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## Effects of Unit Relation Tendencies on Interpersonal Attraction\*

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*Two experiments were conducted to examine the extent to which unit relation tendencies, and thus interpersonal attraction, are affected by social features of the surrounding interaction context. In the first experiment the relative strength of the perceptual bond between pairs of individuals within a triad was systematically varied through their relative physical proximity to one another. A series of planned comparisons of subjects' ratings of attraction for one another provides support for the unit relation interpretation of attraction. The second experiment concerned the strength of the perceptual bond between individuals in the context of anticipated discussion. The parallel findings in Experiment II provide additional support for the unit relation interpretation by ruling out several alternative explanations associated with the actual discussions that took place in the first study.*

Traditionally, perceptual and motivational biases that systematically influence acquisition, organization, or retrieval of information have captured the interest of social psychologists (e.g., Bradley, 1978; Heider, 1958; Taylor and Fiske, 1978). Among these, the unit relation concept is particularly interesting because of its central role in balance theory (Heider, 1944), attribution theory (Duval and Hensley, 1976; McArthur and Post, 1977), and several aspects of social relations (e.g., Arkin, Gabrenya, and McGarvey, 1978; Goethals and Darley, 1977; Tajfel, 1969; Wilder, 1978). Heider stated broadly that "Separate entities comprise a unit when they are perceived as belonging together" (1958:176). Factors such as similarity, proximity, equality, common fate, good continuation, set, and past experi-

ence were all shown to foster such unit-formation tendencies among configurations of physical stimuli (Heider, 1958:177). The formation of positive or negative unit relationships among or between persons, first discussed by Koffka (1935), also seems to follow the belongingness principle.

Heider (1958:184) proposed that an individual who perceives that he or she is in a unit relation with another will tend to strive for a sentiment relation that is psychologically consistent with the unit relation (in order to achieve the harmonious state of "balance"). Thus, a positive unit relation among persons should foster liking between them. In an early test of this proposition, Darley and Berscheid (1967) examined how individuals accommodated affectively to a relationship with another with whom they had been randomly paired (prior to any actual interaction between the two persons). Subjects in this study were given ambiguous personality information about each of two persons, one of whom was described as the subject's prospective partner in a future dis-

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cussion. Darley and Berscheid found that subjects liked their future partner better than the other person (whom they believed they would not meet). Thus, the unit relationship fostered by the accidental collaboration of persons in a (prospective) group discussion was apparently sufficient to influence liking. Several replications (and extensions) of the basic finding have been reported (Tyler and Sears, 1977). In virtually every study Heider's balance hypothesis fares extremely well.

In their review of the evidence, Tyler and Sears noted that little "has been said about the nature and limits of the actual conditions of similarity, membership, and so on that lead to the perception of psychological units" (1977: 209-210). This is surprising, since Heider devoted considerable attention to the various factors that tend to establish or inhibit unit relationships (1958:177-180). In particular, Heider argued that, for the formation of both nonsocial and social units, "whether two entities are seen as making up a unit depends not only on their relation to each other . . . but also on the properties of the surrounding" (1958:178). He illustrated this idea with the rhetorical question, "A Kansan boasts about the Empire State Building, where is this most likely to happen, in Topeka, New York, Paris, or Chicago?" If Heider's analysis is applied to the formation of a unit and sentiment relation between two individuals, then changes in the properties of the surrounding in which two people interact should also result in corresponding changes in their liking for one another.

To test this derivation from Heider's interpersonal balance theory, we test several hypotheses based upon the effects of the surrounding on unit formation within the context of interactions among a triad of individuals. First, based upon earlier research (Insko and Wilson, 1977), subjects interacting with one another are expected to sense a unit relationship between themselves and therefore report more liking for one another than would noninteracting subjects. Second, a set of interrelated hypotheses concerns the relative physical proximity of the interacting subjects. It is expected, based upon

Heider's (1958) reasoning, that increases or decreases in the *relative* physical proximity of interacting subjects will strengthen or weaken the unit relation between them, and thus effect corresponding changes in their attraction for one another. Specifically, two persons interacting alone are expected to sense a stronger unit relation and thus like one another more and a third party less than individuals interacting within a group setting comprised of more than just two persons. This general prediction is based upon the idea that two individuals interacting alone will ordinarily perceive their relationship as unique (based upon their relative proximity to one another) and sense greater "belongingness" to one another (Heider, 1958:183) than would persons interacting with one another in a group setting. In a comparable way, we predict that if a third party to the interaction is aware of the unit relationship between the other two, then the third party will not perceive his or her relationship to either of the others in later interaction as unique, and thus will sense less belongingness. Once again, the basis for this prediction is the perceived uniqueness of the interaction and subsequent sense of greater or lesser belongingness. Support for these hypotheses would provide evidence for the general utility of the unit relation concept and its application to balance theory in particular.

#### EXPERIMENT I

##### *Overview*

Triads of subjects participating within a session were randomly assigned to one of three experimental conditions. In one condition, all subjects and the experimenter remained in the "conversation room" during an initial conversation between two of the subjects. In a second condition, one of the participants waited in a nearby room during this initial conversation and was unable to see or overhear the interaction. Finally, in a third condition, one of the participants waited in the nearby room during the initial conversation, but was able to overhear the conversation between the two remaining

participants.<sup>1</sup> Following this initial interaction, the subject who had been waiting conversed with one of the two others; in every session all three subjects and the experimenter were present during the second conversation. Following the second conversation, subjects were escorted to separate rooms to complete a questionnaire.

### *Subjects*

One hundred eight male undergraduate college students served as subjects in exchange for class credit. When subjects were recruited and again at the beginning of the session the experimenter verified that the participants were not acquainted with one another.

### *Procedure*

The experimenter began the session by seating the three subjects in chairs arranged approximately one meter apart. Subjects were reminded that they were to engage in one or two get-acquainted conversations each (Insko and Wilson, 1977) and it was explained that they were to discuss topics typically involved in getting to know someone. Each subject was provided with a small card on which the following suggested topics were printed: college major, family, politics, preferred social activities. Subjects were encouraged not to feel constrained by the list, however. The experimenter instructed the subjects to plan on talking for ten minutes, at which time he would interrupt them.

It was explained that each of the participants would have the opportunity to converse individually with at least one of the others. Because of time limitations,

however, each participant might not be able to interact with both of the remaining participants. The experimenter went on to explain that through a random drawing subjects would be assigned a role, designated by the letters A, B, and C. The drawing was then conducted and it was explained that subjects A and B were to interact first.

*Control condition.* In the control condition, the conversation between subjects designated A and B was then begun. Subject C and the experimenter remained in the room while subjects A and B interacted with one another. After ten minutes had lapsed, the experimenter interrupted the conversation and then began the second conversation between subjects B and C (replicating Insko and Wilson, 1977).

*Isolation conditions.* In the remaining conditions, the experimenter announced:

Naturally, while two of you are interacting, it would be quite distracting to have another person in the room. A third person's body language, facial expressions, etc., could clearly bias the progress of your conversation and have an adverse effect on your getting acquainted. Therefore, we have decided to ask the observer to leave the room during the talk; however, we have arranged for him to listen to the conversation over the intercom system.

He then escorted subject C to an adjacent room. Subjects A and B were instructed to wait about 30 seconds before beginning their conversation to allow the experimenter and subject C to reach the other room and activate the intercom system.

In the *Isolation-1 Condition*, subject C listened over the intercom system to the conversation between subjects A and B while sitting alone in the adjoining room. When the experimenter returned to escort the subject back to the discussion room near the end of the ten-minute period the intercom system appeared to stop working (after the experimenter surreptitiously threw a concealed cut-off switch). After examining the intercom unit briefly the experimenter indicated that this was a recurring problem.

In the *Isolation-2 Condition*, subject C and the experimenter entered the adjacent room and discovered that the intercom

<sup>1</sup> These two variations on the theme of isolating the third party of the triad (while the remaining participants interacted) were included to determine whether the relative privacy of the initial interaction had any effect (in that increases in privacy could induce a still greater sense of belongingness). As will be seen, however, these effects were small and inconsistent. Therefore the inclusion of the two isolation conditions merely provides an internal replication of the effects predicted for isolating the third party in general, and no further discussion of the methodological distinctions involved is included.

system was not working properly. After examining the unit briefly, the experimenter explained that this was a recurring problem and that, rather than disturb the conversation of the other two subjects, subject C should remain in this room alone until the experimenter returned in about ten minutes.

In both the isolation-1 and isolation-2 conditions the experimenter and subject C returned to the discussion room and interrupted the conversation of A and B approximately ten minutes after it began. The experimenter explained (in both of these conditions) that the intercom system was not working and that subject C either did (isolation-1) or did not (isolation-2) overhear the interaction (see footnote 1). The experimenter then explained that all subjects would have to remain in the discussion room during the next interaction because the intercom was inoperative.

In every condition, the experimenter checked his notes at this point and announced that the next interaction would involve subjects B and C. Subject A remained seated and was instructed merely to observe this conversation. After ten minutes the experimenter interrupted the subjects once again.

Following this final conversation subjects were escorted into three separate rooms to complete the questionnaires. Subjects were told that they would be dismissed individually and would not meet either of the others following the study. They were also assured that neither of the other two subjects would ever see their questionnaire responses. Subjects completed two questionnaires, one pertaining to their impressions of each of the other subjects. The questionnaires were answered in alphabetical role order; that is, subject A answered the questionnaire concerning subject B before answering the questionnaire concerning subject C, etc.

Each questionnaire contained 13 items (anchored on 13-point scales), which were taken verbatim from Insko and Wilson (1977). The subject was asked: the extent to which he liked the other subject; how similar their personalities were; how similar their beliefs and attitudes were; the extent to which the other possessed desirable characteristics which the subject

lacked himself; how much the person resembled the subject's own ideal self; how much the other person liked the subject; how popular the other was; how physically attractive the other was; how egotistical the other seemed; how intimate the other was in what he had to say; how similar the other's intelligence was to the subject's own; how enthusiastic the other was; and how interesting the other person was to converse with.

### Results

*Liking.* An a priori within-subjects planned comparison of the liking ratings of subjects who interacted with one another ( $M = 9.28$ ) with the liking responses of subjects who did not ( $M = 7.90$ ) (within the control condition) was significant,  $t(11) = 2.51, p < .04$ . This exact replication of Insko and Wilson's (1977) findings suggests the comparability of the present experimental setting to Insko and Wilson's and to other related studies (cf. Tyler and Sears, 1977).

To test explicitly the predictions concerning the effects of surrounding on unit relation and liking, an additional series of within-subject comparisons of each subject's liking for the others was carried out. The means relevant to these comparisons are presented in Table 1.

Concerning first the ratings of subject B (who interacted with both of the others), it was expected that the initial interaction with subject A would induce greater liking for A than for C when subject C was absent during the initial (AB) interaction. This prediction was supported nicely, isolation-1  $t(11) = 2.52, p < .025$ ; isolation-2  $t(11) = 2.36, p < .04$ . Thus,

Table 1. Mean Attraction Ratings: Experiment I

	Control	Isolation-1	Isolation-2
Subject A			
Attraction for B	9.50	10.46	10.80
Attraction for C	8.00	7.38	7.40
Subject B			
Attraction for A	8.92	9.69	10.64
Attraction for C	10.00	7.92	9.45
Subject C			
Attraction for B	8.67	10.17	9.67
Attraction for A	7.75	9.25	8.08

Note: Means based upon responses to a 13-point scale with 1 = not at all, 13 = very much.

even though subject B did interact with subject C, the presence of subject A (with whom a unit relation was already formed) during the later interaction seems to have attenuated any unit-forming tendencies with subject C, and consequently liking for him. Subject A was liked more (isolation-1  $M = 9.69$ ; isolation-2  $M = 10.64$ ) than subject C (isolation-1  $M = 7.92$ ; isolation-2  $M = 9.45$ ). In the control conditions, where subject C remained in the conversation room throughout, the liking ratings of subject B for subjects A ( $M = 8.92$ ) and C ( $M = 10.00$ ) were not significantly different.

The ratings of subjects A and C, each of whom was allowed to interact with only one of the others, provide additional tests of the overall prediction concerning the effects of surrounding on unit relation tendencies. Subject A, because he interacted only with subject B, was expected to rate subject B higher than subject C regardless of experimental conditions. The means in Table 1 confirm this prediction. Moreover, as expected, this tendency was somewhat stronger when A and B interacted alone, isolation-1  $t(11) = 2.92, p < .01$  ( $M_s = 10.46, 7.38$ ), isolation-2  $t(11) = 6.05, p < .0002$  ( $M_s = 10.80, 7.40$ ), and their relative physical proximity was therefore greater than when subject C was present while they interacted,  $t(11) = 2.11, p < .059$  ( $M_s = 9.50, 8.00$ ). By the same reasoning, subject C, who interacted only with subject B, was expected to rate subject B higher than subject A, regardless of experimental condition. Moreover, this tendency was expected to be accentuated when subject C was not exposed to the prior (AB) interaction (isolation conditions) because of the resulting perceived uniqueness of subjects C's interaction with subject B. Surprisingly, these effects were only marginally significant in the isolation-1,  $t(11) = 1.96, p < .08$  ( $M_s = 10.17, 9.25$ ), and isolation-2,  $t(11) = 1.87, p < .09$  ( $M_s = 9.67, 8.08$ ), conditions, and did not reach a conventional level of significance in the control condition ( $M_s = 8.67, 7.75$ ).

*Ancillary measures.* The same planned comparisons employed to test hypotheses concerning the liking measure were also utilized to explore the effects of the unit

relation changes upon subjects' perceptions of the other participants. Comparing interacting and noninteracting subjects' responses first, persons who interacted viewed one another as more interesting to talk to than did persons who had not interacted ( $p < .05$ ), but none of the remaining measures revealed any differences at all. Because none of the crucial measures revealed overall interaction/noninteraction effects, interpretation of subjects' individual ratings of the other participants seems tenuous at best. However, for the interested reader, these comparisons are displayed in Table 2.

### Discussion

From a balance theory perspective, social interaction constitutes a positive unit relation (Heider, 1944, 1958; Insko and Wilson, 1977). The results presented here directly replicate Insko and Wilson's (1977) findings: there was greater attraction between the interactors than between the individuals who did not explicitly interact with one another, supporting the unit relation-liking hypothesis derived from balance theory.

*Interpretation of the social interaction effect.* Insko and Wilson found what they described as a "wealth" of parallel effects on the ancillary measures they included concerning subjects' perceptions of the other participants. Specifically, six of the twelve items they included revealed significant interaction vs. no interaction effects: "has similar personality," "has similar beliefs," "has desirable characteristics you lack," "likes you," "is popular and well liked," and "is interesting to talk to." These findings led Insko and Wilson to speculate that one major effect of the unit relationship in the get-acquainted conversation context is that participants conduct an "information search" to discover similarities, and are generally successful (but also learn about "desirable characteristics you lack" as a by-product). This analysis of their data seems compelling, and the findings from the ancillary measures in the present study can only be described as destitute by contrast. Participants who interacted in

Table 2. Planned Comparisons for All Assessments: Experiment I

	Subject A Ratings of B versus C			Subject B Ratings of A versus C			Subject C Ratings of B versus A		
	Control	Isolation 1	Isolation 2	Control	Isolation 1	Isolation 2	Control	Isolation 1	Isolation 2
	Similar Personality		*	*		**			
Similar Attitudes		**							*
Desirable Characteristics									
You Lack									
Like Ideal Self			**	** (neg)					*
Likes You		**	**					*	
Popular		**	*		*			*	*
Physically Attractive	**								
Egotistical				*	* (neg)				
Intimate				* (neg)				*	
Similar Intelligence									**
Enthusiastic					**			*	
Interesting			*		**				

Note: \*Indicates that subjects rated one of the participants significantly higher than the other participant on the attribute in question,  $p < .05$ ; \*\* indicates  $p < .01$ .

the present study viewed one another as more interesting to talk to than did participants deprived of an explicit interaction; however, interactors drew no more inferences about the other's personal characteristics (similarity of personality, attitudes, beliefs, desirable characteristics) than did the noninteractors. While not disproving Insko and Wilson's speculations about the progress of get-acquainted conversations, these data argue that feelings of perceived similarity of characteristics or traits are not necessary for the unit relation-liking relationship to emerge.

*Effects of physical proximity.* In addition to the effects of social interaction vs. no interaction, there were relatively clear effects of varying the unit relation among individuals by manipulating the relative physical proximity of the conversants. Specifically, subjects who interacted with one another liked one another more and the third member of the triad less when the "conversation room" was devoid of other people than when they interacted with a third participant and the experimenter physically present. Furthermore, consistent with this finding, the third member of the triad was more attracted to

his discussion partner than to the other group member only when he could not hear or see the earlier interaction between the others. Taken together, these findings suggest that the unit relation among the discussants was enhanced and the unit relation with the "surrounding" others was diminished when the "surrounding" others were relatively distant, or less salient.

The manipulation of physical proximity used in the present study seems relatively free of alternative interpretations that might be associated with other ways of fostering unit relationship (e.g., attitude similarity, kinship, equality, common fate, etc.). However, one reasonable alternative explanation of the effects we attribute to unit relation tendencies might be that pairs of subjects who were alone in the conversation room experienced a different quality of interaction than did subjects interacting in the presence of the third member of the triad and the experimenter. Only one step was taken to rule out this interpretation. It was made clear to subjects that their conversations were being overheard via intercom as they occurred; they were also told that their conversations were tape-recorded. This sur-

veillance across every condition of the experiment was intended to equate the conversations in terms of such factors as breadth and depth of disclosure, and other important aspects of conversation content. Nevertheless, some subtle aspect of the interaction (greater eye contact and therefore enhanced mere exposure, more reciprocal social reinforcement, etc.) may have contributed to the enhanced liking among the individuals interacting alone. Therefore, a second experiment was conducted to determine whether or not strengthening and weakening the perceptual bond between individuals results in corresponding changes in their liking for one another when the interaction is only an *anticipated*, not an actual, conversation.

## EXPERIMENT II

### Overview

The results of Experiment I generally support the notion that strengthening or weakening the unit relationship between individuals results in a corresponding change in their liking for one another, at least with respect to physical proximity. However, several features of the experiment make the conclusions equivocal. As mentioned above, the possibility that the conversations differed in terms of their verbal and nonverbal content cannot be ruled out. In addition, it is possible that the presence of the third triad member could be interpreted simply in terms of the distraction created by the presence of others during an interaction. Furthermore, the impact of the experimenter's presence in addition to the presence of the third subject in these conditions is unclear. Finally, it was felt that stricter experimental control over the information available to the subject when forming attraction for the other might produce even stronger results than those found in Experiment I. For these reasons a second experiment was conducted to provide a conceptual replication of the findings in Experiment I. To accomplish these various goals, the methodology first utilized by Darley and Berscheid (1967) was employed. That is, subjects were asked to

make ratings based upon (bogus) written information about persons they had never met. As in Experiment I, the manipulation involved varying both the subjects' relationship with the supposed others as well as aspects of the relationship among the others.

All subjects were informed that there were two phases to the study, one concerning the process of impression formation and one involving a get-acquainted interaction. To replicate the original finding of Darley and Berscheid, subjects in one condition were informed that they would receive personality data about two women and that one of these women, A (but not the other, B), was actually going to be their partner in a subsequent interaction. To manipulate the strength of this unit relationship, subjects in a second condition were informed that they would interact with both individuals A and B. It was predicted that anticipating interaction with both persons would weaken subjects' unit relationship with each (and thus attraction for person A relative to the simpler case in which subjects believed they would interact with only A). In a third condition, subjects were informed that they were to interact with Person A, but also that Participants A and B were "currently interacting." It was anticipated that the perceived unit relation between A and B deriving from their supposed interaction would reduce subjects' perceived unit relation with A, and thus liking for A, relative to the simpler case in which the information concerning the relationship between A and B was not provided. Finally, one-fourth of the subjects were informed that they would interact with either A or B but the final determination concerning which person would be assigned to them would be made later. It was predicted that these instructions would tend to reduce subjects' perceived unit relationship with A, and thus attraction for A, relative to the case in which subjects were certain about their interacting with A. In sum, it was predicted that attraction for an individual with whom subjects anticipated an interaction would be strongest when (1) subjects were certain the interaction would take place, and (2) subjects had no information con-

cerning any other interactions between themselves and some person or between the individual they were to meet and some other person. No predictions were made about the relative strength of the three ways in which we attempted to weaken the unit relation between the subject and Person A.

### *Procedure*

Forty-eight female introductory psychology students participated in groups ranging in size from three to six persons. After all subjects had assembled for a session the experimenter explained that, because one of the studies was brief, they would actually be participating in two experiments. The longer of the two was described as a study of "the get-acquainted process." It was explained that Dr. Roberts of the Counseling Service was involved in an extended program of research concerning interpersonal relations and that he had invited several participants in earlier studies to return and take part in a study concerning acquaintance processes. The experimenter added that these individuals were completing some preliminary questionnaires separately in several small rooms in another part of the building. Subjects were then told that if they were willing to participate in the get-acquainted interaction they would have to sign a "Personal Guarantee Form" in which each subject promised not to disclose her partner's name or anything told her by her partner during the interaction. Subjects' agreement to participate was obtained verbally, and the Guarantee Forms were completed.

The experimenter then explained that the second study involved collecting information about the ways in which "the processes of interpersonal judgment interact with the course of . . . discussion" (Darley and Berscheid, 1967:32). Subjects were told that to assess the processes of interpersonal judgment or impression formation, they would be asked to make several ratings based upon personality data about two other women. The subjects were told they would each be given two folders, each containing personality data on another woman participating in the

study. (It was explained that the personality data on each woman had been collected when they had participated in Dr. Roberts's earlier study.) Subjects were informed that one, or perhaps in a few cases both, of the personality folders contained information about their future partner(s). The experimenter indicated that he was sorry but he could not remember whether or not any of the subjects present had been scheduled for two get-acquainted conversations because Dr. Roberts had prepared the materials. He said he hoped this would not be a problem, emphasizing the brevity of the interactions. The second folder, "for most if not all participants," was explained to contain information about another woman participating in the study with whom the subject would have no future contact. The experimenter emphasized that partners had been selected completely at random, as had the other woman about whom the subjects would read. Finally, subjects were told they would have five minutes to study each folder, and that their task was "to form a general impression of each person."

The sets of two folders containing the personality data were then distributed to the participants in an obviously randomized fashion. A note attached to the folders reiterated the supposed purposes of the study. Appended to this GENERAL INSTRUCTIONS SHEET was another set of instructions containing the independent variable manipulation. Subjects received one of the four following sets of instructions:

- (1) You have been randomly assigned to participate in a discussion today with Person A. (The A's in italics were written in.)
- (2) Because we have started to run out of people who have already completed the personality study, we are forced to ask most of you participating this week to have two, not just one, get-acquainted conversations. Sorry about that! You'll be finished well within your experimental hour, however. For convenience sake, you will simply be assigned both Person A and then Person B, in that order, the two people whose data are contained in the enclosed folders.
- (3) Because we have started to run out of people who have already completed the



personality study, we have had to begin asking some people to have two get-acquainted conversations. You have been randomly assigned to meet Person A. But Persons A & B are currently in the discussion room downstairs talking with one another. Unfortunately, therefore, Person A has had to have two get-acquainted conversations today whereas most of our subjects need only have one.

However, we can assure you that the conversation between Persons A and B will be over by the time we are finished.

- (4) Because we have begun to run out of people who have already completed the personality study, we know we can definitely assign you to a discussion partner—but we must wait until everyone has arrived to determine which of the two persons whose folders you have received will be your partner. Sorry about the inconvenience, but we've had a lot of "No-Shows," and we need to make sure everyone is assigned someone before the hour is over.

Each folder was labeled clearly so the subjects could distinguish folders representing Persons A and B. After four minutes had elapsed, subjects were told that they had one minute to finish reading the first folder (A). After one more minute elapsed, subjects were told to "begin reading the second folder now." These announcements were repeated for the second (B) folder. Each folder contained an Allport-Vernon Value Profile (Allport, Vernon, and Lindzey, 1951) and an Edwards Personal Preference Schedule Profile (Edwards, 1954) that were created by the experimenters to give as ambiguous a picture of the person as possible (cf. Darley and Berscheid, 1967). Because the main predictions concerned liking for Person A as a function of the unit relation conditions, every subject received folder A first and folder B second. Furthermore, the same two sets of ambiguous personality data always comprised folders A and B. (Darley and Berscheid found no effects due to order of presentation of stimulus materials, or order of judgments of stimulus materials on the final questionnaire.)

At the end of the ten minutes the folders were collected and subjects were given a questionnaire composed of ten questions

to be answered about each of the women whose data they had read. Among several filler items, the questionnaire contained the item utilized by Darley and Berscheid to determine whether subjects liked their partners more than their nonpartners: "How probable is it that you would like this girl?" In addition, each subject was asked (on 13-point scales) about how similar her personality was to each of the others, how similar the others were to herself in intelligence, the extent to which the others possessed desirable characteristics which she lacked herself, how much the others resembled her own ideal self, how popular the others were, and how egotistical the others seemed.

After subjects had completed both questionnaires (concerning A and B), they were asked to close the folder containing the questionnaires and indicate on the back which of the women they understood they were paired with (subjects uniformly responded correctly to this check on the manipulation). Finally, the questionnaire booklets were collected and subjects were told the true purposes of the experiment, thanked for their participation, and dismissed.

### Results and Discussion

As can be seen readily from the data presented in Table 3, subjects in condition 1 reported more liking for Person A, their partner ( $M = 9.70$ ) than for Person B ( $M = 8.30$ ),  $t(11) = 3.52, p < .01$ , replicating the basic finding of Darley and Berscheid (1967). However, as predicted, subjects did not prefer Person A ( $M_s = 8.17, 7.50, 7.58$ ) to Person B ( $M_s = 8.58, 8.08, 8.83$ )

Table 3. Mean Attraction Ratings: Experiment II

Condition:	Liking for Person A	Liking for Person B
(1) Subject to interact with A only	9.70	8.30
(2) Subject to interact with both A & B	8.17	8.58
(3) Subject to interact with A only (A & B also conversing)	7.50	8.08
(4) Subject uncertain whether she will interact with A or B	7.58	8.83

in any of the remaining conditions ( $p$ 's  $> .10$ ).<sup>2</sup> Furthermore, a one-way analysis of variance of the ratings of liking for Person A was significant,  $F(3,44) = 3.30, p < .03$ , as was a planned comparison contrasting the ratings in condition 1 (the Darley and Berscheid replication) with the liking ratings in all the remaining conditions,  $t(44) = 2.64, p < .05$ . Dunnett's post hoc comparisons revealed that subjects liked Person A more in condition 1 than in condition 3 (where A and B were said to be conversing),  $t(44) = 2.12, p < .05$ , or condition 4 (where subjects were uncertain about their discussion partner),  $t(44) = 2.20, p < .05$ . The comparison between liking ratings in conditions 1 and 2 did not quite reach significance.

Interestingly, there was no trace of a tendency for any of the trait measures (desirable characteristics, like ideal self, popular, egotistical, similar intelligence, similar personality) to parallel the liking ratings (all  $p$ 's  $> .14$  in the one-way analyses of variance of the ratings of A). These negative effects essentially replicate Darley and Berscheid, who found "no evidence . . . to support the view that misperception of personality traits of others was caused by the formation of unit relationships" (1967:37), as well as replicating the negative findings reported in Experiment I. It appears clear that one can increase his or her liking for another without any overall, systematic misperception of the other's traits. Furthermore, the presence of the effects of the surrounding upon unit relation tendencies, and thus liking, without any actual interaction (and without parallel effects on trait attribution measures) suggests again that Insko and Wilson's (1977) "searching for similarities" explanation of the effects of social interaction on attraction was unnecessary. These data also argue that the

findings of Experiment I can be most parsimoniously attributed to changes in the strength of the unit formation rather than to differing qualities of the actual conversation between subjects.

Not surprisingly, no significant effects emerged on any of the one-way analyses of variance conducted on subjects' ratings of Person B (all  $p$ 's  $> .20$ ). The unit relationship with Person B would presumably be stronger in condition 2 (where subjects learned they would interact with both Persons A and B) and in condition 4 (where subjects were not sure whether they were to interact with Person A or Person B) than in the two remaining conditions (where subjects were informed expressly that they would not interact with Person B). And, as can be seen in Table 3, the ratings of liking for Person B are ordered precisely in this way. However, the manipulation of relative strength of unit relation with Person B pales in comparison to the strength of the manipulation of unit relationship with Person A; the data concerning Person B reflect this weaker manipulation of unit relation forming tendencies.

#### GENERAL DISCUSSION

The parallel quality of the findings of Experiments I and II, with and without actual interaction among subjects, suggests the robust nature of the unit relationship phenomenon. The unit relation tendency, as well as predictable effects of the "surrounding" on its strengthening or weakening, were not restricted to either first impression situations or to more lengthy periods of real contact in which direct information could be used by subjects to either confirm or disconfirm initial tendencies. As Tyler and Sears (1977) and Insko and Wilson (1977) suggest, such confirmation of unit relation hypotheses in various contexts enhances confidence that the phenomenon is an important force in interpersonal relations.

It is obvious that accidental relationships with others are an everyday occurrence, and it is increasingly clear that the context within which these "no-choice" (Tyler and Sears, 1977) interactions take place is of prime importance in determin-

<sup>2</sup> The tendency for subjects to have preferred Person B over Person A in condition 4, where subjects did not know whether they would meet Person A or Person B, suggests that the ambiguous data created for the Person B folder may have presented an inherently more attractive individual's profile. If so, this general preference for Person B would merely have operated against our attempted replication of the Darley and Berscheid effect and suggests that the present data would have been stronger had this preference not been present.

ing interpersonal attraction and perhaps other aspects of the course of interpersonal relations as well. There was a tendency for sentiment relations to be aligned with unit relations, fulfilling a basic requirement of cognitive balance. Furthermore, varying the strength of the unit relationship by manipulating the existence and/or salience of relationships with or among others had predictable impact on sentiment relations. However, it is important to note that we have only dealt with affectively positive unit relations—the general rule in all studies of this type. Finally, unit relations formed over brief conversations are likely to be weak and perhaps transitory as well. Thus caution should be exercised in generalizing the present findings to more complex forms of social interaction.

An important task awaiting further research is the attempt to place the unit relationship phenomenon within a broader framework of cognitive/organizational influences on social perception. It is not precisely clear what the process of forming unit relations involves psychologically, nor what being in a unit relationship with another may imply for subsequent cognitive processes. With regard to the former issue, categorization appears to be at the base of cognition (Rosch and Lloyd, 1978; Wyer, 1974), in that categorization permits emergence of perceptual/cognitive invariance out of otherwise unorganized sensory information. The tendency of persons to form unit relations in perception may be merely one pervasive form of this broader class of perceptual/cognitive categorization heuristics. Concerning subsequent psychological processes, it is increasingly clear that strictly perceptual processes influence later "constructive stages" (e.g., Weary et al., 1980:41) or inferential processes (e.g., Arkin et al., 1978; Newtonson, 1973, 1976; Wilder, 1978), and consequently, social behavior (e.g., Tajfel, 1969). Unit relation tendencies could effect such outcomes at the levels of inference and behavior by means of any number of processes at the level of perception and encoding, such as changes in the threshold for or salience of information that is consistent vs. inconsistent with the unit, depth of processing

of information, location of information stored in memory, and quicker identification and lengthier retention of consistent or relevant over inconsistent or irrelevant information.

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## Anonymity, Persuasive Arguments, and Choice Shifts\*

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*Three choice shift studies demonstrate that choice shifts occur under anonymous conditions when social comparison information is provided. This contradicts recent statements by Jellison and Arkin (1977) that shifts should not be produced under these conditions. The present studies also find no relationship between choice shift measures and argument measures. This lends no support to Burnstein, Vinokur, and Trope's (1973) contention that receiving social comparison information stimulates subjects to generate new and persuasive arguments favoring a shift in attitude. In all three studies various forms of social comparison information do produce choice shifts but do not lead subjects to produce arguments favoring that shift. A fourth study assesses the validity of the argument measure employed. In total, the four studies suggest that the traditional social comparison hypothesis is the most effective explanation of choice shifts that occur without group discussion.*

The choice shift (or group polarization phenomenon) refers to the fact that if group members share a given view, they become more extreme in their opinions after either a group discussion of the issue or learning of the preferences of others. For example, when people who oppose integration discuss that issue, they become even more extreme in their opposition (Myers and Lamm, 1976). Prointegrationists, on the other hand, become

more favorable to integration after discussion. While early research focused on opinions involving risk and caution, more recently choice shift effects have been found across a wide variety of topics (Myers and Lamm, 1976). A number of writers endorse a two-process view of this phenomenon, arguing that both social comparison pressure and arguments heard during discussion mediate the shift (Brown, 1965; Myers and Lamm, 1976; Pruitt and Cosentino, 1975; Sanders and Baron, 1977). In situations where choice shifts occur without group discussion, it is assumed that social comparison is solely responsible for the shifts. In opposition to these views, however, Burnstein and Vinokur (1977) and Jellison and Arkin

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