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NEED FOR PRIVACY AND ITS EFFECT UPON INTERPERSONAL
ATTRACTION AND INTERACTION

by

JEFFRY H. LARSON, B.S., M.S.

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ABSTRACT

The present study explored the implications of variations in privacy preferences for the quality and style of interpersonal behavior in an initial encounter situation. The influence of situational variations in privacy upon interpersonal behavior was also examined. Past research has shown that people with a high preference for privacy are more introverted than extraverted, logical and analytic rather than sympathetic and feeling, prefer not to include themselves in social groups, and do not express or need affection as much as people with low privacy preferences. It has been theorized that people with a high need for privacy have low self esteem and a poor self concept and hence need more privacy in which to develop a sense of self and allow for self evaluation. Hence, it was hypothesized that: (a) persons with a high preference for privacy are less attracted to and interact less with a stranger than people with a low preference; and, (b) differences between privacy preference groups in attraction and interaction are greater in a situation which places high rather than low demands upon privacy. The research design was a 2 (privacy preference) by 2 (situational variation in privacy) by 2 (gender) design. Situational demands upon privacy were varied by means of a self-disclosure task in which subjects discussed relatively intimate or nonintimate topics.

The findings showed that for those with high compared with low privacy preferences, interaction with a stranger was rated as significantly more awkward, tense, and unnatural. High privacy individuals verbally reinforced speaking by the strangers significantly less than low privacy individuals. Trends on the other behavioral measures were

consistent with these findings. There were no group differences on the measures of interpersonal attraction.

The results of this study support previous research which has suggested that people with a high preference for privacy may interact less and be less comfortable with a stranger than people with a low preference. No support was found for the proposition that intimate self disclosure significantly alters attraction to or interaction with a stranger more so for individuals with high versus low preferences for privacy. The implications of these findings for relationship development and interpersonal skills training was discussed. Further research should be devoted to measuring the effects of other kinds of situational demands. It is also important to empirically determine the relationship between self-esteem and need for privacy. Finally, research is needed to explore the antecedents of privacy preferences and to determine how they change over time.

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CHAPTER I

INTRODUCTION

Statement of the Problem

Privacy can be defined as an outcome of a person's wish to withhold from others certain knowledge as to his/her past, present or future experience and action (Altman, 1974). Much of the past research on privacy has concerned itself with changes in the concept of privacy as a function of development, situational studies that deal with the changes in privacy preferences as a result of environmental changes, and the relationship between perceived privacy options and personality variables. Another group of studies have dealt with environmental/spatial variables like number and size of bedrooms, room density (number of people in a room per square foot), and the arrangement of rooms and placement of barriers like doors, etc., and their relationship to perceived privacy. Some research has also addressed the issue of individual differences in privacy preferences. The extent to which people prefer privacy has been related to antecedent environmental variables such as family size and degree of crowding in the home during childhood, to concurrent environmental circumstances, and to self-report personality scales which reflect interpersonal orientations.

Little is known about the implications of variations in privacy preferences for the way in which people structure their social interactions (intimate and nonintimate), nor the implications for effectiveness in interpersonal interactions. On one hand, it is possible that privacy preferences reflect primarily a need to control the amount of social interaction, but that the quality of social interaction is not affected. Alternatively, as suggested by some of the personality

correlates of preferred privacy, interpersonal style and skills may also be influenced. Further, it is likely that the situational demands upon privacy influence the quality of interaction, and to a greater extent for those with high compared with low privacy preferences.

The purpose of the present study was to explore the implications of variations in privacy preferences for the quality and style of interpersonal behavior in an initial encounter situation. The influence of situation variations in privacy upon interpersonal behavior were also examined. It was anticipated that this type of research may have implications for relationship development research and interpersonal skills training.

Concept of Privacy

Privacy is an outcome of a person's wish to withhold from others certain knowledge. Psychologically, privacy is perceived privacy, just as freedom is perceived freedom (Kelvin, 1973). In ordinary language, the connotation of privacy (and solitude) is pleasurable; it is seen as a condition which enhances satisfaction--it is sought and protected.

States of privacy. Within the above definitional frame of reference West (1970) delineates four states of privacy: solitude, intimacy, anonymity, and reserve. When in solitude individuals are separated from others and are free of visual observation by others. In all, "solitude is the most complete state of privacy that individuals can achieve (p. 31)." In intimacy people are acting as a part of a small unit that claims and is allowed to exercise seclusion so that it may achieve a close, relaxed, and frank relationship between the two or more individuals. Whether close contact brings relaxed relations or not

depends on the personal interaction of the members, but without intimacy a basic human contact would not be met. Anonymity occurs when individuals are in public places or performing public acts but still seek, and find, freedom from identification and surveillance. They do not expect to be personally identified and held to the full rules of behavior and role that would operate if they were known to those observing. Reserve, the fourth and most subtle state of privacy, is the creation of a psychological barrier against unwanted intrusion and occurs when the individual's needs to limit communication about himself/herself are protected by the willing discretion of those in the surrounding area.

Structuring of privacy. Two important aspects of privacy are desired privacy and achieved privacy. Desired privacy is a subjective statement of an ideal level of interaction with others. If the desired privacy is equal to the achieved privacy, an optimum state of privacy exists. If achieved privacy is lower or higher than desired privacy, a state of imbalance exists (Altman, 1974, Note 1). How a desired level of privacy is achieved has been discussed by Bates (1964) in terms of the structuring of privacy. He delineates three specific ways in which a person's privacy is structured. It is differentiated, first, into many contact areas. People readily distinguish among the kinds of things which arouse feelings of privacy in them. Some of these things have to do with the self: The physical image, the ideas, emotions, beliefs, and pictures of one's performance in the important groups to which one belongs. Others are outwardly oriented to different selves, for instance, a person's unwillingness to betray confidences or divulge information harmful to individuals or groups. People doubtless vary a good deal in the specific areas which have privacy meanings attached to

them, and in the relative strength of these privacy feeling for a given area. Secondly, privacy is structured by the answer a person gives to the question "Who are the persons you wish to exclude from having this knowledge?" The feeling of privacy is a response to an unwanted actual or potential intrusion by somebody. There are characteristic differences between people, some who seem to wish to keep almost everything from everybody, while others appear to enjoy self-revelation. Thirdly, privacy is structured by situational contexts. What it is that people feel private about, and the persons with respect to whom they have these feelings will be affected markedly by the situation in which they find themselves.

Functions of privacy. Privacy is concerned with (1) self-definition and self-identity, (2) the interface of the self and others, and (3) relationships between a person or group and others (Altman, 1974).

The notion of self-identity is central to human social behavior (Altman, 1974). To function effectively with others requires some understanding of what the self is, where it ends and begins, and when self-interest and self-expression can be exhibited. Privacy mechanisms serve to define the limits and boundaries of the self. By being able to change the permeability of the boundaries around oneself, a sense of individuality develops. Westin (1970) states that privacy is "an instrument for achieving individual goals for self-realization (p. 39)." Pennock and Chapman (1971), Beardsley (1971), and Gross (1971) speak of invasions of privacy as especially harmful because they destroy individual autonomy, self respect, and dignity, and because they take control of a person's life and take self away from that person.

Privacy serves to set people apart from one another. When away from the presence of others, individuals can integrate their experiences with others, process information received from interactions, and can formulate and weigh alternative plans of future behavior and rehearse roles (Altman, 1974). Another aspect of self evaluation involves self-observation which involves the person dropping social masks of various types, trying out new behaviors, and then watching the self exhibit those behaviors. Privacy allows the person the opportunity for both self-evaluation and observation.

Privacy also allows an opportunity for emotional release that is necessary to mental health in a society that generates a high degree of tension (Westin, 1970). "There have to be times when individuals can be 'themselves:' tender, angry, irritable, lustful, or dreamfilled. Such moments may come in solitude, in the intimacy of family, in the anonymity of park or street, or in a state of reserve while in a group" (Westin, 1970, p. 34).

Personal autonomy is the desire to avoid being manipulated or dominated by others and is linked to one's sense of individuality, uniqueness, and worth. The regulation of self-other boundaries is a source of self-knowledge based directly on overt, ongoing interaction with others (Altman, 1974). Westin (1970) illustrates autonomy in terms of regions of privacy surrounding a core self. The core represents those "ultimate secrets" which one does not share unless relief from stress requires their exposure. The next region outward from the core contains "intimate secrets" that will be shared with those who will not or cannot injure us for our revelations. The third region extends outward to include

friendship groups. Regions continue as concentric circles ending finally with verbal and physical expressions which are open to the public.

In summary, privacy is intimately tied to a person's concept of self; it is regarded by some investigators as being necessary for self-maintenance, self-definition, healthy separation from others, trust, and establishment of an identity (Kelvin, 1973; Pastalan, 1970). Privacy enables people to play social roles better by allowing self-evaluation and observation when they get backstage and relax. It provides people the chance to occasionally transgress social norms, thereby enabling them to obey those norms when they are back in the social setting. People need privacy in which to assess information received and to consider alternatives and consequences which will enable them to make appropriate decisions.

Age-related changes in the concept of privacy. Assuming that the concept of privacy is dynamic and that its meanings and associated behavior patterns are a function of age and age-related experiences, Wolfe and Luafer (1974) interviewed 287 children and adolescents age 5 to 17 using a cross-sectional design. Respondents were asked to discuss what the word "privacy" meant to them.

The most relevant finding was that the meanings of privacy given by the largest groups of their respondents reflect many meanings that have appeared in the literature. Four major meanings were found to be used at all ages: "alone," "controlling access to information," "no one bothering me," and "controlling access to spaces" with one of the four more salient than the others to specific children. The four major

meanings they found reflect what Altman (1974) has called the "boundary" property of privacy.

Privacy Preferences

Dimensions of privacy preferences. Marshall (1970) examined the relationships between privacy preferences and opportunities to gain privacy in both the past and present home environment, first by predicting present private preferences from density or crowding in the past environment and, second, by examining the closeness of fit between privacy preferences and environmental opportunities for obtaining privacy. Hypotheses were formulated relating environmental density to privacy preference, using adaptation level theory (ALT) (Helson, 1964). Focusing on residual stimuli from the past environment, it was hypothesized that persons growing up in a high-density home, without a room of their own and a relatively large number of siblings, would have adapted to the attendant lack of privacy and learned to prefer low levels of privacy. They were particularly expected to prefer little solitude, reserve, and intimacy compared to persons who grew-up in a low-density home. None of the expected relationships between own room and number of siblings variables and privacy preferences were significant, although the largest correlations that did appear were in the predicted direction.

Similar hypotheses were made relating privacy preferences to the past environment on a larger scale, that is, with the amount of open space in the neighborhood and percentage of life spent in towns of various sizes as variables. Adaptation level theory would predict that city dwellers would prefer more anonymity than small town residents as a result of adapting to the relative anonymity in the city. In line with

ALT predictions, persons spending more of their lives in cities were significantly more likely to prefer the privacy of a large group of strangers (anonymity) or the privacy gained through the association with only one other intimate person (intimacy), and they tended to prefer non-involvement with their neighbors (neighboring).

The only other significant privacy preference correlates of childhood environment density were with measures of perceived crowding rather than measures of actual crowding. Persons who perceived their childhood home as crowded preferred the privacy of a large group of strangers (anonymity) or the privacy gained in an intimate relationship with a significant other (intimacy). Finally, the relationship between density or crowding in the present physical environment and privacy preferences was compared with ALT predictions. Need for privacy was found to be negatively related to perceived privacy within the home and to the number of persons living in the home. The first finding was in contradiction to ALT's predictions of a positive relationship between perceived privacy in the home and need for privacy.

Interpersonal correlates of privacy preferences. As part of her original study, Marshall (1970) measured the relationship between privacy preferences and several interpersonal variables. Correlations between privacy preferences and the six scales from the Fundamental Interpersonal Relationship Orientation--Behavior (FIRO-B) Scale (Schutz, 1958) were determined. The six FIRO-B scales measure: (1) Expressed Inclusion---initiating interaction with other people (2) Wanted Inclusion---wanting to be included; (3) Expressed Control---controlling people; (4) Wanted Control---wanting to be controlled by people; (5)

Expressed Affection---acting close and personal toward people; (6) and, Wanted Affection---wanting others to get close and personal with one. Four of the six FIRO-B scales (Expressed Inclusion, Wanted Inclusion, Expressed Affection, and Wanted Affection) were significantly correlated with total scores on the PPS ($r = -.54, -.44, -.44, \text{ and } -.49$, respectively). The FIRO-B "Control" scales were not significantly related to preference for privacy.

Marshall (1970) also related Privacy Preference Scale (PPS) scores to several other personality dimensions. On the first, introversion-extraversion, it was hypothesized that persons with scores toward the introversion end of the continuum would have higher preferences for privacy, and for solitude in particular, than people scoring toward the extraversion end. The relationship could occur either because introverts sought out solitude, or because they were merely more able to cope with being alone and thus do not avoid solitude. The Extraversion-Introversion scale of the Myers-Briggs Type Indicator was chosen as the measure of this dimension. The four bipolar scales of the Myers-Briggs Type Indicator (MBTI) are based on Jungian typology (Myers, 1962). The Extraversion-Introversion (E-I) dimension measures ease in and liking for interpersonal contact. As hypothesized, the PPS total score was significantly related to introversion ($r = .30$). The pattern of correlations indicated that the major factor in the relationship between introversion and privacy was an emphasis on non-involvement with non-intimate others. That is, those who rated themselves as more introverted than extraverted also expressed a preference for low involvement with others.

The second dimension of the MBTI is the Sensing-Intuition dimension which measures "opposite ways of finding out" (Myers, 1962). One way is through one's senses---using the eyes and ears and other senses for gathering the facts of a situation. The other way to find out is through intuition---using one's creativity and imagination to arrive at new possibilities or solutions, rather than working with known facts. No significant relationship was found between this dimension and privacy preferences. The thinking-feeling dimension reflects whether judgement is arrived at by impersonal analysis and logic or by consideration of other's feelings and needs. The judging-perceiving dimension reflects a liking for either a planned, decided, orderly way of life or a flexible, spontaneous way of life. Thinking was significantly related to the total PPS score. This indicated that persons who arrive at judgements through analysis and logic rather than by using their feelings had a high preference for privacy. They also tended to prefer low involvement with neighbors and low levels of disclosure. No significant correlation was found between the judging-perceiving dimension and PPS total score.

Rationale

Past research on privacy has taken several directions. The directions include research on the changes in the concept of privacy as a function of development (Wolfe & Laufer, 1974), situational studies dealing with changes in privacy preferences as people are relocated (Pastalan, 1974) and the relationship between perceived privacy options and self esteem and locus of control (Aloia, 1973). Other studies have dealt with environmental and spatial variables such as number of people per dwelling, room size, arrangement of rooms, etc., and their effect on privacy (Marshall, 1972; Parke & Sawin, 1979; Smith et al, 1979; and

Wolfe & Rivlin, 1971). Research on individual differences in privacy preferences has dealt primarily with antecedent and concurrent environmental correlates of preferences. Little is known about the impact of privacy preferences upon interpersonal behavior. Due to the nature of the concept and the consequent nature of the items which have been developed to measure privacy preferences, it is quite likely that amount of social contact is negatively related to privacy preferences. For example, to obtain a high score on the PPS, one must indicate that they, "Sometimes want to get away from everyone for awhile, even close friends" or that they "do not always like to be a part of the group." However, there are few items on the PPS which relate to the quality of social interaction. There is reason to believe, however, that privacy preferences may in fact reflect more than the quantitative dimension of social contact. They may also be related to level of comfort and attraction between people in a social interaction.

Altman (1975), Bates (1964), Kelvin (1973) and others have emphasized that privacy preferences are related to the self concept, a sense of personal identity, self acceptance, and self esteem. Bates (1964) proposed that as a person's self acceptance increases, their privacy needs will decrease, based on the protective functions of privacy mentioned earlier. Conversely, while self acceptance is low, privacy needs will remain high or increase. If persons with high needs for privacy are lacking in self acceptance, this will in turn affect their interpersonal behavior, particularly when their privacy is violated and further stress invoked. The positive relationship between high esteem and self acceptance and healthy interpersonal functioning has been discussed by many people including Altman (1975), Bates (1964), Cooley (1956), Kelvin (1973)

and George Herbert Mead (1934). Persons with high self esteem and acceptance and a consequent low need for privacy could be expected to feel more comfortable and be more attracted to others in an interpersonal situation and hence, the quantity and quality of their interpersonal interaction would be greater than for persons with low self esteem and self acceptance and a high need for privacy. This relationship may also hold true in situations where a person's privacy is infringed upon and further stress invoked. Beardsley (1971), Gross (1971) and Pennock & Chapman (1971) speak of violations of privacy as potentially harmful because they can threaten individual autonomy, self respect, and in a sense demean the worth of the person.

In addition, the personality correlates of the PPS suggest that interaction style may be related to privacy preferences. The data from research on privacy preferences suggest that a person with a high preference or need for privacy is more introverted than extraverted, and tends to be logical and analytic rather than sympathetic and feeling (Marshall, 1970). Persons with a high need for privacy do not desire to include themselves in social groups compared to people with a low need for privacy. They do not express or need affection as much as people with low need. All of these factors imply that the person with a high need for privacy may differ from the person with a low need for privacy in attraction to others and the degree of involvement they enter into with others.

It is also likely that situational variations in perceived privacy influence interpersonal behavior. As a regulatory process, privacy can be viewed from two perspectives: (1) a personally defined ideal level of interaction that a person or group desires and (2) a resulting outcome

or achieved amount of actual interaction, which may or may not match what was desired (Altman, 1975). The regulation of social interaction involves various relationships between desired and achieved privacy. When achieved privacy equals desired privacy (that is, when the person obtains the ideal level of social interaction, low or high), an optimum degree of privacy exists. When achieved privacy is less than desired privacy (that is, too little privacy obtained), more contact occurred than was desired. Such situations are typically labeled as intrusion, invasion of privacy, or crowding.

When too little privacy exists, stress level increases. This is a result of increased vulnerability to the criticisms of others (Kelvin, 1973). Goffman (1961) and Jourard (1966) pointed to the critical effect of a mental patient's privacy on self-identify and self-esteem. As a person's feelings for self decrease, attraction to and interaction with others will also decrease as the person struggles to rebuild the personal boundary between self and others and regain some measure of privacy. This should be especially true for persons with high need for privacy and they would be expected to experience more anxiety and discomfort in a privacy infringement situation.

The present study was designed to explore (a) the relationship between privacy preferences and the style and quality of social interaction in a dyadic, first encounter situation, and (b) the influence of situational variations in privacy upon social interaction. Students having high or low privacy preferences were observed in one of two situations. The first was designed to place few situational demands upon privacy and consisted of the student discussing a non-intimate subject with a stranger. The second required that the student discuss relatively

intimate topics with a stranger for the same period of time, which was intended to place greater demands upon privacy. Following each of these tasks, the student was observed interacting with the stranger (confederate) in an unstructured, free interaction situation, and completed a brief questionnaire following this observation period. Dependent measures were student ratings of attraction for the stranger and indicators of quality of social interaction during the unstructured observation such as frequency and duration of verbalizations, laughter, and gestures, as well as an overall rating by observers of the student's interaction skills.

Based upon the correlates of privacy preferences (Marshall, 1970) and upon the implications of privacy preference for interpersonal behavior from the discussion of Altman (1974), and Bates (1974), it was anticipated that individuals with high privacy preferences compared with those having low preferences would express less attraction for the stranger, and would be rated as less competent in interaction skills. Further, it was anticipated that privacy preference level would interact with situational demands upon privacy such that differences in social interaction between groups would be greater following the intimate self disclosure task than following the nonintimate self disclosure task. This is based upon the greater level of discomfort and anxiety experienced by persons with a high need for privacy when they are required to self-disclose on intimate subjects.

In summary, the hypotheses were:

1. Persons with a high need for privacy exhibit less attraction for a stranger, a lower level of interaction with a stranger, and less competence in social skills than persons with a low need for privacy.

2. Differences between groups in attraction for a stranger and social interaction are greater in a situation which places high compared with low demands upon privacy.

CHAPTER II

METHOD

Subjects

Subjects for this study were 77 undergraduate students attending introductory family relations courses at Texas Tech University. One group (N = 40) consisted of individuals with a low need for privacy, and another included individuals with a high need for privacy (N = 37). The low need for privacy group contained 20 males and 20 females while the high group contained 17 males and 20 females. Of a total of 320 students completing the Privacy Preference Scale (PPS), the 40 scoring the highest on the PPS were placed in the high-need for privacy group; the 40 lowest students were placed in the low-need for privacy group. Three male students in the high-need group could not participate and so were not included in the sample. The mean score for the low-need for privacy group was 276.4 with a standard deviation of 11.3. For the high-need for privacy group the mean score was 340.6 with a standard deviation of 10.97.

Measures

Privacy preference. Students were tested using the Privacy Preference Scale (PPS) developed by Marshall (1970) (see Appendix B). This scale is the only one of its kind for use in measuring privacy preference. It has an internal consistency reliability coefficient of .72 (coefficient alpha) (Marshall, 1970). The PPS consists of 93 items presented as a summative scale with five response alternative for each item ranging from strongly agree to strongly disagree. The scale includes six subscales: Neighboring, Seclusion, Solitude, Anonymity, Reserve, and Intimacy.

Extraversion-introversion. Because extraversion-introversion is related to need for privacy (Marshall, 1970) and interpersonal interaction

(Myers, 1962), The Extroversion-Introversion (E-I) subscale of the Myers-Briggs Type Indicator (M-BTI) was administered so that scores would be available for use as a covariate (see Appendix C). The E-I subscale of the M-BTI is designed to measure ease in and liking for interpersonal contact. Split-half reliability (Spearman-Brown formula) for the E-I subscale is .81. A test-retest correlation of .70 has been found (Myers-Briggs, 1962).

Anxiety level. In a situation which places high demands on privacy an individual should experience more anxiety than in a low-demand situation. In order to measure the level of anxiety after the initial 5-minute periods described above, each person completed the Affect Adjective Check List (AACL), a 61-item quick measurement scale of general anxiety level (Zuckerman, 1960) (see Appendix D). Internal reliability for this scale is .72 (Kuder-Richardson Formula 20), and test-retest reliability is .85 (Zuckerman, 1960).

Interpersonal attraction and behavior measures. The first measure of interpersonal attraction was an instrument consisting of 17-bipolar adjective dimensions (e.g., exciting-dull, genuine-artificial, friendly-unfriendly) developed by Ickes and Barnes (1973) to measure interpersonal attraction (see Appendix E). Each individual was asked to rate the stranger on these dimensions. The person's ratings on each of the 17 adjective pairs was summed to obtain a global index of attraction to or liking of the confederate.

The second questionnaire was the Interpersonal Judgement Scale (IJS) (Byrne, 1971) which measures a person's desire to have some future interaction with a partner (see Appendix F). The two attraction items include the degree to which he/she would like to know the stranger better in the

future. The two items are measured on a 7-point scale ranging from 1 (most negative) to 7 (most positive) and are summed to constitute this measure of interpersonal attraction. Byrne and Nelson (1965) reported a split-half reliability on the scale of .85. With respect to other verbal measures, IJS attraction responses have been found to be positively related to ratings of social distance (Schwartz, 1966), and ratings of strangers on the affective dimensions of a semantic differential (Griffitt & Guay, 1969). Nonverbal indices of attraction, including standing and seating proximity (Byrne, Baskett, & Hodges, 1971), and visual interaction (Efran, 1969) were also positively related to the IJS measure of attraction.

The third measure of attraction was designed to assess the person's level of satisfaction with his/her interaction (see Appendix G). Based on a 21-point scale from "not at all" to "extremely," students were asked to answer the following six questions taking the perspective of both themselves (3 questions) and the stranger (3 questions): (a) "To what degree did the interaction seem awkward, forced, and strained to (you/the other person)?" (b) "To what degree did the interaction seem smooth, natural, and relaxed to (you/the other person)?" and (c) "How much rapport did (you/the other person) feel with (the other person/you)?" An overall measure of satisfaction with the interaction was obtained by subtracting the two ratings on the first item from the sum of their ratings on the two ratings on both the second and third items. In using the measure Ickes, et. al. (Note 2) reported that the items were moderately intercorrelated ($r_{12} = -.58$ to $-.78$, $r_{13} = .27$ to $-.37$ and $r_{23} = .40$ to $.48$).

Interpersonal behavior in the dyads was coded from videotaped data. Behavioral indices developed by Ickes & Barnes (1978) for measuring the quantity and quality of interpersonal interaction in same-sex dyads was used. These behavioral indicators included: (a) total duration of verbalization; (b) frequency of verbal reinforcers that indicate attention to, understanding of, or agreement with the stranger (e.g., oh really, I see, uh-huh, me too); (c) the total duration of directed gazes where the individual looks directly toward the stranger's face; (d) duration of laughter by the person; (e) frequency of laughter by the person; (f) total frequency of expressive gestures which include gross arm and hand movements that appear to supplement verbalizations; (g) total duration of expressive gestures; and, (h) frequency of questions.

In addition to coding the behavioral indicators, judges rated the quality of interaction within each of the dyads. Based on a 21-point scale ranging from "not at all" to "extremely," each judge independently rated the degree to which the observed interactions seemed smooth, natural, and relaxed (see Appendix H). Lamke (1979) found this to be a good overall rating of interaction ease in same-sex dyads.

In order to establish reliable ratings of the behavioral measures, two male and two female judges were trained to rate the behavioral interaction recorded on videotape. Each judge independently rated fifteen videotapes and interrater reliability, using Pearsons r for the various measures was: $r = .92$ for duration of verbalizations; $r = .96$ for frequency of verbal reinforcers; $r = .91$ for duration of directed gazes; $r = .96$ for frequency of laughter; $r = .95$ for duration of laughter; $r = .98$ for frequency of gestures; $r = .92$ for duration of gestures; $r = .99$ for frequency of questions and, $r = .93$ for quality of interaction. All

judges were blind as to the purpose of the study and to the level of need for privacy of the students.

Procedure

The Privacy Preference Scale (PPS) was administered to 320 students (108 males and 212 females) in their classrooms. The 40 highest scoring males ($N = 20$) and females ($N = 20$) and the 40 lowest scoring males ($N = 20$) and females ($N = 20$) were selected from the initial group of 320 students to participate in the study. One-half of the high need for privacy students were randomly placed into an experimental group, while the other half constituted the control group. The same procedure was followed for the low-need for privacy students.

Prior to the beginning of the experiment, all students read and signed consent form A (see Appendix I). The experimental condition (infringement upon privacy) consisted of a 5-minute period in which the person was asked to self-disclose to the stranger on 3 topics which had been determined to be intimate subjects to college students, and which discussion of involved an infringement upon their privacy. Examples of topics are: "things I dislike about my mother," "times I have cheated on my boyfriend/girlfriend," "my love life," etc. (see Appendix J). Self-disclosure on the topics was determined to be an infringement upon privacy by asking 80 undergraduate students ($N = 38$ males, 42 females) to rate a list of 68 topics for level of infringement upon their privacy. Each topic was rated on a 7-point scale from 1: "not an evasion of my privacy at all" to 7: "an extreme evasion of my privacy." Three of the highest rated topics (Mean = 5.83, S.D. = 1.21) were selected for each sex for the purpose of intimate self-disclosure in this study. A $1\frac{1}{2}$ -minute timer was provided to insure that each person discussed the 3 topics in

the 5-minute period. This was done to control for a person choosing the easiest topic of the 3 to talk about and not discussing the other two. After the initial 5-minute period the students and stranger were asked to complete the Affect Adjective Check List (ACCL) (see Appendix D). To increase the honesty of the students in completing the AACL, the experimenter asked the stranger to come out of the room for a moment. While the stranger was gone, the student completed the AACL. The experimenter and stranger then re-entered the room and the experimenter collected the scales and told the student that he would "be right back." At this time the student was video-taped for a 5-minute period. At the end of this period the student was asked to complete the three interpersonal attraction questionnaires and to read and sign consent form B (see Appendix I). Behavioral interaction was rated later using the video tapes.

The control condition (no infringement upon privacy) procedures were exactly the same as described except that the student was asked to self-disclose on three topics that were judged to be lowest on intimacy (Mean = 1.20, S.D. = 0.89): "places I have lived," "the number of brothers and sisters I have," and "things that interest me." At the end of the 5-minute period the experimenter administered the AACL as in the experimental procedure. The remainder of the control procedure was exactly the same as that used in the experimental situation.

Before debriefing each person was asked to rate how much the situation had involved an infringement on his/her privacy. This was done to further verify that the situational manipulations had accomplished their goals. After this the person was debriefed on the purpose of the experiment.

In both the experimental and control situations the stranger (who was a trained confederate) was given instructions to only listen during the initial 5-minute period (see Appendix J). During the last 5-minute unstructured period the stranger was instructed to: (a) let the other person speak first; (b) be friendly but do not ask the other person questions; and (d) do not give long answers to questions the other person asks. These procedures were utilized to control for the different effects the stranger might have on the behavioral interaction if he/she was allowed to freely interact with the student. A total of 4 confederates was used (2 male and 2 female). They were assigned to an equal number of sessions with each type of student and in each situation. Same sex dyads were utilized through the study.

CHAPTER II

RESULTS

The design for this study was a 2 (privacy preference) by 2 (situation) by 2 (sex of subject) design with n 's of 10 in all but one cell which had $n = 7$. Means and standard deviations for the interpersonal attraction and interaction items are presented in Appendix M. The data were analyzed by a series of 2 x 2 x 2 analyses. In order to control the experimentwise alpha level at $p < .05$ no individual effects were considered to be significant unless $p < .012$ (Haase, Note 3). Each of the behavioral interaction variables was transformed to either two or three categories (see Table 7, p. 43) due to the nature of the distribution of these variables.

It was originally anticipated that extraversion-introversion would be significantly related to interpersonal interaction. Its effects were to be controlled for by using it as a covariate in the analyses of variance. However, extraversion-introversion did not correlate significantly with any of the measures of interpersonal attraction and interaction (r 's ranged from 0.01 to 0.16). Therefore, this variable was not used as a covariate in the analyses.

Privacy Preference

Interpersonal attraction. The relationship between privacy preferences and interpersonal attraction was assessed using three separate measures of interpersonal attraction. Means and standard deviations on the global measure of liking; the overall measure of interpersonal satisfaction; and the Interpersonal Judgement Scale (IJS) (Byrne, 1971) are presented in Table 2 (see p. 38) for the privacy preference groups. No significant differences were found on the F tests (see Appendix K).

Therefore, although the means of the high privacy group were all lower than those of the low group, it cannot be concluded that people with a high need for privacy are less attracted to a stranger than low need people. Thus, with respect to interpersonal attraction, the first hypothesis is not supported.

Behavioral interaction. The relationship between privacy preference and behavioral interaction was assessed using the eight previously identified behavioral indicators. Means and standard deviations on the behavioral interaction indicators for the privacy preference groups are presented in Table 1. The univariate analyses of variance on the behavioral indicators is also presented in Table 1. Results of the univariate analyses of variance indicated that individuals with a high need for privacy used verbal reinforcers significantly less than did individuals with a low need for privacy. The differences between the groups in the duration of verbalizations and frequency of questions approached significance with the high need for privacy individuals verbalizing less than the low need for privacy individuals and asking fewer questions. There was a similar trend in duration of directed gaze, duration of laughter and frequency of laughter, although the differences were not significant.

Relative to the raters' perceptions of the interactions there was a significant difference between the high and low privacy people $F(1,67) = 7.17, p < .009$. Raters perceived the interaction in which there were high privacy people to be less natural, relaxed, and smooth as compared to interactions involving low privacy individuals. Thus, with respect to interpersonal interaction, the first hypothesis is supported.

Interaction of Privacy Preference and Situational Demands Upon Privacy

In order to measure how effective the high demand situation was in

Table 1

Means and Standard Deviations on the Behavior Interaction Indicators
and Analyses of Variance for Privacy Preference Groups

Behavioral Interaction Indicators	Privacy Preference Group		F (1,67)	<u>p</u>
	High (n=37)	Low (n=40)		
Duration of verbalizations				
Mean	0.76	1.15	4.49	.037
S.D.	0.79	0.83		
Duration of directed gaze				
Mean	0.83	1.10	1.90	.172
S.D.	0.76	0.87		
Duration of laughter				
Mean	0.21	0.35	1.79	.185
S.D.	0.41	0.48		
Frequency of laughter				
Mean	0.88	1.17	2.37	.128
S.D.	0.85	0.75		
Duration of gesture				
Mean	0.27	0.35	0.61	.438
S.D.	0.45	0.48		
Frequency of gesture				
Mean	0.27	0.35	0.61	.438
S.D.	0.45	0.48		
Frequency of verbal reinforcers				
Mean	0.18	0.45	6.53	.012
S.D.	0.39	0.50		
Frequency of questions				
Mean	0.16	0.40	5.59	.021
S.D.	0.37	0.49		

infringing upon an individual's privacy, each individual was asked at the end of the second five-minute free interaction to rate on a seven-point scale the degree to which the first 5-minute interaction was an infringement upon his/her privacy (see Appendix G). Individuals placed in the high demand situation reported a significantly greater degree of infringement upon their privacy (Mean = 3.53, S.D. = 1.92) than individuals placed in the low demand situation (Mean = 2.13, S.D. = 1.33) $t(68) = 3.52$, $p < .0008$. However, the two groups' self-reported anxiety scores did not follow this same trend. There was no significant difference between the high demand group (Mean = 8.74, S.D. = 4.22) and the low demand group (Mean = 8.91, S.D. = 4.45) on the anxiety test $t(74) = 0.17$, $p < .860$. Thus, it appears that the experimental manipulation was successful in creating variation in perceived infringement upon privacy, which was measured after the unstructured interaction. However, people whose privacy was infringed upon did not report significantly greater feelings of anxiety as a result of it.

Interpersonal attraction. The relationship between situational variations in privacy and interpersonal attraction was assessed using the same three measures of interpersonal attraction as described above. Means and standard deviations on the attraction indices are presented in Table 3 (see p. 39). Analyses of variance showed no significant differences on the attraction indices between the interaction of situation and privacy preference (see Appendix K). Therefore, it cannot be concluded that people with a high need for privacy are less attracted to a stranger in a high demand situation than in a low demand one. Nor can it be concluded that people are more or less attracted to strangers following intimate versus nonintimate self-disclosure. Hence, with respect to interpersonal

attraction, the second hypothesis is not supported.

Behavioral interaction. The relationship between situational variations in privacy and behavioral interaction was assessed using the eight behavioral indicators described above. Means and standard deviations on the behavioral interaction indicators are presented in Table 4 (see p.40). Analyses of variance on the behavioral measures revealed no significant difference between situations in interpersonal interaction. No significant differences on interpersonal interaction indices were found either for the interaction of situation and privacy preference. Therefore, it cannot be concluded that people with a high need for privacy interact less with a stranger in a high demand situation than in a low demand one. In addition we cannot say that people interact any differently with a stranger following intimate versus nonintimate self-disclosure. Thus, with respect to interpersonal interaction, the second hypothesis is not supported.

Relative to the raters' perception of the quality of the interaction, there was no significant difference between situations $F(1,67) = 0.35$, $p < .554$ and no significant differences between any interaction of situation and privacy preference (F ranged from 0.64 ($p < .427$) to 2.52 ($p < .116$)). Thus, it cannot be concluded that the interactions of high privacy individuals with the stranger are less smooth, natural, and relaxed in a high demand situation than in a low demand situation compared with those of low privacy individuals.

Means and standard deviations on measures of interpersonal attraction and interaction by sex are shown in Tables 5 and 6 (see p. 41). No significant effects of sex nor significant interactions of sex with other variables were found in the analyses of variance (see Appendix K and L).

CHAPTER IV

DISCUSSION

The purpose of the present study was to explore the implications of variations in privacy preferences for the quality and style of interpersonal behavior in an initial encounter situation. The influence of situational variations in privacy upon interpersonal behavior was also examined. It was hypothesized that: (a) persons with a high need for privacy would exhibit less attraction for a stranger and a lower level of interaction with a stranger than would persons with a low need for privacy (b) and, differences between groups in attraction for a stranger and social interaction would be greater in a situation which places high compared with low demands on privacy.

Privacy Preferences

The behavior of individuals scoring high on the privacy preference scale compared with those scoring low was judged by observers to be significantly more unnatural, tense, and awkward when interacting with a confederate. This observation was supported by the finding that high privacy individuals use significantly fewer verbal reinforcements than low privacy individuals. Verbal reinforcements by the subject could occur only as a result of prior verbalizations by the confederate. Since the confederates were trained not to initiate any interaction, this means that the subjects spoke first to the confederates and then used verbal reinforcers as the stranger spoke in return. Verbal reinforcements may have reflected to the confederates an active interest by the subjects in what the confederates were saying. It may also have been a means of encouraging more conversation by the confederates. The above relationship is supported by the finding that duration of

verbalizations by the subject was strongly related to the frequency of their verbal reinforcers ($r = .90$). Nonsignificant trends also suggested shorter verbalizations and fewer questions by the high privacy individuals compared to low privacy individuals. Trends of other nonsignificant effects were consistent with the above pattern in that those with high privacy preferences laughed less frequently and for shorter duration, and looked at the stranger less frequently. These results are consistent with the theories of Altman (1975), Bates (1964), Cooley (1956), Kelvin (1973), and Mead (1934) which suggest that persons with high privacy preferences may have low self esteem and a poor self concept and thus have difficulty functioning well interpersonally. Their high need for privacy may be a result of problems with self concept and esteem (Bates, 1964). They may have a greater need for privacy than others in order to better establish their self identity. Privacy may help them define the limits and boundaries of the self and permit them to evaluate themselves (Altman, 1974). It is noted that self esteem was not measured in this study. Future research should be done to determine the relationship between self esteem and need for privacy before we can conclude that high privacy individuals have lower self esteem than low privacy individuals.

Interaction of Situation and Privacy Preferences

The manipulation of situational demands upon privacy did not significantly affect any of the dependent variables, nor did the interaction of situation and privacy preferences influence interpersonal behavior. When individuals were asked to self-disclose on intimate compared with nonintimate topics they did report significantly more privacy infringement at the conclusion of the five-minute self disclosure. However, they did

not obtain high anxiety scores compared with individuals who were asked to self-disclose on nonintimate subjects. It may be that this privacy infringement situation was not extreme enough to produce the anticipated reduction of interaction and attraction for those with high privacy preferences.

General Discussion and Implications

The results of this study lend partial support to the earlier works of others. Marshall (1970) found that people with a high need for privacy tend to be more introverted than extraverted, and logical and analytical rather than sympathetic and feeling. They also had lower needs for inclusion and affection and expressed less of both. Based on these personality characteristics it was hypothesized that high privacy individuals would be less attracted to strangers and interact less with them than low privacy individuals. No significant differences were found between the two groups of people on the interpersonal attraction measures, suggesting need for privacy does not have implications for one's attraction to other people. High privacy individuals appear to have an equal desire to get to know others as low privacy individuals, but they may lack the interpersonal skills necessary for relationship development.

Future research is needed to explore the antecedents of privacy preferences and to determine how they change over time. Perhaps individuals with a high need for privacy receive negative feedback from others as a result of their poor interpersonal skills, and this negative feedback causes them to need and seek privacy. An alternative explanation is that, as a result of needing much privacy in which to develop the self, individuals with a high need for privacy do not get enough practice

interacting with others and so do not learn the necessary social skills. If, as suggested here, high need for privacy individuals have poor social skills, it is important to determine if privacy preferences would change as a result of interpersonal skills training. It would also be helpful to know how need for privacy is related to shyness and social avoidance since Haynes (1979) has shown that it is possible to teach shy people interpersonal skills which results in improved feelings about self.

The results here also have implications for future work on the role of self disclosure in relationship development and maintenance. In an ongoing relationship, it has been proposed that relationship satisfaction is related in a curvilinear fashion to self disclosure in that the most satisfied couples report moderate to high rather than extremely high or low levels of self disclosure (Taylor, 1979). Based upon this data, relationship skills enrichment programs often include a component designed to train individuals in self disclosure skills (Curran, 1977; Haynes, 1979; Johnson, 1972). The findings of this study suggest that involuntary self disclosure to a stranger on an intimate subject may be perceived by the individual as privacy infringement but may not result in heightened anxiety and withdrawal from others or reduced attraction to a stranger or interaction with a stranger.

Chelune (1979) and Cozby (1973) have emphasized the need for research on how need for privacy is related to self disclosure. Further research is needed to determine how involuntary self disclosure affects the quality and quantity of that which is disclosed. Perhaps requiring individuals to self disclose results in superficial or irrelevant information being shared with another which means that it is not

accomplishing its goal of opening oneself to another as a first step in the relationship development process.

With respect to situational demands upon privacy, Goffman (1961) studied the environments of "total institutions" such as asylums and prisons and found that individuals' privacy was continually infringed upon in that people were constantly surveyed and intimate conversations were often tape-recorded. "These infringements caused an increase in stress level as a result of people feeling degraded, confused, and having lost some self-esteem (p. 251)." The situations Goffman described represent a much more intense, varied, and prolonged infringement upon privacy than was represented in the present study. This may explain why his subjects increased in stress level while those in this study did not. In the past it has been believed that any privacy infringement is damaging to a person's well being, and therefore, a person's privacy should be respected and protected (Altman, 1975; Jourard, 1966; Kelvin, 1973). The results of this study reveal a need for more empirical data on how different degrees of forced self disclosure influence individuals' attraction and interaction with others, as well as other aspects of functioning. More information is also needed on how other types of privacy infringement (e.g. listening to another's intimate conversation, intrusion on one's personal space, etc.) in intimate and nonintimate relationships affect interpersonal behavior. Perhaps then recommendations can be made on the relative importance of privacy and when its protection is most necessary.

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APPENDIX A
TABLES

Table 2
Means and Standard Deviations on the Three Measures
of Interpersonal Attraction for Privacy
Preference Groups

Interpersonal Attraction Measures	Privacy Preference	
	High (n=37)	Low (n=40)
General Liking		
Mean	115.11	119.23
S.D.	20.62	29.89
Interaction Satisfaction		
Mean	23.42	30.03
S.D.	15.43	16.12
Interpersonal Judgement Scale		
Mean	10.24	10.65
S.D.	1.63	2.20

Table 3
Means and Standard Deviations on the Three Measures of
Interpersonal Attraction for Situation Groups

Interpersonal Attraction Measures	Situation Type	
	High Demand (n=37)	Low Demand (n=40)
General Liking		
Mean	121.89	112.57
S.D.	22.81	28.02
Interaction Satisfaction		
Mean	25.94	27.84
S.D.	16.28	15.96
Interpersonal Judgement Scale		
Mean	10.89	10.00
S.D.	1.93	1.88

Table 4
Means and Standard Deviations on the Eight Behavioral
Interaction Indicators for Situation Groups

Behavioral Interaction Indicators	Treatment Group	
	Experimental (n=37)	Control (n=40)
Duration of verbalizations		
Mean	1.00	0.92
S.D.	0.82	0.85
Duration of directed gazes		
Mean	1.02	0.92
S.D.	0.81	0.85
Duration of laughter		
Mean	0.20	0.36
S.D.	0.40	0.48
Frequency of laughter		
Mean	0.94	1.13
S.D.	0.80	0.82
Duration of gestures		
Mean	0.36	0.27
S.D.	0.48	0.45
Frequency of gestures		
Mean	0.36	0.27
S.D.	0.48	0.45
Frequency of verbal reinforcers		
Mean	0.33	0.31
S.D.	0.47	0.47
Frequency of questions		
Mean	0.25	0.31
S.D.	0.44	0.47

Table 5
Means and Standard Deviations on the Three Measures
of Interpersonal Attraction for Sex

Interpersonal Attraction Measures	Sex Groups	
	Male (n=37)	Female (n=40)
General Liking		
Mean	117.54	117.07
S.D.	18.80	31.12
Interaction Satisfaction		
Mean	28.62	25.25
S.D.	14.75	17.20
Interpersonal Judgement Scale		
Mean	10.45	10.45
S.D.	1.74	2.14

Table 6
Means and Standard Deviations on the Eight Behavioral
Interaction Indicators for Sex

Behavioral Interaction Indicators	Sex Groups	
	Male (n=37)	Female (n=40)
Duration of verbalizations		
Mean	1.05	0.87
S.D.	0.88	0.79
Duration of directed gazes		
Mean	0.97	0.97
S.D.	0.89	0.76
Duration of laughter		
Mean	0.27	0.30
S.D.	0.45	0.46
Frequency of laughter		
Mean	1.02	1.05
S.D.	0.85	0.78
Duration of gestures		
Mean	0.45	0.20
S.D.	0.50	0.40
Frequency of gestures		
Mean	0.45	0.20
S.D.	0.50	0.40
Frequency of verbal reinforcers		
Mean	0.35	0.30
S.D.	0.48	0.46
Frequency of questions		
Mean	0.35	0.22
S.D.	0.48	0.42

Table 7

Means and Standard Deviations on the Eight Behavioral Interaction

Indicators for Entire Sample

Behavioral Interaction	N	Original Score				Transformed Score			
		Range	Median	Mean	S.D.	Range	Median	Mean	S.D.
Indicators									
Duration of Verbalizations*	77	0-172	55.00	41.24	48.21	0-2	1.00	0.96	0.83
Duration of Directed Gazes	77	1-227	80.80	57.51	62.33	0-2	1.00	0.97	0.82
Duration of Laughter	77	0-23	3.10	3.79	5.89	0-1	0.26	0.28	0.45
Frequency of Laughter	75	0-18	3.02	3.50	5.22	0-2	1.00	1.04	0.81
Duration of Gestures	75	0-17	0.00	1.87	3.65	0-1	0.03	0.32	0.46
Frequency of Gestures	75	0-18	0.00	1.73	3.80	0-1	0.04	0.32	0.47
Frequency of Verbal Reinforcers	77	0-25	3.01	2.79	4.02	0-1	0.05	0.32	0.47
Frequency of Questioning	77	0-41	6.75	6.33	10.10	0-1	0.03	0.29	0.45

*All duration measures are in seconds

APPENDIX B
PRIVACY PREFERENCE SCALE

This questionnaire is concerned with beliefs and attitudes about privacy and interacting with other people. Circle the number corresponding to the response that best fits how you feel about the statements. Answer every question. In some questions you may be asked about living situations that you are not in. Please answer on the basis of how you think you would react to the situations or choices described.

- 1 = strongly disagree
 2 = disagree
 3 = undecided
 4 = agree
 5 = strongly agree

1.	I would like to have a private retreat
which no one would enter without asking me.	1	2	3	4	5
2.	I am annoyed by people who try to get to know
me better than I want them to.	1	2	3	4	5
3.	I dislike being completely alone, either
in a house or in the wilderness.	1	2	3	4	5
4.	I wouldn't mind living in a large city---at
least everyone wouldn't know everything about
your.	1	2	3	4	5
5.	It is important to me to be able to be alone
when I want to be.	1	2	3	4	5
6.	I am very annoyed if someone interrupts
me when I am involved in a serious conver-
sation with an intimate friend.	1	2	3	4	5
7.	Children need open space, lawns, and gardens
in order to develop naturally.	1	2	3	4	5
8.	It isn't people <u>overhearing</u> a private conver-
sation that I mind, it is people <u>listening</u>
to it.	1	2	3	4	5
9.	I would prefer to live on a very short, dead-
end street rather than a regular street.	1	2	3	4	5
10.	I would like to have acquaintances at work, at
home, in clubs, and so forth that don't know
each other because each group would only know
a part of me.	1	2	3	4	5
11.	When I am reading or concentrating hard, I like
to have other people around rather than to be
in another room.	1	2	3	4	5

- 1 = strongly disagree
 2 = disagree
 3 = undecided
 4 = agree
 5 = strongly agree

12.	There should be an area in the house where the husband and wife can get away from the rest of the family.	1	2	3	4	5
13.	I dislike talking about personal matters to a friend in a crowded place where other people can overhear us.	1	2	3	4	5
14.	Acquaintances often ask questions that I consider rude and personal.	1	2	3	4	5
15.	I sometimes want to get away from everyone for awhile, even my close friends.	1	2	3	4	5
16.	I would not like to live in a small town because there is too much gossip about your private life.	1	2	3	4	5
17.	Even members of a family need to get away from each other now and then.	1	2	3	4	5
18.	I wouldn't mind living with several other people if I had a room of my own.	1	2	3	4	5
19.	I usually prefer to spend a free afternoon with one friend rather than with several.	1	2	3	4	5
20.	It would annoy me if a friend or family member borrowed something of mine without asking first, even if I would lend it freely if asked.	1	2	3	4	5
21.	I am easily distracted by noises.	1	2	3	4	5
22.	I would like to live in a large city because neighbors and acquaintances there would probably be less concerned about my private life.	1	2	3	4	5
23.	I usually don't tell people I don't know very well personal things about myself.	1	2	3	4	5
24.	Children and young people should have a roommate at some time in order to learn how to get along with others.	1	2	3	4	5
25.	I occasionally enjoy getting away from the rest of the world with an intimate friend.	1	2	3	4	5

- 1 = strongly disagree
 2 = disagree
 3 = undecided
 4 = agree
 5 = strongly agree

26.	I don't mind people knowing about me and my actions as long as they don't try to interfere.	1	2	3	4	5
27.	When I want to be alone it disturbs me to hear outside noises.	1	2	3	4	5
28.	I like to be open and honest with people so they will really know what kind of person I am.	1	2	3	4	5
29.	I don't always like to be a part of the group.	1	2	3	4	5
30.	Even if I lived in a house with doors on every room, I would probably rarely feel I wanted to shut them.	1	2	3	4	5
31.	There are times when I like to get away from people who know me by getting lost in a crowd.	1	2	3	4	5
32.	There are certain times when people know I don't want to be intruded upon.	1	2	3	4	5
33.	It is important for a family to have time together away from friends or relatives.	1	2	3	4	5
34.	It is important to be able to confide in someone and know that your confidence will be kept secret.	1	2	3	4	5
35.	I am usually upset if other members of the family come into my bedroom when the door is closed without asking.	1	2	3	4	5
36.	There are times when I really want other people to leave me alone and not intrude on my thoughts, even though we're in the same room.	1	2	3	4	5
37.	A house should be so far away from a neighbor that only by yelling at the top of one's lungs could one be heard.	1	2	3	4	5
38.	I want my friends to feel that they can drop in at my house any time they like.	1	2	3	4	5
39.	It is very relaxing to get away from other people with just your family or close friends.	1	2	3	4	5
40.	One ought to be allowed a private life and a public one, completely separate.	1	2	3	4	5

- 1 = strongly disagree
 2 = disagree
 3 = undecided
 4 = agree
 5 = strongly agree

41. I prefer to have very few intimate friends.	1	2	3	4	5
42. If I am involved in something and don't want to be bothered, I sometimes don't answer the phone.	1	2	3	4	5
43. I would rather not have my close friends living next door to me.	1	2	3	4	5
44. People in general are very adaptable -- they can adjust to almost any amount of crowding with no ill effects.	1	2	3	4	5
45. It wouldn't bother me to be able to overhear the noises of everyday living from neighboring houses (footsteps, water running, etc.).	1	2	3	4	5
46. Although I enjoy walking in the woods, I would rather not go alone.	1	2	3	4	5
47. I like to have someone to whom I can tell everything about myself, even my deepest and most personal thoughts and feelings.	1	2	3	4	5
48. It is important to me to live where I can do what I want to without bothering other people.	1	2	3	4	5
49. If my living room window were within 20 feet of someone else's, I would probably keep the curtains closed most of the time.	1	2	3	4	5
50. Although I occasionally enjoy talking to my neighbors, I don't like to get very involved with them.	1	2	3	4	5
51. I don't like to talk about personal things with friends until I have known them a long time.	1	2	3	4	5
52. I would not like to have a job where I worked with a lot of other people and could not be alone now and then.	1	2	3	4	5
53. A decay of "inner life," of concern for secluded and inward qualities is very common today.	1	2	3	4	5
54. It usually annoys me to have people come to my home without letting me know they are coming.	1	2	3	4	5

- 1 = strongly disagree
 2 = disagree
 3 = undecided
 4 = agree
 5 = strongly agree

55.	I prefer houses with a few big, open rooms to houses with many smaller rooms.	1	2	3	4	5
56.	I like to be able to control how much social contact I have with others.	1	2	3	4	5
57.	I would like to live in a neighborhood where people do things together now and then.	1	2	3	4	5
58.	The stress of living in crowded cities is psychologically harmful.	1	2	3	4	5
59.	I like to leave the living room curtains open in the evening so I don't feel closed off from the rest of the world.	1	2	3	4	5
60.	It is important to me to be able to live my life as I please without being questioned or criticized by neighbors or acquaintances.	1	2	3	4	5
61.	Americans put too much emphasis on the value of privacy.	1	2	3	4	5
62.	There are times when I want to be alone but close enough to others that I can still hear them talking.	1	2	3	4	5
63.	I often like to go to a secluded place to talk to an intimate friend.	1	2	3	4	5
64.	I often get lost in my thoughts and am not really aware of what is going on around me.	1	2	3	4	5
65.	If I were at home and didn't feel like being disturbed, I probably wouldn't answer the phone.	1	2	3	4	5
66.	People should respect other's right to be individual and different.	1	2	3	4	5
67.	People who build fences around their houses are probably pretty unfriendly.	1	2	3	4	5
68.	I would prefer a neighborhood where neighbors had a tendency to drop in all the time to one in which it was difficult to get to know them.	1	2	3	4	5

- 1 = strongly disagree
 2 = disagree
 3 = undecided
 4 = agree
 5 = strongly agree

69.	It is important for a child to have a room of his own after he reaches a certain age.	1	2	3	4	5
70.	I really enjoy being able to loan things to friends.	1	2	3	4	5
71.	I would dislike having a patio or balcony that neighbors or passersby could see into.	1	2	3	4	5
72.	I wouldn't mind living in an apartment building holding hundreds of people.	1	2	3	4	5
73.	Even intimate friends should respect your desire to keep certain things to yourself.	1	2	3	4	5
74.	"Fences make good neighbors."	1	2	3	4	5
75.	There are often times when I would enjoy spending an afternoon or evening at home alone.	1	2	3	4	5
76.	I enjoy having friends living nearby who feel free to come into my home when they please.	1	2	3	4	5
77.	I always feel that fencing one's yard is somehow an insult to your neighbors.	1	2	3	4	5
78.	A living situation in which you live with a group but have a room of your own is ideal.	1	2	3	4	5
79.	If I am with a group of people, I usually prefer to talk to several people at a time rather than just one.	1	2	3	4	5
80.	If I were not living with my family, I would rather share a two-bedroom apartment with three friends than live alone.	1	2	3	4	5
81.	I would be very upset if a friend read something I had written or my personal correspondence without my permission.	1	2	3	4	5
82.	The constant noise of modern life is really rather exciting.	1	2	3	4	5
83.	I would like to live in a secluded house out of sight of any other.	1	2	3	4	5

- 1 = strongly disagree
 2 = disagree
 3 = undecided
 4 = agree
 5 = strongly agree

84.	I would dislike living in a neighborhood where people couldn't help noticing me come and go.	1	2	3	4	5
85.	It is important to me to have a house away from the noise of traffic.	1	2	3	4	5
86.	I dislike having people borrow my things without asking first.	1	2	3	4	5
87.	The idea of a house with windows that look toward the sky rather than toward other houses appeals to me.	1	2	3	4	5
88.	I would dislike living in an urban area where I never got to know my neighbors.	1	2	3	4	5
89.	I like to be alone when I want to work or think, but still have people in the next room.	1	2	3	4	5
90.	When I really need to find a solution for a problem, I do it best by talking with others rather than working alone.	1	2	3	4	5
91.	Close friendships require having time to be alone together.	1	2	3	4	5
92.	When I have a very important decision to make I prefer to make it alone.	1	2	3	4	5
93.	I have no difficulty concentrating on my work when there are people around.	1	2	3	4	5

APPENDIX C
EXTRAVERSION-INTROVERSION SCALE

Which answer comes closest to telling how you usually feel or act?
(Circle appropriate answer.)

1. When you are with a group of people, would you usually rather.
 - (A) join in the talk of the group, or
 - (B) keep your feelings to yourself?
2. Do you usually
 - (A) show your feelings freely, or
 - (B) keep your feelings to yourself?
3. At parties, do you
 - (A) sometimes get bored, or
 - (B) always have fun?
4. When you have to meet strangers do you find it
 - (A) pleasant, or at least easy, or
 - (B) something that takes a good deal of effort?
5. Are you
 - (A) easy to get to know, or
 - (B) hard to get to know?
6. Among your friends, are you
 - (A) one of the last to hear what is going on, or
 - (B) full of new about everybody?
7. When you are in an embarrassing spot, do you usually
 - (A) change the subject, or
 - (B) turn it into a joke, or
 - (C) days later, think of what you should have said?
8. Are you usually
 - (A) a "good mixer," or
 - (B) rather quiet and reserved?
9. Do you tend to have
 - (A) deep friendships with a very few people, or
 - (B) broad friendships with many different people?
10. Do you think you get
 - (A) more enthusiastic about things than the average person, or
 - (B) less enthusiastic about things than the average person?

Which word in each pair appeals to you more? (Circle appropriate answer.)

11. (A) party	theater	(B)	14. (A) speak	write	(B)
12. (A) reserved	talkative	(B)	15. (A) calm	lively	(B)
13. (A) hearty	quiet	(B)	16. (A) sociable	detached	(B)

Which answer comes closest to telling how you usually feel or act?
(Circle appropriate answer.)

17. Can you	20. Can the new people you meet tell what you are interested in
(A) talk easily to almost anyone for as long as you have to, or	(A) right away, or
(B) find a lot to say only to certain people or under certain conditions?	(B) only after they really get to know you?
18. When something starts to be the fashion, are you usually	21. In a large group, do you more often
(A) one of the first to try it, or	(A) introduce others, or
(B) not much interested?	(B) get introduced?
19. When you are at a party, do you like to	22. Do you think the people close to you know how you feel
(A) help get things going, or	(A) about most things, or
(B) let the others have fun in their own way?	(B) only when you have had some special reason to tell them?

APPENDIX D
ZUCKERMAN STATE ANXIETY SCALE

ZUCKERMAN STATE ANXIETY SCALE

Below is a list of words describing different kinds of moods and feelings. Please check the words that describe how you feel now. Work rapidly and do not hesitate too long on any one word. Remember to check only those that you feel now.

1.	_____	adventurous	43.	_____	sunk
2.	_____	affectionate	44.	_____	tame
*3.	_____	afraid	45.	_____	tender
4.	_____	agitated	*46.	_____	tense
5.	_____	agreeable	*47.	_____	terrified
6.	_____	amused	**48.	_____	thoughtful
7.	_____	bashful	*49.	_____	upset
8.	_____	bitter	*50.	_____	worrying
9.	_____	bored			
**10.	_____	calm			
**11.	_____	cheerful			
**12.	_____	contented			
13.	_____	cruel			
14.	_____	daring			
*15.	_____	desperate			
16.	_____	disgusted			
17.	_____	energetic			
18.	_____	enraged			
19.	_____	enthusiastic			
*20.	_____	fearful			
21.	_____	fine			
22.	_____	forlorn			
*23.	_____	frightened			
**24.	_____	happy			
25.	_____	hostile			
**26.	_____	joyful			
27.	_____	kindly			
28.	_____	lost			
**29.	_____	loving			
30.	_____	mad			
31.	_____	mean			
*32.	_____	nervous			
*33.	_____	panicky			
34.	_____	patient			
**35.	_____	pleasant			
36.	_____	polite			
**37.	_____	secure			
*38.	_____	shaky			
39.	_____	shy			
**40.	_____	steady			
41.	_____	stony			
42.	_____	sullen			

* - Anxiety plus

** - Anxiety minus

APPENDIX E
MEASURE OF GENERAL LIKING

DIRECTIONS: Please indicate how well each of the following personality characteristics describe your partner based on your experience with him/her thus far. Please place your X at the most accurate point along each dimension.

Correct way to place your X: - - - - -; - - ^X - -; - - - - -;

Incorrect way to place your X: - - - - -; - - ^X - -; - - - - -;

ALL INFORMATION YOU PROVIDE WILL BE KEPT IN CONFIDENCE

GO ON TO THE NEXT PAGE

Measure of General Liking

unsociable	5	4	3	2	1	0	1	2	3	4	5	sociable
strong	5	4	3	2	1	0	1	2	3	4	5	weak
sensitive	5	4	3	2	1	0	1	2	3	4	5	insensitive
self-assertive	5	4	3	2	1	0	1	2	3	4	5	submissive
boring	5	4	3	2	1	0	1	2	3	4	5	interesting
cruel	5	4	3	2	1	0	1	2	3	4	5	kind
exciting	5	4	3	2	1	0	1	2	3	4	5	dull
genuine	5	4	3	2	1	0	1	2	3	4	5	artificial
vain	5	4	3	2	1	0	1	2	3	4	5	modest
independent	5	4	3	2	1	0	1	2	3	4	5	dependent
poised	5	4	3	2	1	0	1	2	3	4	5	awkward
sincere	5	4	3	2	1	0	1	2	3	4	5	insincere
cold	5	4	3	2	1	0	1	2	3	4	5	warm

friendly	5	4	3	2	1	0	1	2	3	4	5	unfriendly
physically attractive	5	4	3	2	1	0	1	2	3	4	5	physically unattractive
untrustworthy	5	4	3	2	1	0	1	2	3	4	5	trustworthy
likeable	5	4	3	2	1	0	1	2	3	4	5	unlikeable

APPENDIX F
INTERPERSONAL JUDGEMENT SCALE

1. Personal Feelings (Check one)

- ☐ I feel that I would probably like this person very much.
- ☐ I feel that I would probably like this person.
- ☐ I feel that I would probably like this person to a slight degree.
- ☐ I feel that I would probably neither particularly like nor particularly dislike this person.
- ☐ I feel that I would probably dislike this person to a slight degree.
- ☐ I feel that I would probably dislike this person.
- ☐ I feel that I would dislike this person very much.

2. Personal Feelings (Check one)

- ☐ I believe that I would very much dislike getting to know this person better.
- ☐ I believe that I would dislike getting to know this person better.
- ☐ I believe that I would dislike getting to know this person better to a slight degree.
- ☐ I believe that I would neither particularly like nor particularly dislike getting to know this person better.
- ☐ I believe that I would enjoy getting to know this person better to a slight degree.
- ☐ I believe that I would enjoy getting to know this person better.
- ☐ I believe that I would very much enjoy getting to know this person better.

APPENDIX G
INTERACTION SATISFACTION MEASURE

Interaction Satisfaction Measure

Directions: The following questions are designed to gather information concerning your level of satisfaction with the interaction you have just experienced. You will be asked to take the perspective of both yourself and your partner in responding to the questions. You may need to guess at your partner's degree of satisfaction. Please place an X at the most accurate point along the continuum from not at all to extremely.

Correct way to place your X:

Incorrect way to place your X: ---;---;---X

1. To what degree did the interaction seem smooth, natural, and relaxed to you?
; ; ; ; ; ; ; ; ; ;
not at all extremely
2. To what degree did the interaction seem smooth, natural, and relaxed to the other person?
; ; ; ; ; ; ; ; ; ;
not at all extremely
3. To what degree did the interaction seem awkward, forced, and strained to you?
; ; ; ; ; ; ; ; ; ;
not at all extremely
4. To what degree did the interaction seem awkward, forced, and strained to the other person?
; ; ; ; ; ; ; ; ; ;
not at all extremely

(continued)

5. How much rapport did you feel with the other person?

-----;-----;-----;-----;-----;-----;-----;-----;-----;-----
not at all
extremely

6. How much rapport did the other person feel with you?

-----;-----;-----;-----;-----;-----;-----;-----;-----;-----
not at all
extremely

Is the person who you just talked to a friend or acquaintance of your's? -----

Do you feel like the first 5-minute interaction was an infringement upon you privacy? Rate the first 5-minute interaction by checking on the continuum below:

----- 1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7 -----

No infringe-
ment on my
privacy

Extrem in-
fringement on
my privacy

APPENDIX H
RATER PERCEPTION OF INTERACTION MEASURE

APPENDIX I
CONSENT FORMS

CONSENT FORM A

I hereby give my consent for my participation in the project entitled: Factors Affecting Interpersonal Behavior. I understand that the person responsible for this project is Dr. Nancy Bell (742-2896). I understand that the purpose of this project is to determine the relationship between certain factors and interpersonal behavior. I understand that this project involves participating in a 10-minute exercise with another person and completing several questionnaires.

I understand that my answers on the questionnaires are anonymous in that my name will not appear on any of these materials. I understand that only Dr. Nancy Bell and her authorized representatives will have access to these materials. I understand that this project is concerned with the answers and behavior of undergraduates as a group, and not with individual students.

I understand that Dr. Bell or her authorized representative agrees to answer any inquiries I may have concerning the procedures and that I may contact the Texas Tech University Institutional Review Board for the Protection of Human Subjects by writing them in care of the Office of Research Services, Texas Tech University, Lubbock, Texas, 79409, or by calling 742-5279.

Although this project cannot cause physical injury to you, the following statement is required by the university:

"If this research project causes any physical injury to you, treatment is not necessarily available at Texas Tech University or the Student Health Center, or any program of insurance applicable to the institution and its personnel. Financial compensation for any such injury must be provided through your own insurance program. Further information about these matters may be obtained from Dr. J. Knox Jones, Jr., Vice President for Research and Graduate Studies, 742-2152, Room 118, Administration Building, Texas Tech University, Lubbock, Texas, 79409."

I understand that I may not derive therapeutic treatment from participating in this study. I understand that I may discontinue this study at any time I choose.

Signature of Participant: _____ Date: _____

Signature of Project Director or
Authorized Representative: _____

Signature of Witness: _____

CONSENT FORM B

I hereby give my consent for my participation in the project entitled: Factors Affecting Interpersonal Behavior. I understand that the person responsible for this project is Dr. Nancy Bell (742-2896). I understand that the purpose of this project is to determine how need for privacy affects interpersonal attraction and interaction. I understand that the last 5-minute interaction was video-taped for the purpose of rating interpersonal behavior. I understand that my answers on the questionnaires are anonymous in that my name will not appear on any of these materials. I understand that the videotapes will be rated by Dr. Bell or her representatives and then erased and that my name will not appear on the tape.

I understand that Dr. Bell or her authorized representative agrees to answer any inquiries I may have concerning the procedures and that I may contact the Texas Tech University Institutional Review Board for the Protection of Human Subjects by writing them in care of the Office of Research Services, Texas Tech University, Lubbock, Texas, 79409, or by calling 742-5279.

Although this project cannot cause physical injury to you, the following statement is required by the university:

"If this research project causes any physical injury to you, treatment is not necessarily available at Texas Tech University or the Student Health Center, or any program of insurance applicable to the institution and its personnel. Financial compensation for any such injury must be provided through your own insurance program. Further information about these matters may be obtained from Dr. J. Knox Jones, Jr., Vice President for Research and Graduate Studies, 742-2152, Room 118, Administration Building, Texas Tech University, Lubbock, Texas, 79409."

I understand that I may not derive therapeutic treatment from participating in this study. I understand that I may discontinue this study at any time I choose.

Signature of Participant: _____ Date: _____

Signature of Project Director or
Authorized Representative: _____

Signature of Witness: _____

APPENDIX J
INSTRUCTIONS TO CONFEDERATES AND SUBJECTS

INSTRUCTIONS TO SUBJECTS, FIRST 5-MINUTE PERIOD
(CONTROL, MALES AND FEMALES)

INSTRUCTIONS

The purpose of the exercise you are about to begin is to study the reaction of a listener when you, as the speaker, are talking to him/her about something. Below is a list of topics to talk about.

When Mr. Larson leaves the room you should wait approximately 10 seconds and then start talking about these subjects, talking about them in any order you wish. You will have approximately 5 minutes in which to talk about all 3 topics, so spend approximately 2 minutes on each topic. Use the sand timer provided to you to keep track of when 2 minutes are up. When the 5-minute period is over, Mr. Larson will come into the room to let you know.

Please ask now if you have any questions.

Discuss these 3 topics in the 5-minute period:

1. Places I have lived.
2. The number of brothers and sisters I have.
3. Things that interest me.

INSTRUCTIONS TO SUBJECTS, FIRST 5-MINUTE PERIOD (EXPERIMENTAL, MALES)

INSTRUCTIONS

The purpose of the exercise you are about to begin is to study the reaction of a listener when you, as the speaker, are talking to him/her about something that is important to you. Below is a list of topics that have been determined to be important to undergraduate students.

When Mr. Larson leaves the room you should wait approximately 10 seconds and then start talking about these subjects, talking about them in any order you wish. You will have approximately 5 minutes in which to talk about all 3 topics, so spend approximately 2 minutes on each topic. Use the sand timer provided to you to keep track of when 2 minutes are up. When the 5-minute period is over, Mr. Larson will come into the room to let you know.

Please ask now if you have any questions.

Discuss these 3 topics in the 5-minute period:

1. What birth control methods I would use in marriage.
2. Lies I have told my parents.
3. Times I have "cheated" on my girlfriend.

INSTRUCTIONS TO SUBJECTS, FIRST 5-MINUTE PERIOD (EXPERIMENTAL, FEMALES)

INSTRUCTIONS

The purpose of the exercise you are about to begin is to study the reaction of a listener when you, as the speaker, are talking to him/her about something that is important to you. Below is a list of topics that have been determined to be important to undergraduate students.

When Mr. Larson leaves the room you should wait approximately 10 seconds and then start talking about these subjects, talking about them in any order you wish. You will have approximately 5 minutes in which to talk about all 3 topics, so spend approximately 2 minutes on each topic. Use the sand timer provided to you to keep track of when 2 minutes are up. When the 5-minute period is over, Mr. Larson will come into the room to let you know.

Please ask now if you have any questions.

Discuss these 3 topics in the 5-minute period:

1. Things I dislike about my mother
2. Times I have been tempted to steal something.
3. Why some people dislike me.

INSTRUCTIONS TO CONFEDERATES, FIRST 5-MINUTE PERIOD (CONTROL)

INSTRUCTIONS

This is a study to determine how people talk about subjects that are important to them. You will be the listener and the other person will be the speaker. As listener, do not interrupt the speaker or ask any questions. Pay attention so the speaker knows you are following him/her. You may occasionally nod your head or say "Uh-huh" to let the person know you are listening. After 5 minutes Mr. Larson will stop the speaker at which time he/she will complete a questionnaire. You will also be asked to fill-out a questionnaire.

Please ask now if you have a question.

INSTRUCTIONS TO CONFEDERATES, FIRST 5-MINUTE PERIOD (EXPERIMENTAL)

INSTRUCTIONS

The purpose of this first part of the exercise is to determine how people talk about subjects that are important to them. You are to be a listener only. Do not initiate any conversation with the other person. Let them speak first. As listener you should do no speaking except for using an occasional, "Uh-huh" or "right" to let the person know you are following what they are saying. You may also nod your head occasionally to encourage the person to keep talking. Ask no questions, even if you are "lost."

This part of the exercise will last approximately 5 minutes. The speaker will be timing him/herself as he/she talks about 3 different topics. Mr. Larson will enter the room after 5 minutes are up to end this part of the exercise.

Please ask now if you have any questions.

INSTRUCTIONS TO CONFEDERATES, SECOND 5-MINUTE PERIOD

INSTRUCTIONS

During the remainder of the time you and this person are together please follow these rules:

1. Let the other person speak first after Mr. Larson leaves the room.
2. Be friendly but do not ask the person questions.
3. Do not give long answers to questions the other person asks you. Make your response short.

Please ask now if you have any questions.

APPENDIX K
ANALYSES OF VARIANCE ON THREE MEASURES OF ATTRACTION

Analyses of Variance Comparing the Main Effects and Interactions on the Three Measures of Interpersonal Attraction

Interpersonal Attraction Measure	SOURCE	DF	TYPE I SS	F VALUE	PR > F
Interper- sonal Judgement Scale	TRTMT	1	17.05263158	4.43	0.0390
	NEED	1	2.62514620	0.68	0.4119
	SEX	1	0.07542580	0.02	0.8891
	TRTMT*NEED	1	0.05489124	0.01	0.9053
	TRTMT*SEX	1	2.46236302	0.64	0.4267
	NEED*SEX	1	0.71201898	0.11	0.7446
	TRTMT*NEED*SEX	1	2.43432605	0.63	0.4293
	SOURCE	DF	TYPE I SS	F VALUE	PR > F
Interact- ion Satis- faction	TRTMT	1	70.11842105	0.29	0.5925
	NEED	1	833.70526316	3.44	0.0680
	SEX	1	195.47550245	0.81	0.3724
	TRTMT*NEED	1	75.82482853	0.31	0.5778
	TRTMT*SEX	1	759.52952798	3.13	0.0812
	NEED*SEX	1	16.17891489	0.07	0.7969
	TRTMT*NEED*SEX	1	912.93391621	3.77	0.0565
	SOURCE	DF	TYPE I SS	F VALUE	PR > F
General Liking	TRTMT	1	1791.59210526	2.77	0.1004
	NEED	1	301.99605263	0.47	0.4965
	SEX	1	0.48167250	0.00	0.9783
	TRTMT*NEED	1	1852.33092247	2.87	0.0949
	TRTMT*SEX	1	2389.32905450	3.70	0.0586
	NEED*SEX	1	114.86051667	0.18	0.6719
	TRTMT*NEED*SEX	1	31.10295082	0.05	0.8270

1 df error for all univariate analyses=69

APPENDIX L
ANALYSES OF VARIANCE ON THE EIGHT BEHAVIORAL
INTERACTOR INDICES

Analyses of Variance Comparing the Main Effects and Interactions on the
Eight Behavioral Interaction Indicators for Entire Sample¹

Behavioral Interaction Indicator	SOURCE	DF	TYPE I SS	F VALUE	PR > F
Duration of Verbal- izations	TP TMT	1	0.111090056	0.18	0.5720
	TF ED	1	2.005870998	4.49	0.0378
	SEX	1	0.01384187	1.26	0.2468
	TP TMT*NEFD	1	1.19071411	1.76	0.1887
	TP TMT*SEX	1	0.27500309	0.56	0.4568
	TF ED*SEX	1	0.52401709	0.80	0.3750
	TP TMT*TF ED*SEX	1	0.0007348	0.00	0.9767
	SOURCE	DF	TYPE I SS	F VALUE	PR > F
Duration of Directed Gazes	TP TMT	1	0.21237127	0.21	0.5915
	TF ED	1	1.32204445	1.90	0.1725
	SEX	1	0.02009257	0.04	0.8334
	TP TMT*NEFD	1	0.52063642	0.76	0.3855
	TP TMT*SEX	1	0.11477131	0.61	0.4372
	TF ED*SEX	1	0.11367795	1.03	0.3147
	TP TMT*TF ED*SEX	1	0.11757272	0.25	0.6169
	SOURCE	DF	TYPE I SS	F VALUE	PR > F
Duration of Laughter	TP TMT	1	0.52417445	2.62	0.1101
	TF ED	1	0.36124043	1.73	0.1851
	SEX	1	0.0055726	0.03	0.8642
	TP TMT*NEFD	1	0.59683130	2.97	0.1210
	TP TMT*SEX	1	0.00949346	0.15	0.7032
	TF ED*SEX	1	0.54246829	2.70	0.1052
	TP TMT*TF ED*SEX	1	0.18451104	0.43	0.5126

¹df error for all univariate analyses=69

Frequency of Laughter	SOURCE	DF	TYPE I SS	F VALUE	PR > F
	TP TMT	1	0.66063983	0.07	0.3271
	QFED	1	1.60741806	2.27	0.1284
	SEX	1	0.01826842	0.02	0.8701
	TP TMT*QFED	1	0.62220717	0.03	0.3277
	TP TMT*SEX	1	0.09087470	0.42	0.5155
	QFED*SEX	1	0.22730732	0.25	0.5560
	TP TMT*QFED*SEX	1	0.00222477	0.00	0.9451
Duration of Gestures	SOURCE	DF	TYPE I SS	F VALUE	PR > F
	TP TMT	1	0.18053734	0.02	0.3412
	QFED	1	0.11064272	0.61	0.4381
	SEX	1	1.10000867	6.06	0.0164
	TP TMT*QFED	1	0.28616846	1.46	0.2319
	TP TMT*SEX	1	0.00805901	1.05	0.3067
	QFED*SEX	1	1.14542867	5.82	0.0185
	TP TMT*QFED*SEX	1	0.01262092	0.07	0.7922
Frequency of Gestures	SOURCE	DF	TYPE I SS	F VALUE	PR > F
	TP TMT	1	0.29069744	0.92	0.3412
	QFED	1	0.11064272	0.61	0.4381
	SEX	1	1.10000867	6.06	0.0164
	TP TMT*QFED	1	0.28616846	1.46	0.2319
	TP TMT*SEX	1	0.00805901	1.05	0.3067
	QFED*SEX	1	1.14542867	5.82	0.0185
	TP TMT*QFED*SEX	1	0.01262092	0.07	0.7922
Frequency of Verbal Rein- forcers	SOURCE	DF	TYPE I SS	F VALUE	PR > F
	TP TMT	1	0.02622608	0.03	0.8652
	QFED	1	1.33361021	6.53	0.0129
	SEX	1	0.06605288	0.22	0.5690
	TP TMT*QFED	1	0.04002240	1.99	0.1621
	TP TMT*SEX	1	0.23607000	1.50	0.2251
	QFED*SEX	1	0.20620005	1.04	0.3168
	TP TMT*QFED*SEX	1	0.27814512	2.22	0.1306

Frequency of Questions	SOURCE	DF	TYPE I SS	F VALUE	PR > F
	TO TMT	1	0.37032793	0.35	0.5557
	UFEQ	1	1.11811603	5.59	0.0209
	SEX	1	0.25040839	1.75	0.1901
	TP TMT*NEED	1	0.07522214	0.38	0.5401
	TP TMT*SEX	1	0.27747907	1.39	0.2430
	UFEQ*SEX	1	0.26635568	1.28	0.2615
	TP TMT*UFEQ*SEX	1	0.00169422	0.01	0.9415

All duration measures are in seconds

APPENDIX M
MEANS AND STANDARD DEVIATIONS FOR INTERPERSONAL ATTRACTION
AND INTERACTION INDICES FOR 2X2X2 DESIGN

LEGEND

<u>Abbreviation</u>	<u>Meaning</u>
Prscore	Measure of General Liking
Dknow	Interpersonal Judgement Scale
Dpis	Degree of Privacy Infringement
Dverb	Duration of verbalizations
Fquest	Frequency of questions
Flaugh	Frequency of laughter
Dlaugh	Duration of laughter
Dgaze	Duration of directed gazes
Fgest	Frequency of gestures
Dgest	Duration of gestures
Fvrein	Frequency of verbal reinforcers
Qinter	Quality of Interaction Score
Slscore	Interaction Satisfaction Measure
Atstot	Attraction items total score
Rdverb	Transformed Duration of verbalizations score
Rdgaze, Rfgest, etc.	Transformed scores of interpersonal interaction scores

CONTROL GROUP

Variable	N	Mean	Standard Deviation
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Low Need Males

PR SCORE	10	124.00000000	23.69247419
DKNOW	10	10.40000000	1.89736660
OPIS	8	1.12500000	0.35355339
OVERB	9	60.33333333	55.58776844
EQUEST	9	8.00000000	7.44933221
FLAUGH	9	5.00000000	4.32132538
OLAUGH	9	5.33333333	5.09902951
OGAZE	9	65.11111111	56.22820555
EGEST	9	3.00000000	4.84767986
OGEST	9	3.00000000	4.84767986
FVREIN	9	2.66666667	3.24037035
QINTER	9	13.11111111	8.86629072
SL SCORE	10	39.60000000	7.80599061
ATSTOUT	10	232.60000000	6.91536132
ROVERB	10	1.10000000	0.92442893
ROGAZE	10	1.00000000	0.94280904
REGEST	9	0.33333333	0.50000000
ROGEST	9	0.33333333	0.50000000
RFVREIN	10	0.20000000	0.48304589
REQUEST	10	0.50000000	0.52704628
RELAUGH	9	1.22222222	0.83333333
ROLAUGH	10	0.40000000	0.51639779

Low Need Females

PR SCORE	10	114.30000000	41.93954896
DKNOW	10	9.90000000	2.63535121
OPIS	10	2.00000000	1.15470054
OVERB	10	55.70000000	40.22450884
EQUEST	10	9.60000000	10.34035748
FLAUGH	10	6.40000000	5.79655070
OLAUGH	10	7.30000000	6.78314906
OGAZE	10	80.30000000	72.09569258
EGEST	10	0.70000000	1.05934991
OGEST	10	1.20000000	1.38835785
FVREIN	10	4.70000000	3.77270902
QINTER	10	12.10000000	7.99235746
SL SCORE	10	24.40000000	20.10638273
ATSTOUT	10	274.30000000	8.99444273
ROVERB	10	1.30000000	0.82327260
ROGAZE	10	1.20000000	0.91893658
REGEST	10	0.40000000	0.51639778
ROGEST	10	0.40000000	0.51639778
RFVREIN	10	0.70000000	0.48304589
REQUEST	10	0.40000000	0.51639778
RELAUGH	10	1.50000000	0.70710678
ROLAUGH	10	0.60000000	0.51639778

CONTROL GROUP

Variable	N	Mean	Standard Deviation
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High Need Males

PR SCORE	8	112.00000000	18.37700426
OKNOW	8	9.87500000	1.45773797
OPIS	8	3.12500000	1.35620268
OVERB	8	36.75000000	52.17758139
FQUEST	8	9.12500000	14.22711194
FLAUGH	8	3.12500000	4.18969825
DLAUGH	8	3.75000000	5.52263051
OGAZE	8	62.37500000	76.74063461
EGEST	8	2.62500000	6.25409800
OGEST	8	2.12500000	5.22186338
EVREIN	8	4.12500000	8.57633788
QINTER	8	8.75000000	9.01931945
SL SCORE	8	25.00000000	12.69420565
ATSTOT	8	33.37500000	13.01578712
RDVERB	8	0.75000000	0.38640526
ROGAZE	8	1.00000000	0.92582010
REFGEST	8	0.37500000	0.51754917
ROGEST	8	0.37500000	0.51754917
REFVREIN	8	0.25000000	0.46291005
REFQUEST	8	0.37500000	0.51754917
RFLAUGH	8	0.87500000	0.99103121
RDLAUGH	8	0.25000000	0.46291005

High Need Females

PR SCORE	10	99.90000000	17.74156471
OKNOW	10	9.80000000	1.39841180
OPIS	10	2.30000000	1.49443412
OVERB	10	5.70000000	5.25039681
FQUEST	10	0.80000000	0.91803658
FLAUGH	10	1.70000000	1.38856206
DLAUGH	10	1.90000000	2.33095116
OGAZE	10	12.80000000	9.23519837
EGEST	10	0.00000000	0.00000000
OGEST	10	0.00000000	0.00000000
EVREIN	10	0.20000000	0.42163702
QINTER	10	1.60000000	0.69920590
SL SCORE	10	21.90000000	15.75824299
ATSTOT	10	345.30000000	7.90283274
RDVERB	10	0.50000000	0.52704628
ROGAZE	10	0.50000000	0.52704628
REFGEST	10	0.00000000	0.00000000
ROGEST	10	0.00000000	0.00000000
REFVREIN	10	0.00000000	0.00000000
REFQUEST	10	0.00000000	0.00000000
RFLAUGH	10	0.90000000	0.73786479
RDLAUGH	10	0.20000000	0.42163702

EXPERIMENTAL GROUP

Variable	N	Mean	Standard Deviation
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Low Need Males

PR SCORE	10	111.900000000	19.84075491
OKNOW	10	10.700000000	2.31180545
DPIS	10	2.800000000	1.68654809
OVERB	10	49.900000000	60.63451529
FQUEST	10	6.800000000	8.02496106
FLAUGH	10	2.300000000	2.94580681
DLAUGH	10	2.500000000	2.95334086
OGAZE	10	70.300000000	80.39531003
FGEST	10	1.500000000	2.63523138
OGEST	10	1.500000000	2.59272486
FVREIN	10	3.100000000	2.76686746
QINTER	10	10.100000000	8.76165890
SL SCORE	10	22.800000000	15.37530488
ATSTOT	10	273.100000000	16.06549097
ROVERB	10	1.200000000	0.78881064
ROGAZE	10	1.000000000	0.94280904
RFGEST	10	0.400000000	0.51639778
ROGEST	10	0.400000000	0.51639778
RFVREIN	10	0.500000000	0.52704628
RFQUEST	10	0.300000000	0.48304589
RFLAUGH	10	1.000000000	0.66666667
RDLAUGH	10	0.100000000	0.31622777

Low Need Females

PR SCORE	10	127.100000000	31.21749441
OKNOW	10	11.600000000	1.77633835
DPIS	9	3.222222222	1.98606255
OVERB	10	43.500000000	58.86373650
FQUEST	10	7.000000000	6.84422222
FLAUGH	10	4.100000000	5.63525360
DLAUGH	10	4.600000000	7.08989892
OGAZE	10	58.300000000	54.39168646
FGEST	10	2.700000000	5.61842208
OGEST	10	3.500000000	6.67083203
FVREIN	10	2.600000000	3.20416396
QINTER	10	9.500000000	8.47545476
SL SCORE	10	33.400000000	14.87876936
ATSTOT	9	278.666666667	9.17377983
ROVERB	10	1.000000000	0.81649658
ROGAZE	10	1.200000000	0.78881064
RFGEST	10	0.300000000	0.48304589
ROGEST	10	0.300000000	0.48304589
RFVREIN	10	0.300000000	0.48304589
RFQUEST	10	0.400000000	0.51639778
RFLAUGH	10	1.000000000	0.61649658
RDLAUGH	10	0.300000000	0.48304589

EXPERIMENTAL GROUP

Variable	N	Mean	Standard Deviation
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High Need Males

PP SCORE	9	121.555555556	8.95978670
OKNOW	9	10.777777778	1.09290642
OPIS	7	3.57142857	2.22539456
OVERB	8	54.00000000	56.93354522
EQUEST	8	4.75000000	4.86239212
FLAUGH	9	3.62500000	3.92564826
DLAUGH	8	3.00000000	4.27617987
DGAZE	8	64.25000000	75.33686254
FGEST	3	2.62500000	3.29230705
DGEST	8	2.62500000	4.30738568
FVREIN	8	3.25000000	3.32737563
QINTER	8	10.87500000	9.29573635
SL SCORE	9	26.11111111	17.06930318
ATSTOT	9	337.00000000	9.63068014
ROVERB	9	1.11111111	0.92796073
RDGAZE	9	0.88888889	0.92796073
RFGEST	8	0.75000000	0.46291005
RDGEST	8	0.75000000	0.46291005
RFVREIN	9	0.33333333	0.50000000
REQUEST	9	0.22222222	0.44095855
RELAUGH	8	1.00000000	1.06904497
RDLAUGH	9	0.33333333	0.50000000

High Need Females

AS SCORE	10	9.50000000	4.74341649
PP SCORE	100	127.00000000	24.24871131
OKNOW	100	10.50000000	2.32139805
OPIS	8	4.75000000	1.58113883
OVERB	100	24.00000000	34.22150071
EQUEST	100	4.60000000	8.38252150
FLAUGH	100	1.80000000	1.75119007
DLAUGH	100	2.00000000	2.00000000
DGAZE	100	43.70000000	56.64007803
FGEST	100	0.70000000	2.21359436
DGEST	100	1.00000000	3.15227766
FVREIN	100	1.80000000	2.61618892
QINTER	100	6.60000000	7.50111103
SL SCORE	9	21.00000000	17.62810256
ATSTOT	100	344.20000000	10.80946098
ROVERB	100	0.70000000	0.82327260
RDGAZE	100	1.00000000	0.66666667
RFGEST	100	0.10000000	0.31622777
RDGEST	100	0.10000000	0.31622777
RFVREIN	100	0.20000000	0.42163702
REQUEST	100	0.10000000	0.31622777
RELAUGH	100	0.80000000	0.78381064
RDLAUGH	100	0.10000000	0.31622777