

Attraction, test anxiety, and similarity-dissimilarity of test performance¹

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Eighty students were administered the Mandler-Sarason Test Anxiety Questionnaire and a specially constructed vocabulary test. Later they studied the vocabulary responses of a stranger that were similar to the S's on 17, or 83%, of the 24 words. With objective cues to the correctness of his own response minimized by the difficulty of the items, the similarity or dissimilarity of the stranger's response was the only evidence the S had of his own competence. Consequently, those who responded similarly were liked more than those responding dissimilarly ($p < .001$). This finding extends the generality of the similarity-attraction relationship to similarity and dissimilarity of ability. Unexpectedly, test anxiety attenuated the effect of similarity of ability on liking ($p = .05$) and of dissimilarity on disliking ($p < .02$). In addition, anxiety had the same influence on other judgments of the stranger, including his intelligence. An explanation of these effects stressed the test-anxious S's tendency to devalue his own performance as a standard for judging the stranger on such dimensions as his attractiveness or intelligence.

In 1954, Festinger proposed that people were characterized by a drive to evaluate their opinions and abilities. He suggested that, without relevant physical evidence, a person will make social comparisons to evaluate himself, and that he will like similar others because their similarity indicates that his own opinions and level of ability are appropriate. Also, Clore & Byrne (in press) have suggested that any similarity leads to liking when it provides the subject with evidence of his competence in dealing with his environment. In recent years, the effects of opinion similarity have been repeatedly studied, and the notion of social comparison has been called on for many explanatory chores. However, the effects of similarity and dissimilarity of ability have received little research attention.

Previously, Sander & Havelin (1960) studied three-man groups that were made to appear capable, mediocre, or incapable in putting together a puzzle. They found a similarity effect, but similarity was confounded with group membership

because similar strangers were always in the S's own trio and dissimilar strangers were always in other trios. In the present study, an individual rather than a group task was used, and cues to the objective goodness of performance were minimized by the extreme difficulty of the task. Similarity and dissimilarity of performance on a vocabulary test was manipulated under controlled conditions to determine the effects on interpersonal attraction. It was expected that the perception of similar test responses made by another S would be attraction producing, while exposure to dissimilar responses would produce dislike.

A second goal of this research was to study the role of a motivational variable in the similarity-attraction relationship. On the basis of a suggestion by Sarason (1960) that highly anxious individuals are more sensitive to reinforcements than nonanxious individuals, test anxiety was expected to interact with performance similarity to produce attraction. Specifically, it was predicted that anxiety would be positively related to attraction toward similar strangers and negatively related to attraction toward dissimilar strangers.

METHOD

Eighty introductory psychology Ss came in groups of 20 to evening sessions. The procedure began with the administration of the test anxiety measure, followed by a specially constructed vocabulary test and a filler task. Finally, Ss made a series of interpersonal judgments about a bogus stranger who had responded similarly or dissimilarly on the vocabulary test. Each cell of the 2 by 2 design (Similarity by Anxiety) was equally divided by sex.

The anxiety measure was the group intelligence test and course examination sections of the Mandler-Sarason (1952) Test Anxiety Questionnaire (TAQ). To control for interitem halo effects, each item was presented on a screen for 20 sec, with 5 sec between items. As the experiment proceeded, the TAQs were scored in an adjoining room (high anxiety

= 118 and above, low anxiety = below 118).

The Verbal Competence Test consists of 24 forced-choice word-definition items. They were selected for maximal difficulty from an initial pool of 65 items, having been defined correctly by less than 50% of a pilot sample. Two alternative definitions for each word were chosen from four original alternatives to be equally likely choices. Some sample items are: HIRSUTE, (A) hateful, (B) hairy; LISSOM, (A) slim, (B) limber. Instructions emphasized the necessity of a good command of the English language for success in college. To occupy the Ss while the vocabulary responses of the bogus strangers were faked, a filler task was administered consisting of writing stories to four TAT slides projected for 5 min each.

The attraction portion of the experiment followed the Byrne (1961) procedure. Ss saw the faked test responses of another S that were similar on 17% or 83% of the items. They rated the stranger on the Interpersonal Judgment Scale altered to be face valid for this situation. Two of the items in this scale comprise a 2-to 14-point scale of attraction.

RESULTS

Table 1 shows the means and standard deviations of the attraction scores. An analysis of variance showed, as hypothesized, that strangers who performed similarly were liked more than were dissimilar strangers ($p < .001$). Neither anxiety nor the interaction was significant, although the interaction approached significance. A correlational analysis showed that test anxiety was negatively correlated with attraction toward similar strangers, $-.29$ ($p = .05$), and positively correlated with attraction toward dissimilar others, $.37$ ($p < .02$). Thus, contrary to predictions, anxiety dampened rather than intensified the relationship between performance similarity and attraction.

Further analyses of variance indicated that similar strangers were also rated more intelligent than those who were dissimilar ($p < .001$), and again anxiety tended to restrict this phenomenon ($p < .05$).

DISCUSSION

Within the methodological limitations of

Table 1
Means and Standard Deviations of Attraction Scores

	Proportion of Similar Responses					
	.17		.83		Total	
	M	SD	M	SD	M	SD
High Anxiety	8.60	1.77	10.10	2.00	9.35	2.03
Low Anxiety	8.00	2.38	11.10	1.07	9.55	2.41
Total	8.30	2.12	10.60	1.68		

this experiment, the findings allow two conclusions to be drawn. First, on an ambiguous ability task, strangers responding similarly are seen as both more attractive and more intelligent by a person than strangers responding unlike him. These effects suggest that, at least when similarity of ability enhances the person's apparent competence, similarly able others are liked more than dissimilar others. Second, one source of variance in interpersonal judgments of similarly and dissimilarly responding others is the person's habitual anxiety about the quality of his own performance on tests. With increasing test anxiety, people make more tentative ratings of the stranger.

An alternate interpretation of the similarity effect is possible. Assuming they knew they had done well, the most capable Ss may have liked the similar stranger merely because he did well rather than because he was similar, as such. Likewise, they may have disliked the dissimilar stranger merely because he did poorly. However, correlations between attraction ratings and vocabulary test scores show that Ss doing well on the test were no more prone than others to like similar ($r = .07$) or dislike dissimilar strangers ($r = -.18$). These low correlations indicate that the similarity effect was not dependent on how well S did.

An ability interpretation is also possible for the anxiety effect. The vocabulary test was constructed to eliminate objective cues to correctness, so the only clue to the quality of the stranger's performance was his agreement with the S's own responses. Since test-anxious Ss have a low opinion of their own ability, it follows that similar others would appear incompetent and dissimilar others would appear more competent. Indeed, when intelligence ratings were analyzed, a significant interaction between anxiety and intelligence established just this pattern. However, the correlations between anxiety and intelligence (similarity, $-.16$; dissimilarity, $.39$) are no greater than those between anxiety and the other judgment items (knowledge of current events, $-.27$, $.39$; independent thinking $-.23$, $.22$; conversational ability, $-.36$, $.36$; and attraction, $-.29$, $.37$). Also, the correlation of attraction with intelligence is of the same order as the correlations between attraction and the other items, indicating that perceived ability or intelligence did not play a special role in determining attraction. Since all of the Judgment Scale items showed the same restrictive effects of anxiety, it appears that test-anxious Ss place less confidence in their ability to make any accurate judgments about

another person, especially when their own fallible responses serve as the standard.

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NOTE

1. The data were reported in an MA thesis by Pamela Reagor. Rosemarie Abendroth, David Doty, Jenifer Hokman Doty, Karl Joneitz, David Schickendanz, and Barbara Stacy helped conduct the experiment. This report was supported by Research Grant MH-14510 from the National Institute of Mental Health, United States Public Health Service.

Individual differences in subjective organization: short-term memory¹

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An experiment was conducted to determine whether the individual differences in subjective organization that appear during free-recall memorization are due to individual differences in short-term memory or to individual differences in the ability to form and maintain interitem associations as had been suggested by Earhard (1967) and Earhard & Endicott (1969). Ss preselected as high and low subjective organizers, according to their

performance during free recall, were tested for short-term memory by the task introduced by Peterson & Peterson (1959). The results indicated that high and low subjective organizers do not differ in short-term memory. These results were discussed in terms of the dichotomy between short-term and long-term memory processes.

Earhard (1967) and Earhard & Endicott (1969) have reported the results of two pairs of experiments designed to determine the processes that allow individuals who