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EYE CONTACT AND INTIMACY

by

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Dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Psychology in the Graduate School of Duke University

1974
ABSTRACT
(Psychology-Clinical)

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The meeting of the eyes is a potent form of communication. The eyes are able to convey many subtle nuances of feeling by their complex capacity for expression. Their stimulus configuration has made them highly noticeable; they serve as an innate releaser for the responses of animals and infants. The fact that they are critical in the maternal-infant relationship later gives them special meaning to the adult person. This is conveyed in the many references to the eyes found in literature, language, art, and mythology.

Psychologists have begun to recognize, both in research and practice, the importance of eye contact in interpersonal interaction. Eyes intensify expressions of warmth and empathy, as well as hostility and aggression (Ellsworth & Carlsmith, 1968). Recognizing this, psychotherapists have begun to emphasize the intimacy value of eye contact. Group therapists and sensitivity trainers often ask strangers to engage in eye contact as a way of transcending interpersonal barriers in a group.
Many of the relationships between eye contact and variables such as sex, age, race, and culture have been investigated. It is assumed in most of these studies that eye contact leads to intimacy. The present study will attempt to document this assumption.

For this purpose, it was hypothesized that 3 minutes of silent eye contact between a female subject and a confederate would facilitate intimacy more so than the two selected silent control conditions which were also of 3-minute duration. One of these involved looking at another part of the body, the hand, and the other was an interaction in which no instructions were given other than to maintain silence. For this study, intimacy was postulated to be composed of the Rogerian attitudes which facilitate therapeutic change—empathy, positive regard, and congruence.

In addition to the main effect of condition, a secondary prediction involved a main effect of personality. That is, the way a subject responded to the confederate was partly related to the subject's style of relating to people, regardless of experimental condition. A three-way interaction effect was predicted for the dependent variable of state anxiety such that high AFFE would lead to an increase in anxiety going from high interpersonal contact—the eye contact condition—to low interpersonal contact—the hand and non-directed conditions. The reverse was predicted for low AFFE. In addition, the magnitude of the interaction would differ for high vs. low anxious subjects on the trait anxiety. That is, the amount of anxiety experienced by high and low AFFE
subjects in both the high and low contact conditions was hypothesized to be less.

As predicted, in all cases women who made eye contact expressed more intimacy than the those with no eye contact. By their own report, they felt more empathy, positive feeling, and willingness to tell intimate details about their lives to the women they had visually contacted than did the women in the other situations.

Furthermore, the hypothesis was partially confirmed that subjects who usually express affection to other people (high AFFE) feel greater empathy than do low AFFE subjects. Only in the case of empathy was the difference between high and low AFFE significant; however, the trend was in the predicted direction for self-disclosure and positive feeling variables. The final hypothesis was not supported. That is, trait anxiety did not interact significantly with condition and personality for state anxiety. Problems in the measurement of this variable may have accounted for the nonsignificant results. Implications for further research are discussed.
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CHAPTER I

INTRODUCTION

Contact

All our lives we juggle the balance between freedom or separateness, on the one hand, and entry or union, on the other. Each of us must have some psychological space within which we are our own masters and into which some may be invited but none must invade. Yet if we insist doggedly on our territorial rights, we run the risk of reducing the exciting contact with the "other" and wasting away. Diminution of contactfulness binds man into loneliness. We see all around us how the reduction of contactfulness can choke man into a condition of personal malaise which festers amid a deadening accumulation of habits, admonitions, and customs.

Contact is not just togetherness or joining. It can only happen between separate beings, always requiring independence and always risking capture in the union. At the moment of union, one's fullest sense of his person is swept along into a new creation. I am no longer only me, but me and thee make we. Although me and thee become we in name only, through this naming we gamble with the dissolution of either me or thee. Unless I am experienced in knowing full contact, when I meet you full-eyed, full-bodied and full-minded, you may become irresistible and engulfing. In contacting you, I wager my independent existence, but only through the contact function can the realization of our identities fully develop (Pollster & Pollster, 1973, p. 99).

Our society has failed to recognize explicitly the human need for intense interpersonal contact and communication by which individuals experience themselves in relation to other people (Pollster & Pollster, 1973).
It is crucial to our development and lives both as social creatures and as individual personalities that psychological investigations explore ways to increase interpersonal relatedness. In the human potential movement, exploration and experimentation have led to nonverbal exercises which increase mutual sensitivity and awareness (Blank, Gottsegen, & Gottsegen, 1971). Touching and eye contact are the most important areas of such endeavor because they are mutual exchanges.

Mutual touching has a restricted application outside of familial and erotic relationships, and is largely confined to handshaking. Reciprocal gazing, on the other hand, plays a primary role throughout most interaction (Heron, 1971). A general definition of eye contact is an act between two people where their eyes are focussed on one another's eyes, or the mutual holding of gaze. Heron (1971) observes that when one looks at the physical attributes of another's eyes--the color, form, or texture--that one looks at one eye at a time for an appreciable period of time. However, when perceiving the other's gaze, then the eyes are either oscillating from one to the other or the fixation point is centered between the eyes at the base of the nose. The latter, Heron (1971) claims, seems to offer the most effective necessary physical condition of perceiving the quality of the other's gaze. Simultaneous reciprocal interaction between qualitatively similar processes occur. Since the means of input and output are one and the same, each party becomes aware of the effect upon the other. Eye contact is a simultaneous exchange rather than a serial
one, whereas ordinary conversation involves a complementary process with a speaker or giver, and listener or receiver (Heron, 1971).

The eyes do both the looking and the receiving at the same time. "The eye of a person discloses his own soul when he seeks to uncover that of another (Simmel, 1921, p. 358)." Tomkins (1963) discusses the unique capacity of the mutual look to influence the expression, communication, contagion, and control of affect. Heron describes this phenomenological experience:

My awareness of myself is in part constituted by my awareness of his awareness of me, and my awareness of him is in part constituted by my awareness of his awareness of me; that is to say, my awareness of his awareness of me both reveals me to myself and reveals him to me, and his simultaneous awareness of my awareness of him both reveals him to himself and reveals me to him. But further, in my awareness of his awareness of my awareness, whether of myself or of him, I reveal myself to him; and in his awareness of my awareness of his awareness, whether of himself or me, he reveals himself to me. Thus ..., each is revealed to himself, each is revealed to the other, and each reveals himself to the other (1971, pp. 255-256).

Eye contact is thus an exchange both mutual and reciprocal--mutual, since it is the shared experience between two people, and reciprocal because it involves the simultaneous give-and-take of interaction. Like the hands, when eyes meet they establish "psychological" contact comparable to touching, kissing, or fighting. Several studies have established the reliability of this phenomenon, finding observers high in agreement on its measurement (Bowman, Haemmerlie, & Shaw, 1971; Daniell & Lewis, 1972; Ellgring & von Cranach, 1972; Gibson & Pick, 1963).
Eye Contact Investigation

In the past 10 years, the psychological literature has recognized eye contact as a behavior worthy of extensive investigation. Elaborate eye communication patterns have been identified, and now predictions on the amount of eye contact are possible based on whether one is talking or listening, as well as sex, age, personality, body position, status, attitude, interpersonal distance, and emotional interaction.

Eye contact is one of those behaviors that is assumed to be spontaneous and hard to monitor. It can therefore be unobtrusively observed and accurately measured, making it relatively easy to study (Stass & Willis, 1967). In Polanyi's (1967) words, the receiver "tacitly knows" the sender, for he can recognize moods on his face, but cannot specify the facial configuration involved. This may be because the features and their meanings are learned simultaneously and at an early age--perhaps at a preverbal time when categories of verbal expression used to conceptualize knowledge have not yet been developed (Schachtel, 1959).

It can be postulated, then, that people have highly sensitive reactions to the looking behavior of others, but that they are usually unaware of the cues which lead to their specific response. The less consciously motivated the look, the more revealing the look becomes (Ortega y Gasset, 1957).

For this reason, most investigations make use of the unconscious
nature of eye contact, employing it as a dependent variable (Kleinke, 1972). That is, the primary focus is on the relationship of eye contact to events external to the person and what such contact "indicates" about the sender of a message.Ekman (1965) calls these dynamics "indicative functions."

The less common use of eye contact as an independent variable would involve the "communicative" function of eye contact in which observers decode the act (Ellsworth & Carlsmith, 1968; Mehrabian, 1967). In other words, instead of measuring eye contact as a dependent variable and making inferences about the subject's behavior, eye contact is an independent variable and is manipulated with respect to behavior—which might involve, for example, a confederate or a film of people interacting. What is measured is what the stimulus communicates to the subject-observer (Kleck & Nuessle, 1968).

Interpersonal Looking Behavior

The eyes of men converse as much as their tongues, with the advantage that the ocular dialect needs no dictionary, but is understood the world over (Ralph Waldo Emerson, in Nierenberg & Calero, 1972, p. 18).

The eyes have been written about for centuries and called the gateway to the soul. The potency of eye communication and the symbolism of the eyes have long been recognized (Webbink, 1969). Gaze behavior towards another person occurs about 50% of the time during normal interaction (Kendon, 1967). Thus such behavior is an important
and frequently used signaling device which involves a process of interpersonal influence (Lewin, 1936). According to Hutt and Ounsted (1966), gaze fixation signifies a readiness for interaction. It communicates a recognition of another, a commitment or willingness to become involved or to maintain an ongoing interaction (Exline, Gray, & Schuette, 1965). Logically, it follows that a conversation's beginning is preceded by an orientation of the body, head, and gaze (von Cranach, 1969). Looking behavior may mark a change in topic, a shift in coalition and alignment, or a granting or withdrawal of support (Shenker, 1969).

In addition, looking behavior may serve as a regulator of interactional behavior which calibrates the timing of verbal and nonverbal communication (Kendon, 1967). In a detailed analysis of a family psychotherapy session, Scheflen (1963) describes an intricate and regular pattern of looking behavior. He observes that gaze holding and aversion in the doctor-mother relationship regulated verbal behavior in the mother-son interaction.

A look towards the speaker may be a request to be included by him; if the speaker returns the look, he is signifying that he is including the other (Weisbrod, 1967). By looking at his child, for example, a father may be trying to induce him to carry out a certain action or to emphasize a command. The look, then, brings one person into contact with another. Lewin (1936) compares the look to the outstretched hand—when met by the other person's glance, this corresponds to touching.
Conversely, avoidance of gaze may indicate a lack of interest in initiating a relationship (Exline et al., 1965). In an ongoing interaction, a look away from another may indicate a desire to break away. A child who is being scolded may try to dodge a mother's glance as a way of avoiding her influence (Lewin, 1936). A glance at the watch may express boredom or discomfort, as well as an intention to leave (Gibson & Pick, 1963).

**Looking Behavior in Animals**

Evidence exists that the response to another's look is instinctive. When animals see a pair of eyes looking at them, this apparently releases social action in them (Burton, 1957; von Cranach, 1969). Among primates, reactions to a stare vary: flight, submission, return gaze, and attack, or a combination of these (Ellsworth, Carlsmith, & Henson, 1972). The reaction occurs as a prelude to attack or a substitute for it (van Hooff, 1962).

Wada (1961) implanted electrodes in the brains of macaque monkeys and observed their EEG reaction to a direct confrontation with the experimenter's gaze. This looking behavior by the experimenter led to a powerful response. Exline (1968) has described how he recorded on videotape rhesus monkeys reacting violently to a human stare. A more aggressive monkey first crouched, then leaped directly towards the human, grabbing and shaking the cage bars. A less aggressive monkey
did not lunge directly towards the human, but to the side. This shy monkey shook the side of the cage instead of the front.

If the experimenter lowered his head and eyes after the monkey had seen his look, the aggressive response was lessened and the animal tried to stop his jump, instead landing on the floor of the cage. Exline interprets this lowering signal from the human as a submissive response, somewhat like the wolf's exposure of the jugular vein. The monkey's automatic response continued over a great many trials, until finally he avoided the look of the human altogether and began to masturbate.

Looking Behavior in Human Infants

Many authors formulate a relationship between their findings on humans and on the behavior of primates (Burton, 1957; von Cranach, 1969). Among human infants also, the eyes appear to be an innate releaser for social response (Ambrose, 1963). Contrary to popular belief, the infant is born with a relatively mature visual system (Rheingold, 1961; Robson, 1967). At birth he reacts with predictable responses to light (Baldwin, 1955; McGinnis, 1930; Shirley, 1933). When the infant's head is held steady, "the ballistic movement of the eye itself is exquisitely accurate (Brunner, 1967, p. 4)." Around 2 months of age, changes in the strength and direction of pattern preferences occur and visual behavior becomes very similar to what is adopted through life (Rheingold, 1961).
Visual exploration is the young infant's primary activity as he searches for form and movement in the environment (Bruner, 1967; Greenman, 1963; Rheingold, 1961). The visual acts of following and fixation appear usually before the third month and are among the young child's most important achievements (Gesell, Ilg, & Bullis, 1949). Much of the infant's energy is spent looking at the parent and following his or her movements around the room with the eyes. The parent's encouragement of these rudimentary responses may be crucial to the infant's psychological development (Bowlby, 1958).

Baker (1967) believes the eyes to be so important to the young infant that he theorizes an ocular stage preceding the oral stage of development. Robson (1967) agrees that the infant's eyes are the most important means of environmental contact.

To test eye importance to the young child, Shapiro and Stine (1965) collected figure drawings of 3- and 4-year-old children. In the sample of children under 46 months of age, 89% drew eyes, while 22% drew the mouth. These psychologists also found that the eyes were represented independently of both the nose and mouth, which tended to be fused together and drawn at a later age. They concluded that "this stimulus configuration is selectively attended to as the 'locus vitae' of the infant's primary caretakers, and as an important organizer of his perceptual world (Robson, 1967, p. 17)."

Findings show that infants tend to prefer patterned surfaces and
concentric forms which resemble the eyes (Barron, 1968; Bruner, 1967; Fantz, 1958), and are said to function as innate releasing stimuli (von Cranach, 1969). They are both figural entities consistently perceived by the infant, and the first visual stimuli to elicit the smiling response (Ambrose, 1959).

Buhler and Hetzer (1928) in their early work state that the 3- and 4-month-old infant responds to the eyes with a smile, and that the whole facial gestalt only gains importance at the age of 5 months. Kaila (1932) finds the releasing stimulus to be the whole eye region. Spitz and Wolf (1946) extend this region to include part of the forehead and nose. Ahrens (1954), in an extensive study of children up to 6 years of age, finds that, until the age of 2 months, the smiling response can be elicited by up to as many as six eye-sized dots. In the second month, two horizontal eye-sized dots become the best releasers. At the age of 4 months, the child when given a mirror chiefly regards the reflection of his own eyes (Gesell, Ilg, & Ames, 1956). As the infant develops, the whole human face becomes an optimal releaser. From these studies, we conclude that the child responds not to the human face or facial expression, but to the facial configuration of which the eyes are the most important elements.

Eye Contact in Infants

Eye contact has been called a precursor for the child's future
relationships and emotional development (Klein, Heimann, Isaacs, & Riviers, 1952; Robson, 1967). "The gaze between mother and baby can be one of the richest forms of communion between two people; few adults ever experience this perfect reciprocity again (Heaton, 1968, p. 195)."

In the feeding situation, as the baby gradually begins sucking with open eyes, eye contact often becomes as important to the child as the food itself (Bruner, 1968). The infant, therefore, is relating not just to the food, but to the person who gives the food (Klein et al., 1952). Robson (1967) found many mothers reporting that eye contact dominates the feeding situation. On the basis of films of nursing babies, Spitz and Wolf note: "The nursing infant does not remove for an instant its eyes from its mother's face until it falls asleep at the breast, satiated (1946, p. 109)." The baby may even stop feeding if the mother looks away (Heaton, 1968).

Eye contact has been found even more important than the smile in the mother's response to her infant. According to Hutt and Ounsted, "Even when a child smiles, if it is not accompanied by eye-to-eye contact, the mother cannot be certain that the smile is directed at her (1966, p. 355)." Robson (1967) and Wolff (1963) report that mothers feel estranged from their infants until about 4 weeks of age when the babies are able to maintain eye contact. Then the mother feels recognized and more intimate and affectionate toward her baby, although she often is not aware of the cause for her change in feeling. Robson
(1967) proposes that eye contact should be added to Bowlby's (1958) list of innate releasers of maternal caretaking behaviors. (The others include: crying, smiling, visual and physical following, clinging, and sucking.)

In a study of 54 primaparous mothers, it was found that the more positive the maternal attitudes during pregnancy, the higher the amounts of mutual facial regard with 1-month-old infants (Moss & Robson, 1968). Kulman (1962) found that during feeding the percentage of time a baby looks at his mother is matched by the percentage of time the mother looks at the baby. On the other hand, as Hutt and Ounsted (1966) suggest, there may be cases, such as with the autistic child, where the infant does not provide the releasing stimulus of eye contact which strengthens the maternal-infant bond.

Whatever the cause, marked variations in eye contact patterns are observed among infants (Robson, 1967). Infants described as visually alert engage in vigorous attempts to search out the mother's eyes and appear totally engaged when contact is achieved. Others make contact but without the apparent fascination of the first group. Still others seem to avoid their mother's gaze (Robson, 1967). Robson (1967) hypothesizes that visually responsive babies have a strong tie to their mothers, and that because blind infants are deprived of eye contact, they may also have weaker emotional ties. After extensive research, Robson concludes that "the nature of the eye contact between a mother and her baby . . .
conveys the intimacy or 'distance' characteristic of their relationship as a whole (1967, p. 18)."

The exact cause of the marked individual differences among young infants, however, is not known. Nevertheless, an awareness of the important role of eye contact in the infant's relationship with his parents can enhance an understanding of its meaning for the adult.

**Eye Contact in Adults**

Most experimental evidence on eye contact involves the study of human adults. As a matter of fact, eye contact is probably the most extensively researched area in the field of nonverbal communication (Henley, 1974). Eye contact involves a system of feedback in which information is exchanged (Efran & Broughton, 1966). A mutual gaze may indicate a willingness to express affective involvement (Argyle & Kendon, 1967; Exline & Winters, 1965). Other functions include signaling that a communication channel is open, concealment, exhibitionism, and the establishment and recognition of social relationships (Argyle & Dean, 1965). Eye contact can also monitor and regulate the expression of emotion (Kendon, 1967).

The components of eye contact do not operate in a simple way. Two or more functions can occur simultaneously.

For example, A might look at B primarily for affiliative reasons, but he would also receive information. Or A might look up at the end of an utterance to collect immediate feedback, but this look will act as a synchronizing signal to B. And A cannot look at B to collect
information without sending signals about his attitude to B (Argyle, Ingram, Alkema, & McCallin, 1973, p. 31).

Investigations support the proposition that eye contact occurs more often among friends than among strangers (Mehrabian, 1968). Eye contact is also more frequent among people who feel positively towards one another (Exline & Winters, 1965). Such contact has been found to reflect interest (Kendon, 1966), high status (Efran, 1968; Mehrabian, 1963), and in some cases, power (Exline & Kendon, 1967; Strongman & Champness, 1968; Weisbrod, 1965). Dominance can be established by a direct stare; this nonverbal signaling is found to operate in male-female relationships (Henley, 1973, 1974). Eye contact is also greater among people who are affiliative, and among women who are generally trained to be more affiliative than men (Exline & Messick, 1967).

**Sex Differences**

It has been previously established that females are more responsive to nonverbal cues than men (Argyle, Nicholson, Salter, Williams, & Burgess, 1970). Women's greater eye contact is usually explained by their higher affiliative pattern as well as their greater emotional receptivity (Henley & Freeman, 1974; Kleinke, Bustos, Meeker, & Staneski, 1973). More complicated analyses include interaction with competition (Exline et al., 1965) and liking as well as talking and listening (Argyle & Ingham, 1972).
Eye Contact in Clinical Diagnosis

More recently, eye contact has been used in clinical practice to diagnose emotional relatedness or its lack—as characteristic of depression, autism, or schizophrenia (Argyle & Kendon, 1967; Chess & Wolff, 1964). Depressive people are found to have lower eye contact than those recovered from depression, suggesting that the reduced level is temporary during depression and may be part of a defensive withdrawal (Hinchliffe, Lancashire, & Roberts, 1971). The authors speculate that since eye contact is inversely related to an emotional display, a depressed person reduces affective intensity by avoiding eye contact.

Rimland (1963) has a similar hypothesis about the eye aversion of autistic children. Such children, according to Rimland, have a defect in the reticular activating system which forces them to reduce the stimulation which is leading to chaotic confusion. One way to reduce such stimulation is to avoid personal interaction or contact—to shut the other person out of his world—to cut off eye contact.

Hutt and Ounsted (1966) explain this same behavior in autistic children in a different way. They see such children as engaging in submissive behavior which acts to appease the other children and to ward off attack. Hutt and Ounsted claim that the reason autistic children are not aggressed upon is due to their eye avoidance.

Laing (1960) describes a series of adult schizophrenics whose eye
avoidance he terms a learned protective device to prevent the formation of a meaningful relationship. He explained that they are overwhelmed by rejection and do not wish to be seen. Riemer (1949, 1955) also suggested that the averted gaze found among severely disturbed people serves to wall them off from the world. This extreme form of shyness and modesty may represent a withdrawal typical of the schizophrenic who is afraid to engage in mutual eye contact (Sullivan, 1954). Clancy (1963) hypothesizes that this avoidance either symbolically represents an inability to face things or a fear of looking or being looked at (Clancy, 1963). Catatonic schizophrenics are often seen with eyes closed, averted, or fixed on a particular object. In more seriously disturbed cases, the eye has been mutilated or self-enucleated (Hart, 1949).

An extreme reaction to a look is characteristic of the person who either dreads or cherishes being looked at (Laing, 1960). This person either ascribes omnipotence to the glance or fears its destructive effect. Such a reaction may be detected in the patient's bearing, attitude, and appearance (van der Drift, 1966). The schizoid individual is said to be especially vulnerable to feeling exposed by the look of others (Laing, 1960). Lefcourt, Rotenberg, Buckspan, and Steffy (1967) found that, in a 4-minute period, reactive schizophrenics engage in more eye contact than do process schizophrenics. This finding suggests that the more severe the disturbance, the less eye contact occurs.
Eye Contact in Psychotherapy

We continued to look wordlessly at each other. . . . We sat together in complete silence for a while feeling very much together and at one with each other (Seagull, 1967, p. 43).

The eyes have symbolized healing as early as 3000 B.C. (Martí-Ibáñez, 1962). Eyes are superb vehicles for expressing warmth, affection, and empathy; for this reason, they can be used effectively in psychotherapy (Riemer, 1949). Verbal communication has been emphasized in psychotherapy. More recently, the significance of what the client is communicating nonverbally as well as the therapist's nonverbal expression of care are recognized as critical (Haase & Tepper, 1972). The nonverbal expression of care and acceptance may be critical in the process of effective psychotherapy. It has been hypothesized that the look of the therapist conveys respect and interest, encouraging the client to have a sense of importance.

Riemer (1949) suggests that therapists should react to an averted gaze by encouraging the client to look into their eyes. Logically, when rapport has been established, eye contact is divested of anxiety because a sympathetic, non-anxiety provoking response occurs in its place (Wolpe, 1958). Wallach et al. (1960) report that asking a schizophrenic to look into the therapist's eyes helps decrease his rapid eye movements, and thinking based on reality percepts may ensue.

The more the client becomes absorbed in what he is talking about, the less he will avoid the therapist's gaze (Riemer, 1949). As the adult
begins to realize his potential and achieve openness, spontaneity, and honesty, his eye contact will automatically increase.

In psychotherapy, eye contact in the client may be indicative of comfort, affection, and a lack of resistance (Greenson, 1967; Pfeiffer, 1968). Riemer (1955) suggests that an increase in gaze may be a way of indicating therapeutic gain. A person who is afraid to express anger, for instance, may show great progress when able to look at the therapist and express anger directly.

Initially, however, the client often becomes uncomfortable under the therapist's close visual scrutiny and may be distracted by mutual eye contact. Partly for this reason, most therapists adopt a 90-degree sitting position, thus giving the client an option of looking or not. This position does not allow the therapist to see fine facial expressions, but he can use peripheral vision to obtain information. Sullivan (1954) explains that this position is mandatory with schizophrenics because of their fear of being watched.

Ellsworth and Carlsmith (1968) found that, in a conversation indirectly critical of the subject, the more the interviewer looked at the subject, the less the subject liked him. As they point out, this is similar to the psychotherapeutic situation in which the client's negative aspects are usually discussed. This finding suggests that the therapist should make eye contact with the client only when the client is making positive statements about himself.
Argyle and Kendon (1967) discuss Scheflen's description of the typical therapist's position. As the therapist listens, his head is slightly lowered and cocked to the right so that his eyes are averted from the client. As the therapist interprets, he raises his head, looks directly at the client and speaks to him. When finished, the therapist looks away.

Whatever the technique chosen to deal with a particular person, the psychoanalytic technique of putting the person on the couch is least useful for dealing with problems of looking behavior. This position fosters the continuation of abnormal gaze or hesitant looking and removes the therapist as a realistic influence. If a person is always on the couch, an opportunity is lost to expose problems with eye contact (Riemer, 1955).

Although nonverbal communication is not usually discussed in the psychotherapy session, Riemer (1955) urges the therapist to do so in the case of looking behavior. This technique may encourage increased self-awareness, and is a concrete example of nonverbal behavior which can be talked about and dealt with. In addition, the therapist uses his own gaze as a means of promoting trust and conveying empathy to the patient; the relationship is thereby strengthened.

In summary, eye contact can be a tool to use in several ways during clinical work. First, gaze behavior can be diagnostic of the patient's general psychological condition. Very little eye contact is a danger sign; so is too much. Persistent staring may indicate that the starer wishes
to adopt another's identity. Secondly, the mutual gaze may be used to establish a relationship with a patient, conveying warmth and acceptance. Eye contact is a technique in group therapy which promotes intense relationships among the group members. Thirdly, the therapist's gaze toward the patient may also be a way to emphasize the therapist's interpretation. Fourth, the patient's gaze may also be discussed in the therapy hour as a cogent example of the patient's style of relating to others. Investigation is needed to specify the exact behaviors and characteristics relevant to therapeutic change, as well as the role of each in the context of the total communication process (Truax & Wargo, 1966).

Facilitating Interpersonal Interaction--Rogers

Carl Rogers, in his research on the facilitation of interpersonal interaction and, more specifically, therapeutic relationships, was able to translate his experiences as a therapist into a useful research model. Through personal introspection and detailed observation of therapeutic situations, he identified three basic attitudes held by the therapist that create an atmosphere conducive of positive change. Empathy, congruence, and positive regard, when communicated by the therapist and experienced by the client, produce conditions which are both necessary to initiate constructive personality change and sufficient to germinate such change in the client (Rogers, 1957).
1. **Empathy**, the condition found most related to positive change (Barrett-Lennard, 1959), is a sensitive ability to see another's private world through that person's own perspective (Grief & Hogan, 1973).

2. **Congruence** is a genuineness and transparency allowing an integration of experience and awareness. Instead of presenting an outward facade, a person is able to express real feelings and attitudes both verbally and nonverbally. Generally the client is assumed to come for help in a state of incongruence (Rogers, 1957).

3. **Positive regard** is a warm acceptance, appreciation, and respect of another person.

These three conditions, when mutually shared, provide an intimate relationship in which people feel free to experience themselves and to explore hidden parts of their personalities. The client changes his self-perception by valuing himself more highly, viewing himself more realistically, and becoming more accepting of himself and others.

Many studies have demonstrated the positive relationship between this triad—accurate empathy, genuineness, and nonpossessive warmth—and the amount and direction of personality and behavioral change (Truax & Wargo, 1966). While there is much discussion about varying the levels of the three elements as an experimental way to detect the controlling stimuli, the Wisconsin group of researchers did not describe the actual processes involved in communicating these attitudes. In general, such processes have received only limited attention in the literature.
(Mehrabian & Ferris, 1967).

Truax and Wargo (1966), however, discuss the importance of nonverbal aspects of communicating these attitudes, such as lighting, physical distance (Kleinke, 1972), voice quality (Markel, 1969), head and body position (Mehrabian, 1968a), touch (Jourard & Friedman, 1970), facial variables (Ortega y Gasset, 1957), and eye contact. When intimacy occurs, one or more of these factors is usually present. In rating pictures, the therapists' liking and empathy are judged greatest with close proximity, eye contact, trunk lean, and face-to-face body orientation (Haase & Tepper, 1972; Kelly, 1972). In addition, on reviewing the literature, Brown and Parks (1972) found that the optimum use of eye contact with the counselee facilitates the counseling process. Moments of eye contact in therapy are found to be times of deep communication and closeness (Kaiser, 1965).

It is important that the three attitudes which Rogers (1956) has identified as characterizing an intimate relationship and in turn leading to therapeutic change are also commonly associated components of eye contact. Empathy is probably best communicated through eye contact. A kind of communion takes place as the eyes are expressing and receiving intense communication from the other person. In addition, Katz (1965) found mutual glance to be the most significant variable which relates to the judgment of empathy. Similarly, Haase and Tepper (1972) investigated empathy ratings (using the Truax-Carkhuff scale) of
interaction segments shown on videotape to professional counselors; they found that those interactions which were judged as the optimum communication of empathy, involved eye contact in combination with either forward trunk lean, medium empathic verbal message, and a far distance; or forward trunk lean, high verbal empathy message, and a close distance. The least effective combination involved no eye contact.

Positive feeling is the most widely researched component of eye contact (Kleinke & Pohlen, 1971). In a study similar to that of Haase and Tepper (1972), Kelly (1972) had subjects rate therapist's communication of liking, and eye contact was found to be a major component. More specifically, Kendon and Cook (1969) found that subjects who look in long gazes are liked more than subjects who look in short frequent gazes. A higher percentage of eye contact reflects positive attitude between communicators (Kleinke, Bustos, Meeker, & Staneski, 1973; Mehrabian, 1967, 1968, 1969; Mehrabian & Friar, 1969). Mehrabian's studies involved instructions to assume a posture towards someone who is liked or to rate photographs of people in varying positions for likability.

Friends and lovers engage in frequent eye contact (Rubin, 1970), as do those who are experimentally induced to like each other (Exline & Winters, 1965). Even those who role play liking have higher eye contact (Breed & Porter, 1972). Similarly, when a subject is confronted with an approving and a non-approving confederate, he will look more at the approving one (Efran, 1968). In addition, subjects who are instructed
to become friends and seek approval from others will increase their eye contact, and likewise will decrease it when told to avoid approval (Pellegrini, Hicks, & Gordon, 1970). It has also been shown that willingness to engage in mutual eye contact is greater in persons judged high in desire to establish warm interpersonal relationships than in persons judged as low on this dimension (Exline & Winters, 1965).

Kleck and Nuessle (1968) found eye contact to vary directly with the positiveness of affect and degree of attraction in the relationship; also, in their experiment, high mutual eye contact in a dyad on a film is perceived as reflecting greater attraction. Goldstein and Bem (1971) find that smiling and eye contact in the confederate induces liking in the subject. Similarly, Holstein, Stass, and Willis (1967) extend this observation to affiliative behavior, in that subjects are more likely to choose partners with eye contact than those without.

Ellsworth and Carlsmith (1968) found that the context was a crucial variable in judging the effect of eye contact. An interaction occurs such that negative verbal statements with eye contact decrease positive feeling. This contextual idea applies to the experiment to be reported below. Congruence, which is characterized by sincerity (Exline & Eldridge, 1967; Kleinke et al., 1973) and honesty, is the final attitude associated with eye contact. The expression, "Look me straight in the eye," is a synonym for "be honest with me." Many people feel that truth can be perceived by looking into the eyes of another person (Wilkison, 1969).
Lying, therefore, is associated with avoidance of eye contact—supposedly hiding the eyes (Lavater, 1953). It has been experimentally shown that subjects avoid eye contact after being induced to lie (Ekman & Friesen, 1969; Exline, Thibaut, Brannon, & Gumpert, 1961).

**Factors in the Research Problem**

A need for intense interpersonal contact, which can be met through eye contact, is expected to produce positive effects leading to intimacy; and intimacy, a main component of most psychotherapy, leads to change. As previously reviewed, Rogers, specifies what attitudes cause such change to occur.

Since much of the research on eye contact is based on the premise that such contact is an intimate behavior, it is hypothesized that: (a) eye contact, as opposed to conditions of less interpersonal contact, will lead to intimacy; (b) in addition, the subject's personality should influence the amount of intimacy perceived. The independent variables, thus far, are condition and personality. In the experimental condition, eye contact is maintained, whereas in the other two conditions eye contact is not permitted to occur.

Three dependent variables, defined as indicating a state of intimacy, parallel Rogers' therapeutic conditions of empathy, congruence, and positive regard. To measure empathy, Drag's (1968) Empathy Rating Scale was chosen (see Appendix B). This was designed to deal
with the respondent's attitude toward the confederate concerning empathy, communication, and trust. Previously, it had been found that the scores on this scale increased after a 20-minute verbal dialogue took place, and did not increase when communication was one-way, such as a cross-examination (Jourard, 1971).

To measure positive feeling, Rubin's (1968) The Positive Feeling Scale was chosen (see Appendix B). It has already been found that the higher the intimacy of condition (high eye contact, forward lean, direct shoulder orientation), the more positive the evaluation of a confederate (Breed, 1969). This test is found to reflect significantly greater change after 20 minutes of intimate interchange with two people verbally self-disclosing to one another than after a less personal conversation (Jourard, 1971). In comparison, similar changes in willingness to self-disclose are predicted after only 3 minutes of eye contact.

Congruence, described as a state of being "real" and "genuine," is difficult to measure because of its subjective nature. The assessment of an individual's honesty and willingness to discuss information about his personal life would be a means of objectively assessing congruence. Therefore, a measure of self-disclosure, which is seen as a dimension of closeness (Breed, 1969), will be included. The score obtained should reflect a desire to share oneself honestly with another person.

A reciprocal dyadic effect has been demonstrated; that is, verbal
self-disclosure of one person leads to greater verbal self-disclosure or stated willingness to self-disclose on the part of another (Jourard, 1971). Since it is postulated that eye contact is a form of communication in which one expresses oneself or becomes known, Jourard (1968) asserts that eye contact is a type of self-disclosure. In fact, it has been found that eye contact does indeed lead to increased willingness to verbally disclose (Jourard & Friedman, 1970).

The fourth dependent variable is anxiety. It has been found that gaze and emotional arousal are positively related as measured by heart rate (Kleinke & Pohlen, 1971). Argyle and Kendon (1967) hypothesize that anxiety during eye contact is generated by intense interpersonal involvement. It therefore follows that those who are more accustomed to being interpersonally involved will feel less anxiety during high interpersonal involvement. Likewise, during the low contact conditions, people who are accustomed to low interpersonal contact will experience less anxiety than those who ordinarily seek out more contact, and in this case are not able to get it. More specifically, the eye contact condition and the expressed affection variable are hypothesized to interact with respect to anxiety (see Appendix B).

Interpersonal space, looking time, and the use of the same confederate are variables which are held constant throughout the experimental sessions. It is the subject's behavior, then, which varies. Extraneous influences which could be introduced through verbal
interaction are decreased by the use of silence. Nonverbal communication also intensifies an interaction, enabling people to focus on one another and concentrate on nonverbal communication without the distraction of verbal stimulation (Mehrabian & Ferris, 1967). Tomkins (1963) suggests that silent looking is a return to preverbal looking experience with mother and therefore an experience of deep communion. Subject and confederate interact under conditions of silence because it has been found that nonverbal (or analogual) cues are more effective than verbal (or digital) ones in communicating interpersonal attitudes or in dealing with a relationship (Argyle et al., 1972; Watzlavick, Beavin, & Jackson, 1967).

The experimental directions to look into each other's eyes for 3 minutes demands an unnatural experience which produces discomfort. On a questionnaire, Exline, Lanzetta, Pruitt, and Ziller (1969) asked subjects for their impressions of what their reactions might be to eye contact under various situations of speech and silence. They found that the 100% look during silence is perceived as uncomfortable, "strange," or "odd."

The design of the present study minimizes this discomfort in an effort to facilitate intimate interaction, first by selection of same sex subjects and confederate. Subjects are females because they are known to be more oriented to personal relationships than males (Exline et al., 1965). Breed (1969) demonstrated that subjects are more comfortable
with a confederate of the same sex. A female confederate, therefore, is employed.

Discomfort is also minimized by controlling physical proximity with a distance of 3 feet between participants because it is considered a "normal" or "personal" range of interaction (Argyle et al., 1968; Hall, 1966). The confederate's body position also is one which characterizes close relationships—forward lean and direct shoulder orientation (Breed, 1969). With these variables held constant across condition, it will be determined if only 3 minutes of eye contact can lead to significantly greater closeness than 3 minutes of two other kinds of interaction.

**Condition**

In this experiment three types of visual contact will be compared. Eye contact is proposed to lead to the greatest change because it is an intense communication.

To determine if it is the eye contact which is controlling behavior and not simply the presence of another person, a "non-directed" condition is included. Here the subject is permitted to look where she wants, but eye contact does not occur because the confederate does not return her gaze. To control for the possibility that looking at any body part—not just the eyes—would lead to a similar magnitude of change in the variables under investigation, a visual hand condition is also included. Here, looking behavior of confederate and subject is restricted to
another area of the body which is also considered to be expressive—the hand.

**Personality**

The main hypothesis in this experiment is that eye contact leads to intimacy. However, the person's predisposition to intimacy is also important. If one looks to Rogers (1957) for a parallel, the therapist is essential since he is the one who communicates the attitudes permitting therapeutic change. Rogers recognizes, however, the prominent role of the client's personality in facilitating the therapeutic process. Studies have also shown that therapists do react differently to friendly and hostile people (Heller, Myers, & Kline, 1963).

It is hypothesized that people who reach out to other people as a general style would become more involved and therefore respond more intimately than those who do not normally reach out. For one person, a 3-minute stare may be highly abnormal and therefore noxious; for another, such a stare might more closely approximate her normal eye contact and therefore be experienced as desirable (Hodge, 1971).

It has been previously established that people who are high affiliators or, within the context of the FIRO-B Scale (Schutz, 1958), who have high affection and inclusion scores, make more eye contact than those with low scores (Exline et al., 1965). It would therefore follow that in this experiment high scorers on affection and inclusion would be
more responsive to the confederate than would low scorers.

Furthermore, it was expected that, of the various FIRO-B dimensions considered, the expressed affection (AFFE) score would be the greatest differentiator. This is because low affection expressers are said to be cool, rejecting, and emotionally distant, and high ones communicate love and intimacy to others (Schutz, 1970). The expressed affection score should account for some of the variance in the dependent measures. For example, high expressed affection subjects might become more involved with the confederate and therefore respond more empathetically, be more willing to self-disclose, and feel more positively than would low affection expressers.

Hypotheses

Hypothesis 1: A main effect of condition is predicted. Subjects in the eye contact condition as compared with the non-directed and the hand condition will have higher scores on (a) empathy, (b) self-disclosure change, (c) positive feeling.

Hypothesis 2: A secondary main effect of personality is predicted. Regardless of condition, subjects with high scores in expressed affection, as compared with low ones, will feel toward another person greater (a) empathy, (b) self-disclosure change, (c) positive feeling.

Hypothesis 3: An interaction between personality and condition is hypothesized to exist with respect to state anxiety. In the high contact
condition (eye contact), high affectionate subjects will experience less anxiety than those who are low on affection. Conversely, in the lower contact conditions (the hand and non-directed ones), high affection subjects are predicted to experience more state anxiety than low affection subjects. Here there is no opportunity for them to express their usual affection; consequently, anxiety should be present. Since a person's transient state of anxiety may be influenced by the normal level of anxiety, that is the trait anxiety, it was decided to administer a trait anxiety inventory before the experiment, and to include the trait scores in a three-way analysis of variance. This was done to determine if a subject's predisposition towards anxiety influenced her stress reaction to the experiment (Spielberger, Lushene, & McAdoo, 1971). Change scores were not used in this instance since trait and state anxiety are not directly comparable; they are different types of anxiety which can be measured with similar test procedures. In addition to the two-way interaction, a three-way interaction is predicted with anxiety trait, condition, and personality as independent variables, and state anxiety as the dependent variable.
CHAPTER II

METHOD

Subjects

One hundred and eight female undergraduate students, with an age range of 18 to 22 (median--20), were recruited from 15 assorted classes at George Washington University in the Summer of 1971. The experimenter went to each class requesting volunteers for a one-half-hour experiment. Each volunteer subject was to appear at the Special Education Department one week from the experimenter's visit to the class. Each subject was promised a bag of sunflower seeds, feedback on her individual performance, and information on the study's purposes and results.

Confederate

The confederate was trained for 6 days with student volunteers to react the same way with each subject. She was a 22-year-old white woman, naive to the purpose of this research, and not previously acquainted with any of the subjects. During her training it was observed that subjects responded positively to her.
Variables

Instruments: pre-tests

Three questionnaires were administered to all subjects (see Appendix A):

1. The STAI A-Trait (State-Trait Anxiety Inventory, trait anxiety).
2. The JSDQ (Jourard Self-Disclosure Questionnaire).
3. The FIRO-B (Fundamental Interpersonal Relations Orientation-Behavior Test).

The A-Trait is a one-page test designed to reflect a general disposition toward anxiety, which is a relatively stable personality characteristic (Spielberger, Gorsuch, & Lushene, 1970). The subject is asked to rate how she usually feels with respect to 20 items on a scale form of 1 to 4 (Spielberger, 1966). For example, on the item, "I lack self-confidence," the subject checks one of the following: "Almost never," "Sometimes," "Often," or "Almost always." The score is said to reflect the frequency and intensity with which emotional states have been manifested in the past and the probability that such states will be experienced in the future (Spielberger et al., 1971). A-Trait scores do not change in response to situational stress (Spielberger et al., 1970). The test-retest reliability of A-Trait is relatively high, ranging from .73 to .86 (Spielberger et al., 1970).

Jourard's (1968) Self-Disclosure Questionnaire contains 20 items. The subject rates on a three-point scale her willingness to reveal
information about herself to a same-sexed hypothetical other. This questionnaire is reliable, and several studies have confirmed its construct validity (Jourard, 1971; Pedersen & Higbee, 1968).

The FIRO-B is a well-established personality inventory which can be administered in 15 minutes; it has high reliability coefficients of .94 and .76 (Schutz, 1970) and both content and concurrent validity (Schutz, 1958). It provides a description of how a person reacts in interpersonal situations and asks the subject to rate on a Guttman scale her characteristic behavior toward others. The three dimensions measured are all needs to establish and maintain a satisfactory relationship with people with respect to:

2. Inclusion: Interpersonal Association or Interaction, Feeling of Mutual Interest.

Each of these scores is further broken down into "wanted" and "expressed"; the "wanted" represents the more passive wish for other people to act in some way toward oneself, and the "expressed" represents the more active behavior toward others. Predictive, content, and construct validity are high for this test (Gray, 1971; Schutz, 1958).

**Instruments: post-tests**

The subject filled out the following questionnaires (see Appendix B):

1. The A-State scale of the STAI.
2. The second form of the JSDQ, in which the subject is asked to indicate her willingness to disclose to the person with whom she has just interacted.

3. The Empathy Scale.

4. The Positive Feeling Scale.

The A-State scale is a short inventory similar to the trait scale, but on this one the subject is asked to rate her present state of anxiety. In contrast to the trait form of this test, this form is designed to reflect a transitory state which can fluctuate over time, depending upon the internal and external stimuli in a person's environment (Spielberger, 1966). State anxiety was the dependent variable, and trait anxiety was used as an independent variable in order to determine if a three-way interaction was present—with condition, personality, and trait anxiety as independent variables. This interaction was predicted in addition to an interaction of personality and condition on state anxiety.

The dependent measures for congruence, empathy, and positive regard were derived from the work of Jourard (1971) and his colleagues. For congruence or genuineness, Jourard's (1968) Self-Disclosure Questionnaire was administered a second time a week after the first, with instructions for the subject to state her willingness to disclose to the woman she met in the experiment. The self-disclosure questionnaire was given twice in order that the subject serve as her own control. In order to obtain an accurate reflection of the subject's reaction to the confederate in the context of experimental condition, it was desirable to
determine her willingness to disclose to a person in an experiment without the influence of experimental condition. Since the confederate was constant in all three conditions, the differences should reflect the effect of the independent variables, rather than a usual tendency to self-disclose. The two tests were given a week apart and the directions were different, so that it was assumed that one administration did not have a noticeable effect on the results of the second. The advantage of giving two administrations is to allow for greater precision and to cut down on spurious variance associated with the general predisposition to disclose. Since the subject did not talk to the confederate after the experimental condition, we have a rating of what she purported to be willing to disclose, rather than what she actually did disclose.

Empathy was measured by Drag's (1968) interview rating scale which, for purposes of parsimony, is called the "empathy scale" in this study. The subject had a forced choice of two alternatives on each item: for example, "I felt the other person made herself known to me"; "I did not feel the other person made herself known to me." The score was obtained by counting the number of items which each subject answered in a positive direction.

To assess positive feeling, Rubin's (1968) Positive Feeling Scale was chosen. It is a one-page bi-polar adjective scale which consists of positive and negative descriptions of the confederate. This scale was scored in the same way as the previous one.
Conditions

A main effect is predicted for condition. Subjects were placed in one of three conditions, all of which were silent and of 3 minutes duration:

1. Eye Contact: The main experimental condition was that of eye contact. The confederate oriented her head directly toward the subject and gazed steadily throughout. She maintained a pleasant, open look on her face and returned a smile if the subject smiled at her.

2. Non-Directed: The next condition in order of visual exposure and contact was one in which the confederate and subject were seated together with no specific instruction except to maintain silence for 3 minutes. The confederate did not look at the subject. She tilted her head slightly downward and gazed at the table in front of her without making eye contact. Her position was that described in the no-gaze condition of Kleinke and Pohlen's (1971) study, and also similar to the still and silent condition in Denner's (1969) experiment.

3. Hand: The subject and confederate looked at each other's right hands. The confederate was trained to fixate on the subject's hand.
Procedure

Students volunteering as subjects for the experiment were administered three questionnaires to fill out in class: the FIRO-B, the STAI, and the JDSQ. The experimenter waited for half an hour while the subjects completed the form.

Because there were not many summer students and the classes were small, the study was done in small sections. The experimenter would go to a class to request volunteers, test that group, then go to another class. After collecting the questionnaires, the experimenter scored them and estimated the mean expressed affection score on the FIRO-B. In order to determine the high and low scorers, the mean for the whole sample was computed and those below the mean were designated as lows and those above as highs. Equal numbers of high- and low-scoring subjects on FIRO-B expressed affection scale were randomly distributed across the conditions.

The confederate was not informed of the purpose of the experiment and, with the exception of the rating scale she filled out on each subject, was not permitted to see the questionnaires which subjects completed. After each subject was run, the confederate wrote down her reactions to the subject and her judgment of the subject's adherence to instructions.

The day before the subject's appointment, the experimenter telephoned to remind her. (This procedure was instigated because so many
people failed to keep their appointment in the pilot study.) When the subject arrived for the experiment, the experimenter escorted her into a waiting room in which the confederate was seated, reading. The experimenter asked both women for their names and introduced them to one another saying, "You are going to participate in this study together. Please come with me to the next room." Next, they were escorted to an experimental cubicle (which during the school year was used for an educational testing room). This room, approximately 6 ft. x 8 ft. in size, was furnished comfortably with carpeting, a 2 ft. x 4 ft. table, and a curtained one-way mirror. A small opening in the curtain permitted the experimenter to observe the experimental situation. The walls were white, the lighting constant, and the room soundproofed. The design was counterbalanced for seating position, the confederate sitting down half of the time in one of the two available positions.

As in the Argyle and Dean (1965) situation, the subject and confederate were seated 3 feet from one another at a 90° angle; they sat across from each other with the table placed midway between them. This particular placement was chosen because of Exline's (1963) finding that 3 feet is an intimate distance and Sommer's (1965) finding that a corner arrangement is a cooperative position.

Instructions

The instructions were as follows:
For the Eye Contact condition: "Please look into each other's eyes for 3 minutes without talking. I'll return when the time is up."

For the Hand condition: "Please put your right hand on the table and look at each other's hand without talking for 3 minutes. I'll return when the time is up."

For the Non-Directed condition: "Please sit here without talking to each other for 3 minutes. I'll return when the time is up."

After she gave the instructions, the experimenter left the room, closed the door, and went into the observation room, making notes on the subject's behavior and her adherence to the instructions to be silent, to maintain eye contact, or eye-hand contact. At the end of the 3 minutes, which were timed on a stopwatch, the experimenter returned to the experimental room and ushered both women to separate rooms to fill out a number of questionnaires. The confederate noted her reaction to each subject and filled out the previously mentioned rating scale for the eye contact subjects. After the subject completed the post-test instruments (the A-State inventory, the Empathy Scale, the Positive Feeling Scale, and the JSDQ), the experimenter gave her a bag of sunflower seeds and asked her reactions to the experiment and her ideas of what was taking place. Then the experimenter explained the purposes, predictions, and procedures of the study and requested that she not tell other prospective subjects about the experiment. If the subject wanted them, the experimenter gave the subject her individual scores on the FIRO-B and
interpreted them to her. After the experiment was completed, the experimenter was also invited back to several classes in which she discussed her hypotheses and results.
CHAPTER III

RESULTS

Three 3 x 2 analyses of variance were performed with condition and personality as independent variables, and empathy, change in self-disclosure, and positive feeling as dependent variables. There were approximately 18 subjects in each of six cells, making a total of 108 subjects (Tables 1, 2, and 3). The data were analyzed with computer program TSAR, which has provisions for unequal cell numbers.

Hypothesis 1

The first hypothesis received strong support. A main effect of condition occurred such that subjects in the Eye Contact condition had higher scores than subjects in the other two conditions on the three dependent measures of empathy, self-disclosure change, and positive feeling.

Empathy

For empathy, the mean for the Eye Contact, Non-Directed, and Hand conditions, respectively, were 20.58, 7.45, and 5.03. The differences were significant at the .001 level, with t tests significant between
the Non-Directed and Eye Contact conditions and the Eye Contact and Hand conditions, both at the .001 level. The difference between the Non-Directed and Hand conditions was not significant (Table 1 and Fig. 1).

Self-disclosure

For change in self-disclosure, the means for the Eye Contact, Non-Directed, and Hand conditions were, respectively, 4.74, 1.99, and 2.93. These differences were significant at the .05 level. To determine which groups were contributing to the systematic variation, t tests were done among pairs of conditions. Again the differences were significant—at the .05 level between the Non-Directed and Eye Contact groups; at the .005 level between the Eye Contact and Hand groups (Table 2 and Fig. 2). In a two-way analysis of variance, condition and personality were not significantly related to initial self-disclosure, supporting a randomization of subjects between cells ($F = .115$; probability level = .735).

Positive feeling

For the positive feeling variable, the mean for the Eye Contact condition was 21.86; for the Non-Directed condition, 15.39; and for the Hand condition, 15.76. As with the other two measures, the differences among the conditions were significant ($p < .01$; Table 3 and Fig. 3). There were significant differences on t tests between Eye Contact and
Table 1
Means and Analysis of Variance for Empathy Rating Scale

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<th>Means, Standard Deviations, Ns</th>
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<th>Hand</th>
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<td>X</td>
<td>5.86</td>
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<td>.47</td>
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<td></td>
<td>SD</td>
<td>13.39</td>
<td>15.26</td>
<td>12.76</td>
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<td></td>
<td>N</td>
<td>21</td>
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<td>27.40</td>
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<td></td>
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<td></td>
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Analysis of Variance Summary

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<tr>
<td>Error</td>
<td>102</td>
<td>173.23</td>
<td>13.16</td>
</tr>
</tbody>
</table>

t Tests

<table>
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<td>.80</td>
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***p < .001.
Fig. 1. Mean Rating of High and Low AFFE Empathy Scale.
Table 2
Means and Analysis of Variance for Change in Self-Disclosure

<table>
<thead>
<tr>
<th>Means, Standard Deviations, Ns</th>
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<th>Hand</th>
<th>Total</th>
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<tbody>
<tr>
<td>Low Expressed Affection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>1.38</td>
<td>3.81</td>
<td>.53</td>
<td>1.91</td>
</tr>
<tr>
<td>SD</td>
<td>5.29</td>
<td>7.81</td>
<td>5.69</td>
<td>6.43</td>
</tr>
<tr>
<td>N</td>
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<td>2.59</td>
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<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
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<td>4.74</td>
<td>2.93</td>
<td>3.22</td>
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<td>SD</td>
<td>4.82</td>
<td>6.73</td>
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<td>5.94</td>
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<tr>
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Analysis of Variance Summary

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<tbody>
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<td>2</td>
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<tr>
<td>Expressed Affection</td>
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<td>30.21</td>
<td>.90</td>
</tr>
<tr>
<td>Interaction</td>
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<td>6.63</td>
<td>.20</td>
</tr>
<tr>
<td>Error</td>
<td>102</td>
<td>33.72</td>
<td>5.81</td>
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<table>
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<th>t Tests</th>
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<tbody>
<tr>
<td>Non-Directed, Eye Contact</td>
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<td>72</td>
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</tr>
<tr>
<td>Eye Contact, Hand</td>
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<td>.005</td>
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<td>70</td>
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</tr>
</tbody>
</table>

*p < .05.
Fig. 2. Mean Rating of High and Low AFFE Change in Self-Disclosure.
Table 3
Means and Analysis of Variance for Positive Feeling Variable

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Low Expressed Affection</td>
<td>X</td>
<td>14.62</td>
<td>19.14</td>
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<tr>
<td></td>
<td>SD</td>
<td>10.45</td>
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<td>12.53</td>
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<td>21</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>High Expressed Affection</td>
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<td>25.67</td>
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</tr>
<tr>
<td></td>
<td>SD</td>
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<td>9.55</td>
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<td>17</td>
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</tr>
<tr>
<td>Total</td>
<td>X</td>
<td>15.39</td>
<td>21.86</td>
<td>15.76</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>10.13</td>
<td>10.09</td>
<td>10.93</td>
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<tr>
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<td>38</td>
<td>36</td>
<td>34</td>
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Analysis of Variance Summary

<table>
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<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>2</td>
<td>552.35</td>
<td>4.85**</td>
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<tr>
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<td>.87</td>
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<tr>
<td>Interaction</td>
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<tr>
<td>Error</td>
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<td>113.95</td>
<td>10.67</td>
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</table>

t Tests

<table>
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<th></th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Directed, Eye Contact</td>
<td>2.62</td>
<td>72</td>
<td>.01</td>
</tr>
<tr>
<td>Eye Contact, Hand</td>
<td>2.31</td>
<td>68</td>
<td>.05</td>
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<tr>
<td>Non-Directed, Hand</td>
<td>.15</td>
<td>70</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

**p < .01.
Fig. 3. Mean Rating of High and Low AFFE Positive Feeling Variable.
the other two conditions (Eye Contact and Non-Directed, p < .01; Eye Contact and Hand, p < .05). On this variable, the Non-Directed and Hand conditions were approximately equal, whereas on the other two variables there was a nonsignificant trend for the Non-Directed scores to be higher than the Hand scores (Tables 1 and 2; Figs. 1 and 3).

Hypothesis 2

The main effect in a two-way analysis of variance of expressed affection on the three dependent variables was partially confirmed. AFFE was a stratifying variable. The results were in the predicted direction for all three dependent variables, and significant in the case of empathy (Tables 1, 2, and 3; and Figs. 1, 2, and 3). The mean for subjects high in expressed affection on empathy was 15.60, while it was 7.57 for those low in expressed affection. This difference was significant at the .001 level.

Hypothesis 3

A 3 x 2 x 2 analysis of variance on 108 subjects was performed for condition, affection, and trait anxiety as independent variables and state anxiety as a dependent variable. This three-way analysis, which had approximately nine subjects in each of 12 cells, included the trait variable to determine if the subject's tendency to feel anxious affected her reaction to the experimental situation. The two levels of trait anxiety were determined by splitting the scores at the median. The predicted
three-way interaction of condition, expressed affection, and trait anxiety with respect to state anxiety was not statistically significant \((p = .351, \text{ Table 4})\). A significant main effect of trait anxiety \((p < .001)\) supported Spielberger's (1970) finding that trait and state anxiety are correlated under conditions of stress involving interpersonal relationships.

**Summary**

In summary, the hypotheses in this experiment were partially supported. Experimental condition did have a significant effect on the dependent variables of empathy, positive feeling, and self-disclosure. Additionally, women with high expressed affection scores, as opposed to those with low scores, had significantly higher empathy scores regardless of condition; for positive feeling and self-disclosure, results were in the same direction but not significant. The predicted two- and three-way interaction effects of trait anxiety, expressed affection, and condition on anxiety state scores were not found.
Table 4
Means and Three-Way Analysis of Variance for State Anxiety

<table>
<thead>
<tr>
<th></th>
<th>Non-Directed</th>
<th>Eye Contact</th>
<th>Hand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Means and Ns (for Low Trait Anxiety)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Expressed</td>
<td>X 34.79</td>
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<td>37.58</td>
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<td></td>
<td>N 6</td>
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<td>7</td>
<td>22</td>
</tr>
<tr>
<td>High Expressed</td>
<td>X 34.56</td>
<td>36.00</td>
<td>36.00</td>
<td>35.52</td>
</tr>
<tr>
<td></td>
<td>N 14</td>
<td>9</td>
<td>6</td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>X 34.67</td>
<td>36.25</td>
<td>36.79</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N 20</td>
<td>18</td>
<td>13</td>
<td>51</td>
</tr>
</tbody>
</table>

|                  |              |             |      |        |
| **Means and Ns (for High Trait Anxiety)** |              |             |      |        |
| Low Expressed    | X 43.43      | 36.00       | 45.22| 41.55  |
|                  | N 11         | 8           | 7    | 26     |
| High Expressed   | X 42.17      | 45.56       | 42.86| 43.53  |
|                  | N 10         | 9           | 12   | 31     |
| **Total**        | X 42.79      | 40.78       | 44.04| 42.54  |
|                  | N 21         | 17          | 19   | 57     |

**Means—Summary**

|                  | X 38.36      | 40.78       | 39.42| 39.52  |
| Low Expressed    | X 39.11      | 36.25       | 41.40| 38.92  |
|                  | X 38.73      | 38.51       | 40.42| 38.92  |
| High Expressed   | X 39.42      | 40.42       |      |        |
| Total            | X 39.52      | 38.92       |      |        |
Table 4 (continued)

<table>
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<td>29.69</td>
<td>.37</td>
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<td>.60</td>
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<td>Interaction Condition x Expressed Affection x Trait Anxiety</td>
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<td>Error</td>
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<td>79.61</td>
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CHAPTER IV

DISCUSSION

As predicted, the eye contact condition was significantly superior to the other two conditions with respect to empathy, self-disclosure, and positive feeling. These three attitudes are those which Rogers (1957) found to lead to therapeutic change. It can therefore be concluded that eye contact is a form of nonverbal behavior which may have a therapeutic effect. This leads to the suggestion that it can be used in psychotherapy to foster change.

The subject's personality, furthermore, is found to reflect her predisposition for such change. That is, her reported tendency to express affection to others will influence her scores on the three dependent measures. The empathy score is significantly higher among the high AFFE group than among the low. The data on self-disclosure and positive feeling were in the predicted direction, but not statistically significant.

The final hypothesis concerning anxiety was not supported. This may be due to the fact that the questionnaire was given after the experiment and the subject was not specifically instructed to report the
feelings she had during the experiment. It may be that her reactions were to completing the task rather than those which she had while it was taking place.

In addition, the subject may have been hesitant to report negative reactions, fearing that they would reflect adversely on her "mental health." Spielberger's inventory, in addition, may not have been a sensitive and accurate enough measure. In the future, another anxiety measure would be advisable as well as more precise instructions to report anxiety which occurred at the time of the experimental manipulation.

It can be concluded, therefore, that eye contact, more so than other types of interpersonal interaction, will lead to emotional closeness for pairs of women, when briefly interacting with one another in a controlled setting. What is being suggested here is that conclusions based on this experiment can be made as to the potentiality of eye contact given certain circumstances, such as those which were held constant in the study—physical proximity, verbalization, sex, body position, and interpersonal stance of confederate.

For example, since the confederate's personality is a crucial factor in the experimental process, a friendly confederate was chosen. The results of the experiment, therefore, cannot be attributed to eye contact per se. As found by Ellsworth and Carlsmith (1968), eye contact can act as an intensifier of feeling which, in the case of this
experiment, is positive. Logically, another experiment might be done employing a confederate who is distant and hostile, with the prediction that intimacy would decrease in the eye contact condition, or increase less than with the positively oriented confederate.

Implications for Further Research

Extensions of this study might involve the manipulation in both subject and confederate of sex, age, socioeconomic status, cultural background, race, and personality, as well as interpersonal attitude. To give an example, children are naturally more affiliative and women are socialized to stay that way; therefore, the addition of children would probably increase the possibility of intimacy; that of males would decrease the possibility, especially perhaps in the case of same-sexed pairs for males, because they are purported to be so much more
threatened by the possibility of homosexuality than are women.

In addition, another study might include the manipulation of both wanted and expressed affection, introversion/extroversion, field independence/dependence; similar predictions would involve their interaction with eye contact and anxiety.

As pointed out earlier, the isolated experimental situation may have given some of the protection necessary for intimacy to be facilitated. To test this notion, one could carry out the experiment in a public place rather than in a confined space. In addition, time could be flexible or manipulated as an independent variable. Certainly 3 minutes of silent eye contact is different from 10 minutes or 30 seconds. Also, the percentage of time spent in silence and verbalization could be varied (Kleinke & Pohlen, 1971).

It would also be crucial to compare eye contact with other non-verbal activities such as touching, to observe their effects both in isolation and in conjunction with one another. Touching combined with eye contact should intensify intimacy. Furthermore, looking behavior can be further refined to compare eye contact with visual contact with other parts of the body which are close to the eyes, such as the mouth or nose.

There is an additional problem with the artificiality of the experimental situation. More variables are controlled than in the case of naturalistic observation, yet the possibility of generalizing beyond the experimental situation is decreased, the more contrived the experiment
becomes (Kleinke et al., 1972). For example, questions asked within a framework which allows limited response variability leave the possibility that answers are incomplete or misleading. Finally, instead of using only the willingness to disclose questionnaire, one might measure disclosure between the subject and confederate. This would provide an actual measure of behavior instead of self-report data giving a more accurate reflection of how the subject would behave.

**Summary and Conclusions**

The purpose of this experiment was to see how people who are responded to with eye contact vs. other kinds of visual behavior respond to a confederate as indicated on a number of tests. It was found that eye contact was highly effective in promoting intimacy. After an experience of 3 minutes of eye contact with a person of the same sex, women subjects experienced greater feelings of closeness to the confederate than in two comparable conditions. More specifically, subjects reported greater empathy, greater willingness to reveal themselves to another person, and greater positive feeling toward her.

A secondary hypothesis was partially confirmed in the case of empathy. That is, that people who are high expressers of affection react more positively to the confederate than do people who are less affectionate. On all three dependent measures, the composite intimacy measure, subjects did respond in the predicted direction, but only with empathy.
were the results statistically significant. The hypothesis of a condition by expressed affection interaction effect upon state anxiety was not confirmed.

This experiment is compared to psychotherapy in that the situational restrictions on intimacy are lifted and alternatives to ordinary behavior are provided in an encouraging atmosphere. The meaning of the present research is discussed in reference to several theoretical formulations, and suggestions for further research are offered.
APPENDIX A

PRE-TEST INSTRUMENTS
NAME ___________________________ DATE __________

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

<table>
<thead>
<tr>
<th></th>
<th>ALMOST NEVER</th>
<th>SOMETIMES</th>
<th>NEITHER</th>
<th>ALMOST ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. I feel pleasant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. I tire quickly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I feel like crying</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I wish I could be as happy as others seem to be</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. I am losing out on things because I can’t make up my mind soon enough</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. I feel rested</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. I am “calm, cool, and collected”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. I feel that difficulties are piling up so that I cannot overcome them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. I worry too much over something that really doesn’t matter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. I am happy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. I am inclined to take things hard</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. I lack self-confidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. I feel secure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. I try to avoid facing a crisis or difficulty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. I feel blue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. I am content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. Some unimportant thought runs through my mind and bothers me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. I take disappointments so keenly that I can’t put them out of my mind</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. I am a steady person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. I get in a state of tension or turmoil as I think over my recent concerns and interests</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
# JOURARD SELF-DISCLOSURE QUESTIONNAIRE  
(PRE-MEASURE)

## Name: ____________________________

<table>
<thead>
<tr>
<th>Last</th>
<th>First</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this experiment you will meet another woman. Although you have not yet met her, please approximate the degree to which you think you might be willing to discuss each of the following 20 items with her if she asks you about them. Write a 0 in the right-hand column if you would never discuss that item; write a 1 in the column if you would talk in general terms but not detail about the item; and write a 2 if you would talk fully to her about the item. It is important that you answer every question, even if you are unsure of your answer.

1. Your hobbies; how you best like to spend your spare time.  

2. Your favorite foods and beverages, and chief dislikes in food and drink.  

3. What your personal goals are for the next 10 years or so.  

4. The description of a person with whom you have been in love.  

5. Characteristics of yourself that give you cause for pride and satisfaction.  

6. The unhappiest moments of your life; in detail.  

7. What you regard as the mistakes and failures that your parents made in raising you.  

8. The kind of person with whom you would like to have sexual experience.  

9. Your educational background and your feeling about it.  


11. Your opinions about how capable and smart you are compared to others around you.
12. Why some people dislike you.

13. The things in your past or present life about which you are most ashamed.

14. The happiest moments in your life in detail.

15. How satisfied are you with different parts of your body; legs, weight, chest, etc.?

16. Your present personal religious views, nature of religious participation, if any.

17. The people with whom you have been sexually intimate; the circumstances of your relationship with each other.

18. The aspects of your personality that you dislike, worry about, or regard as a handicap to yourself.


20. Feelings about your adequacy in sexual behavior, your abilities to perform adequately in sexual relationships.
For each statement below, decide which of the following answers best applies to you. Place the number of the answer in the box at the left of the statement. Please be as honest as you can.

1. usually  2. often  3. sometimes  4. occasionally  5. rarely  6. never

1. I try to be with people.
2. I let other people decide what to do.
3. I join social groups.
4. I try to have close relationships with people.
5. I tend to join social organizations when I have an opportunity.
6. I let other people strongly influence my actions.
7. I try to be included in informal social activities.
8. I try to have close, personal relationships with people.

9. I try to include other people in my plans.
10. I let other people control my actions.
11. I try to have people around me.
12. I try to get close and personal with people.
13. When people are doing things together I tend to join them.
15. I try to avoid being alone.
16. I try to participate in group activities.

For each of the next group of statements, choose one of the following answers:

1. most  2. many  3. some  4. a few  5. one or two  6. nobody
people  people  people  people  people  people

17. I try to be friendly to people.
18. I let other people decide what to do.
19. My personal relations with people are cool and distant.
20. I let other people take charge of things.
21. I try to have close relationships with people.
22. I let other people strongly influence my actions.
23. I try to get close and personal with people.
24. I let other people control my actions.
25. I act cool and distant with people.
26. I am easily led by people.
27. I try to have close, personal relationships with people.
For each of the next group of statements, choose one of the following answers:

<table>
<thead>
<tr>
<th>1. most people</th>
<th>2. many people</th>
<th>3. some people</th>
<th>4. a few people</th>
<th>5. one or two people</th>
<th>6. nobody</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 28. I like people to invite me to things.</td>
<td>□ 35. I like people to act cool and distant toward me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 29. I like people to act close and personal with me.</td>
<td>□ 36. I try to have other people do things the way I want them done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 30. I try to influence strongly other people’s actions.</td>
<td>□ 37. I like people to ask me to participate in their discussions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 31. I like people to invite me to join in their activities.</td>
<td>□ 38. I like people to act friendly toward me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 32. I like people to act close toward me.</td>
<td>□ 39. I like people to invite me to participate in their activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 33. I try to take charge of things when I am with people.</td>
<td>□ 40. I like people to act distant toward me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 34. I like people to include me in their activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For each of the next group of statements, choose one of the following answers:

<table>
<thead>
<tr>
<th>1. usually</th>
<th>2. often</th>
<th>3. sometimes</th>
<th>4. occasionally</th>
<th>5. rarely</th>
<th>6. never</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 41. I try to be the dominant person when I am with people.</td>
<td>□ 48. I like people to include me in their activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 42. I like people to invite me to things.</td>
<td>□ 49. I like people to act close and personal with me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 43. I like people to act close toward me.</td>
<td>□ 50. I try to take charge of things when I’m with people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 44. I try to have other people do things I want done.</td>
<td>□ 51. I like people to invite me to participate in their activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 45. I like people to invite me to join their activities.</td>
<td>□ 52. I like people to act distant toward me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 46. I like people to act cool and distant toward me.</td>
<td>□ 53. I try to have other people do things the way I want them done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ 47. I try to influence strongly other people’s actions.</td>
<td>□ 54. I take charge of things when I’m with people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

POST-TEST INSTRUMENTS
SELF-EVALUATION QUESTIONNAIRE

Developed by C. D. Spielberger, R. L. Gorsuch and R. Lushene

STAI FORM X-1 (State Anxiety)

NAME ___________________________ DATE ________________

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

1. I feel calm
2. I feel secure
3. I am tense
4. I am regretful
5. I feel at ease
6. I feel upset
7. I am presently worrying over possible misfortunes
8. I feel rested
9. I feel anxious
10. I feel comfortable
11. I feel self-confident
12. I feel nervous
13. I am jittery
14. I feel “high strung”
15. I am relaxed
16. I feel content
17. I am worried
18. I feel over-excited and “rattled”
19. I feel joyful
20. I feel pleasant

NOT AT ALL  1  2  3  4
SOMewhat  1  2  3  4
MODERATELY  1  2  3  4
VERY MUCH  1  2  3  4
You have just participated in an experiment with another woman. Even though you have not known her for a long time, please approximate the degree to which you would be willing to discuss each of the following 20 items if she asked you about them. Write a 0 in the right-hand column if you would never discuss that item; write a 1 in the column if you would talk in general terms but not in detail about the item; and write a 2 if you would talk fully to her about that item.

<table>
<thead>
<tr>
<th>Item</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Your hobbies; how you best like to spend your spare time.</td>
<td></td>
</tr>
<tr>
<td>2. Your favorite foods and beverages, and chief dislikes in food and drink.</td>
<td></td>
</tr>
<tr>
<td>3. What your personal goals are for the next ten years.</td>
<td></td>
</tr>
<tr>
<td>4. The description of a person with whom you have been in love.</td>
<td></td>
</tr>
<tr>
<td>5. Characteristics of yourself that give you cause for pride and satisfaction.</td>
<td></td>
</tr>
<tr>
<td>6. The unhappiest moments of your life; in detail.</td>
<td></td>
</tr>
<tr>
<td>7. What you regard as the mistakes and failures your parents made in raising you.</td>
<td></td>
</tr>
<tr>
<td>8. The kind of person with whom you would like to have sexual experience.</td>
<td></td>
</tr>
<tr>
<td>9. Your educational background and your feelings about it.</td>
<td></td>
</tr>
<tr>
<td>10. Your opinions about how capable and smart you are compared to others around you.</td>
<td></td>
</tr>
</tbody>
</table>
12. Why some people dislike you.

13. The things in your past or present life about which you are most ashamed.


15. How satisfied you are with different parts of your body: legs, weight, chest, etc.

16. Your personal religious views, nature of religious participation, if any.

17. The people with whom you have been sexually intimate; the circumstances of your relationship with each.

18. The aspects of your personality that you dislike, worry about, or regard as a handicap to yourself.


20. Feelings about your inadequacy in sexual behavior, your abilities to perform adequately in sexual relationships.
**EMPATHY RATING SCALE**

The following statements were formulated to better understand how you felt and reacted to the experiment. Please answer each question as to how much it agrees with your experience with the other woman who participated in the experiment with you. Please place an X in the appropriate column for each statement. Please answer all the questions even if it is difficult.

<table>
<thead>
<tr>
<th>Yes, definitely</th>
<th>Yes, a little</th>
<th>Yes, a little</th>
<th>No, definitely</th>
<th>No, definitely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I learned more about myself from serving in this study.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The other woman understood my feelings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I felt close to her.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I was comfortable with her.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. She was sensitive to my feelings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I showed her that I liked her.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I felt indifferent to her.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Question</td>
<td>Response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------------------------------------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I felt she was interested in me as an individual.</td>
<td>Yes, definitely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>I would like to get to know her better.</td>
<td>Yes, a little</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>During the course of the experiment, I felt understanding from her.</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>I felt she was indifferent to me.</td>
<td>No, a little</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>During the course of the experiment, I saw signs that she liked me.</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I felt sensitive to her feelings.</td>
<td>Yes, definitely</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
POSITIVE FEELING SCALE

Name: ___________________________  Last  First

Below are twenty-two adjectives and phrases. For each of those adjectives, please check the box that best describes your impression of the other woman who participated with you in the experiment. Please answer all the questions.

very much  somewhat  unlike  not at all
like her  like her  her  like her

1. competent
2. dull
3. considerate of others
4. warm
5. shallow
6. difficult to influence
7. likable
8. firm
9. intelligent
10. stubborn
11. distant
12. happy
13. deep
14. irritating
15. friendly
16. flexible
17. hostile
18. pleasant
**BIOGRAPHY**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Patricia Glixon Webbink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of Birth:</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Date of Birth:</td>
<td>February 13, 1943</td>
</tr>
<tr>
<td>Education:</td>
<td></td>
</tr>
<tr>
<td>Academic Awards:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grant-in-Aid, 1963-1964</td>
</tr>
<tr>
<td></td>
<td>Dean's List, 1964-1965</td>
</tr>
<tr>
<td></td>
<td>Academic Scholarship, 1964-1965</td>
</tr>
<tr>
<td>Duke University:</td>
<td>Dissertation Travel Award to Denmark, 1969</td>
</tr>
<tr>
<td></td>
<td>Graduate School Research Fellowship, Summer, 1969</td>
</tr>
<tr>
<td>U.S. Public Health Service:</td>
<td>Traineeships and Summer Stipends, 1966-1969</td>
</tr>
<tr>
<td>Professional Activities:</td>
<td>Private Practice of Psychotherapy, 1970-</td>
</tr>
<tr>
<td></td>
<td>(Group and individual psychotherapy, adults and children; supervision of three therapists in training)</td>
</tr>
<tr>
<td></td>
<td>Training Consultant, Rape Crisis Center, 1971-</td>
</tr>
<tr>
<td></td>
<td>Professional Back-up, Prince Georges County Hotline, 1971-</td>
</tr>
</tbody>
</table>
Professional Activities:  
(Continued)

Consultant, Washington Area Women's Center, 1972-
Clinical Psychologist, Prince George's County Health Department, Cheverly, Maryland, 1970-71
Research Assistant and Infant Evaluator, Education Improvement Project, Durham, North Carolina, 1965-66 and 1968
Peace Corps, 1971
Fairfax-Fall Church Mental Health Center, 1971
Organization of Prince Georges County Free Clinic, 1971-1972
Director of Training of Paraprofessional Counselors, Prince Georges County Free Clinic, 1971-1972
Supervisor of Paraprofessional Counseling Training Group, Washington Area Free Clinic, 1971-1973

Guest Lecturer:
Institute for Psychology, Aarhus University, Aarhus, Denmark, 1969
University of North Carolina, 1971
George Washington University, 1971, 1973
University of Maryland, 1971, 1972, 1973
Institute for Policy Studies, Visiting Fellowship Invitation, 1972
University of Virginia, 1972
American University, 1973

Publications:


"Feminism and Psychotherapy," Women's Health, in press.
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BIOGRAPHY

Name: Patricia Glixon Webbink

Place of Birth: New York, New York

Date of Birth: February 13, 1943


Academic Awards: Connecticut College:
French Oral Prize, 1962
Grant-in-Aid, 1963-1964
Dean's List, 1964-1965
Academic Scholarship, 1964-1965

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