

Effects of Touching on Willingness to Self-Disclose  
in a Small Group Situation

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A Thesis

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for the Degree of Master of Arts  
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by

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We hereby recommend that the Masters Thesis prepared under  
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## Chapter I

### Introduction

The association of self-disclosure and mental health has been the focus of much research in the past 15 years. Several studies have shown a positive relationship between the two (Halverson & Shore, 1969; Mayo, 1968; Truax & Carkhuff, 1965). Jourard in 1964 defined a healthy personality as having the characteristic of the ability to let one's self be known to a significant other. Letting one's self be known or self-disclosing may be defined as an interpersonal process in which a person communicates intimate and personal feelings or actions to another person. The disclosed information may be past or present and involves a personal risk when the discloser reveals his/her private subjective experiences (Overman, 1971).

Several investigators have looked at the interaction of self-disclosing behaviors and personality variables. Fitzgerald (1963) looked at the relationship between self-esteem and self-disclosure with no significant results. Ryckman, Sherman and Burgess (1973) measured personality internality and externality and found that externally oriented persons tend to disclose less to intimates than internally oriented persons regardless of whether the information is public or private. Hood and Black (1971) found

self-disclosure related to volunteering in males but not in females; i.e., males who volunteer disclose more than females who volunteer.

That females generally disclose more about self than males was verified by Overman (1971), Jourard and Lasakow (1958), Kohen (1975), Lomranz and Shapiro (1974), and Ryckman, et al., (1973), but was not verified by Certner (1973). Komarovsky (1974) found males disclosing most to their closest female friend; whereas, Jourard and Lasakow's (1958) results showed males disclosing most to their same-sex friend. Komarovsky suggested that the transfer of psychological closeness might now occur earlier in the life cycle of males who attend college than was the case in the 1950's.

Race and ethnic background might effect self-disclosure rate. Jourard (1964) found that Whites disclosed more than Blacks. But Lomranz and Shapiro (1974) showed with Israeli high school students the same self-disclosure patterns between males and females as Americans. However, Jourard (1961) found Jewish males disclosing more than Jewish females and members of other religious denominations.

While studying senior male college students Komarovsky (1974) noticed that "upwardly mobile" students had lower total self-disclosure scores and a narrower range of target persons in comparison with "upperclass" students. Social

class might also effect self-disclosure rate.

Self-revealing behavior has been considered as a possible characteristic of mental health. Jourard (1964) claimed that neurotic and psychotic symptoms might be ways of avoiding self-disclosing behavior. Mayo (1962) looked at three groups: in-patients with a neurotic diagnosis, normals with neurotic symptoms and normals. He found the normals having significantly greater amounts of self-disclosure than the other two groups. The results of Chaiken, Derlega, Bayma and Shaw's study (1975) suggested that neuroticism is related to inappropriate self-disclosure rather than any characteristically high or low level of self-disclosure. This was supported by Stanley and Bownes (1966) who found no consistent relationship between self-disclosure level and neuroticism.

Using a group of hospitalized mental patients and a group of juvenile delinquents, Truax and Carkhuff (1965) found self-disclosure having positive effects with the patients but not with the juveniles. They suggested that self-disclosure might be helpful for mentally ill persons (internal disturbances) but harmful for socially ill persons (external disturbances).

Self-disclosure has been found to be related to interpersonal relationship development. Yalom (1970) and Rogers (1970) both suggested that self-disclosure does not natur-

ally occur in a group until the latter stages of the developmental process of the group. Halverson and Shore (1969) found self-disclosure important in the development of the more stable and less superficial interpersonal relationships in a group of Peace Corp trainees. Himelstein and Kimbrough (1963) counted self-disclosure responses in self-introductions at a first class meeting and found self-disclosure responses increasing in persons toward the end of the process; however, correlation of these responses with a self-disclosure questionnaire showed only a .10 relationship. Using Naval recruits Tuckman (1966) showed friends probing and revealing more than acquaintances. These studies pointed to the element of depth or length of the relationship as a correlate of self-disclosure.

Self-disclosure occurred more in interpersonal relationships with flexibility and openness than in relationships with authoritarianism present according to the study by Halverson and Shore (1969). Taylor (1968) put high-revealers together and low-revealers together as roommates and found that the high-revealer dyads reported significantly more changes toward mutual activities and self-disclosures over a 13 week period. Subjects with a history of high level self-disclosure revealed less in a study of need for social approval (Doster & Strickland, 1971) than subjects with a history of low level self-disclosure. They

suggested that perhaps the subjects with a history of high disclosure level might have perceived the experimental situation as non-conducive to long term interpersonal rewards.

Probing for personal information has been found to exceed revealing of personal information in intimate areas, while revealing has been found to exceed probing in non-intimate areas, especially with friends (Tuckman, 1966). The interviewer giving an intermediate number of disclosures was viewed as empathetic, warm and congruent by the subjects in Mann and Murphy's study (1975); whereas, interviewers disclosing at high levels were viewed as maladjusted by subjects in Cozby's study (1972).

Reciprocity effected level of self-disclosure according to several investigators; i.e., the level at which one person reveals effects the level at which the other person reveals about self. Certner (1973), Chittick and Himelstein (1967), Ehrlick and Graeven (1971), Jourard and Richman (1963) and Worthy, Gary and Kahn (1969) all reported the exchange of disclosure following the norm of reciprocity. Cozby (1972) showed reciprocity of disclosures for low and medium disclosure groups but not for the high disclosure group. This suggested a possible curvilinear relationship between self-disclosure and reciprocity.

Self-disclosure usually went toward the person most liked by subjects in Fitzgerald's study (1963). This was

verified by Certner (1973) and Pederson and Higbee (1969). Kohen (1975) reported those results for females only. Cozby (1972) found a curvilinear relationship for self-disclosure and liking of the person disclosing, in that, accomplices revealing at a medium level of intimacy were liked more.

Jourard and Lasakow (1958) reported subjects revealing more about less intimate topics. Tuckman (1966) got the same results.

In general a curvilinear relationship seemed to appear with most correlates of self-disclosure. Apparently extremely high or low levels of self-disclosure, especially to or from strangers or acquaintances, were not conducive to the development of trust and possible interpersonal relationships.

The amount of self-disclosure appeared to depend on the target person involved. Fathers received a lesser amount of self-disclosures than mothers, same-sex friends or opposite-sex friends in studies by Jourard and Lasakow (1958), Komarovsky (1974), Lomranz and Shapiro (1974), Overman (1971), and Ryckman, et al. (1973). Mothers received more disclosures than fathers but less than friends in those same studies. Sexual partners or spouses were found to receive the greatest amount of self-disclosures by Jourard and Lasakow (1958), Komarovsky (1974), and

Overman (1971), except for males over 40 years old and male homosexuals. However, same-sex friends received the most disclosures from unmarried subjects (Lomranz & Shapiro, 1974; Pederson & Higbee, 1969). Being married generally resulted in the greater amounts of self-disclosure shifting from mother and same-sex friend to opposite-sex friend or spouse (Jourard & Lasakow, 1958; Overman, 1971).

"Touch is one of the basic languages of muscles, nerves, and love. Mothers instinctively touch their children to comfort; hold them close to relax and reassure. To be held is support; to be touched is contact; to be touched sensitively is to be cared for." (Gunther, 1973, pp.166-7).

Frank (1957) and Montague (1971) both emphasized the fact that touch is the primary mode of communication for infants in animals and humans. Tactile experiences were shown to be necessary for the survival of newborns and for the development of self-confidence and effective interpersonal communicational patterns. These authors suggested that touching is the basic way humans explore their world and perceive its reality, that the patterns of touching received in infancy and childhood determine the relationship patterns expressed in adulthood, and that gentle touching becomes a potent soothing agent in times of stress by helping that person recover his physiological equilibrium.

Frank (1957) suggested that many personality disorders stemming from childhood might be a result of deprivation of essential tactile experiences in childhood. Montague (1973) supported Frank by saying that lack of tactile stimuli in infancy quite often leads to estrangement, uninvolvedness, lack of identity, detachment, emotional shallowness and indifference in adults.

Pattison (1973) in a study of touch and self-exploration found a relationship between warmth as a personality correlate and touching. And Breed and Ricci (1973) got similar results using a "warm" accomplice rather than a touching accomplice in replication of Boderman, Freed and Kinnucan's 1972 study on the relationship between touching and liking.

Jourard (1966) using a body-accessibility questionnaire determined that body-accessibility might be a personality trait because he found a significant correlation among measures of contact with each of the target persons under consideration.

Nguyen, Heslin and Nguyen (1975) looked at the different ways males and females interpret touching by correlating the four modalities of pat, squeeze, brush and stroke with 11 body areas. They found that males and females held significantly different views of body areas in terms of what it means when each area is touched. They

also found that they differed on the meanings of the four touch modalities. Females discriminated between their body parts to a greater extent than males. Montague (1971) noticed that females use delicate tactile behaviors and appear to be more sensitive to tactile properties than males; whereas, males use more robust tactile behaviors.

Jourard (1966) found males and females alike in regard to the body areas most and least accessible to being touched. Areas most accessible were hands, arms, shoulders, head and face. Jewish females were touched less by males than were Protestant and Catholic females. According to Overman (1971) and Jourard and Rubin (1968) males and females had similar touching patterns to target persons. Lomranz and Shapiro (1974), however, found Israeli high school males touching more than females which indicated a cultural difference.

The relationship of an individual to the target person was shown to be relevant to touching behaviors. Willis and Hofman (1975) in observing primary school children noticed that the frequency of touching in same-sex pairs gradually reduced from kindergarden to sixth grade, that a greater variety of body areas was touched in same-sex pairs than in opposite-sex pairs.

For Israeli high school students, touching was greater with opposite-sex friends than with same-sex friends

(Lomranz & Shapiro, 1974). For college students the same pattern of touching more between opposite-sex friends existed in other studies (Jourard, 1966; Jourard & Rubin, 1968). Dies and Greenberg (1976) looked at the relationship between touching and self-disclosure with mixed-sex groups and same-sex groups and found more touching occurred in the mixed-sex groups than in the same-sex groups. Overman (1971) showed that more touching goes to the sexually preferred partner in a study of heterosexuals and homosexuals. Apparently touching in American society is associated mostly with sexual behaviors.

Mothers and same-sex friends received about the same amount of touching and father received the least amount of touching in studies by Jourard and Rubin (1968), Overman (1971), and Pederson (1973).

The effects of touching in the therapeutic environment was addressed by O'Hearne (1972) who advocated using touch to help give new feedback to a client in order to change behavior patterns. Spotnitz (1972) agreed that touching can effect the personality toward change but warned that the touching should be done in accordance with the situation and not just when the therapist feels like touching. "A person who is strongly reacting emotionally, as in acute fear or pain or grief, may be able to recover his physiological equilibrium through close tactual

contacts with another sympathetic person," (Frank, 1957, p .220).

Through touch, barriers between persons are dissolved which enables the walls within each person to disintegrate. Interpersonal touch experiences with group members have been of considerable value as growth stimulators because touch is always an exchange or sharing (Otto & Mann, 1968). Since touching and self-disclosing are both a sharing experience, perhaps touching could facilitate the disclosing process and, thereby, enhance the therapeutic process and the possibilities of interpersonal relationships.

Several investigators looked at the association of touching or physical contact with disclosing behaviors. "Tactual sensitivity is one of the primary modes of communication...In many interpersonal relations tactile 'language' functions most effectively and communicates more fully than vocal language" (Frank, 1957, pp.214). Pattison (1973) studied dyads in a counseling situation and found more self-exploration in the group receiving touching than in the group receiving no touching. Boderman, et al. (1972) also used dyads in a bogus ESP experiment and found that subjects in the touch condition liked the accomplice more than subjects in the no touch condition. This experiment was partially replicated by Breed and Ricci in 1973 using

a "warm" or "cold" acting accomplice employing no touching with similar results. Breed and Ricci determined that touching was not producing the observed effects in that situation. However, Pattison (1973) found a relationship between "warmth" and touching, which might account for this difference. Cooper and Bowles (1973) conducted small groups in which touch was manipulated by participation or non-participation in encounter group exercises. Using Jourard's (1964) Self-Disclosure Questionnaire (SD-60), Cooper and Bowles measured the subjects' willingness to disclose and found that subjects in the touch participation were more willing to disclose. Dies and Greenberg in 1976 attempted a similar study using high-touch, moderate-touch and no-touch groups and got no significant difference on a self-disclosure scale. They did however get positive results on scales measuring the subjects' liking of the other group members. Canino-Stolberg (1976) reported self-disclosure significantly greater in high-exposure and moderate-exposure groups by using actual responses taken from a videotape of a 14-hour marathon group. The high-exposure group performed physical and verbal exercises after watching a modeling film; the moderate-exposure group, physical and verbal exercises only; the no-exposure group, no exercises or film.

Other investigators have used correlational techniques ~~for~~

to determine the association of touching and self-disclosure. Using Jourard's Body-Accessibility Questionnaire (1966) with the SD-60, Pederson (1973) found that male college students having greater body-accessibility to another person tended to have greater self-disclosing behavior toward that person. Lomranz and Shapira (1974) established a high correlation between self-disclosure and touching with Israeli high school students. Overman (1971) in comparing these two variables in heterosexuals and homosexuals found: male homosexuals with a very low correlation because more touching went to same-sex friend and more self-disclosure went to opposite-sex friend; female homosexuals with a higher correlation than male homosexuals because touching and self-disclosing went to the same person, same-sex friend; male heterosexuals with a high correlation except with spouses to whom they disclosed very little; and female heterosexuals with the highest correlation between touching and self-disclosing behaviors. This study pointed out the possible relevant variables of sex type and sexual behavior affecting self-disclosure and touching. Jourard and Rubin (1968) found the variables of self-disclosure and body-accessibility to be independent in a study of college males and females. Most of the studies showed that touching was related to self-disclosure in some way.

In review of the literature Allen (1973) suggested that future research on self-disclosure incorporate the use of behavioral measures, adults instead of college students, groups instead of dyads, and more intimate disclosures. Pattison (1973) agreed that behavioral measures of self-disclosure might be more accurate than self-report measures. Of the studies relating touching and self-disclosure, only two (Canino-Stolberg, 1976; Pattison, 1973) used behavioral indices to measure self-disclosure, and of those two, only the Canino-Stolberg study used groups instead of dyads. Neither of these studies compared behavioral and self-report measures.

In relation to the behavioral versus self-report measures of self-disclosure, Pederson and Breglio in 1968 compared the SD-60 with written answers to questions about personal interests, personality evaluation, studies, body and money from the same subjects. The study established construct validity for the SD-60. Doster and Strickland (1971) compared verbal behavior in an interview with a self-report questionnaire. They found a relationship between actual self-disclosing behavior and perceived self-disclosing behavior.

When looking at the literature on touching and self-disclosure, this investigator found three studies conducted with groups rather than dyads. Cooper and Bowles (1973)

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When looking at the literature on touching and self-disclosure, this investigator found three studies conducted with groups rather than dyads. Cooper and Bowles (1973)

and Dies and Greenberg (1976) used brief group encounters of approximately two hours. Canino-Stolberg (1976) used a 14-hour marathon process. The first two studies reported opposite results while the third one reported positive results. The first two differed from the third by the length of encounter for the subjects. The developmental process of groups became an element in interpreting those studies. Both Yalom (1970) and Rogers (1970) reported a difference in group members' willingness to disclose at various stages of group process. The first stage for Yalom and the first three steps for Rogers are characterized by silence, confusion, polite surface interaction and lack of continuity of statements. The second stage for Yalom and the next two steps for Rogers include conflict. The following stage or steps represent a concern for intermember harmony and a display of trust and self-disclosure.

The present study looked at the effects of touching on self-disclosure in a small group setting using encounter group exercises. To measure self-disclosure, both a behavioral rating scale and a self-report questionnaire were used. The investigator controlled for sex type by having same-sex groups instead of mixed-sex groups because males and females attached different meanings to touch (Nguyen, et.al., 1975). To control for the variables of race, age and target person the subjects were Caucasians between the ages of 25 and 45,

who were strangers. The other variables were controlled by random assignment to groups.

Several hypotheses were formulated to investigate the effect of physical contact on self-disclosing behavior in a brief, small group encounter:

1. Females will disclose at a significantly higher rate than males.
2. The treatment groups (touch and no-touch) will have significantly higher self-disclosure scores than the control group.
3. The Disclosure Rating Scale and the Self-Disclosure Questionnaire will be significantly related with a positive correlation.

## Chapter II

### Method

#### Subjects

The subjects were 30 male and 30 female Caucasian volunteers ranging in age from 25 to 45 years with a mean age of 34.2 years. The mean age of the males was 34 and the mean age of the females was 34.4. They were evenly distributed throughout the groups in relation to marital status with 60% being married, 22% being divorced, and 18% being single.

Subjects were recruited from churches and social and professional organizations from the Denton and Dallas, Texas area. The investigator personally appeared at the organizational meetings to present the proposal and acquire a list of volunteers. The prospective subjects were told that they could learn some new ways of getting to know people, which might include short encounter group exercises such as sitting back to back and trying to determine what the other person might be feeling. They were told that they would also complete some questionnaires and that the whole process would take from an hour and a half to two hours. They were informed that all information would be strictly confidential and that their name would not be on any of the materials. From the list, the required number of subjects were randomly selected and contacted by tele-

phone to convey the time and place of the experiment. Acquaintances were randomly distributed across experimental conditions. Subjects with previous encounter group experience were also randomly distributed across experimental conditions in order to control for familiarity with encounter group procedures. Four subjects claimed previous encounter group experience in terms of Encounter Group, Gestalt Group, Transactional Analysis Group, and therapy groups ranging from three months to thirty months.

Subjects were randomly assigned to three experimental conditions within all-female or all-male groups yielding a total of six groups with ten subjects each.

#### Apparatus and Materials

In order to standardize the instructions for the exercises involved in the experimental period, Encounter tapes by Human Development Institute of Bell & Howell, Inc. were used by the "touch" and "no-touch" groups. Standardization of the instructions for the pretest and posttest measures was accomplished with written forms (Appendix B).

Audio-tape recorders were used for the following purposes: to play the Encounter tapes; and to record the subjects' responses on the Doster Disclosure Rating Scale.

To assess the dependent variable for self-disclosure, two instruments were administered both as a pretest and a posttest. The first instrument was the Disclosure Rating

Scale (Doster, 1972); the second, Jourard's (1964) Self-Disclosure Questionnaire (SD-60).

The Disclosure Rating Scale. The Disclosure Rating Scale is a seven point, descriptively anchored scale that assesses the level of subject self-disclosure on an externally-oriented/internally-oriented, discrete continuum. Taped audio recordings of subjects' responses were submitted to a three judge panel of assistants, who, after nine hours of practice using a recommended training manual, independently rated the level of self-disclosure for each subject. The three judges' rating for each subject were averaged to comprise a single subject rating score. A copy of the rating scale can be found in Appendix C. An analysis of the inter-rater reliability for the three judges was performed using a Fisher Z-transformation (Glass & Stanley, 1970).

Selection of topics for the pretest and the posttest was determined by balancing the two tests for public and private topics as determined by Doster and Slaymaker (1972), Doster and Strickland (1971), Jourard (1964), and Fitzgerald (1963). They found that the topics fall along a most-private/least-private continuum in the following order: sexual arousal and gratification, shame and guilt, self-esteem and self-degradation, anxiety and fear, sensitivity and embarrassment, physical appearance, and personal attrac-

tiveness. Topics for the pretest were "sensitivity and embarrassment," "self-esteem and self-degradation," and "sexual relations." Topics for the posttest were "anxiety and fear," "physical appearance and personal attractiveness," and "shame and guilt." The number and type of self-disclosures as criteria rather than content of the topics allowed for the differentiation of topics between the pretest and posttest, as opposed to using the same topics for both measures.

Reliability of .94 to .98,  $p < .01$  was reported for the Disclosure Rating Scale by Doster (1972). According to a study by Doster and Slaymaker (1972) actual self-disclosure level on the Disclosure Rating Scale was related to the interviewee's predictions about their disclosure level,  $r = .94$ ,  $p < .01$ .

The Self-Disclosure Questionnaire. This instrument is composed of 60 statements with the respondent making five responses to each statement. The statements are divided into six categories of information about self: attitudes and opinions, tastes and interests, work or studies, money, personality and body. The five responses to each statement assess the respondent's disclosure behavior to Mother, Father, Male Friend, Female Friend, and Spouse by using the following rating scale:

X - Have lied or misrepresented myself to the

other person so that he has a false picture of me.

- 0 - Have told the other person nothing about this aspect of me.
- 1 - Have talked in general terms about this item, the other person has only a general idea about this aspect of me.
- 2 - Have talked in full and complete detail about this item to the other person, he knows me fully in this respect and could describe me accurately.

The numerical entries are summed, with X's counting as zeros, yielding totals which constitute the self-disclosure score.

Construct validity, the extent to which a test may be said to measure a theoretical construct or trait (Anastasi, 1976), was established for the SD-60 by Pederson and Breglio in 1968. The SD-60 responses were correlated with written answers to questions taken from the SD-60 ( $r = .30, p < .05$ ). Jourard and Landsman (1960) found close agreement between self-rated disclosure patterns and ratings by others in a sample of college men. A split-half reliability of .94 was reported for the SD-60 by Jourard and Lasakow (1958) indicating that subjects answered consistently across both target persons and

subjects areas. Using the odd-even method, Fitzgerald (1963) found similar results.

For the purpose of this study the instrument was split into odd and even numbered statements, giving a 30 item pretest and a 30 item posttest. A copy of the questionnaire and a sample answer sheet can be found in Appendix D.

### Procedure

The subjects were contacted by telephone and asked to participate in a study which might involve learning some new ways of getting to know people. Upon acceptance each subject was asked about any prior experience in encounter groups and then randomly assigned to one of three treatment conditions.

This study consisted of three phases. The first phase began when each subject arrived at the experimental room. The experimenter escorted him/her to a secluded area of the room to complete a consent form outlining the subject's rights, a demographic questionnaire (Appendix E), and the two pretest instruments. The consent forms are kept on file in room 701 CFO Building, Texas Woman's University, Department of Psychology.

Administration of the Doster Disclosure Rating Scale preceded that of the Jourard Self-Disclosure Questionnaire. Subjects sat at a table on which were a tape recorder,

written instructions for the scales, three 3 X 5 cards, and the SD-60. On each of the three cards was one of three topics. The instructions asked the subject to talk honestly and openly on each topic for three minutes, expressing his attitudes and feelings and whatever examples he might think of related to the specific item. The subject was asked to go on to the next topic if he finished in less than three minutes. Subjects' responses were tape recorded after obtaining permission and assuring confidentiality. Upon completion of the third topic, subjects proceeded with the pretest part of the SD-60. The approximate time for phase one was 30 minutes.

Subjects were then seated in a circle with their assigned group to begin the second phase, which was a presentation of one of the following three experimental conditions:

Condition I (touch group). These subjects listened to directions for performing three encounter group exercises. The directions were presented via the Encountertapes on a tape recorder. After listening to the directions of each exercise, the subjects physically engaged themselves in the exercise. The exercises were: "back to back," in which pairs of individuals sat back to back, tried to tune into each other and tell the other person what they think he was feeling, then sat face to face and repeated the process;

"first impressions," in which each person went around the circle, touched each person in some way, looked directly at him and verbally gave an initial reaction to that person; and "rolling," in which each person got in the center of the circle formed by the others, relaxed, fell into the arms of the others and allowed himself to be gently passed around the circle. At the end of the third exercise the groups were instructed to spend ten minutes discussing their feelings about what happened to them. Each exercise took approximately 13 minutes, giving a total of approximately 50 minutes for the second phase.

Condition II (no-touch group). These subjects listened to the same Encounter tapes as the touch groups. These groups had the same time schedule as the touch groups. The difference between the no-touch group and the touch groups was that during the time the touch group was physically performing the exercises the no-touch group was casually conversing only. During the ten minute discussion period following the three exercises, the no-touch group discussed how they think it might have felt to do the exercises.

Condition III (control group). These subjects did not listen to the Encounter tapes and did not sit in a circle. They were instructed to converse with no one. Books, magazines and television were available to entertain them for

the 50 minutes.

The third phase consisted of the posttest procedures, the post-experimental questionnaire and debriefing. Subjects were escorted back to their same secluded area of the room as was used for the pre-treatment procedures. The two self-disclosure scales were administered using the same format as was used for the pretests. The post-experimental questionnaire (Appendix F) was administered to assess the influence of the subject's awareness on the research results. After completion of the last questionnaire, subjects were debriefed and told the nature of the study. The results of the study were made available to them upon request. The approximate time for phase three was 20 minutes. Total approximate time for all three phases was one hour and 40 minutes.

## Chapter III

### Results

A pretest posttest control group design (Campbell & Stanley, 1963) was used with the scores being statistically analyzed by two two-way analyses of covariance (ANCOVA) at the .05 level of significance. The ANCOVA was used because it is sensitive to group differences by adjusting the posttest scores according to the pretest scores, the covariate (Huck, Cormier & Bounds, 1974). The adjusted posttest means are the result of changing or shifting the original posttest means to account for any differences that might occur between groups on the pretest. This, in effect, statistically equalized the groups (Dayton, 1970). The ANCOVA's yielded the following information: the effect of sex on the dependent measures; the effects of two levels of touching on the dependent measures; and any possible interaction of sex and touching on the dependent measures. One two-way ANCOVA was computed for the verbal dependent measure (Doster's Disclosure Rating Scale); the second, for the self-report measure (Jourard's Self-Disclosure Questionnaire).

#### Disclosure Rating Scale

An analysis of the inter-rater reliability ( $K = 3$ ) produced coefficients of .93 between raters one and two,

.95 between raters two and three, and .94 between raters one and three. A Fisher Z-transformation revealed an overall reliability coefficient of .94. These correlations were statistically significant for the three raters' scores,  $p < .01$ . This suggests that each subject was being rated nearly the same by all three judges.

The unadjusted means, standard deviations and adjusted posttest means for the Disclosure Rating Scale are presented in Table 1.

A two-way analysis of covariance, presented in Table 2, revealed a significant effect of the treatment (touching),  $F(2,54) = 27.00$ ,  $p < .001$ . A Tukey test (Kirk, 1968) showed the touch group significantly different from the no-touch group and control group,  $F(3,27) = 6.756$  and  $F(3,27) = 5.93$ ,  $p < .01$ , respectively. The no-touch group and control group were not significantly different,  $F(3,27) = .826$ ,  $p > .05$ . The overall adjusted posttest means for the treatment groups were 3.4325 for the control group, 3.3461 for the no-touch group and 4.0528 for the touch group. This supported retention of Hypothesis 2, in that, the touch group was significantly different from the control group but was also significantly different from the no-touch group. The main effect for sex showed no differences between males and females,  $F(1,52) = .03$ ,  $p > .05$ , which gave support for rejection of Hypothesis 1. The overall adjusted posttest means for sex

Table 1

Unadjusted Means, Standard Deviations and Adjusted Means  
of the Disclosure Rating Scale

Group	Pretest		Posttest		Adjusted Posttest
	Mean	SD	Mean	SD	Mean
Males					
Control	3.4830	0.9241	3.7200	0.7661	3.5357
No-touch	3.1990	0.7768	3.2660	0.8505	3.3690
Touch	3.1340	1.7212	3.7360	1.2334	3.9048
Females					
Control	3.9330	1.9172	3.9690	1.0173	3.3293
No-touch	2.4210	1.6335	2.4330	1.7629	3.3233
Touch	3.6350	1.4115	4.5390	1.4542	4.2009

Table 2  
 Analysis of Covariance Summary Table  
 for the

Disclosure Rating Scale				
Source	SS	df	MS	F
Touch	5.9088	2	2.9544	27.0003*
Sex	0.0032	1	0.0032	0.0294
T X S	0.6564	2	0.3282	2.9992
Within	5.7993	53	0.1094	
Total	12.3676	58		

\* $p < .001$

were 3.6615 for males and 3.5595 for females. The disordinal interaction between the two main effects approached significance,  $F = 2.9992$ ,  $p = .0583$ . However, a Newman-Keuls test (Kirk, 1968) showed no significant pair-wise comparisons to support a significant interaction. A comparison between males and females in the control group showed  $F(9) = 1.973$ ,  $p > .05$ ; in the no-touch group,  $F(9) = 0.440$ ,  $p > .05$ ; in the touch group,  $F(9) = 2.83$ ,  $p > .05$ . Figure 1 shows that females disclosed at a lower level than males in the control but at a higher level than males in the touch group. Males decreased in disclosure level between the control and no-touch groups; whereas, females remained the same between those two groups.

#### The Self-Disclosure Questionnaire

The unadjusted means, standard deviations and adjusted posttest means for the SD-60 are presented in Table 3. Table 4 presents the results of the two-way analysis of covariance. F-Ratios were not significant for treatment main effect,  $F(2,54) = .11$ ,  $p > .05$ , the sex main effect,  $F(1,52) = 1.47$ ,  $p > .05$ , and the interaction between touching and sex,  $F = .298$ ,  $p > .05$ . Overall adjusted posttest means for the treatment groups were 115.3807 for the control group, 116.9616 for the no-touch group and 114.0577 for the touch group. Overall adjusted posttest means for males was 135.9999; and for females, 94.9334.

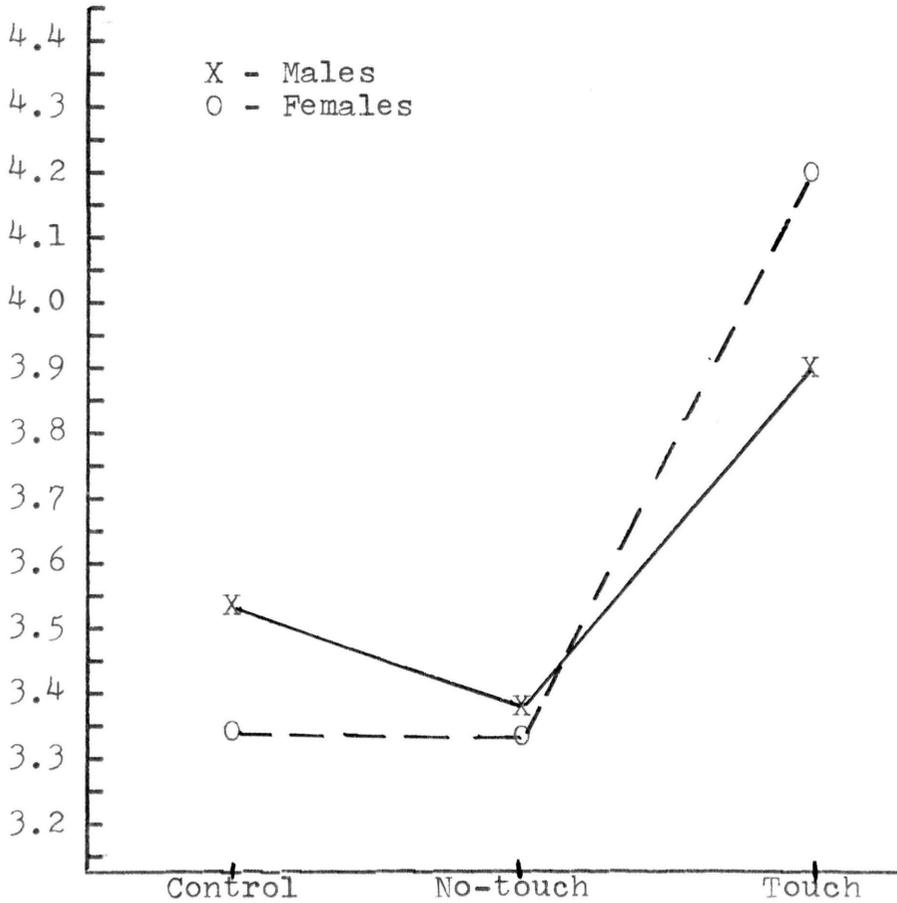


Figure 1. Relationship Between Males and Females in the Experimental Conditions on the Disclosure Rating Scale Adjusted Means

Table 3

Unadjusted Means, Standard Deviations and Adjusted Means  
of the Self-Disclosure Questionnaire

Group	Pretest		Posttest		Adjusted Posttest
	Mean	SD	Mean	SD	Mean
Males					
Control	108.0	46.7879	108.0	52.3874	116.9811
No-touch	113.9	36.4858	119.4	35.3811	122.8519
Touch	103.0	43.0452	102.3	44.7885	115.9669
Females					
Control	123.9	40.9375	119.7	40.2355	113.7803
No-touch	115.8	22.6902	109.4	27.1219	111.0713
Touch	140.9	35.4478	134.0	40.0555	112.1485

Table 4  
 Analysis of Covariance Summary Table  
 for the  
 Self-Disclosure Questionnaire

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Touch	84.0349	2	42.0175	0.1117
Sex	553.0370	1	553.0370	1.4707
T X S	223.7895	2	111.8947	0.2976
Within	19,930.0358	53	376.0384	
Total	20,790.9872	58		

### Dependent Measures Correlation

A Pearson Product Moment Correlation Coefficient was computed using the raw, pretest scores of the verbal scale and the self-report scale in order to determine the validity of the verbal scale. A significant positive correlation of  $r = .578$  ( $df = 58$ ,  $p < .01$ ) established validity that the two instruments were measuring approximately the same general area of behavior. This led to retention of Hypothesis 3 that the two scales would be significantly related.

### Post-experimental Questionnaire

A post-experimental questionnaire revealed that none of the subjects were aware of the research hypothesis during the experiment. Two subjects stated that they were aware of the difference in their recorded answers during the post-test as compared to the pretest. Fifty-eight of the subjects or 97% reported feeling anxious and awkward while recording their opinions about the topics.

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## Chapter IV

### Discussion

The findings of this study showed no significant differences in self-disclosure scores between males and females on both of the dependent measures. This supported the study of Certner (1973), who found no sex differences in a group of unmarried college students on actual self-disclosing behavior. Supported also was the study by Dimond and Hellkamp (1969), who found no sex differences on the SD-60 in a group of high school students. Dies and Greenberg (1976) found no differences in the sexes on a self-disclosure questionnaire while in a small group situation. Perhaps this is an indication that males and females in our society are beginning to exhibit more similar self-disclosure patterns than they have in the past.

A significant result did occur on the touching variable on the Disclosure Rating Scale, in that the touch group had significantly larger self-disclosure scores than the no-touch group and control group. That the no-touch group showed no increase in self-disclosure even though they engaged in conversation suggests that physical contact might accelerate movement through the first steps of group development as described by Yalom (1970) and Rogers (1970). Using a similar experimental situation, Cooper and Bowles

(1973) found the same results with mixed-sex groups of college students. Canino-Stolberg (1976) found a significant difference on actual self-disclosing behavior between touching groups and non-touching groups in a marathon encounter group situation. Evidence suggests that physical touching is one way to encourage and/or accelerate the process of verbal self-disclosure in a small group setting.

That the SD-60 showed no significant results for the touching variable suggests that the two scales are measuring different aspects of self-disclosure (Pederson & Breglio, 1968). The reporting of how much a person has told others about himself in the past may be quite different from the verbalization of that person's inner feelings about himself at any specific moment. According to Doster (1972), the Disclosure Rating Scale devalues focusing on other people, objects and events, as the SD-60 does. Doster and Strickland (1971) found that actual, verbal self-disclosure had an inverse relationship to reported past self-disclosure (SD-60). Perhaps physical contact facilitates an increase in immediate, verbal self-disclosures but does not change one's perception of his own past self-disclosing behavior.

A near significant ( $p = .0583$ ) interaction between the sex variable and touch variable occurred on the Disclosure Rating Scale but not on the SD-60. Figure 1 shows that

with actual verbal self-disclosing behavior females had lower scores than males in the control group and higher scores than males in the touch group. This suggests that touching facilitates disclosing behavior to a greater extent in females than in males. This might be explained by Overman's results (1971) of female heterosexuals touching and being touched more than male heterosexuals.

The significant correlation between the Disclosure Rating Scale and the SD-60 establishes construct validity for the Disclosure Rating Scale, in that it measures approximately the same general area of behavior as the SD-60 (Anastasi, 1976). Revealing oneself to another person or self-disclosing may have several aspects which are highly predictive by each of the other aspects but each of which may be amenable to change by different external stimuli.

#### Limitations

The use of small groups in this study limits the generalizability of the results to group situations. Other studies have established the significant effects of touching on self-disclosing behavior in dyadic situations (Pattison, 1973; Boderman, et.al., 1972). This study was also limited by the exclusion of sexually mixed groups, in that a comparison of mixed groups and same-sex groups was not available. Some studies have showed that mixed groups touched more (Dies & Greenberg, 1976; Jourard & Rubin, 1968;

Lomranz & Shapira, 1974) and self-disclosed more (Jourard & Lasakow, 1958; Komarovsky, 1974; Overman, 1971) than same-sex groups; whereas, others have reported same-sex groups self-disclosing more than or equal to mixed groups (Allen, 1973; Certner, 1973; Lomranz & Shapira, 1974; Pederson, 1973).

Another limitation of this study includes the lack of generalizability to long term effects of touching on self-disclosure. The possibility exists that an observed increase in self-disclosure rate after treatment is a temporary phenomena that dissipates over time (Dies & Greenberg, 1976).

The self-selection involved in recruiting volunteers to participate in an encounter group situation was a limitation for this study; however, a very small percent of possible subjects refused to participate.

#### Suggestions for Future Research

Because of the self-selection process involved in volunteering for group participation, it is suggested that more research be done using subjects on a non-volunteer basis, such as payment for services, etc., or using a dydactic setting rather than an encounter group setting. In using a dydactic setting, the touching can be arranged in ways less obvious than encounter exercises, such as hand-shakes, hand-on-shoulder, hand-on-arm, arm-around-

Lomranz & Shapira, 1974) and self-disclosed more (Jourard & Lasakow, 1958; Komarovsky, 1974; Overman, 1971) than same-sex groups; whereas, others have reported same-sex groups self-disclosing more than or equal to mixed groups (Allen, 1973; Certner, 1973; Lomranz & Shapira, 1974; Pederson, 1973).

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shoulder, etc. at certain times during the session.

Another suggestion is to use long term groups to determine whether the higher level of disclosure will be maintained after the initial touching encounter.

The use of actual, verbal self-disclosure needs to be investigated further. The expression of self-disclosure in the presence of the group has been used in only one study (Canino-Stolberg, 1976).

Another consideration for future research might be assuring that all groups have the same amount of structure. This investigator noticed in the no-touch group that during the times for conversation the subjects exhibited some frustration and impatience from not knowing what to talk about.

## Chapter V

### Summary

The present study attempted to show that physical contact can encourage adults in a group setting to disclose more about themselves than they would without the physical contact. To accomplish this, the investigator established three experimental conditions; the touch condition required the subjects to listen to taped instructions of three encounter group exercises and then engage in the exercises; the no-touch condition required the subjects only to listen to the taped instructions, then discuss how they might have felt doing the exercises; and the control condition required no interaction within the group members. Each of the three conditions had one group of ten males and one group of ten females, giving a total of sixty subjects. To measure the self-disclosure levels, a verbal scale (the Doster Disclosure Rating Scale) and a self-report scale (the Jourard Self-Disclosure Questionnaire) were both used as pretest and posttest. The study was designed to look at the differences between males and females on the self-disclosure scores, the differences between experimental conditions, and the correlation of the two instruments. The investigator expected to find females disclosing at a significantly higher rate than males, the touch group disclosing at a significantly higher rate than the

no-touch group, and the two instruments correlating significantly.

The results showed a significant difference between the touch condition and the no-touch and control conditions on the verbal scale but no difference between the no-touch and control groups. A significant correlation was found between the two instruments establishing validity for the verbal scale (Disclosure Rating Scale). The two scales were measuring approximately the same general area of behavior. No differences in the sexes resulted on either scale, suggesting that males and females might be developing similar self-disclosure patterns in our society. This was contrary to the expected results for the sex variable. The self-report scale showed no significant differences between experimental conditions.

The expected results of a significant difference between the touch group and no-touch group was upheld on the verbal scale but not on the self-report scale. Because the two instruments showed different results on the touching variable, they might be measuring different aspects of self-disclosure. The verbal scale measures the level at which a person reveals inner feelings at that specific moment; whereas, the self-report scale measures the level at which a person has revealed to significant others about himself in the past. Verbalizing inner feelings at the moment might be

more easily influenced by physical contact than reporting perceptions of past disclosures.

Conclusions which might be drawn from this study are that for young and middle-aged Caucasian adults from the Southwestern part of the United States, touching of socially acceptable body areas within a small group situation can facilitate an increase in actual, verbal self-disclosure. Since self-disclosure at a moderately high level seems to be conducive to a healthy personality (Chaikin, et al., 1975; Cozby, 1972; Jourard, 1964; Mann, 1975; Mayo, 1968; Truax & Carkhuff, 1965) and to rewarding interpersonal relationships (Ehrlick & Graeven, 1971; Halverson & Shore, 1969; Taylor, 1968; Worthy, et al., 1969; Yalom, 1970) then finding ways of facilitating the process of self-disclosure would be useful to professionals in the human-helping areas. According to the results of this study, physical contact can be one way to enhance that process of verbal self-disclosure in a group situation.

Future research on the relationship between touching and self-disclosure might include dydactic settings rather than encounter groups. A dydactic setting would be less susceptible to the self-selection process involved in recruiting volunteers for an encounter group participation. The use of subjects on a non-volunteer basis, such as payment for time, etc., might also be one way to diminish the

effects of the self-selection process. Less obvious methods of touching might be used rather than encounter exercises, such as hand-on-arm, arm-on-shoulder, etc.. These could be employed as the subjects arrive and enter the experimental room, at certain times during the session, and/or as they are leaving the experimental room. Another consideration might be the use of actual self-disclosure in the presence of the group. This might be a more accurate measurement of immediate, verbal self-disclosure.

Appendix A: Approval for Research Issued by  
the Human Research Review Committee  
Texas Woman's University

TEXAS WOMAN'S UNIVERSITY

DENTON, TEXAS 76204



THE GRADUATE SCHOOL  
P.O. Box 22479, TWU STATION

February 18, 1977

Ms. Cassandra D. Campbell  
743 Idlewilde  
Lewisville, Texas 75067

I have received and approved the Prospectus for your research project.  
Best wishes to you in the research and writing of your project.

Sincerely,

A handwritten signature in cursive script that reads 'Phyllis Bridges'.

Phyllis Bridges  
Dean

PB:bb

cc: Mr. Laney  
Dr. Day

## Appendix B

Instructions for the SD-60

The answer sheet you have been given has columns labeled Mother, Father, Same-sex Friend, and Opposite-sex Friend. Read each item on the questionnaire and then indicate on the answer sheet the extent that you have talked about that item to each person; i.e., the extent to which you have made yourself known to that person. Use the rating scale at the top of the answer sheet to describe the extent you have talked about each item.

Instruction for the Tape Recordings

On the table beside you are three cards, face down. When you begin, please select a card, read the topic, and try to talk for three minutes, expressing openly and honestly your feelings and attitudes and whatever examples you might think of related to that specific item. If you finish a topic in less than three minutes, go on to the next topic. Go through all three cards in the same way, trying to talk for three minutes on each topic. Confidentiality will be maintained throughout this study, and your name will not be used with any of the data. If you have no questions, you may begin.

## Appendix C

Disclosure Rating Scale

0 - This person attempts to define, clarify or discuss the topic by focusing on external other people, objects, and events rather than on himself. Self-references are lacking or few in number. He does not claim his ideas as his own through personal pronouns.

1 - He claims his ideas as his own but the central focus is on the external events rather than internal experiences. He may reveal self through group membership or "weness." He discloses how he thinks about or perceives external events, but not his interaction with them.

2 - His disclosure concern his internal experiences rather than himself as an observer of external events. Elaboration beyond cognitions is shallow and references to emotionality or actions are vague and general.

3 - He places himself within the context of his experiences but information is oriented more to elaborating or clarifying his perceptions about events he's been involved in. Disclosures about his emotionality or actions enhance the picture you have of his participation in the event, but do not provide an explored, integrated understanding of his internal or nonpublic experiences.

4 - His disclosures allow for a clear, integrated understanding of his personal frame of reference. Events are a depart-

ure point toward a finer exploration of his beliefs, perceptions, ideas about himself and his emotionality. While you clearly understand the impact of external events on his thoughts and feelings, the reverse remains unclear.

5 - A clear, integrated understanding of his personal frame of reference is provided by his disclosures of his beliefs, his perceptions, ideas about himself and his emotionality. You understand both the impact of external events on his thoughts and feelings and the impact of his internal experiences on his actions, reactions, or interactions with the external.

6 - A clear, integrated understanding of the impact of external events on his beliefs, perceptions, ideas about himself and his emotionality as well as the impact of these personal, internal experiences on his actions is provided. He goes beyond providing an intimate picture of his personal frame of reference by making judgments and evaluations of his framework or self-system. Using some chosen standard he is taking a stand on his liking of the self-system, or its adjustiveness, adequacy, feasibility, functionality, or the regard others have for this system.

## Appendix D

Answer Sheet for the SD-60

X - Have lied or misrepresented myself to the other person so that he has a false picture of me.

0 - Have told the other person nothing about this aspect of me.

1 - Have talked in general terms about this item, other person has only a general idea about this aspect of me.

2 - Have talked in full and complete detail about this item to other person, he knows me fully in this respect and could describe me accurately.

		MOTHER	FATHER	SAME-SEX FRIEND	OPPOSITE- SEX FRIEND
ATTITUDES & OPINIONS	1				
	2				
	3				
	4				
	5				
TASTES & INTERESTS	1				
	2				
	3				
	4				
	5				
WORK OR STUDIES	1				
	2				
	3				
	4				
	5				
MONEY	1				
	2				
	3				
	4				
	5				
PERSONALITY	1				
	2				
	3				
	4				
	5				
BODY	1				
	2				
	3				
	4				
	5				

SD-60 Questionnaire (A)ATTITUDES & OPINIONS

1. What I think and feel about religion; my personal religious views.
2. My views on communism.
3. My views on the present government - the president government, policies, etc.
4. My personal views on sexual morality - how I feel that I and others ought to behave in sexual matters.
5. The things that I regard as desirable for a man to be; what I look for in a man.

TASTES & INTERESTS

1. My favorite foods, the ways I like food prepared, and my food dislikes.
2. My likes and dislikes in movies.
3. The kinds of movies that I like to see best; the TV shows that are my favorites.
4. The style of house and the kinds of furnishings that I like best.
5. My favorite ways of spending spare time, e.g., hunting, reading, cards, sports events, parties, dancing etc.

WORK OR STUDIES

1. What I find to be the worst pressures and strain in my work.
2. What I enjoy most, and get the most satisfaction from in my present work.
3. What I feel are my special strong points and qualifications for my work.
4. My ambitions and goals in my work.
5. How I feel about the choice of career that I have made whether or not I'm satisfied with it.

MONEY

1. How much money I make at my work or get as an allowance.
2. Whom I owe money to at present; or whom I have borrowed from in the past.
3. Whether or not others owe me money, the amount, and who owes it to me.
4. All of my present sources of income, wages, fees, allowance, dividends, etc.
5. My most pressing need for money right now, e.g., outstanding bills, some major purchase that is desired.

## PERSONALITY

1. The aspects of my personality that I dislike, worry about, that I regard as a handicap to me.
2. The facts of my present sex life - including knowledge of how I get sexual gratification; any problems that I might have; with whom I have relations if anybody.
3. Things in the past or present that I feel ashamed and guilty about.
4. What it takes to get me feeling real depressed and blue.
5. What it takes to hurt my feelings deeply.

## BODY

1. My feelings about the appearance of my face - things I don't like and things that I might like about my face and head, nose, eyes, hair, etc.
2. My feelings about different parts of my body - legs, hips, waist, weight, chest or bust, etc.
3. Whether or not I now have any health problems, e.g., trouble with sleep, digestion, female complaints, heart condition allergies, headaches, piles, etc.
4. My past record of illness and treatment.
5. My present physical measurements, e.g., height, weight, waist, etc.

SD-60 Questionnaire (B)

## ATTITUDES &amp; OPINIONS

1. My personal opinions and feelings about other religious groups than my own.
2. My view on the present government
3. My personal views on drinking.
4. My personal standards of beauty and attractiveness in women - what I consider attractive in women.
5. My feelings about how parents ought to deal with children.

## TASTES &amp; INTERESTS

1. My favorite beverages, and the ones I don't like.
2. My favorite reading matter.
3. My tastes in clothing.
4. The kind of party, or social gathering that I like best and kind that would bore me.
5. What I would appreciate most for a present.

## WORK OR STUDIES

1. What I find to be the most boring and unenjoyable aspects of my work.
2. What I feel are my shortcomings and handicaps that prevent me from working as I'd like to, or that prevent me from getting further ahead in my work.
3. How I feel that my work is appreciated by others.
4. My feelings about the salary that I get for my work.
5. How I really feel about the people that I work for or work with.

## MONEY

1. Whether or not I owe money; if so, how much.
2. Whether or not I have savings and the amount.
3. Whether or not I gamble; the way I gamble and the extent.
4. My total financial worth, including property, savings, bonds, insurance, etc.
5. How I budget my money, the proportion that goes to necessities, luxuries, etc.

## PERSONALITY

1. What feelings, if any, that I have trouble expressing or controlling.
2. Whether or not I feel that I am attractive to the opposite sex, my problems, if any, about getting favorable attention from the opposite sex.
3. The kinds of things that just make me furious.
4. What it takes to get me real worried, anxious and afraid.

5. The kinds of things that make me especially proud of myself, elated, full of self-esteem or respect.

BODY

1. How I wish I looked, my ideals for overall appearance.
2. Any problems and worries that I had with my appearance in the past.
3. Whether or not I have any long range worries or concerns about my health, e.g., cancer, ulcers, heart trouble.
4. Whether or not I now make special efforts to keep fit, healthy, and attractive e.g., calisthenics, diet.
5. My feelings about my adequacy in sexual behavior - whether or not I feel able to perform adequately in sex-relationships.

## Appendix E

Demographical Questionnaire

A. Marital status

\_\_\_\_\_ married

\_\_\_\_\_ single

\_\_\_\_\_ divorced

B. Age \_\_\_\_\_

C. Sex

\_\_\_\_\_ male

\_\_\_\_\_ female

D. Group experience

\_\_\_\_\_ type of group

\_\_\_\_\_ length involved

E. Occupation \_\_\_\_\_

## Appendix F

Post-experimental Questionnaire

1. What did you think the experiment was about?
2. What did you think I was looking for or trying to study?
3. During the experiment did you ever have the idea that its purpose might be something other than what I was telling you? What?
4. If you were suspicious, when did you become suspicious and what things made you suspicious? Please answer in detail.
5. Thinking back on the experiment, did you ever feel there was a relationship between the first part of the study (encounter group exercises) and the second part (Discussing the topics on the three cards and completing the questionnaire).
6. If you noticed any sort of relationship between the first and second parts of the study, is this something you were actually aware of during the experiment or is it something you thought of while filling out this questionnaire?
7. My hypothesis was that if you were touched by the other people, then it would be easier for you to share highly personal information about yourself during the later question answering. Did you have this approximate ideas during the experiment? If yes, how certain were you of this?
8. If you thought you knew what I probably predicted about the effects of the exercises on your behavior later, how cooperative were you with what I was looking for?
9. Please make any other comments that you feel might help me understand your reaction to this experiment.

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