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AUTHOR Nesler, Mitchell S.; And Others  
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ABSTRACT

Research has demonstrated that attraction to a stranger is a function of the proportion of similar attitudes reported by that stranger. Traditional theories of attraction do not usually differentiate between respect or esteem for another and liking. This study used a 2 x 2 factorial experiment to test the hypothesis that the desire to work with someone does not necessarily imply liking. The similarity of another's attitudes to those of the subject (similar or dissimilar) and the major of a bogus potential partner (English or mathematics) were manipulated. Female undergraduates (N=39) were told that they would be paired with a partner to work together to solve complex mathematical problems. Attitudes of subjects were examined through the Interpersonal Judgement Scale (IJS), especially for two items: (1) how much a subject would like another person; and (2) how much he or she would want to work with that person. Subjects reported more liking for a potentially useful person (mathematics major), but did not indicate a greater desire to work with that person. The omnibus measure of liking obtained by summing the two items did not reflect the significant main effect obtained for major on the single liking item. These results were interpreted as due to social norms and may indicate a limitation on the standard way of measuring attraction.  
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The Effects of Attitude Similarity and Utility on  
Liking for a Stranger: Measurement of  
Attraction with the IJS

Mitchell S. Nesler      Dawn M. Storr  
& James T. Tedeschi

University at Albany

State University of New York

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## Similarity, Utility, and Attraction

### Abstract

An attraction experiment was conducted that placed subjects in a self-presentation predicament. Female subjects were given the option of working with a similar or dissimilar peer who could potentially help resolve this predicament. Potential partners with relevant expertise (who could therefore assist subjects out of their predicament) were rated as liked better than those who could not assist the subjects. However, this finding occurred only on the "liking" item of the Interpersonal Judgement Scale and did not appear on the "working with" item or the traditional composite measure. These results were interpreted as due to social norms and may indicate a limitation on the standard way of measuring attraction.

## Similarity, Utility, and Attraction

Similarity leads to attraction. Various researchers (e.g. Byrne, 1971) have repeatedly demonstrated that attraction to a stranger is a function of the proportion of similar attitudes reported by that stranger. There have been several explanations proposed for this phenomenon, including cognitive balance (Newcomb, 1961), implied liking (Aronson & Worchel, 1966), Byrne's reinforcement model (1971) and, most recently, repulsion (Rosenbaum, 1986).

Much of the research on the relations of similarity to liking has used the Interpersonal Judgement Scale (IJS) to measure degree of liking (Byrne, 1971). An overall measure of liking is determined by combining two of the items on the IJS. These items ask how much the subject would like another person and how much he or she would want to work with that person as indicated on seven point Likert-type scales. The ratings on the two items are simply added. An overall measure of liking can therefore range from a minimum score of 2 to a maximum score of 14. Byrne and Nelson (1965) reported that this combined measure had a corrected split half reliability of .85, suggesting that the two items measure the same factor or attribute.

Intuition suggests that there may be situations where liking and desiring to work with another would not be indicative of the same factor. For example, a person may be chosen to be on a team because of strong skills, but not be particularly liked. Respect and liking may often coincide, but there are also conditions where they may diverge. The research to be reported in the present paper was conducted to demonstrate that the two items measuring liking on the IJS cannot always be summed because they sometimes yield different results.

Traditional theories of attraction do not usually differentiate

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between respect or esteem for another and liking. However, French and Raven (1959) provided an analysis of bases of social power which included both expert and referent power. Expert power referred to the competence of a source of influence, while referent power referred to the degree of liking others had for the source. Subsequent research in the area of social influence has frequently distinguished between these two reactions toward a particular individual (cf. Tedeschi, 1972; Petty & Cacioppo, 1981).

The present study consisted of a 2 x 2 factorial experiment to test the hypothesis that the desire to work with someone does not necessarily imply liking. The similarity of another's attitudes to those of the subject (similar or dissimilar) and the major of a bogus potential partner (English or Math major) were manipulated. Subjects were told that they would be paired with a partner and that they would work together to solve some complex mathematical problems. We hypothesized that subjects would claim to want to work with a Math major more than an English major independent of the stranger's reported attitude similarity to the subject. There should of course be an effect of similarity on liking as measured by the combined two items on the IJS as most past research has indicated, but it is expected that an independent effect will occur on the item of desire to work with as a function of whether the person does or does not have relevant skills.

### Method

Subjects. Forty female undergraduates participated in an experiment entitled "Group Processes Experiment" for credit towards their introductory psychology course requirements. Subjects were randomly assigned to one of four conditions providing 10 subjects per cell. One subject was removed from the analysis because she did not complete all of the items on the IJS. This left 9 subjects in the similar-math condition and 10 subjects in each

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of the other three conditions.

Procedure. As many as four subjects signed up for an appointment at a time. Each subject arrived individually and was greeted by an experimenter who presented a cover story. The subjects were told that they would be participating in an experiment investigating person perception and its relation to group processes. The experimenter went on to explain that the objective of the study was to test how individuals in groups interact to solve problems. The problems were from the Minnesota Multiphasic Mathematical Abilities test. It was explained that the difficult math problems from this standardized test were used to predict success in many advanced academic areas in which logical thinking and mathematical skills were relevant.

The subject was told that the experimenter was waiting for several other subjects to arrive, was escorted to a room and asked to complete a twelve item attitude survey (see Byrne, 1971 for detailed description). The experimenter collected the attitude survey and then gave the subject a sample mathematical problem for the group task that she would be working on. The problem was a difficult one taken from the Graduate Record Examination (GRE).

Based on the subject's attitude survey, the experimenter created either a similar or dissimilar survey whose source was either a Math or an English major, thereby creating the four conditions of the experiment. The attitudes of the similar other were created to express attitudes that were 80% similar to the subjects; the attitudes of the dissimilar other were 20% similar to those expressed by the subjects.

The experimenter returned to the subject and presented the attitude survey explaining that it was from one of the other subjects who had

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arrived for the experiment. This attitude survey was from a potential partner to work with the subject in solving the math problems. The experimenter asked the subject to read through the other person's attitude survey and then based on the impression gained rate the other person on an Interpersonal Judgement Scale (IJS).

Once the IJS was completed the experiment was functionally over, but the subject was then paired with another actual subject who had just gone through the same procedure. The "team" was given five relatively easy problems from the Graduate Record Examination to solve. When finished, subjects were give credit for their participation. Debriefing was delayed so as to minimize any possibility that later subjects would know that they were not really there to work on problems through conversations with classmates. Promptly upon completion of the study, a debriefing was mailed to all participants.

## Results

The primary dependent variables in the experiment were the last two questions on the IJS. The questions referred to how much the subjects would like the bogus person and how much they would like to work with the other person. Traditionally, these measures have been combined to form a composite "Liking" index, but for the purposes of this study they were analyzed separately as well.

ANOVAs indicated that the effect of Similarity was found to be significant for all of these dependent variables: Liking,  $F(1, 35) = 141.38, p < .001$ , Working with,  $F(1, 35) = 18.75, p < .001$ , and the two combined,  $F(1, 35) = 82.08, p < .001$ . The means on all three measures were higher in the similarity than in the dissimilarity conditions (see Table 1).

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Insert Table 1 About Here  
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A significant main effect for Major was found,  $F(1, 35) = 5.18, p < .05$ , on the liking item. Subjects reported liking a Math major ( $M = 4.21$ ) more than an English major ( $M = 3.75$ ). Thus, another person with relevant expertise is liked more than another who is less likely to be helpful in a situation.

There was no effect of major on the "working with" item  $F(1, 35) = .03, p > .10$ , nor on the combined liking and working with items,  $F(1, 35) = 1.14, p > .10$ . The interaction of Major by Similarity was not significant for any of the three measures (all  $p$ 's  $> .10$ ).

The overall correlation coefficient of the liking and work with items was .64 collapsed across all conditions. The Spearman-Brown correction yielded a correlation coefficient of .78, which is slightly lower than the .85 corrected correlation coefficient reported by Byrne and Nelson (1965).

### Discussion

The results indicate that a combination of the liking and working with questions used by Byrne and others to form a composite liking index may not be appropriate across all situations. Subjects reported more liking for a potentially useful person, but did not indicate a greater desire to work with that person. The omnibus measure of liking obtained by summing the two items did not reflect the significant main effect obtained for major on the single liking item.

The methodological implication of these findings for future research which uses the IJS to measure attraction is that caution should be used in summing the liking and working with items to form a composite. Under some

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conditions the addition of the working with item may mask or reduce the sensitivity of the measurement of liking.

The prediction that subjects would report a significantly greater desire to work with the Math major was not supported. Instead, subjects claimed to like the Math major more than the English major. One possible explanation of this unexpected result can be offered in terms of recent findings suggesting that ratings of liking by subjects in experiments might be affected by self-presentational concerns.

Touhey (1974) conducted a simulation study in which subjects were asked to predict a male's attraction to another male (stranger) on the IJS. Subjects' predictions of the male's attraction to the stranger indicated a strong relationship between similarity and predicted liking. Subjects were then given what they were told were the actual ratings of liking by the stranger. Five conditions varied the amount of reported liking of the stranger by the male. Subjects were asked to ascribe traits to the male and rate their own attraction to him on the IJS. Subjects' attraction to the male was directly related to the extent to which the male reproduced the outcomes predicted by Byrne's (1971) theory. The traits assigned to subjects followed a comparable pattern.

These results imply that a laboratory situation in which a similar or dissimilar stranger is provided for evaluation by subjects is perceived as containing cues about which kinds of evaluations will present the most positive social identity to the experimenter. The expectation is that people who are more similar to one another will indicate more liking, and when people act according to such a rule, they are perceived as more attractive.

Jellison & Oliver (1983) claimed that there is a similarity-

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attraction norm and disapproval may follow deviation from that norm. Subjects know how they and others are expected to respond when asked to rate a person about whom they know only that they share similar or dissimilar attitudes.

Jellison and Oliver (1983) attempted to demonstrate that there is a similarity-attraction norm and that subjects adjust their behavior using the similarity norm to create a desired impression. Subjects were presented with either a similar or dissimilar other and were told to either create a positive or a negative impression. When told to create a positive impression, subjects reported significantly greater liking for the similar other than the dissimilar other. When told to create a negative impression, subjects communicated significantly more attraction to the dissimilar other than the similar other. The authors concluded that the similarity-attraction relationship frequently demonstrated between strangers in laboratory situations may be the result of impression management efforts. If it is normative to be attracted to similar others, subjects may claim to be attracted to similar others to conform to the social rule.

If there is a similarity norm, and more research would be needed to establish that there is, there may also be an utility norm. There are situations in which people can be of particular use in helping us to achieve relevant goals. One such goal would be to succeed at a task and to create a positive identity for an important audience. Evaluation of another person who has skills that would contribute to goal achievement might be affected by knowledge that he or she would see the recommendation. Subjects in the present experiment claimed to like rather than want to work with another subject with relevant expertise. This

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result may be explained in terms of the self presentation tactic of ingratiation.

Jones (1964) has shown that persons engage in tactics of ingratiation to induce others to like them. Ingratiation is motivated by a desire to obtain some short-term gain from the other and is based on the belief that the other will be apt to provide what is needed if he or she likes the actor. One tactic of ingratiation that may be related to the present findings is the expression of liking and admiration for the other person.

Ingratiators must take care that their tactic is not evident to others. While success can bring benefits, if the ingratiation is not disguised others will disapprove of the actor. Jones, Jones and Gergen (1963) found that when given strong incentives to do so, persons were judged most attractive when they resisted pressures to ingratiate, and rated most negatively when ingratiating under these same strong incentive conditions.

The ingratiator's dilemma refers to the fact that as dependency or the need for ingratiation increases, it is more likely to be seen as manipulative. In the present study subjects may have recognized that to be effective ingratiators the target must not perceive their ratings as attempts at manipulation. If subjects had indicated a desire to work with the math major, but not to like her, they might be seen as trying to exploit the math major for her expertise. If the subjects indicated strong liking for and a desire to work with the math major, they might be perceived as ingratiating. But, if subjects claimed to like the math major, but claimed no additional or special interest in working with her, then they would be less apt to be perceived as ingratiating.

A second and simpler explanation could also be offered for the

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disparity of effects of utility on the liking and work with items of the IJS. Perhaps subjects expect that they should express more liking for someone who has the potential to help them than for someone who is less apt to have utility. If so, the utility-liking association is clearly weaker than the similarity-liking association found by Toughey (1974).

### Conclusions

The major conclusion of this study is that researchers should be cautious in combining items from the IJS to form an overall measure of attraction. Under some conditions this composite measure might not reflect the effects of independent variable manipulations that would affect the separate items. It is not clear what is gained by summing the two items, but loss of sensitivity to conditions that affect them in different ways is not desirable.

The results reported in this study clearly supported the similarity-attraction rule. Subjects reported liking similar others more than dissimilar others whether measured by both IJS items or by separate analysis. Any of the competing theories of attraction can explain this similarity effect, as well as a self presentational interpretation.

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Table 1.

Means for Individual "Liking and "Work With" Items and the Omnibus Measure Combining the Two for the Similar and Dissimilar Conditions.

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Condition	N	Liking	Working with	Combined
Similar				
Math	9	5.9	5.0	10.9
English	10	5.0	5.3	10.3
Dissimilar				
Math	10	2.7	3.9	6.6
English	10	2.5	3.7	6.2
Total	39	4.0	4.5	8.5

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Note: High numbers indicate a more positive response