Anticipated Interaction and the Similarity-Attraction Effect*

BRUCE D. LAYTON
State University of New York, Albany

CHESTER A. INSKO
University of North Carolina

Each of 320 male subjects was paired with a fictitious female partner with whom they were led to believe they either would or would not interact. Three other variables were manipulated: the partner's attitude similarity, the partner's physical attractiveness, and whether or not the partner would be evaluating the subject. A significant interaction was found between attitude similarity and anticipated interaction. Contrary to predictions from reward-cost theory, the pattern of means in the interaction indicated that attitude similarity had a greater effect upon attraction when no future interaction with the partner was anticipated than when future interaction was expected. The results were interpreted in terms of the amount of information available to the subject at the time the evaluation ratings were administered.

Although the effect of attitude similarity upon preacquaintance interpersonal attraction is one of the best documented generalizations in social psychology (e.g., Byrne, 1969), the correct theoretical interpretation of the phenomenon is unclear. From our current perspective there are four competing theoretical explanations. The first of these is a general balance theory interpretation (Heider, 1958). According to balance theory, there is a tendency for the individual to achieve consistency, harmony, or balance in the perception of his interpersonal relations. Balance occurs when the perception of interpersonal similarity (agreement regarding sentiment

*We wish to thank Nehemia Friedland for his comments on the manuscript. Requests for reprints should be sent to Bruce D. Layton, Psychology Department, State University of New York at Albany, 1400 Washington Avenue, Albany, N. Y. 12222.
or unit relations) evokes positive interpersonal attraction (positive sentiment relations). One of the most convincing demonstrations of the potential relevance of balance theory to the similarity-attraction effect is an experiment by Aronson and Cope (1968), who attempted to show that balance theory is best able to account for their finding that "My enemy's enemy is my friend."

A second interpretation of the similarity-attraction effect is in terms of social comparison theory (Festinger, 1954). According to this theory, people seek out and are attracted to other people with similar attitudes because agreement with other people satisfies the self-evaluative drive or need to hold correct attitudes and beliefs. According to Byrne (1969), who is in essential agreement with this point of view, satisfaction of the need to interpret correctly one's stimulus world produces positive affect which through simple conditioning becomes associated with the similar individual.

A third interpretation of the similarity-attraction effect is in terms of implied evaluation (Aronson and Worchel, 1966; Byrne and Griffitt, 1966). According to this interpretation, when an individual is informed that he shares similar attitudes with someone else, there is a concomitant implication that the other person will like him. Because liking tends to be reciprocated (Newcomb, 1961), the first individual is attracted to the second. In a recent experiment, Insko et al. (1973) found evidence indicating the possible importance of implied evaluation in mediating, or partially mediating, the similarity-attraction effect.

The fourth interpretation, and the focus of the present experiment, relates to the anticipated rewards of future interaction (Berscheid and Walster, 1969). According to this interpretation, the individual is attracted to the similar other because he anticipates that future interaction with him would be rewarding. This interpretation is most plausible when the similarity relates to specific activities, like attitude toward playing tennis, but may possibly apply to all types of similarity.

Although the four above interpretations may be conceptually distinguished, there is some degree of overlap among them. The social-comparison, implied-evaluation, and anticipated-rewards-of-future-interaction interpretations can all be seen as variants of a general reward-cost or exchange-theory interpretation (cf. Thibaut and Kelly, 1959). Strictly speaking, social comparison theory emphasizes drive-reduction, rather than affect, but the two are obviously very closely related. Furthermore, social comparison theory could be interpreted, as it is by Byrne (1969), so as to
emphasize the crucial role of affect associated with reduction of the self-evaluative drive. The relevance of a reward-cost perspective to the implied-evaluation and anticipated-rewards interpretations is more obvious. Reciprocated liking is a reward and reciprocated disliking a cost. The reward-cost perspective is relevant to the anticipated-rewards-of-future-interaction interpretation, if the reward-cost position is stated so as to emphasize hedonism of the future (rather than or in addition to hedonism of the present and past). Theoretically, the similarity is a cue regarding future rewards and costs.

Finally, we should note that the implied-evaluation and anticipated-rewards interpretations can be regarded as variants of the general balance interpretation. Reciprocated liking or disliking, as postulated by the implied-evaluation interpretation, produces balance in the dyad. Balance theory also could be interpreted as indicating that an originally neutral other, who is to be associated with future affect (positive or negative), will take on the sign of that affect.

The focus of the present experiment is on the anticipated-rewards-of-future-interaction interpretation. This interpretation predicts that similarity should have a greater effect upon attraction when future interaction is anticipated than when no future interaction is anticipated. To test this prediction, Sutherland and Insko (1973) conducted an experiment in which subjects were led to believe that they would or would not be interacting with a partner whom they perceived as being attitudinally similar or dissimilar. However, the predicted statistical interaction between attitude similarity and anticipated interaction was not found. Although attitude similarity was manipulated by the Byrne (1969) method, the eight items used were not relevant to the anticipated interaction. Subjects expecting to interact with their partner believed that they would be discussing either dating behavior or study habits. In order to examine any mutual effects of attitude similarity and anticipated interaction upon attraction, it would seem necessary for the attitudinal similarity to be related to the anticipated interaction. The present investigation was directed toward this end.

This experiment also examined the effect of two other independent variables: anticipated evaluation by the partner and physical attractiveness of the partner. Although specific theoretical hypotheses were not entertained for presence or absence of mutual evaluation, this variable was included in the present design because (1) it had not been manipulated in previous research, and (2) it might
affect the impact of the anticipated interaction manipulation.

Finally, although the interactive effects of attitude similarity and physical attractiveness of the other upon attraction have been well documented (see Stroebe et al., 1971), we thought it important to include the physical attractiveness variable in the design. If evaluations from a physically attractive person have a greater impact than those from an unattractive person (Sigall and Aronson, 1969), then a manipulation of the other's physical attractiveness might also interact with the anticipated interaction manipulation and/or the anticipated evaluation manipulation.

METHOD

Subjects

Three-hundred-twenty male students participated in the experiment as partial fulfillment of the requirements of the introductory psychology course at the University of North Carolina.

Independent Variables

The four independent variables were: attitude similarity, physical attractiveness of the partner, anticipated evaluation by the partner, and anticipated interaction with the partner. Attitude similarity was manipulated by having a supposedly real "partner" appear similar or dissimilar to the subject on eight attitude items (Byrne, 1969). Byrne's "constant discrepancy" pattern was used to fake similarity or dissimilarity. The physical attractiveness of the partner was manipulated by presenting the subject with one of two sets of photographs of the same girl. In one set of pictures the girl appeared to be very attractive; in the other she was made to appear very unattractive. Anticipated evaluation and anticipated interaction were manipulated by informing the subjects that their partners would (or would not) be rating them and that they would (or would not) be meeting their partners at a later time in the experiment.

Procedure

Subjects were scheduled in groups of 2-6 individuals. Upon arrival, each was ushered into one of six small rooms and instructed to put on a set of earphones. All instructions were tape-recorded and given through the earphones.

The subjects were informed that they were participating in an experiment on person perception. Because their own attitudes and personality characteristics could affect their judgments, they were
told that it was necessary for them to complete an attitude questionnaire and some personality assessments. As soon as these instructions were given, the experimenter gave each subject the eight-item “Attitude Inventory” on which the subject was to indicate his opinions of smoking, integration in public schools, drinking, money as an important goal, university grading system, political parties, undergraduates getting married, and religion. At the same time the experimenter gave each subject two filler personality questionnaires composed of semantic differential items and questions drawn from the Feelings of Inadequacy subsection of the Janis and Field Personality Questionnaire (Janis and Hovland, 1959). The “Attitude Inventory” required the subject to put his name on the sheet. On the other two questionnaires, the subject was guaranteed anonymity.

When the subjects had completed all the forms, the experimenter collected the forms and informed the subjects that additional instructions would come through the earphones. The tape instructed the subjects that they were to make judgments about other people on the basis of limited information. They were told that the purpose of the experiment was to determine the effects of differential amounts of information upon the impression formation process. To this end, they would receive some information about another (fictitious) person participating in the experiment. The information was to consist of the “Attitude Inventory” completed by the other person and a polaroid snapshot of the same individual.

The anticipated evaluation manipulation was introduced at this point. Subjects in the no evaluation conditions were informed that the experimenter was interested in examining the effects upon impression formation arising from the absence of reciprocal information exchange between the participants. The individual to be rated, therefore, would have absolutely no information about the subject. Subjects in the evaluation condition, however, were instructed that the individuals they had been paired with would have the same type of information about the subjects as the subjects possessed about them; that is, these individuals would receive the “Attitude Inventories” completed by the subjects as well as polaroid snapshots of the subjects that were to be taken very shortly. In the anticipated evaluation conditions, the polaroid camera, flashbulbs, and photographic paraphernalia were visible at various early and late stages throughout the experiment. None of this equipment was present in the no anticipated evaluation conditions.

Following the induction of the anticipated evaluation manipula-
tion, subjects in the anticipated interaction conditions were informed that they would be meeting the individual whose “Attitude Inventory” and pictures they had been given. The rationale for meeting their supposed partners was explained as a discussion of attitude items similar to those on the “Attitude Inventory.”

At this point the experimenter brought each subject an “Attitude Inventory” supposedly completed by the girl whose pictures were attached to the form that had her name written on it. The proportion of similar attitudes was either 0 or 1 using the “constant discrepancy” pattern (Byrne, 1969). The pictures were two 3 x 5 inch black and white polaroid snapshots consisting of one facial portrait and one full length snapshot. Although the same radiantly attractive girl was photographed in both conditions, her attractiveness was manipulated for the unattractive condition by the presence of a rather frumpy wig, outdated glasses, and heavy makeup; otherwise she was neatly and comparably dressed in the pictures for both the attractive and unattractive conditions as in Sigall and Aronson (1969).

After allowing the subjects a few minutes to study their partners’ attitudes and photographs, the experimenter instructed the subjects that he now wished them to rate their partners on a number of “Interpersonal Judgment Scales.” Subjects in the no anticipated evaluation condition were reminded that their partners did not possess any information about them. Subjects in the anticipated interaction conditions were reminded that they would shortly meet their partners to discuss attitude issues similar to those in the Inventory. In every condition, each subject was assured that his partner would not see the results of the “Interpersonal Judgment Scale”; that is, his partner would not know how he rated her.

In order to enhance the evaluation manipulation for subjects in the anticipated evaluation conditions, the experimenter was carrying the polaroid camera with its flash attachment as he brought the subject the “Interpersonal Judgment Scale” on which the subject was to indicate his liking for his partner. The subject was reminded that his partner would shortly be rating him and that the experimenter would return in a minute with other “Interpersonal Judgment Scales” to be completed. At that time the pictures would be taken. In the no anticipated evaluation conditions, the subject was again reminded that his partner did not have any information about him and that she would not see his evaluation of her on the “Interpersonal Judgment Scale.” Those subjects in the anticipated interaction conditions were reminded that they were going to meet with their
partners to discuss other similar attitude issues. Those subjects in the no anticipated interaction conditions were instructed that the experiment would end for them after they rated their partner. To insure that these subjects would not expect to meet their partner after the experiment was over, they were instructed that their partners had to remain for testing unrelated to the person perception experiment. When all subjects had completed the “liking” measure, the experimenter gave each subject the remaining items from the “Interpersonal Judgment Scale.” Subjects in the anticipated evaluation and anticipated interaction conditions received appropriate reminders about what was supposedly going to occur next.

The experiment was terminated upon completion of the “Interpersonal Judgment Scales.” All subjects were completely debriefed and the reasons for the deceptions were explained. Subjects were assured that any identifying information on the forms would be immediately destroyed. The removal of all identifying information was accomplished within fifteen minutes of the conclusion of each session.

**Dependent Variables**

Nine dependent variables were included in the “Interpersonal Judgment Scales.” These questions assessed: (1) a subject’s liking for his partner; (2) how much he thought she liked him; (3) his desire to work with her in another experiment; (4) how rewarding it would be for him to interact socially with her; (5) how interesting it would be for him to talk with her; (6) to what extent he would consider dating her; (7) his perception of her physical attractiveness; (8) his perception of her intelligence; and (9) his perception of their similarity. Each of these questions was to be answered by marking one of seven alternatives that on the “liking” item, for example, ranged from “I like her very much” to “I dislike her very much.”

**RESULTS**

**Manipulation Checks**

A four-factor least-squares multivariate analysis of variance indicated a successful induction of the attitude similarity manipulation upon perceived similarity \((F = 670.76, df = 1/304, p < .001)\). Subjects in the similar conditions \((\bar{X} = 5.07)\) perceived their partners as being more similar to themselves than did subjects in the dissimilar conditions \((\bar{X} = 1.92)\). Furthermore, subjects’ ratings of their partner’s physical attractiveness indicated a successful induction of the attractiveness manipulation \((F = 926.65, df = 1/304, p < .001)\).
After viewing the snapshots of their partner, subjects in the attractive condition ($\bar{X} = 5.92$) rated their partner more highly on the physical attractiveness dimension than did subjects in the unattractive condition ($\bar{X} = 2.83$).

**Similarity Main Effects**

In addition to the manipulation check, manipulated attitude similarity had significant main effects upon seven of the eight remaining dependent variables (multivariate $F = 93.28$, df = 9/296, $p < .001$). Significant univariate $F$'s were found on liking ($F = 234.37$, df = 1/304, $p < .001$), implied liking ($F = 165.16$, df = 1/304, $p < .001$), working ($F = 28.34$, df = 1/304, $p < .001$), social rewards ($F = 24.83$, df = 1/304, $p < .001$), dating ($F = 20.28$, df = 1/304, $p < .001$), intelligence ($F = 55.28$, df = 1/304, $p < .001$), and physical attractiveness ($F = 4.62$, df = 1/304, $p < .032$). Subjects responded more positively to their partner in the similar conditions than in the dissimilar conditions on each of these seven variables. The only variable upon which similarity did not have a significant effect was interest in talking with the partner ($F = 1.37$, df = 1/304, $p < .242$).

**Physical Attractiveness Main Effects**

Physical attractiveness also had significant main effects upon seven variables in addition to the manipulation check (multivariate $F = 112.78$, df = 9/296, $p < .001$). Univariate $F$'s were significant beyond the .001 level with df = 1/304 on the following variables: liking ($F = 79.39$), working ($F = 130.79$), social rewards ($F = 84.77$), talk interest ($F = 29.62$), dating ($F = 276.34$), intelligence ($F = 14.31$), and perceived similarity ($F = 24.77$). Subjects responded more positively to their partner in the attractive conditions than in the unattractive conditions on each of these seven variables. The main effect for attractiveness upon implied liking did not reach significance ($F = 3.12$, df = 1/304, $p < .078$).

**Interactions**

For three variables, the main effects of similarity and attractiveness were qualified by the similarity x attractiveness interaction (multivariate $F = 3.08$, df = 9/296, $p < .002$). Significant univariate $F$'s for this interaction were found on liking ($F = 3.96$, df = 1/304, $p < .078$).

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1 The analyses of covariance performed in Insko et al. (1973) could not be legitimately computed here due to heterogeneity of regression.
p < .047), dating (F = 5.22, df = 1/304, p < .023), and perceived similarity (F = 8.16, df = 1/304, p < .005). The means for these variables are presented in Table 1. From the similar-dissimilar difference in the last line of Table 1, it can be seen that attitude similarity had a greater effect with an attractive partner than with an unattractive partner.

Similarity also interacted significantly with anticipated interaction (multivariate F = 2.00, df = 9/296, p < .039). Significant univariate F's for this interaction occurred for liking (F = 12.19, df = 1/304, p < .001), working (F = 4.80, df = 1/304, p < .029), and social rewards (F = 4.11, df = 1/304, p < .044). From the means in Table 2, it can be seen that the effect of similarity is greater in the no anticipated interaction conditions than in the anticipated interaction conditions. The similar-dissimilar difference is greater for no anticipated interaction than for anticipated interaction. The result is exactly opposite in direction to the exchange theory prediction.

There were no other significant main or interactive effects for the entire design.

DISCUSSION

Anticipated interaction appears to provide one of the few limiting cases for the basic similarity-attraction relationship discussed by Byrne and Nelson (1965). Although the reward-cost analysis did predict the significant interaction of anticipated interaction by

| TABLE 1 |
| Mean Scores on Liking, Dating, and Perceived Similarity for the Interaction of Similarity and Attractiveness |
|--------------------------------------------------|------------------|------------------|------------------|
| Similar | 5.94 | 4.82 | 5.21 | 2.47 | 5.55 | 4.59 |
| Dissimilar | 4.16 | 3.45 | 4.23 | 2.15 | 2.05 | 1.79 |
| Similar-Dissimilar Difference | 1.78 | 1.37 | .98 | .32 | 3.50 | 2.80 |

Note: Higher numbers indicate greater liking, dating interest, or perceived similarity on a 7-point scale.
Mean Scores on Liking, Working, and Social Rewards for the Interaction of Similarity and Anticipated Interaction

<table>
<thead>
<tr>
<th>Attitude Similarity</th>
<th>Liking</th>
<th>Working</th>
<th>Social Rewards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anticipated</td>
<td>No Anticipated</td>
<td>Anticipated</td>
</tr>
<tr>
<td>Similar</td>
<td>5.30</td>
<td>4.09</td>
<td>5.05</td>
</tr>
<tr>
<td>Dissimilar</td>
<td>4.09</td>
<td>3.53</td>
<td>4.69</td>
</tr>
<tr>
<td>Similar-Dissimilar</td>
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<td>1.93</td>
<td>.36</td>
</tr>
<tr>
<td>Difference</td>
<td>.36</td>
<td>.89</td>
<td>.44</td>
</tr>
</tbody>
</table>

Note: Higher numbers indicate greater liking, working interest, or anticipated social rewards on a 7-point scale.

attitude similarity, the pattern of means in the present data is the reverse of what was predicted. According to the anticipated-rewards-of-future-interaction interpretation, similarity should have a greater effect when a subject anticipates interacting with his partner than when he is explicitly told that he will not meet his partner. The present data (see Table 2) indicate just the opposite; that is, similarity has a greater effect upon liking the partner, desire to work with the partner, and rewards expected from social interaction with the partner when no future interaction with the partner is anticipated.

It appears that when a subject is presented with a partner whom he will be meeting shortly, he tends to “hedge his bets” in evaluating the partner. Subjects in the anticipated interaction conditions may refrain from passing judgment on the basis of attitudinal similarity given that they will soon have additional information regarding their partner’s feeling upon the same attitude issues. Furthermore, the possibility of any future interaction brings with it the potential for securing additional, nonattitudinal information about the partner. Subjects who are instructed that they are not going to meet their partners, however, possess all the information that they are ever going to get when the evaluations are requested by the experimenter. This interpretation is strengthened by the fact that in the Sutherland and Insko (1973) study, anticipated discussion of issues irrelevant to
the similarity manipulation did not decrease the magnitude of the similarity-attraction effect.

In addition to being concerned about the interactive effects of attitude similarity and anticipated interaction, previous investigators have also examined expected main effects of anticipated interaction. On the basis of Heider's (1958) balance theory, Berscheid and Walster (1969) argued that if one person anticipated an interaction with another, then a unit relation would be formed between the two. They reasoned further that this unit relation would produce a positive sentiment relation or, in other words, that one would have a tendency to like the other prior to any actual interaction. This hypothesis had been supported in an experiment conducted by Darley and Berscheid (1967), in which female subjects expressed more liking for the girl who was to be her future discussion partner than for the girl with whom no future interaction was anticipated.

Sutherland and Insko (1973), however, argued that the main effect of anticipated interaction found in Darley and Berscheid (1967) resulted from the particular topic of discussion (sexual standards) used in their experiment. Sutherland and Insko found a significant interaction between interestingness of the discussion topic and anticipated interaction upon interpersonal attraction. Anticipated future interaction had a greater effect for discussion of dating behavior than for discussion of study habits. In addition, and contrary to Berscheid and Walster (1969), the results indicated no effect for anticipated interaction upon attraction if the discussion were to be on an uninteresting topic (study habits).

In the present data there is a marginal main effect for anticipated interaction upon ratings of liking (F = 3.64, df = 1/304, p < .057), but the multivariate F does not reach a conventional level of significance (multivariate F = 1.27, df = 9/296, p < .255). The means do indicate, as Berscheid and Walster would predict, that subjects anticipating interaction (X = 4.69) rate their partners slightly higher on the liking measure than do subjects not anticipating an interaction (X = 4.50). It should be noted that these means are on a 7-point scale where the neutral point is anchored at 4. Thus, despite the large N, the main effect of anticipated interaction does not appear to represent a meaningful difference. It is likely that the present subjects did not look forward to the discussion of the routine issues with sufficient interest to generate a robust effect.

At this point we should briefly mention that the manipulation of the partner's physical attractiveness and the manipulation of anticipated evaluation by the partner did not appreciably affect the results
in terms of statistically interacting with anticipated interaction. Although the attitude similarity by physical attractiveness interaction for liking and dating has not appeared in other investigations, its presence here may result from this interaction’s effect upon perceived similarity. Because of the close connection between similarity and liking, we would expect that differences in perceived similarity would be reflected in the attraction ratings as well. The reason for the presence of the interaction for perceived similarity, however, remains unknown.

Finally, it should be noted that in terms of the type of anticipated interaction, the present experiment represents a middle ground between Sutherland and Insko (1973) and Johnson and Johnson (1972). The topic of the anticipated discussion in Sutherland and Insko was not related to the attitudinal similarity. There were no interactive effects between anticipated interaction and attitude similarity in that study. In the present experiment, the discussion topic was related to the attitude similarity, and there was a significant interaction of attitude similarity by anticipated interaction. Johnson and Johnson’s condition of anticipated interaction involved a “goal interdependent” situation in which subjects expected to interact with one another in a modified Prisoner’s Dilemma Game. Although Johnson and Johnson should have analyzed their data as an interaction rather than two main effects, the results seem reasonably clear. Their data indicate that attitude similarity did not have any effects when subjects expected to interact with their partners in a “goal interdependent” situation, but when no interaction was anticipated there was a significant effect of attitude similarity upon attraction. Thus none of these three experiments supported the anticipated-rewards-of-future-interaction interpretation of the similarity-attraction effect. This was true when the anticipated interaction was irrelevant to the similarity manipulation (Sutherland and Insko), when the anticipated interaction was relevant to the similarity manipulation (present study), and when the anticipated interaction was “goal interdependent” (Johnson and Johnson). This is not to say that reward-cost theory per se is not supported but rather that the anticipated rewards from future interaction interpretation appears inadequate. Although it is difficult to eliminate entirely a theoretical explanation, these studies go a long way in that direction. One further bit of negative evidence comes from Insko et al. (1973), who found that subjects who did not report that future interaction would be either rewarding or unrewarding showed just as strong a similarity-attraction effect as subjects who
did so report. From our perspective, at least, the negative evidence is overwhelming, and by implication the general balance, social comparison, and implied evaluation interpretations of the similarity-attraction effect take on added significance.

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