variables. The first was a behavioral measure taken on the responses to the choice of remaining or withdrawing from the experiment. The second measure consisted of a questionnaire handed to the Ss after their decision was made.

1. The Decision Measure -- The instructions which the E delivered to the Ss were patterned after McMartin and Greenspan (1971). In that study, attitude change was studied as a function of the counterattitudinal speech which was made. As an important determinant of dissonance, Ss must feel that they have a choice before counterattitudinal role playing takes place. In the present study, Ss were also given a choice to stay or withdraw from the experiment. It was predicted that the independent variables would influence this decision. Further, it was
felt that the measure might tell something about how nonverbal cues work to persuade someone to do a task normally avoided.

2. The Questionnaire -- All Ss received a questionnaire directly after their decision was made to remain or withdraw from the experiment (see Appendix A). The E told the Ss that the Faculty Research and Grants Committee was responsible for the questionnaire. The cover sheet explained why it was important to answer all questions honestly and completely. All Ss complied with the E's request to answer the questions.

The questionnaire consisted of 40 questions which were divided into two major parts (see Appendix A). Although only a few of the total questions were related to the hypotheses, care was taken to construct the questionnaire in order to maintain credibility between what was asked and the cover story previously given. Care was also taken to prevent early questions from informing Ss about the real purpose of the experiment. Several questionnaires were used in previous pilot work before the major experiment was conducted (see Appendix B).

Questions were designed so that ten items were on a Likert type of scale from 1-9; three items were answered on a scale from 1-14; and 23 of the questions were "yes-no" dichotomous answers.

Those items on the questionnaire which were most important are listed below. The first four items consisted of a nine point Likert scale, while the last two items consisted of a 14 point Likert scale. Words and phrases in parenthesis indicate the abbreviation which will be used for the remainder of this paper.

1. How much control of the situation did you feel you had? (Control)
2. How comfortable did you feel during the experiment? (Comfort)
3. How much did you like the experimenter? (Like)
4. How much actual eye contact did you notice you had with the experimenter? In other words, how much eye contact was exchanged between you? (Perceived Eye Contact)
5. What would be the most comfortable distance to be from the experimenter? (Comfortable Sitting Distance)
6. How distant did the experimenter appear to be psychologically, i.e., emotionally? (Psychological Distance)
RESULTS

A multivariate analysis of variance was used to analyze responses made to six items from a questionnaire which was expected to measure Ss' perception and interpretation of a social encounter (see Table 1). Multivariate statistics of this nature will take into account all of the intercorrelations among the response variables and test hypotheses about main effects and interactions of the independent variables on the dependent variables. Multivariate analysis of variance over the six variables showed a significant main effect for staring ($F = 11.9481$, $df = 6, 67, p < .001$) and an interaction between sex and distance ($F = 2.45$, $df = 6, 67, p < .05$). This indicates that there were differences on the scores of the six items depending on whether there was 100% or 0% staring used during the interaction. Further, sex of the interacting dyad, when combined with the distance cue of 2 1/2 ft. or 12 ft., produced differential responses to the items under analysis. Remaining main effects and interactions failed to reach significance.

Discriminant function coefficients (see Appendix D) were run on each of the six variables in order to determine which contributed to the main effects and interactions found in the ANOVA. An examination of these coefficients suggests that the variable of "liking" and the "ability to perceive staring" contribute most to the significant main effect of staring. Univariate analysis of variance on these two variables showed significant main effects for staring ($F = 6.33$, $df = 1, 72, p < .01$ and $F = 53.55$, $df = 1, 72, p < .001$; see Table 2). Discriminant function coefficients on the variables of "comfort" and "most comfortable sitting distance," indicate that these contribute
TABLE 1  
Multivariate Analysis of Variance Table

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (A)</td>
<td>6</td>
<td>.7913</td>
<td>ns</td>
</tr>
<tr>
<td>Stare (B)</td>
<td>6</td>
<td>11.9481</td>
<td>.001</td>
</tr>
<tr>
<td>Distance (C)</td>
<td>6</td>
<td>1.3919</td>
<td>ns</td>
</tr>
<tr>
<td>A X B</td>
<td>6</td>
<td>1.4641</td>
<td>ns</td>
</tr>
<tr>
<td>A X C</td>
<td>6</td>
<td>2.4501</td>
<td>.05</td>
</tr>
<tr>
<td>B X C</td>
<td>6</td>
<td>1.7654</td>
<td>ns</td>
</tr>
<tr>
<td>A X B X C</td>
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<td>ns</td>
</tr>
<tr>
<td>Error</td>
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### TABLE 2

**Analysis of Variance F Table**

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>Comfort</th>
<th>Comfortable Sitting Distance</th>
<th>Liking</th>
<th>Ability to Perceive Stare</th>
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<tbody>
<tr>
<td>Sex (A)</td>
<td>1</td>
<td>2.52</td>
<td>1.01</td>
<td>.70</td>
<td>.02</td>
</tr>
<tr>
<td>Stare (B)</td>
<td>1</td>
<td>.01</td>
<td>1.00</td>
<td>6.33**</td>
<td>53.55**</td>
</tr>
<tr>
<td>Distance (C)</td>
<td>1</td>
<td>3.35</td>
<td>4.55*</td>
<td>.15</td>
<td>.55</td>
</tr>
<tr>
<td>A X B</td>
<td>1</td>
<td>1.80</td>
<td>.14</td>
<td>.47</td>
<td>1.54</td>
</tr>
<tr>
<td>A X C</td>
<td>1</td>
<td>6.57*</td>
<td>4.03*</td>
<td>.70</td>
<td>1.86</td>
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<tr>
<td>B X C</td>
<td>1</td>
<td>.73</td>
<td>.57</td>
<td>2.57</td>
<td>1.25</td>
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<tr>
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<td>.01</td>
<td>3.54</td>
<td>2.56</td>
<td>2.22</td>
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<tr>
<td>Error</td>
<td>72</td>
<td></td>
<td></td>
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</table>

* p < .05  
** p < .01

Note: No significant effects found on dependent variables of Control and Psychological Distance.
most to the significant $F$ in the interaction between sex and distance. Univariate ANOVA's on these variables showed a significant interaction between sex and distance on both of these ($F = 6.57$, $df = 1, 72$ and $F = 4.63$, $df = 1, 72$, both with $p < .05$). This indicates that sex, when combined with distance, will significantly affect the comfort level during a social encounter between two people such that males were more uncomfortable in a close condition than females.

The behavioral measure of whether a person decided to remain or withdraw from the situation was analyzed by a Chi Square. No significant differences were found (see Appendix C). An examination of the frequency distribution constructed from those Ss choosing to remain in the experiment indicated that 65% of the male Ss chose to remain while 50% of the females decided to remain. When combined across sexes, 57% of the Ss chose to remain in the experiment.

Four Pearson $r$ correlation matrices were generated from 30 items on the questionnaire. Since no significant main effects were found for sex, males and females were combined to form these matrixes. An examination of significant results (see Table 3) shows that comfort and control correlate, $r = .8311$ ($p < .01$, $df = 19$) in a close staring condition while $r = -.4666$ ($p < .01$, $df = 19$) in a close no staring condition. Further, in a far staring condition these two variables correlate $r = .2536$ and $r = .3383$ in a far no staring condition ($p < .01$, $df = 19$). The impression of the E by the Ss correlates with where the Ss were most comfortable in the room, $r = .6956$ ($p < .01$, $df = 19$) in the close staring condition, $r = -.4033$ in a far staring condition, $r = -.5635$ ($p < .01$, $df = 19$) in the close no staring condition, and $r = .1353$ ($p < .01$, $df = 19$) in a far no staring condition. In a close
### TABLE 3

Table of Significant Product Moment Correlations

<table>
<thead>
<tr>
<th></th>
<th>Close Star</th>
<th>Close No Star</th>
<th>Far Star</th>
<th>Far No Star</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfort and Control</td>
<td>.8311</td>
<td>-.4666</td>
<td>.2536</td>
<td>.3383</td>
</tr>
<tr>
<td>Impression of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimenter and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfortable Sitting</td>
<td>.6956</td>
<td>-.5635</td>
<td>-.4033</td>
<td>.1353</td>
</tr>
<tr>
<td>Psychological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance and Comfort</td>
<td>.8567</td>
<td>-.5307</td>
<td>.5144</td>
<td>.4514</td>
</tr>
<tr>
<td>Psychological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance and Control</td>
<td>.7671</td>
<td>.4519</td>
<td>-.0777</td>
<td>.3989</td>
</tr>
</tbody>
</table>
staring condition psychological distance correlated with comfort, \( r = .8567 \), and with control, \( r = .7671 \). These same variables correlated \( r = -.5307 \) and \( r = .4519 \) in a close no staring condition; \( r = .5144 \) and \( r = -.0777 \) in a far staring condition; and \( r = .4514 \) and \( r = .3989 \) in a far no staring condition.

**Observational Results**

From a subjective standpoint, males showed more signs of discomfort when the E sat close than did females. Two males actually moved their chairs backwards apparently to increase the distance between them and the E. Neither S remembered doing this when they were questioned during debriefing. Males showed more signs of relaxation when the E was farther away.

In both staring conditions females seemed to hold the E's gaze more than males. Females maintained a steady gaze with the E throughout most of the instructions, while males tended to look around the room and down at their feet. Both males and females looked away when the word *speech* was said.

Essay questions from the questionnaire were not analyzed, but were used as guideline material to shed light on possible motivations behind Ss' behavior. Ss commented on why they withdrew or stayed in the experiment. Some of the more common ones included: "I was afraid to give a speech." "I don't like to talk in front of people on a topic I know nothing about." "I wanted to give a speech so that I take the challenge." "I figured I was asked, so why not?"

During debriefing Ss reported that they felt distant from the E when eye contact was not used. Comments made indicated that Ss perceived E as "embarrassed," "cold," "afraid to get involved," "having
a communication problem," and "very distant from the real situation."
DISCUSSION

The significant interaction between sex and distance supports the hypothesis that distance cues will be perceived differently depending on the sex of those involved in the interaction. Univariate ANOVA's suggest that the variables of "comfort" and "comfortable sitting position" are the most important contributors to this interaction. Results indicate that same sexed dyads (consisting of female-female) are more comfortable at a closer distance than opposite sexed dyads (consisting of male-female); further, they are more uncomfortable at a greater distance than opposite sexed dyads. One explanation for such findings may be that females perceive the close proximate position of the E as a sign of affiliation. Females have been found to have a high need for affiliation (Exline, et al., 1965; Exline, 1963), and close proximity may produce feelings contributing to a general affiliation satisfaction. Greater distances between those interacting may cause a lack of feedback necessary to establish a social relationship. Males, on the other hand, may perceive the distance cue as a threat to their personal space and object to any invasion of this barrier (Sommer, 1969). Personal space has been defined by Sommer (1969) and Horowitz (1963) as an invisible area surrounding the individual very much like a shell. The significant interaction between sex and distance indicates that invasion of personal space (Sommer, 1969) may be under the influence of those involved in the encounter. In this case, the degree of invasion would depend on the way the invading cues were interpreted. Females appear to be less intimidated by distance cues than males.
The significant main effect for staring indicates, that over all conditions, staring produces differences in the way an individual perceives his social situation. The questionnaire item asking Ss how much they liked the E was found to contribute very much to this overall main effect of staring. Examination of these results indicates that the E is liked more when 100% staring is used than when 0% staring is used. Hall (1965) suggests that at times eye contact may be the only means of communicating. It is a necessary source of feedback between those interacting (Argyle & Dean, 1965). At a far distance this need for eye contact is accentuated, and avoidance of visual cues may be perceived as an avoidance of further social involvement. At a close proximate range lack of eye contact may be perceived as coming from someone who is weak, unfriendly, uninterested, and carries various other negative characteristic traits. This would indicate that in two identical situations a person using one cue will communicate a message to another which will be entirely different from the message transmitted by another cue. This seems to be exemplified in Milgram's (1965) obedience study. The two situations were identical except that instructions were given either face-to-face or via telephone. It may be that the E was perceived as a much stronger person who was communicating a certain demand to the S when both were in the same proximate environment. Over the telephone the instructions may have been merely words and contained no nonverbal cues which establishes interpersonal relationships. The main effect for staring on the variable of "liking" may be interpreted to mean that Ss feel better about someone they can communicate with than someone they have no social feedback from. In other words, a person feels better about having some information about
where they stand in a social relationship than when they have no information about their position.

Staring does seem to play a very strong role in giving social feedback during the interaction, and this feedback appears to be desired. The insignificant interactions and main effects for the variable of "psychological distance" lead us to accept the null hypothesis stating that there are no significant differences between cells depending on the staring and proximate cues of the E; however, a look at the mean scores (see Appendix E) tells us that the close staring condition produced a closer emotional feeling in the S than did any of the other three conditions. Significant results may have been masked by an inflated error term caused by the extreme variation of this one condition. Correlations between psychological distance and comfort between the close staring and the close no staring tell us that there is a strong positive relationship between these variables in the former condition, while a negative relationship in the latter. Although more comfortable in the close staring condition, Ss appear to perceive themselves to be psychologically closer from E, while Ss feel more comfortable and farther away in the close no staring condition. The fact that there are differences of this nature in the close proximate condition and not in the distant condition may be explained by greater saliency of the staring cue in a close situation than in a more distant one.

The significant main effect of distance upon the variable of "comfortable sitting distance" tells us that as E sits closer, Ss desire to be farther away, and as E sits farther away, Ss desire a closer interaction. It appears from the correlations in Table 3 that
the closer the desired sitting arrangement is, the higher the S's impression is of the E when the two are sitting close and staring is used. Further, when close and no staring is used, the closer the desired sitting arrangement is, the less the evaluation is of E. A possible explanation of this is that the closeness between E and S, which is established both psychologically and physically by using staring, increases the rapport between both individuals. When psychological distance is at a maximum, this relationship may not be established. Thus, further work should be conducted to decide whether staring and other visual cues influences the social rapport between individuals. The results of this study show the importance of using visual cues in order to increase feedback and establish communication necessary for a comfortable interaction.

No significant differences were found between groups in the decision to remain or withdraw from the experiment. Thus, the E's nonverbal cues did not seem to affect the S's choice to remain or leave the situation. Dissonance work which rely on this manipulation of choice appears to be free of experimenter bias in this case. It should be noted, however, that male Ss were reported to be more cooperative than female Ss, and there were more males choosing to remain than females. Although not statistically proven, it is suggested that male Ss be used in the future for counterattitudinal dissonance studies.

Finally, the questionnaire itself is open to criticism. During debriefing, several Ss reported that they did not completely understand the questions. Thus, some of the questions may have been ambiguous. This was definitely the problem with the two questions designed after Kleck, et al. (1968) and Levinger and Gunner (1967), which asked the S
to diagram various seating patterns. Ss apparently misunderstood what was being asked. However, these two questions were retained throughout the experiment to maintain consistency in the questionnaire, although no conclusive results could be obtained. Although the questionnaire was designed to tap various socioemotional feelings, it is suggested that further work done in this area should develop better measures to tap those perceptual variables expected to influence the behavior.

In conclusion, results have shown that nonverbal cues of distance and staring affect the way an individual perceives a social encounter with a female. The comfort of the individual, and the evaluation of the other person are the two variables which seem to be most influenced. Questions still arise asking what exactly is being communicated by each cue. Argyle and Dean (1965) try to explain the resulting behaviors which follow from these signals by a model using an "intimacy" equilibrium shift. Yet, this does not answer why one person feels one way about "intimacy," and another person reacts differently. In fact, intimacy can never be measured as it is defined in the literature. From the present study there is evidence pointing to perceptual alterations as a function of these cues. Eye contact may be perceived as a positive signal increasing evaluation of the person using it. This has many implications when evaluating teachers, salesmen, and public figures. Lack of eye contact may create negative feelings which are damaging to the individual's total character. A weak, rigid, uninterested person will find it difficult to communicate to those around him. Closer attention in the future should be made to those perceptual alterations which occur as a function of nonverbal signals. Possibly more is communicated through the eyes than ever said in words.
REFERENCES


Duncan, S. Nonverbal communication. Psychological Bulletin, 1969, 72, 118-137.


E's Instructions To Ss

1. Beginning Instructions

"We are conducting an experiment on communication and persuasion. We are basically interested in how various controversial topics will affect an audience and influence their beliefs and attitudes. We have an audience today waiting in room 328, and we have already measured their attitudes on several issues. We are presenting them throughout the morning (or afternoon) with certain issues, and then measuring to see what effect these have had on their opinions. In this way, we can get a good measure of how controversial topics will influence an individual when he is exposed to them for the first time.

The topic we have chosen today is: "Tuition should be increased in the California State Colleges." What we would like you to do is take ten minutes now to prepare a persuasive speech which you will present to the audience. I have a list of guidelines which will help you focus and narrow your points. You may use any of these which you think will be of help. The speech should be from one to five minutes in length. I will come back here after the ten minutes you have to prepare, and we will go down to the room together. They won't ask you any questions, and you merely give the speech to them and leave. This will allow me to return to them later, and measure their beliefs and opinions in order to understand how these topics have influenced them.

Now I realize you did not sign up specifically to give a speech, since there was no mention of this on the sign-up sheets. Therefore, I am giving you a choice to either continue with the experi-
ment or withdraw. If you decide to stay, I will give you the ten minutes now to prepare. If you decide to leave, that is perfectly all right, and I assure you, you will not ruin the experiment."

At this point, E maintains the visual cue which was used during the above instructions and awaits the decision to be made by the S.

2. After the decision is made, all the instructions are as follows:

"Before we continue (before you leave), I would appreciate your help. This is part of a pilot project which is being conducted. The Faculty Research and Grants Committee is requiring that we ask all Ss to fill out this questionnaire which is aimed at getting a better understanding of the safeguards embedded within this experiment. The cover sheet is fairly self-explanatory, and will tell you how to fill the questions out. Please answer all of the questions as clearly and completely as you can. Many of the Ss have not done so, and the Grants Committee has written us telling us that the computers will not analyze the data if this is continued. Answer all questions exactly how you feel at the moment. All questions can be answered at this point, so please do so. When you have completed the questionnaire, place it back in this envelop and seal it. At the conclusion (when you are ready to leave) of this experiment, you may drop it off in the psychology office in room 309, and they will forward it up to the administration building. I am going to leave for a few minutes while you complete the questions, and I will return to give you the rest of the information (before you leave to say good-by and give you your units)."
Faculty Research and Grants Committee

Questionnaire on Experimental Subject Safeguards

At approximately four month intervals, a college policy requires that every project which is being funded by a federal agency or foundation grant, is reviewed, and a report of progress is sent to the Faculty and Grants Office. We are concerned with the Rights and Welfare of human subjects, and have prepared these questions carefully to examine what is going on within the research situation you have just participated in.

You are therefore, requested to complete this questionnaire as honestly as you can. You are assured that this entire questionnaire will be kept confidential, and we are not interested in your name or any other personal information. We are only concerned with your honest interpretation of your feelings and impressions.

Please fill out this questionnaire as carefully as you can. When completed, place it back in the envelop you received it in, and you may drop it into the Psychology Office in room 309. From there it will be forwarded to our office of the Faculty Research and Grants Committee.

This questionnaire is one of the only ways our office has to evaluate which safeguards are being upheld and which ones are not. You are again urged to answer all of these questions as accurately as you can.
Subject Impression Questionnaire

The following are a set of questions designed to tap your feelings and impressions of the research you have just been participating in. Please answer the questions by CIRCLING either the number on the scale which best corresponds to your feelings AT THIS VERY MOMENT, or yes or no. Please answer ALL questions. When you are through, you are encouraged to answer and add any additional information which may help us in our understanding of how you perceived this situation. The Faculty Research and Grants Committee is deeply concerned with the problem of experimental safeguards, and you are urged to be as honest and accurate as you can. So that the Standing Advisory Committee and Research Coordinator can be assured that such safeguards are provided, the following set of questions shall serve as supplement material in our investigation.

1. Of what scientific value do you think this experiment is?

<table>
<thead>
<tr>
<th>Very Little</th>
<th>Very Great</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
</tbody>
</table>

2. Have you been adequately told of the risks and hazards of this study before you began?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

3. How comfortable did the experimental situation make you feel?

<table>
<thead>
<tr>
<th>Very Uncomfortable</th>
<th>Very Comfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
</tbody>
</table>

4. How interested did the experimenter appear in the experiment he/she was conducting?

<table>
<thead>
<tr>
<th>Very Uninterested</th>
<th>Very Interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
</tbody>
</table>

5. Did you feel you were taken advantage of?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

6. Were your rights or privacy infringed upon?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

7. How much control of your behavior did you feel you had during this experiment?

<table>
<thead>
<tr>
<th>Very Little</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
</tbody>
</table>
8. What kind of an impression did the experimenter make on you?
   Very Good 2 3 4 5 6 7 8 9

9. What kind of an impression do you feel you made on the experimenter?
   Very Good 2 3 4 5 6 7 8 9

10. Do you think that you were given the proper information as to your rights to withdraw from this study? Yes No

11. Did you choose to withdraw? Yes No

12. Why did you or did you not withdraw from this study?

13. Were you told what any part of the experiment was about before participating in it Yes No

14. Were you at all pressured into participating in this experiment? Yes No
PART 2

The second part of this questionnaire deals with some of the basic design problems inherent in the experimental situation. You are therefore asked to continue answering the questions as you did in the previous part. These questions are slanted in the direction of what corrections might be implemented within the experiment.

Place yourself in the room with the experimenter so that you would feel the most comfortable. Answer this question in relation to how far you would want to sit from the experimenter (or interviewer) in order to maximize comfort.

X 1 2 3 4 5 6 7 8 9 10 11 12 13 14 ft.

This Feet between you
is the and the experimenter
experimenter

Below is a box representing the room you have been in during the experiment. Physically place yourself and the experimenter in the room to MAXIMIZE YOUR COMFORT. Use the following symbols to represent you and the experimenter.

X = EXPERIMENTER
0 = YOU

Where would you place yourself PSYCHOLOGICALLY in relation to the experimenter? In other words, on an emotional level, where would you place yourself on the scale below in relation to the experimenter? This question does not mean from a physical position, but from an emotional and psychological position.

Very
Close

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Very
Distant
Below is a box which represents the room you were in during the experiment. Diagram where the experimenter ACTUALLY WAS in the room. If he/she wasn't present, please indicate.

Was there any unusual equipment or seating arrangements during this experiment? Please indicate below.

How far away from you in actual feet do you think the experimenter was?

1 2 3 4 5 6 7 8 9 10 11 12 13 14

How experienced did the experimenter appear?

Very Experienced
1 2 3 4 5 6 7 8

Very Inexperienced
9

How much did you actually like the experimenter who conducted the experiment?

Very Much
1 2 3 4 5 6 7 8

Very Little
9

Was the experimenter Male or Female? (circle)
How much did this affect the way you felt during the experiment?

<table>
<thead>
<tr>
<th>Very Much</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Very Little</th>
</tr>
</thead>
</table>

How would you best describe the experimenter's manner? (Circle Yes or No)

- Friendly: Yes No
- Weak: Yes No
- Hostile: Yes No
- Rigid: Yes No
- Strong: Yes No
- Strong: Yes No
- Cold: Yes No
- Interested: Yes No
- Warm: Yes No
- Unsure: Yes No
- Average: Yes No
- Easygoing: Yes No
- Scientific: Yes No
- Informal: Yes No
- Unusual: Yes No
- Spontaneous: Yes No
- Definite: Yes No

How attentive did the experimenter appear?

<table>
<thead>
<tr>
<th>Very Attentive</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Very Unattentive</th>
</tr>
</thead>
</table>

How much actual eye contact did you notice you had with the experimenter? In other words, how much eye contact was EXCHANGED between you.

<table>
<thead>
<tr>
<th>Very Much</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Very Little</th>
</tr>
</thead>
</table>

Please feel free to make any comments you wish about the experiment which we may use to help us evaluate the procedure which you have just been in.
APPENDIX B

Pilot work was conducted before the main study was initiated in order to determine whether or not the actual topic which was to be used during the counterattitudinal speech was in fact counterattitudinal. Although last year McMartin and Greenspan (1971) did discover that this topic was in opposition to the current beliefs of most college students who were sampled, this was not known for the present study. Thus, a questionnaire was distributed to 50 Ss throughout the psychology department at San Fernando Valley State College, and results indicated that the topic of raising the tuition for college students was, in fact, counterattitudinal for those sampled. It was decided at this time to use the topic during instructions which were given to Ss.

1 Since the beginning of this experiment, San Fernando Valley State College has been changed to California State University, Northridge.
Below are several statements on various topics of interest. Read each one carefully so that you fully understand the direction it is taking, and then circle the number on the scale which best describes your opinion toward the issue right at this moment.

1. Offshore oil drilling should be forbidden.
   Agree
   Strongly 1 2 3 4 5 6 7 8 9
   Disagree
   Strongly 1 2 3 4 5 6 7 8 9

2. Birth control devices should be dispensed on campus by the student health center.
   Agree
   Strongly 1 2 3 4 5 6 7 8 9
   Disagree
   Strongly 1 2 3 4 5 6 7 8 9

3. How do you feel towards the Women's Liberation Movement?
   Agree
   Strongly 1 2 3 4 5 6 7 8 9
   Disagree
   Strongly 1 2 3 4 5 6 7 8 9

4. Tuition should be increased in the California State Colleges.
   Agree
   Strongly 1 2 3 4 5 6 7 8 9
   Disagree
   Strongly 1 2 3 4 5 6 7 8 9

5. Students should have complete control over all major issues within the college, completely doing away with the administration.
   Agree
   Strongly 1 2 3 4 5 6 7 8 9
   Disagree
   Strongly 1 2 3 4 5 6 7 8 9

6. Draft deferments for college students should be continued.
   Agree
   Strongly 1 2 3 4 5 6 7 8 9
   Disagree
   Strongly 1 2 3 4 5 6 7 8 9

7. Competitive athletics should be abolished in California State Colleges and Universities because of its high cost.
   Agree
   Strongly 1 2 3 4 5 6 7 8 9
   Disagree
   Strongly 1 2 3 4 5 6 7 8 9

8. The United States should sharply escalate in Southeast Asia.
   Agree
   Strongly 1 2 3 4 5 6 7 8 9
   Disagree
   Strongly 1 2 3 4 5 6 7 8 9

9. Free childcare centers should be available for working mothers.
   Agree
   Strongly 1 2 3 4 5 6 7 8 9
   Disagree
   Strongly 1 2 3 4 5 6 7 8 9
10. Medical care in the United States should be completely socialized.

Agree
Strongly 1 2 3 4 5 6 7 8 9

Disagree
Strongly
Below are several statements on various topics of interest. Read each one carefully so that you fully understand the direction it is taking, and then circle the number on the scale which best describes your opinion toward the issue right at this moment.

1. A Methadone program should be made available to all addicts.
   Agree 1 2 3 4 5 6 7 8 9 Disagree Strongly
   Strongly

2. The state of California should pass stricter building safety codes.
   Agree 1 2 3 4 5 6 7 8 9 Disagree Strongly
   Strongly

3. Abortion should be completely legalized.
   Agree 1 2 3 4 5 6 7 8 9 Disagree Strongly
   Strongly

4. Film ratings should be abolished.
   Agree 1 2 3 4 5 6 7 8 9 Disagree Strongly
   Strongly

5. Present drug laws should be made stricter.
   Agree 1 2 3 4 5 6 7 8 9 Disagree Strongly
   Strongly

6. Police should be required to take tests to screen out candidates who hold extreme political views.
   Agree 1 2 3 4 5 6 7 8 9 Disagree Strongly
   Strongly

7. Exceptions should be made to hire minority group members who lack required qualifications due to lack of opportunity in the existing social structure.
   Agree 1 2 3 4 5 6 7 8 9 Disagree Strongly
   Strongly

8. How important, in general, is psychological research?
   Extremely Important 1 2 3 4 5 6 7 8 9 Extremely Unimportant
Pilot work was conducted on some 80 Ss throughout the year in order to perfect the manipulations which were used as independent variables, and the questionnaire which was the dependent measure. Extensive debriefing was used at the conclusion of each experimental session so that any of the problems which were obvious to Ss could be worked out in the future. The original copy of the questionnaire is presented here in order to see the transition which took place from the beginning of the study to the final study.

Before the major study was completed, eight graduate students at San Fernando Valley State College were run in various conditions of the experiment in order to check the manipulations which were going to be used. It was thought that if these students, who were knowledgeable in experimental technique, could be run through the actual experimental session, they would pick up and comment on the problems involved with the design or manipulations. All Ss were completely deceived during the cover story and manipulations, indicating that E had mastered the technique of staring or not and repeating the instructions as spontaneously as possible.

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1 Since the beginning of this experiment, San Fernando Valley State College has been changed to California State University, Northridge.
# EXPERIMENTAL FACILITIES SURVEY

The experimenter has been instructed to give you this survey in order to help us evaluate the various research projects going on in the psychology department. When this is completed, it is supposed to be collected, put in a sealed envelop, and returned to the psychology department office.

Please help us by cooperating with the request of filling it out. On a 21 point scale, be as truthful as you can and answer how you feel about the questions asked. Answer in reference to this EXACT moment. Thank you very much for helping us in this project.

1. How comfortable has the experiment been so far?

| Very Comfortable | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 Very Uncomfortable |

2. How pleasant has the EXPERIMENT been so far?

| Very Pleasant | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 Very Unpleasant |

3. How necessary do you think this research is so far as you can tell at this point in the study?

| Very Important | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 Very Unimportant |

4. How willing are you to participate in this experiment?

| Very Willing | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 Very Unwilling |

5. How pleasant has the interviewer or experimenter been towards you?

| Very Pleasant | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 Very Unpleasant |
1. How comfortable do you feel in this experiment?

[1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19]

Very Comfortable  Neutral  Neither
Comfortable  Nor
Uncomfortable

2. Do you think the results of this experiment can have scientific value?

[1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19]

Definitely YES  Definitely NO

3. How willing are you to be participating in this experiment?

[1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19]

Very Willing  Very Unwilling

4. Would you have any desire to participate in another similar experiment?

[1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19]

Yes Very Much  Not sure  Not at all

5. How pleasant has the experimenter been?

[1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19]

Very Pleasant  Very Unpleasant

6. How did you or do you feel during the experiment?

[1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19]

Friendly  Hostile

7. Repeating question 6, how did you feel (or do you feel) in this experiment?

[1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19]

Cooperative  Competitive
8. What kind of an impression do you feel you made on the experimenter?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
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<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
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<tbody>
<tr>
<td>Very Poor</td>
<td>Very Poor</td>
<td>Very Poor</td>
<td>Very Poor</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Favorable</td>
<td>Favorable</td>
<td>Favorable</td>
<td>Favorable</td>
<td>Favorable</td>
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<td>Favorable</td>
<td>Favorable</td>
<td>Favorable</td>
<td>Favorable</td>
<td>Favorable</td>
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</tbody>
</table>

9. How well did you like the experimenter?

<table>
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<tr>
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<th>4</th>
<th>5</th>
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<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
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</thead>
<tbody>
<tr>
<td>Very</td>
<td>Very</td>
<td>Very</td>
<td>Very</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
<td>Not at all</td>
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TABLE 4

Frequency Table for Subjects Remaining in an Uncomfortable Situation When Given a Choice

<table>
<thead>
<tr>
<th></th>
<th>Staring</th>
<th>No Staring</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close</td>
<td>5</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Far</td>
<td>8</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Opposite Sexed Dyad</td>
<td>13</td>
<td>13</td>
<td>26 = Total</td>
</tr>
<tr>
<td>Same Sexed Dyad</td>
<td>7</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

10 = Total
### TABLE 5

**Discriminant Functions on Six Questionnaire Responses**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Comfort</th>
<th>Control</th>
<th>Most Comfortable Sitting Distance</th>
<th>Psychological Distance</th>
<th>Liking</th>
<th>Ability to Perceive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (A)</td>
<td>.8064</td>
<td>.1773</td>
<td>-.4106</td>
<td>-.1408</td>
<td>-.4235</td>
<td>-.3279</td>
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<tr>
<td>Stare (B)</td>
<td>-.2287</td>
<td>.0758</td>
<td>.0052</td>
<td>.1205</td>
<td>.5277</td>
<td>.9909</td>
</tr>
<tr>
<td>Distance (C)</td>
<td>.4871</td>
<td>.1077</td>
<td>.7451</td>
<td>.3360</td>
<td>-.3484</td>
<td>-.1223</td>
</tr>
<tr>
<td>A X B</td>
<td>.5955</td>
<td>-.5669</td>
<td>.0578</td>
<td>.4119</td>
<td>-.6123</td>
<td>-.5487</td>
</tr>
<tr>
<td>A X B</td>
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<td>-.4761</td>
<td>-.5501</td>
<td>.0131</td>
<td>.1171</td>
</tr>
<tr>
<td>A X B X C</td>
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<td>.3271</td>
<td>.3334</td>
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<td>-.5913</td>
<td>-.4469</td>
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</table>
TABLE 6

Mean Responses to Six Questionnaire Items

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<th>Male</th>
<th>Female</th>
<th>Comfort</th>
<th>Control</th>
<th>Comfortable Sitting Distance</th>
<th>Psychological Distance</th>
<th>Liking</th>
<th>Ability to Perceive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stare/Close</td>
<td>6.40</td>
<td>4.50</td>
<td>3.40</td>
<td>5.79</td>
<td>2.90</td>
<td>3.09</td>
<td></td>
</tr>
<tr>
<td>Stare/Far</td>
<td>5.70</td>
<td>3.50</td>
<td>4.00</td>
<td>7.29</td>
<td>3.29</td>
<td>2.09</td>
<td></td>
</tr>
<tr>
<td>No Stare/Close</td>
<td>6.50</td>
<td>2.90</td>
<td>2.09</td>
<td>7.40</td>
<td>3.50</td>
<td>5.40</td>
<td></td>
</tr>
<tr>
<td>No Stare/Far</td>
<td>6.59</td>
<td>4.20</td>
<td>4.79</td>
<td>8.90</td>
<td>3.90</td>
<td>4.70</td>
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</tr>
<tr>
<td>Stare/Close</td>
<td>5.20</td>
<td>2.79</td>
<td>4.00</td>
<td>6.20</td>
<td>2.70</td>
<td>1.50</td>
<td></td>
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<tr>
<td>Stare/Far</td>
<td>6.70</td>
<td>3.20</td>
<td>4.50</td>
<td>8.40</td>
<td>3.59</td>
<td>2.79</td>
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<tr>
<td>No Stare/Close</td>
<td>4.29</td>
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<td>3.90</td>
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<tr>
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<td>3.90</td>
<td>3.50</td>
<td>6.50</td>
<td>3.59</td>
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</tbody>
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