

Attribution of Personal Characteristics as a Function of the Degree of Touch on Initial Contact and Sex^{1,2}

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The current study was designed to measure the effects of degree of touch on initial contact on interpersonal judgment. Subjects (60 male and 60 female) reporting for an experiment on interpersonal judgment were met by the experimenter and another subject. The second subject was in fact a confederate. As the "subjects" were introduced, the confederate responded in one of three ways: a nod of the head (no touch); a firm handshake; or a firm handshake accompanied by a squeeze on the subject's right upper arm by the confederate's left hand. Half of the subjects met a male and half met a female confederate. Subjects were then placed in separate cubicles and asked to complete the Byrne interpersonal judgment questionnaire about the person they had just briefly met. This scale has six items (intelligence, knowledge of current events, morality, personal feelings, participation in experiments, and adjustment) for same-sex pairs and four additional items for opposite-sex pairs (dating, marriage, physical and sexual attraction). The results indicated that the variations in the type of initial contact between subject and confederate resulted in several significantly different interpersonal judgments. Of particular interest was the finding that a male confederate greeting a female subject was viewed as a more acceptable marriage partner the more touch was involved in the initial contact. A female confederate greeting a male subject was viewed as a less acceptable marriage partner the more touch that was involved. The degree of touch also affected judgments of know-

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ledge of current events, adjustment, dating, and physical attraction. Typically, the more touch, the higher the rating for the male confederate, whereas the female confederate was typically rated highest on the nod or handshake plus the additional touch to the arm, and least when she simply shook hands. The relevance of these findings to first impressions and role stereotyping are discussed.

Touch is a natural and probably the most primitive form of human communication, and yet it has received little attention in literature. Research with monkeys (Harlow, 1971) supports the idea that young monkeys seek tactile stimulation even at the expense of nourishment. In human fetal life, the child responds to pressure from the mother's heartbeat as it is magnified by amniotic fluid. Further, touch is an important aspect of the child's early years (Frank, 1957). These early tactile experiences seem crucial to later mental and emotional adjustment. Many schizophrenic children are reported to have been deprived of handling in early infancy. Montagu (1971) quotes a large number of studies with both animals and humans that demonstrate the importance of tactile satisfaction in infancy.

Touch is used to give encouragement, express tenderness, and show support. Despite its importance, the amount of touch between people in Western society tends to decrease after the second year of life. Clay (1966) noted that children receive more touching between 14 months and 2 years than as infants. Further, it seems girl babies receive more affection than do males. The importance of touch to adults was demonstrated in a study by Bardeen (1971). Subjects thought that they interacted with three different people under three conditions: touch only (no talking, blindfolded); visual only (no touching, no talking, not blindfolded); and verbal only (no touching, blindfolded). The three people that the subjects interacted with were in fact the same person. After each interaction, subjects used adjectives to describe their encounters. The adjectives associated with touch included warm, mature, and trustful, and were the most positive adjectives used. Further, when subjects were asked which partner they would prefer to be paired with in future interactions, the person encountered only by touch was chosen by 47% of the subjects.

The amount and kind of touch in adulthood varies considerably with age, sex, and the relationship involved. Jourard (1966) investigated which parts of the body are touched most frequently. The body was divided into 24 parts and subjects completed a questionnaire asking which parts of the body had been touched by other people: mother, father, same-sex friend, and opposite-sex friend. The results provided a clear picture of patterns of touch between significant adults. Two findings are of particular interest. Females were considerably more accessible to touch than males, and mothers did the most touching while many fathers touched hands and little else. Status differences have also been found to be reinforced by greater tactile accessibility to the lower status partners

(Henley, 1973). In what she terms the "politics of touch," male dominance is partially established by touching the female. Touch is therefore a significant factor in communication and deserves further attention.

A more recent study (Silverthorne, Noreen, Hunt & Rota, 1972) has provided evidence that touch is an important variable in some cognitive processes. This study used neutral, abstract slides composed of three black geometrical figures on a yellow background. Subjects were surreptitiously touched by the experimenter when viewing some of the slides. Those slides viewed while the subjects were touched were more favorably rated than those viewed without touch. The results clearly indicate that touch can function as a reinforcer. If touch can affect a subject's evaluation of inanimate objects, it seems reasonable to expect similar effects in interpersonal perception.

Large numbers of variables affecting interpersonal perceptions have been investigated (Stroebe, Insko, Thompson & Layton, 1971). Among these, physical attractiveness and attitude similarity have both been found to affect the impressions one person has of another (Byrne, London & Reeves, 1968). Indeed, Dion, Berscheid, and Walster (1972) conclude that "a physical attractiveness stereotype exists and its content is perfectly compatible with the 'what is beautiful is good' thesis." The majority of studies on interpersonal attraction have used photographs with no contact between the rater and the object of the interpersonal attraction. Actual contact between individuals has been investigated between randomly formed couples who thought that they had been "matched" for a computer dance (Walster, Aronson, Abrahams & Rottman, 1966). However, no attention has been paid to the initial contact between individuals and more specifically to the amount of touch used in a first encounter.

The current study was designed to evaluate factors attributed to individuals who touch others on initial contact. It was expected that individuals who touch would be rated higher on several personality measures. Further, opposite-sex touching would enhance interpersonal perceptions. This study, therefore, investigates a critical aspect of the important first impression.

METHOD

Subjects were 120 undergraduate students (60 male and 60 female) from the University of San Francisco who had volunteered to participate in an experiment on interpersonal judgment. When they arrived at the experimental room they were met by the experimenter who introduced each subject to another subject who was already waiting for the experiment to begin. The second subject was in fact a confederate.

After the introduction, the confederate responded in one of three ways. In the no-touch condition, he nodded his head in greeting. In the handshake condi-

tion, he firmly grasped the subject's hand and shook it. In the third condition, the right handshake was accompanied by a squeeze on the right upper arm by the confederate's left hand. The sex of the confederate was also varied so that half of the subjects met a female confederate and the other half, a male confederate. This yielded a three-factor experiment: sex of subject, sex of confederate, type of contact.

Subjects and the confederate were then admitted to separate experimental rooms and introduced to the experiment as a study of accuracy of person perception. The experimenter stated that while psychological studies have shown that people do form detailed impressions of others on the basis of a very few clues, the variables determining the extent to which these early impressions are generally accurate have not yet been completely identified. The subjects were told that the purpose of the present study was to compare person-perception accuracy of untrained college students with two other groups who had been trained in various interpersonal techniques; specifically, graduate students in clinical psychology and clinical psychologists. The experimenter stated his belief that person-perception accuracy was a general ability varying among people (after Dion et al., 1972).

Subjects were told that the other "subject" was to be used as a basis for personality inferences. Following the introduction, subjects were given a brief questionnaire (Byrne, London, and Reeves, 1968). The first page of each booklet cautioned the subject that this study was a test of accuracy of person perception and that we were not interested in the subject's tact, politeness, or other factors usually important in social situations. It was stressed that it was important for the subjects to rate the stimulus persons frankly and that all rankings would be held in confidence.

The booklets tapped impressions of the stimulus person along several different dimensions: intelligence, knowledge of current events, morality, adjustment, personal feelings, and working together in an experiment. When opposite-sex pairs were used in an experiment, four additional scales were used: dating preference, marriage, sexual attraction, and physical attraction. Subjects responded to one of seven alternative statements designed to represent various degrees of possession of the attribute tapped by each item. When the booklets were completed, they were collected and the subjects debriefed.

RESULTS

Each of the ten items was scored with a 7 assigned to the most positive response. All subjects completed the first six questions which dealt with perception of individual characteristics. These questions were therefore considered together. The remaining four questions were analyzed separately because they

deal more with interpersonal aspects of person perception, and were answered only by subjects who had been introduced to a confederate of the opposite sex. Mixed design, one between- (touch condition) and one within-subjects (item) analyses of variance (Myers, 1966, p. 176) were conducted for each of the four confederate sex–subject sex pairings.

The results indicated that when a male confederate greeted a female subject, there was a significant difference across the degree of touch conditions, ($F(2,27) = 3.44, p < .05$). Thus, the greater the amount of touch, the more positive the confederate was rated. A similar effect was found when a male confederate greeted a male subject ($F(2,27) = 4.24, p < .05$) and when a female confederate greeted a female subject ($F(2,27) = 3.74, p < .05$). While there was also a significant difference across the three touch conditions when a female confederate met a male subject ($F(2,27) = 5.12, p < .05$), the effect was reversed. The more the male was touched, the less positively he rated the female confederate. Further, the within-subject analysis found significant item effects (Male confederate–Female subject, $F(5,135) = 2.62, p < .05$; Male confederate–Male subject, $F(5,135) = 2.56, p < .05$; Female confederate–Male subject, $F(5,135) = 2.56, p < .05$; Female confederate–Female subject, $F(5,135) = 2.81, p < .05$).

Since the within subject analysis found significant item effects, further analyses were conducted to identify specific effects related to each item on the questionnaire. A completely randomized three-factor design (confederate sex \times subject sex \times degree of touch) was conducted for each of the first six items (Myers, 1966, p. 111). While there were no significant differences on items concerning intelligence and morality, significant main and interaction effects were found on the remaining items. For the item concerning current events, significant effects were found for the confederate sex–touch interaction ($F(2,108) = 9.36, p < .05$) and the triple interaction term ($F(2,108) = 8.35, p < .05$). The subject sex–confederate sex interaction ($F(1,108) = 5.21, p < .05$) and the confederate sex–touch interaction ($F(2,108) = 3.93, p < .05$) were also significant for the item concerning adjustment. The confederate sex main effect was significant for the item on liking ($F(1,108) = 4.94, p < .05$) as were the subject sex–touch interaction ($F(2,108) = 5.78, p < .05$) and the subject sex–confederate sex interaction ($F(2,108) = 4.61, p < .05$). Finally, when subjects were asked if they would like to be in an experiment, the analysis found a significant main effect for subject sex ($F(1,108) = 6.54, p < .05$). The subject sex–confederate sex interaction was also significant ($F(1,108) = 10.0, p < .05$).

A completely randomized two-factor analysis of variance (sex pair \times touch) was conducted for each of the four remaining items (Myers, 1966, p. 82). On dating preference, the touch main effect ($F(2,54) = 35.48, p < .01$) and the sex-pair–touch interaction ($F(2,54) = 44.9, p < .01$) were significant. The rating of the sexual attraction of the confederate yielded a significant sex-pair–touch interaction ($F(2,54) = 8.29, p < .05$). Further, the sex-pair main effect was signi-

Table 1. Mean Ratings of Male and Female Confederates by Male and Female Subjects Across Touch Conditions

Item	Mean rating of male confederate						Mean rating of female confederate ^a					
	Male Ss			Female Ss			Male Ss			Female Ss		
	NT	HS	HST	NT	HS	HST	NT	HS	HST	NT	HS	HST
Intelligence	5.6	5.1	5.3	5.2	5.4	5.4	5.3	5.8	5.5	5.7	5.8	5.6
Current events	4.5	5.2 ^{a,b}	4.0	4.8	5.4 ^{a,b}	4.8	4.7	4.6	5.2	4.6	3.8	4.5
Morality	5.1	5.1	4.9	5.0	4.8	5.5	4.7	5.2	5.2	5.4	5.7	4.9
Adjustment	4.9	5.7 ^a	5.8 ^a	5.3	5.6	6.0 ^c	5.9	5.7	6.0	5.8 ^{b,c}	5.2	4.8
Personal feelings	4.6	5.1	6.3 ^{a,c}	5.0	5.6	5.4	5.7	5.9	5.9	5.9	5.3	5.2
Experiment	4.6	5.1	5.8 ^{a,c}	5.2	5.5	5.1	5.3	5.9 ^a	6.2 ^c	5.9	5.3	5.2
Dating				2.8	3.6 ^a	4.4 ^{a,c}	5.6 ^{b,c}	4.3	4.1			
Marriage				2.7	4.0 ^a	4.1 ^c	4.3 ^c	3.4	4.4 ^c			
Sexual attraction				4.0	4.3	4.3	5.5	5.4	5.5			
Physical attraction				4.3	5.0 ^a	5.6 ^{a,c}	6.0	5.5	5.5			

^aSignificantly different from No-Touch condition (NT) $t(2,27) p < .05$.

^bSignificantly different from Handshake-plus-Touch condition (HST) $t(2,27) p < .05$.

^cSignificantly different from Handshake condition (HS) $t(2,27) p < .05$.

ficant ($F(1,54) = 38.7, p < .01$) for the item about the physical attractiveness of the partner. The final item analysis concerning the enjoyability as a future spouse of the confederate yielded a significant main effect on touch ($F(2,54) = 26.65, p < .01$) and a significant sex-pair-touch interaction ($F(2,54) = 25.74, p < .01$).

Because of the complex nature of the results from the analysis of variance and the recurring pattern of significant results, a series of *t*-tests for paired observations were then conducted comparing the data obtained for the touch, subject sex, and confederate sex conditions on each of the items. Inspection of Table I indicates the range of significant differences.

DISCUSSION

The results of this study indicate that a person was rated more positively the greater the amount of socially acceptable touch they use to greet another. The striking contrast to this finding occurred when a female greeted a male. Here the opposite findings was true. The more socially acceptable touch used, the lower the interpersonal rating. This finding has several significant implications for the woman who desires to break a role stereotype ascribed to her by males. When a female used the traditional masculine greeting of the handshake, she was seen by the male subject as less knowledgeable of current events and less well adjusted than the woman who used the more traditionally feminine greeting of a polite nod. Even more dramatic effects occurred when males were asked about dating, attraction, and marriage. The men in the current study definitely preferred to date the more passive woman who politely nodded than the woman who took some initiative in proffering her hand to be shaken. When the original study was conceptualized, it was decided to use a standardized interpersonal scale which happened to include an item about marriage. It was not anticipated that a *very* brief encounter between two people would have any bearing on a subject's feelings about a future spouse. In fact, this item generated a dramatic response. Males did not like the idea of a female who initiated handshakes as a spouse. However, when the handshake was tempered with the gentle clasp to the arm in addition to the handshake, the woman's attractiveness as a spouse increased.

It seems that when a woman approached a male, the male responded to her most positively when she politely nodded her greeting. This was the most submissive of the greetings used. If the woman wished to be more assertive in her greeting by shaking hands, she generated a more positive response from the male if she gently clasped the upper arm at the same time as she shook hands. The most assertive greeting, the handshake, received the most negative reaction from many males.

The results were less complex for other interpersonal encounters. A male greeting another male, or a female greeting another female, was judged more favorably the more contact that was used. In general, the person who shook hands and clasped the arm was seen as better adjusted, more likeable, and more suitable as a person with whom to spend time in future experiments. The handshaker was rated less positively than the handshaker and arm clasper, but still more positively than the nodder. The major deviation from this finding was in the perception of the person's knowledge of current events. Here, the handshaker was seen as the most knowledgeable. This may occur because the handshake is interpreted as a sign of confidence.

The results for the male who greeted a female are interesting on the dimensions of dating, marriage, and physical attraction. On all three items, there were significant increases in the positiveness of the responses as the amount of touch on initial contact increased. It seems the male who approached a female was best served if he shook her hand and clasped the upper arm on their initial contact. A handshake proved to be the second best approach and still superior to the nod as a greeting.

These results demonstrate the influence of cultural expectations on the organization of impressions. The male would appear to have been best served by using as much socially accepted touch as possible upon initial contact. The female appeared to be best served by using as little touch as possible, particularly if her encounter is with a male. This finding supports the research by Henley (1973) which suggests that male dominance is partially established by touching the female. The results on the item concerning willingness to take part in future experiments has implications for studies using confederates where the confederate-subject greeting is not controlled. Variations in the greeting a confederate used might well influence the outcome of the subsequent experiment.

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