

## THE EFFECTS OF PERCEIVED AND ACTUAL SIMILARITY IN VALUES AND PERSONALITY IN THE PROCESS OF INTERPERSONAL ATTRACTION

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### ABSTRACT

The effects of perceived and actual similarity in personality and values were examined in a five-wave longitudinal panel study. The study featured six eight-person natural living groups of initial strangers in a residence hall setting. Although actual value similarity caused perceived value similarity and both caused attraction as generally predicted by Newcomb's AB-X model, no consistent pattern of relationships was found for personality similarity and attraction. Non-obvious differences between these two types of similarity were then discussed. The magnitude of the effects of the value and personality similarity on the attractions formed in the natural setting were not nearly as pronounced as those reported by Byrne and his associates in their laboratory studies. Differences between the laboratory and the natural setting were then discussed to explain these diminished effects.

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### 1. Introduction

The effect of similarity in values and personality on interpersonal attraction has been studied on numerous occasions over the last several decades. Unfortunately, none of the past investigators has provided data that allows for the direct comparison of the relative effects of these two types of similarity on the process of interpersonal attraction as it occurs in "natural" settings. Such comparisons are important and necessary to make for the following reasons. First, one's values and one's personality seem generically similar. Past investigators, however, have usually found that value similarity is a more potent variable in the attraction process (Berscheid and Walster, 1969). But since these results have been drawn from separate studies and subject populations, actual comparisons are made difficult. If it can be shown that the two types of

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similarity have differential effects on interpersonal attraction as it occurs in natural settings within a given subject population, then some important insights may be gained as to the non-obvious generic differences between these two variables.

Second, it is important to examine the magnitude of the effects of both personality and value similarity in a natural setting because both types of similarity have been shown to have potent effects in the laboratory. Indeed, with the recent publication of Byrne's *The Attraction Paradigm* (1971), it is clear that manipulation of either personality similarity or value similarity will produce predictable changes in attraction scores in the laboratory. Moreover, since both actual value similarity and actual personality similarity offer the potential of predicting who will like whom in a group of strangers before interaction begins (Davis, 1963; 1968), they both offer a psychologically based explanation of group structure. Indeed, with the ready availability of a computer to match persons according to their actual similarity, the technology of the manipulation of attractions on a mass basis is feasible — *if it can be shown that value or personality similarity has as potent effects in the natural setting as it does in the laboratory.*

The third reason for undertaking these comparisons is to examine the relationship between: (1) perceived and actual similarity, and (2) both of these to attraction itself. Separate theoretical rationales currently exist that specify different relationships between perceived similarity and actual similarity for both the value and personality variables. These statements have never been tested conjointly with data gathered from one group of subjects. Such a test not only allows for the examination of the validity of each rationale separately, but also provides for the comparison of different processes of change. The rationales which specify these different processes of change will be only briefly described in the following paragraphs, since their complete exposition is readily available.

## 2. Theory

Most of the major approaches to interpersonal attraction have incorporated the variables of value and personality similarity. As an example of how these variables can be linked theoretically with attraction, we will discuss Newcomb's (1953, 1956, 1961) AB—X model of cognitive balance and the Byrne—Clore reinforcement model of attraction (Byrne, 1971; Byrne and Clore, 1970).

Newcomb's AB—X model of cognitive balance is a three-variable system in which each variable is a joint function of the other two. For

example, if A perceives attitudinal agreement with B concerning X, then the probability of his attraction toward B is increased. Similarly, given attraction toward B, if A perceives B as liking X, then A is subject to psychic strain toward liking X himself. If A likes both B and X, then A is prone to perceive B as liking X also. In order for this system to be operative, however, certain conditions must be met: (1) "X" must be mutually relevant to both A and B, (2) A and B must hold fairly intense feelings toward "X", and (3) these feelings should be communicated or decipherable from A and B's behavior.

Applying the AB-X model to the case of value similarity as "X" and A's attraction to B as the *dependent* variable results in the following set of relationships: *Actual* similarity in values will generally lead to *perceived* similarity in values (via the communication process) and thus to *attraction*. During initial acquaintance, of course, perceptions of similarity may be distorted by feelings of attraction, but the predicted eventual correspondence between actual values, perceived values, and attraction must come about through the causal process specified above if actual value similarity is to function as a predictor of interpersonal attraction.

Applying the AB-X model with personality similarity as "X" and A's attraction to B as the *dependent* variable results in the same sequence of relationships: *Actual* personality similarity should lead to *perceived* personality similarity and thus to *attraction*. Again, however, it should be stressed that the AB-X model is a three-variable system. If the above sequence does not occur in a given application of the theory this does not necessarily mean that the theory is false. Rather, it could mean that attraction itself is not the dependent variable. Consequently, the above sequence is only of paramount importance if actual personality similarity is to be used as a prediction of eventual interpersonal attraction.

The Byrne-Clore reinforcement model of attraction holds that an individual's attraction toward another person, "X," is a "positive linear function of the sum of the weighted positive reinforcements (Number X Magnitude) associated with X divided by the total number of weighted positive and negative reinforcements associated with X" (Byrne, 1971). Byrne and his students have consistently found that various types of similarity act as reinforcing stimuli in the laboratory, and that when the influence of outside variables is controlled, similarity itself is sufficient to produce the hypothesized linear effect on attraction. For example, both value similarity and personality similarity have been shown to produce attraction to a stranger (both are usually manipulated by a set of bogus questionnaire items concerning a stranger's

supposed responses to a personality or value test that the subject has also taken).

Within this particular theoretical framework, and of particular interest, is Byrne and Griffitt's (1969) work on the question of "awareness." They found that the predicted response to "personality similarity does not seem to require the accurate perception of similarity" (Byrne, 1971). Unlike the Newcomb AB-X model, then, "perceived similarity does not serve as a primary mediating factor but is simply another response variable which is in part determined by the external stimulus conditions" (Byrne, 1971).<sup>1</sup>

Byrne does not claim that his laboratory findings regarding personality or value similarity are immediately generalizable to natural settings, or that his findings can be replicated in these settings without imposing so many controls that, in fact, the laboratory environment would be recreated. And like the Newcomb AB-X cognitive balance model, the Byrne-Clore reinforcement model of attraction does not depend solely on value or personality similarity – it is a much more general statement that should apply to whatever stimuli the person in question does find reinforcing.

Consequently, our objectives regarding the Byrne-Clore model of attraction are limited to examining: (1) whether or not personality or value similarity appears to be operating as a powerful source of reinforcement in the field, and (2) whether or not the perceived similarity operates as a mediating variable (à la Newcomb) or independently from actual similarity as suggested by Byrne and Griffitt.

### 3. Method

#### *The Data*

The data for our study were originally gathered in 1967 by Curry and Emerson (1970) in their replication of Theodore Newcomb's (1961) *The Acquaintance Process*. The original analysis was structured to provide tests and comparisons between both Newcomb's (1956) and Chambliss' (1965) approaches to interpersonal attraction. Consequently, it dealt mostly with perceptions, and did not provide the types of comparisons needed to examine the above issues. But since a full description of the methodology employed in gathering the data was given in the original article, only a brief description will be provided here.

## *The Design*

In the Curry and Emerson study the attractions of college resident hall students living in nine eight-person “clusters” were examined over an eight week period. Each of these clusters was a separate living unit, containing four two-person rooms, a common living room, bath and balcony. All of the subjects were initial strangers to one another and to the university being either transfer students from other institutions or new graduate students. They were assigned to their rooms and clusters on the basis of smoking and studying habits, as well as by their major (every cluster contained a mixture of three or more majors). The general attempt was to keep the clusters homogeneous, especially in terms of age and class standings (and sex). Six of the nine clusters (four male, two female) were designed as “experimental” clusters, the other three were the “control” clusters. The “experimental” clusters received questionnaires containing the measures described below five times overall, after one, two, four, six, and eight weeks of living together. The “control” clusters received the questionnaires only at weeks one and eight. In this report we analyze only the data from the “experimental” clusters.

## *The Measures*

The questionnaire was designed to measure an individual's values, a few of his personality traits, and his attractions to his cluster-mates. An individual's *values* were measured by a slightly modified version of the *Spranger Value* test that Newcomb (1961) employed. This instrument involves sentences which describe general value orientations, such as “political: interested primarily in power and influence; leadership and competition are key words descriptive of such interests.” In addition to Political, the other six value areas in the scale were Theoretical, Economics, Aesthetic, Social, Religion, and Physical-athletic. The subject was asked to first rank-order the set of seven Spranger values for himself and then for each of his fellow cluster-members. From these sets of rankings we can measure *actual* value agreement and *perceived* value agreement.

An individual's *personality* was measured by an abbreviated form of Allen J. Edwards' Personal Preference Schedule (1953). This was an abbreviated form of the same device employed by Izard (1960a, b, 1963) in his studies of personality similarity and attraction. Our abbreviated form of the Edwards' instrument did not, however, provide a personality profile of each subject. Instead, nine forced-choice items – 18 statements altogether – were selected which covered among them-

selves the fifteen dimensions of personality treated in Edwards' instrument. The subject was asked to select one item of each pair that was most descriptive of himself. Then he was asked to indicate which items he believed each of the other persons in the cluster would indicate as being characteristic of himself. From these sets of nine choices, we can measure an individual's *perceived* similarity (did A perceive that B rated himself in the same fashion as A rated himself), and his *actual* similarity of personality with each of his clustermates. A third measure was the attraction rating, again nearly identical to Newcomb's (1961). The subject was first asked to give each of his clustermates from 0 to 100 points based on his degree of liking toward them. (No ties were allowed.) From these sets of scores we can measure *actual* attraction as a dependent variable.

### *The Correlations*

In the present report, we will not show the results for each cluster separately, but will pool the scores for all six clusters. However, in reporting the correlations among variables we will subtract out the effect of cluster itself. We do this because an analysis of variance performed on the variables in this study indicated, almost without exception, that the factor of cluster is significant for every variable at each time point (generally, cluster accounted for 10% of the variance of the dependent variables). Given this consistent effect of cluster, the correlations among variables could be artifactually inflated or deflated.

We shall present some of our results in a series of  $5 \times 5$  matrices containing the correlations of two variables measured at the five different weeks. The correlations on the major descending diagonal are called *synchronous* correlations (i.e., the variables are measured at the same time) and the off-diagonal correlations are called cross-lagged correlations. We will use the technique of Cross-lagged Panel Correlations (Campbell, 1963) to reveal causal relationships. The method involves the comparison of corresponding off-diagonal elements (i.e., ten comparisons for a  $5 \times 5$  matrix). If the comparisons reveal a consistent pattern, then a causal inference is suggested. This technique is in no sense proof of a causal relationship and numerous assumptions must be made (Kenny, forthcoming). The *absence* of cross-lagged asymmetry indicates either: (1) feedback loops, (2) instantaneous causation, or (3) most probably that an unmeasured third variable is a cause of both measured variables.

The  $N$  of each of the statistics to be discussed is 336. These responses are not all independent of each other, however. Rather each individual

contributes *seven* responses – one rating for each of his clustermates. Since there are eight persons per cluster, this gives us 56 responses per cluster, or 336 total responses. But since independence of events does not prevail, significance tests are inappropriate. Consequently, we will follow the same procedure as in the original report, and only measure the strength of the relationship, allowing the reader to judge for himself the probability of the “chance” occurrence of these results.

#### 4. Results

##### *Trends in Actual and Perceived Similarity Over Time*

Figure 1 presents the overall comparisons between actual and perceived similarity of values and personality through the eight week period of acquaintance. The value similarity measure was obtained by taking the mean of all the dyads’ similarity as measured by Spearman’s Rho at each point in time. The personality similarity measures were obtained by transforming the number ( $n$ ) of agreements for each dyad, which ranges from 0 to 9, to  $(n - 4.5)/4.5$ , and then taking the mean of all the dyads at each point in time. Thus, both measures are comparable, in that they both range from  $-1$  to  $+1$ .

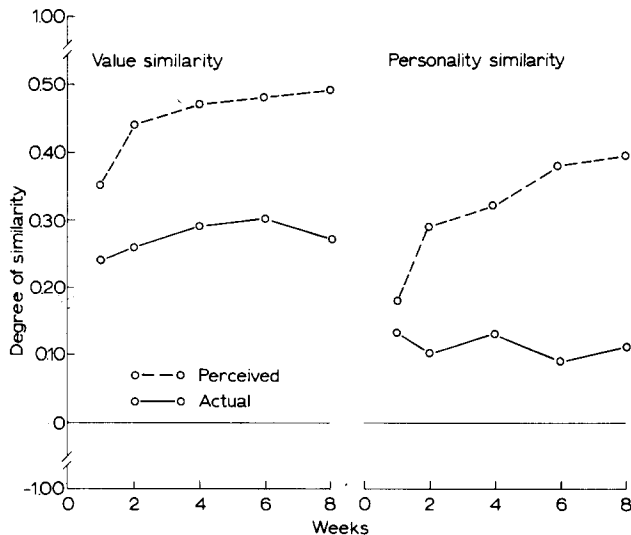


Fig. 1. Degree of actual and perceived similarity in values and personality through eight weeks of acquaintance.

As Figure 1 indicates, the general relationship between actual and perceived similarity in values and personality is quite similar. For each of these variables: (1) there are always greater amounts of perceived than actual similarity; (2) there is a greater increase in perceived than in actual similarity as interaction proceeds; and (3) persons are initially more accurate in their perceptions of similarity than they are as acquaintance proceeds. This over-perception of similarity has been noted in several studies (Berscheid and Walster, 1969) and probably reflects a presumption of similarity by individuals who already are similar on many other dimensions (Miller *et al.*, 1966). What is important here is that this over-perception of similarity applies to both of our variables to a comparable extent.

### *Causal Patterns Between Perceived and Actual Similarity*

Table I presents two  $5 \times 5$  matrices that indicate the cross-lagged panel correlations of perceived and actual value similarity and perceived and actual personality similarity. Of the two, the matrix of perceived and actual value similarity contains the clearest evidence of a systematic causal relationship. As Newcomb's AB-X model claims, actual value similarity does cause perceived value similarity. The same cannot be said for the relationship between perceived and actual personality similarity. If anything, the cross-lagged correlation suggests that perceived personality similarity causes actual personality similarity. Given the generally low correlations in the matrix and their lack of perfect consistency the above conclusions should be guarded, of course. Even so, the implication is that the relationship between actual and perceived value similarity is unlike the relationship between actual and perceived personality similarity.

Further evidence of a difference between these two variables is derived from an examination of their reliabilities.<sup>2</sup> The estimated reliabilities of actual value similarity are very high, ranging from 0.950 to 0.865. The stability of the measure is also very high, correlating 0.711 from Week One to Week Eight. The estimates for the reliability of actual personality similarity are much lower, the average being 0.644. This suggests that the personality items are either all generally applicable to the subjects, and thus forced choice between the items are subject to random fluctuations, or that the subjects may be influenced by a fluctuating "looking glass" assessment of themselves regarding these nine items.<sup>3</sup>

Figure 2 presents the synchronous correlations between attraction and perceived and actual value and personality similarity. The most



**TABLE I**  
**Intercorrelation Matrices of Actual and Perceived Similarity in Values and Personality**

| Perceived<br>value similarity | Actual<br>personality similarity |       |       |       |       |       |       |       |
|-------------------------------|----------------------------------|-------|-------|-------|-------|-------|-------|-------|
|                               | 1                                |       | 2     |       | 4     |       | 8     |       |
| Actual<br>value<br>similarity | 1                                | 0.262 | 0.339 | 0.308 | 0.321 | 0.328 | 0.328 | 0.351 |
|                               | 2                                | 0.188 | 0.296 | 0.331 | 0.343 | 0.369 | 0.369 | 0.359 |
|                               | 4                                | 0.255 | 0.278 | 0.390 | 0.377 | 0.376 | 0.379 | 0.351 |
|                               | 6                                | 0.187 | 0.282 | 0.363 | 0.379 | 0.359 | 0.328 | 0.351 |
|                               | 8                                | 0.161 | 0.253 | 0.328 | 0.328 | 0.351 | 0.328 | 0.351 |
|                               | WEEK                             | 1     | 2     | 4     | 6     | 8     | WEEK  | 1     |
|                               |                                  |       |       |       |       |       |       | 2     |
|                               |                                  |       |       |       |       |       |       | 4     |
|                               |                                  |       |       |       |       |       |       | 6     |
|                               |                                  |       |       |       |       |       |       | 8     |
|                               |                                  |       |       |       |       |       |       | 0.149 |
|                               |                                  |       |       |       |       |       |       | 0.067 |
|                               |                                  |       |       |       |       |       |       | 0.076 |
|                               |                                  |       |       |       |       |       |       | 0.059 |
|                               |                                  |       |       |       |       |       |       | 0.028 |
|                               |                                  |       |       |       |       |       |       | 0.055 |
|                               |                                  |       |       |       |       |       |       | 0.208 |
|                               |                                  |       |       |       |       |       |       | 0.145 |
|                               |                                  |       |       |       |       |       |       | 0.128 |
|                               |                                  |       |       |       |       |       |       | 0.137 |
|                               |                                  |       |       |       |       |       |       | 0.229 |
|                               |                                  |       |       |       |       |       |       | 0.179 |
|                               |                                  |       |       |       |       |       |       | 0.257 |
|                               |                                  |       |       |       |       |       |       | 0.255 |
|                               |                                  |       |       |       |       |       |       | 0.261 |
|                               |                                  |       |       |       |       |       |       | 0.221 |
|                               |                                  |       |       |       |       |       |       | 0.287 |
|                               |                                  |       |       |       |       |       |       | 0.186 |
|                               |                                  |       |       |       |       |       |       | 0.214 |
|                               |                                  |       |       |       |       |       |       | 0.236 |
|                               |                                  |       |       |       |       |       |       | 0.193 |
|                               |                                  |       |       |       |       |       |       | 0.282 |

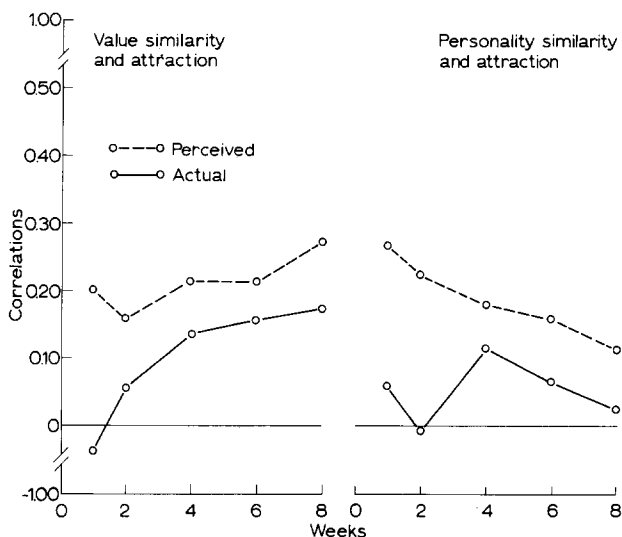


Fig. 2. Synchronous correlations between attraction and perceived and actual value and personality similarity during eight weeks of acquaintance.

striking information presented in the chart is that while perceived and actual value similarity tend to show an increasing degree of correlation with attraction, perceived and actual personality similarity both show a generally decreasing correlation with attraction! It is also clear that for both types of similarity, perceived similarity always correlates higher with attraction than does actual similarity.

Most importantly, the trends for value similarity variables are generally as predicted by Newcomb. The synchronous correlation between actual value similarity and attraction are initially low (negative in fact) but consistently increase as acquaintance proceeds, while the synchronous correlations between perceived value similarity and attraction are more constant. The synchronous correlations for the personality similarity itself (at least as we measured it) is not as readily interpretable in AB-X terms.

#### *Causal Patterns Between Actual and Perceived Similarity and Attraction*

Table II presents the cross-lagged panel correlations of actual and perceived similarity in values and personality with attraction. Starting with value similarity, the cross-lagged correlations suggest that both actual and perceived value similarity cause change in the attraction scores. Comparing the two matrices suggests further that it is *perceived* similarity more than actual similarity that has the greatest influence on attraction early in the acquaintance process, but that actual similarity

TABLE II  
Intercorrelation Matrices of Actual and Perceived Similarity in Values and Personality with Attraction

| Value similarity                      |  | Personality similarity                        |       |       |       |       |                         |      |        |        |       |       |   |
|---------------------------------------|--|---|-------|-------|-------|-------|-------------------------|------|--------|--------|-------|-------|---|
| A's actual value similarity           |  | 1   | 2     | 4     | 6     | 8     | 1                       | 2    | 4      | 6      | 8     |       |   |
|                                       |  | -0.036  | 0.095 | 0.166 | 0.163 | 0.179 | A's attraction toward B | 1    | 0.060  | 0.049  | 0.160 | 0.126 |   |
|                                       |  | -0.064  | 0.055 | 0.137 | 0.136 | 0.168 |                         | 2    | 0.027  | -0.012 | 0.156 | 0.086 |   |
|                                       |  | 0.001   | 0.088 | 0.134 | 0.139 | 0.142 |                         | 4    | -0.026 | -0.015 | 0.115 | 0.077 |   |
|                                       |  | -0.010  | 0.076 | 0.145 | 0.153 | 0.185 |                         | 6    | -0.027 | -0.026 | 0.082 | 0.065 |   |
|                                       |  | -0.004  | 0.062 | 0.115 | 0.138 | 0.172 |                         | 8    | -0.033 | -0.005 | 0.119 | 0.051 |   |
|                                       |  | WEEK  | 1     | 2     | 4     | 6     | 8                       | WEEK | 1      | 2      | 4     | 6     | 8 |
| A's attraction toward B               |  | Actual personality similarity between A and B |       |       |       |       |                         |      |        |        |       |       |   |
| A's perceived value similarity with B |  | 1   | 2     | 4     | 6     | 8     | 1                       | 2    | 4      | 6      | 8     |       |   |
|                                       |  | 0.201   | 0.137 | 0.165 | 0.155 | 0.180 | A's attraction toward B | 1    | 0.264  | 0.220  | 0.147 | 0.161 |   |
|                                       |  | 0.052   | 0.161 | 0.178 | 0.216 | 0.251 |                         | 2    | 0.183  | 0.222  | 0.179 | 0.143 |   |
|                                       |  | 0.037   | 0.159 | 0.214 | 0.269 | 0.255 |                         | 4    | 0.135  | 0.128  | 0.180 | 0.111 |   |
|                                       |  | -0.041  | 0.045 | 0.124 | 0.213 | 0.164 |                         | 6    | 0.096  | 0.118  | 0.202 | 0.161 |   |
|                                       |  | 0.027   | 0.134 | 0.179 | 0.263 | 0.271 |                         | 8    | 0.139  | 0.150  | 0.174 | 0.191 |   |
|                                       |  | WEEK  | 1     | 2     | 4     | 6     | 8                       | WEEK | 1      | 2      | 4     | 6     | 8 |
| A's attraction toward B               |  | A's perceived personality similarity with B   |       |       |       |       |                         |      |        |        |       |       |   |

does appear to become increasingly important late in the acquaintance process.

Turning now to personality similarity, we find that on the whole correlations between attraction and actual personality similarity are near zero. In general, then, we can say that actual personality similarity is not correlated with attraction, at least given the present measures and subjects.<sup>4</sup> Next we note that although the correlations between attraction and perceived personality similarity are somewhat higher, there is no consistent pattern of causality. What pattern there is suggests that attraction may be causing perceived personality similarity early in the acquaintance process, with the relationship reversing as acquaintance proceeds. But since the synchronous correlations themselves are declining, even this tentative assertion must be treated with considerable caution.

### *The Strength of the Relationships*

Up to this point we have primarily attempted to examine the variables in question in regard to the sequential patterns of their relationships. Now we turn our attention to the strength of their relationships as measured by the largest, squared synchronous correlation ( $R^2$ ). We note that the largest, synchronous  $R^2$  between each of the two types of perceived and actual similarity is 0.15 for actual and perceived value similarity and 0.08 for actual and perceived personality similarity. Next we note that the highest obtained  $R^2$  values between these variables and attractions were: 0.03 for actual value similarity; 0.07 for perceived value similarity; 0.01 for actual personality similarity; and 0.07 for perceived personality similarity.

### *Summary of the Results*

Although the trends through time of both actual and perceived similarity in values and personality were similar, and readily explainable by a general over-perception of similarity by subjects who were already quite similar, systematic causal relations were only found for value similarity. Namely, (1) actual value similarity appears to cause perceived value similarity; and (2) both perceived and actual value similarity cause attraction, with actual value similarity becoming increasingly important as acquaintance proceeds. Perceived value similarity thus acts as a mediating variable, as Newcomb's AB-X scheme claims. As far as personality similarity is concerned: (1) actual personality similarity did not appear to cause perceived personality similarity; (2) actual and

perceived personality similarity were never highly inter-correlated; and (3) neither actual nor perceived personality appeared to systematically cause attraction. The differences between these two types of variables are thus rather striking, and imply that personality similarity is not as readily interpretable in a straightforward application of the AB-X model to interpersonal attraction as a dependent variable. Finally, we note that neither personality nor value similarity was a very potent determiner of interpersonal attraction in our natural setting.

## 5. Discussion

The data leave two very general impressions that need to be discussed in this section; (1) why are there differences in the relationships between actual and perceived value similarity and attraction and actual and perceived personality similarity and attraction; and (2) given the rather large effect of similarity on attraction found in the laboratory, why is the magnitude of the similarity-attraction relationship so low in our field study?

First, our generally poor results with personality similarity could be due to our measurements of the variable. Indeed, if our study was the first attempt to measure personality similarity, we would probably conclude that our measuring device was inadequate because it did not include enough items to give a valid comprehensive personality profile, and was so abbreviated that it was unreliable to boot. As it happens, however, numerous investigators have attempted to measure the effect of personality similarity on attraction, and their results have never conclusively demonstrated that personality similarity has a predictable effect on interpersonal attraction. Consequently, we assume that inadequacies in our measuring device are not the sole reason we failed to find systematic relationships between actual and perceived personality similarity and attraction.

Rather, the fact that actual value similarity caused perceived value similarity and such did not appear to be the case for personality similarity is probably due to the clearer and more observable behavioral implications of values as opposed to personality. A person's values will partially determine his choice to engage in athletics or politics or studies. Once that choice has been made the values that caused that choice can be inferred more easily by others. The perception of general personality traits, however, is a more difficult undertaking. Personality traits do not have as strong behavioral implications, stability, or cross-situational consistency as do values. In fact, some psychologists (Mischel, 1968) and sociologists (Becker, 1964) question the whole notion of personality traits.

Next, the fact that actual value similarity is causally related to interpersonal attraction whereas actual personality similarity is not may be explained as follows. If persons share the same values they are more likely to interact more frequently on the basis of those values than they are on the basis of shared personality similarity. For example, a common interest in athletics allows for several forms of interaction – playing basketball, watching televised football games, etc., while the same does not apply as directly for a personality trait held in common. This implies, by the way, that theories such as Newcomb's and Byrne's that treat similarity as rewarding in itself may receive confirmation in natural settings for reasons above and beyond the actual rewards that similarity itself provides – namely the opportunity for interaction that actual similarity anticipates.

Turning now to the question of why similarity in natural settings is not as good a predictor of attraction as is similarity in the laboratory, we note that there are some basic, crucial differences between laboratory setting and the natural setting such as our residence hall clusters: (1) In the laboratory a person may only expect to interact with the other for almost an hour or so (if at all), while in the cluster it will be for months; (2) In the laboratory the stranger is usually a fictitious person whose traits are carefully presented in an isolated and limited form, while in the cluster the initial stranger is a "whole" person with his own numerous assortment of character traits and behavioral patterns.

The consequences of these differences are that the person in the laboratory has little or no information about the stranger besides the information he has been given (which are presumably incorrigible glimpses into the other's mind), and he has had no interaction with the person. Given this and only this information, persons seem to make predictable types of responses to the stranger. In natural settings, however, persons have: (1) a much greater amount of information about the initial stranger available to them, which is subject to their own structuring and misperception; (2) a great many more bases of similarity or dissimilarity with the other than can be conveniently measured or anticipated; (3) actual interaction with the other person which will have its own rewarding or punishing consequences; and (4) a social structure which itself may pose limits and channels on the attractions that may form.

Given these differences between the laboratory and the natural setting, it is not surprising that the magnitude of the effects of actual similarity (as measured beforehand) in natural settings is so greatly diminished from the effects of actual similarity as presented in the laboratory.

## 6. Conclusion

Moving from the laboratory to the field is never an easy undertaking. As a means of concluding, we offer the following suggestions how this might be accomplished in future studies of interpersonal attraction. Foremost among these is that even though similarity by itself is a potent source of reward in the laboratory, similarity by itself seems a meager source of reward in the field. This seems to be the case particularly for personality similarity. We suspect that the general rule is that similarity that anticipates or facilitates interaction is most likely to be of predictive value for attractions formed in natural settings. Next, we note that anticipating similarity that facilitates interaction is not going to be an easy matter for even the computer to handle. This is so because individuals in natural settings will have many different bases of similarity and dissimilarity, not all of which will come into play in the specific interactional setting in question. Consequently, it seems appropriate for both laboratory and field studies of attraction to investigate the effects of patterns of interaction as well as (or in combination with) the effects of similarity.

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## Notes

- 1 It should be noted that Brewer *et al.* (1970) criticize Byrne and Griffitt's method of employing partial correlation to test this claim, and argue that error measurement can account for the obtained correlation between actual similarity and attraction when the effects of perceived similarity are partialled out.
- 2 Humphreys (1960), Heise (1969), Wiley and Wiley (1970), and Werts *et al.* (1971) discuss how a variable's reliability may be estimated if the variable is measured at three or more points in time. With measurements at five points in time there are four estimates of the reliability of the third measure; the second and fourth measure have three estimates, and the first and last measure have no estimates. The model is not perfectly specified, however, because serially correlated measurement errors are a certainty.
- 3 Ulrich *et al.* (1963) has demonstrated how willing subjects are to accept generalized personality statements as being true and applicable to themselves, and Cottrell (1969) provides a convenient summary of the symbolic interactionist approach to the influence of peer group assessment in an individual's own evaluation of his personality. During the data gathering phase of the study, the first author also received feedback from several of the subjects regarding their difficulty in assessing their own and their cluster-mates' personality traits. It was apparent that some of these assessments were subject to fluctuations based on minor incidents that occurred in the living-groups.
- 4 This finding is in agreement with Izard's (1963) results for college seniors (our subjects were also primarily upper-classmen and graduates). In a previous study, Izard (1960b) did find that personality similarity of female college freshmen correlated with their later attraction, but neither proximity or frequency of interaction were controlled in this study (c.f. Berscheid and Walster, 1969).