

INTERPERSONAL ATTRACTION AS A
FUNCTION OF EVALUATIVE CONGRUENCY,
DESCRIPTIVE CONGRUENCY AND GROUP
BALANCE

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A DISSERTATION PRESENTED TO THE GRADUATE COUNCIL OF
THE UNIVERSITY OF FLORIDA
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

August, 1965

ACKNOWLEDGMENTS

Special gratitude is extended to Dr. Jack M. Wright, chairman of the author's doctoral committee, for the encouragement and patience with which he has directed this study. Acknowledged also are the contributions of the other committee members: Dr. Marvin E. Shaw, Dr. Henry S. Pennypacker, Dr. James C. Dixon, and Dr. Robert Wiegman. Special thanks are extended to my wife, Linda Hammond Worthy, for her encouragement and her help with the preparation of the manuscript.

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CHAPTER I

INTRODUCTION

There is much popular interest in learning how to make oneself attractive to others. Attraction has also been shown to be an important independent variable influencing social behavior.√ Pepitone and Sherberg (1957) point out that interpersonal attraction is a powerful determinant of the strength of conformity pressures, the emergence of communication channels, the level of productivity and the amount of aggression directed toward an attacker. Since interpersonal attraction is an important variable influencing behavior, it is necessary to identify those variables which determine interpersonal attraction.

Interpersonal attraction depends first of all on the opportunity to interact. If we assume that a group of individuals have the opportunity to interact but are not required to interact, we can analyze the reasons why an individual is attracted to one interaction but not to another.√ Thibaut and Kelly (1959) have proposed a theory which states that an individual is attracted to those interactions which allow him to maximize outcomes. Outcomes are rewards received minus costs paid in the interaction. The individual will evaluate outcomes in terms of his frame of reference of (a) outcomes being received by others (comparison level), and (b) in terms of the

level of outcomes he can expect from other possible interactions (comparison level for alternatives). Miller (1963) found that when subjects interacted cooperatively with several different partners for monetary rewards, the attraction of various partners was a function of outcome level minus comparison level. Interpersonal attraction, then, may be seen as requiring that two individuals have rewards to exchange with each other.

Some students of interpersonal attraction sought the underlying base of attraction by studying friendship pairs. It was found that friends tend to have similar attitudes and values (Richardson, 1940; Reader and English, 1947; Precker, 1952). This finding can be explained in terms of balance. Heider (1944, 1946, 1958) formulated a theory of cognitive balance which viewed the perceiver (P), the other (O) and a relevant object (X) as comprising a cognitive system. This system is said to be balanced if the sum total of the perceived relationships fit together in a harmonious state without stress. It is assumed that a system which is in a state of stress will be unpleasant to P and therefore result in change toward a more balanced state. For balance to exist in the triadic system, all three relationships between the elements must be positive or else two of the three must be negative. It follows from this theory that if the relationships between P and X, and O and X are similar (both positive or both negative) balance will require that the relationship of P to O be perceived as positive. If the perceived relationships of P to X and O to X are dissimilar, balance will require that the orientation of P to O be negative.

Several other theorists have proposed theories that are basically balance theories. Newcomb (1953, 1956, 1963) has theorized that there

is a strain toward symmetry such that attraction toward a co-communicator varies with perceived similarity of attitude toward the object of communication. Osgood (1960) proposed a balance theory which makes use of the semantic differential to measure the valence of the positive or negative orientations. Cartwright and Harary (1956) extend balance theory in such a way as to deal with more than three elements and to measure the amount of imbalance in a system.

These theories have led to much research. There have been a number of studies which provide empirical evidence for balance theory. One experimental method that has been used is to have subjects react to hypothetical balanced and imbalanced interactions. It has been found that hypothetical imbalanced interactions are harder to learn (Zajonc and Burnstein, 1964) and are perceived as more unpleasant (Runkel, 1956; Morrissette, 1958).

Other tests of balance theory have used real rather than hypothetical situations. One approach is to obtain indications of liking or disliking for each of the three links in a number of triadic systems. Using this method, balance theory is supported if the number of balanced systems in a sample exceeds chance expectations. Kogan and Tagiuri (1958) had sailors indicate shipmates with whom they would like to go on liberty. Subjects were then asked to predict choices made by other sailors. As predicted, shipmates who had been chosen by the subject were perceived as choosing each other at a level exceeding chance. Horowitz, Lyons and Perlmutter (1951) obtained measures, within a discussion group, of liking and agreement on the topic being discussed. It was found that agreement with and liking for group members was positively related. Byrne and Blaylock (1963) found that married

couples are more similar on political attitudes than would be expected by chance. If married couples are assumed to like each other, this finding is in line with balance theory.

One of the most extensive studies in this area was carried out by Newcomb (1956). He observed a group of dorm mates over a period of several months. Since free rent was being provided by the experimenter, it was possible to introduce certain controls. Only boys who did not know anyone else in the group were selected. Periodic measurement of values, attitudes and sentiments were taken. Newcomb's findings, relevant to balance theory, were that they had similar attitudes. This was especially true for attitudes toward each other and toward the other boys in the dorm.

In addition to the above type studies, which dealt with relationships as they develop naturally, there have also been studies of balance theory which manipulated the liking relationships between some of the elements. In these experiments, two of the three links in the triad are controlled and the third relationship taken as the dependent measure. Studies can be carried out with each of the three links ($P - O$, $O - X$, or $P - X$) as the dependent measure. The studies of perceived attitudes of friends, already reported, are evidence that P will tend to perceive the $O - X$ relationship in a manner consonant with the other perceived relationships in the triad. That is, he will perceive liked O 's as having attitudes similar to his own.

Considering the $P - O$ relationship as a dependent measure, Heider (1958) points out an earlier finding from the studies of persuasive communications that "where the assertion is repulsive to the audience and the source is only mildly respected, there is a tendency

to change one's attitude toward the communicator in the direction of attributing less credibility to him or otherwise becoming more negative toward him" (Hovland, Janis and Kelley, 1953, p. 45). In this case, P changes his orientation toward O in order to balance the system. Byrne (1961) had subjects fill out a comprehensive attitude scale. Subjects were then shown the same scale supposedly filled out by an anonymous student in another class. Forms were rigged to be similar or dissimilar from the subject's own answers. Dependent measures included the subjects' rating of how well they thought they would like the other and their evaluation of him on several traits. Results were that persons in the Similar group showed much more liking for the other and evaluated him much more highly than subjects in the Dissimilar group. Both of these studies concern the situation in which the P - O relation is predicted from known P - X and O - X relationships.

On the other hand, if the P - X and O - X relationships are known, we can predict the P - X relationship. Sherif (1935) had subjects rank 16 authors. Subjects were then shown 16 passages, supposedly one written by each author. (Actually, all were written by R. L. Stevenson.) The correlation between the two rankings were significantly positive. Sampson and Insko (1964) used the autokinetic situation to test balance theory. Subjects were tested in pairs. One of the subjects was a confederate of the experimenter and made it a point to make himself either liked or disliked by the naive subject before the testing began. The confederate estimated the length of movement in a predetermined manner. It was found that, as predicted, naive subjects tended to move their own estimates, which can be

thought of as a P - X relationship, away from disliked O's and nearer to liked O's.

Up to this point, no distinction has been made among attitude objects. The importance or value of the attitude object is, however, important. Newcomb (1963) has suggested that the discovery of increased similarity is rewarding to the degree that the object with which there is similarity of attitudes is valued, either positively or negatively. Newcomb went on to suggest that one's self is a very highly valued object to oneself. By "self" is meant the individual as he sees himself. This includes his body, behavior, attitudes, traits and in fact everything which he identifies as a part of himself. Since self is a maximally valued object, we can expect balance theory to operate maximally in those systems in which the relevant X is P's own self.

Before discussing further the triadic balance formulation with self as the relevant X, let us consider the dyadic situation between P and O with self considered as identical with P. The orientations between P and O may be viewed as governed by a need for reciprocity. Reciprocity calls for equivalence of exchanges. The exchanges may or may not be concretely equivalent, but the tendency is for an individual to establish and maintain interactions in such a way that perceived exchanges are equivalent in value. Goulder (1962) has stated that, ". . . a norm of reciprocity, in its universal form, makes two inter-related minimal demands: (1) people should help those who have helped them, and (2) people should not injure those who have helped them" (p. 88). Reciprocity also requires that a negative response from the other be responded to with equal negativity.

The research which has been done in the area of reciprocity is relevant to balance formulation in which self is the relevant object. A study of reciprocity of liking was carried out by Tagiuri, Blake, and Bruner (1953). Discussion groups were formed and met for a number of days. After each meeting subjects indicated those in the group "liked best," "liked least," and which members liked them best and least. Actual reciprocity did not reach significance, but perceived reciprocity of choice and rejection was highly significant. Members of the discussion group liked those whom they perceived as liking them and disliked those whom they perceived as disliking them. These authors suggest two possible explanations to account for the significance of perceived reciprocity. One is that perceiving a liked other as liking in return protects one from a feeling of rejection. The other explanation offered is that the subject chooses others whom he has perceived as liking him.

The above study interpreted liking scores in terms of reciprocal dyadic exchanges, but they could be handled in a triadic system with the "self" of P as the relevant X. If the relationship of P to X is assumed to be positive, the predictions derived from balance theory are identical with predictions derived from a norm of reciprocity, i.e., if it is known that the orientations of P to X and O to X are both positive, balance theory predicts that P's orientation to O will be positive. Because of the importance of self to each individual, it is especially important that he maintain all systems which have self as the X in a state of balance.

Secord and Backman (1961, 1964) have proposed a balance theory which deals exclusively with self as the relevant X. It is proposed

that an individual (S) attempts to maintain a state of congruency in the system including himself, his self-concept and another person. According to this theory, "a state of congruency exists when the behavior of S and O imply definitions of self congruent with relevant aspects of his self concept" (1964, p. 584). Two types of congruency are proposed: cognitive congruency and affective congruency. It is suggested that the individual strives to maintain congruency by means of misperception, selective interaction, selective evaluation of the other person, selective evaluation of self and response evocation. Two of these techniques, selective interaction and selective evaluation of the other, are directly related to interpersonal attraction. Since the experimental setting to be described later involves forced interaction, we will not concern ourselves in the present study with selective interaction as a way of maintaining congruency. Our concern will be with selective evaluation of the other person. Another person who defines one's self in a manner congruent with one's own self concept will be highly evaluated and liked. Another person who does not define self congruently will be evaluated low and will be disliked.

Secord and Backman make provision in the theory for persons who have a negative self-concept. However, it is pointed out that the percentage of such people in a normal population is very small. For our purposes, then, let us assume that the relationship of a person to his self-concept is positive. This is in line, again, with Goulder's reciprocally operating dyad in which the subject and his "self" are treated as one element. Having assumed a positive self-concept for P, we can now state that congruency demands that P like (or give high evaluation to) another who evaluates him (his self) positively and

dislike (or give low evaluation to) another who evaluates him (his self) negatively.

Research findings have consistently supported this statement. Some studies have used liking for O as the dependent variable; others have used evaluation of O as the dependent variable. Looking first at liking as the dependent measure, Backman and Secord (1959) found that if subjects were told before going into a discussion group that certain of the group members would probably like them, the suggested probable admirers tended, after the first meeting, to be chosen by the subjects as members whom they liked best. It has also been found that if a member of a group is given false feedback of group members' evaluations of him, he will indicate liking for a group in which he was positively evaluated and disliking for a group in which he was negatively evaluated (Dittes, 1959; Jones and Dougherty, 1959; Burke, 1962; Jones, Gergen and Davis, 1962). In addition to liking as the dependent measure, it has also been demonstrated that there is a positive relationship between evaluations received from another and the evaluations made of that other (Harvey, Kelly and Shapiro, 1957; Harvey, 1962).

The above studies manipulated the sign and/or valence of evaluation or liking of the subject by others in the group. These studies could be explained in terms of reciprocity of evaluation and liking. There is another aspect to the congruency hypothesis which is not identical with reciprocity. To this point we have talked only about the amount of agreement in self description in terms of the valence of the evaluation. It is also necessary to consider the agreement in descriptions which is independent of evaluation. There has been some

consideration given to this variable. It has been found that subjects perceive liked persons as using the same adjectives to describe him that he uses to describe himself and disliked persons as using different adjectives (Backman and Secord, 1962; Broxton, 1963; Newcomb, 1963). These findings suggest that it may be fruitful to manipulate agreement on descriptive aspects of self definition. We will refer to this variable as descriptive congruency.

We have now suggested two variables that influence interpersonal attraction: evaluative congruency and descriptive congruency. There is another variable to be considered which might be called group balance. This variable goes beyond the triadic formulation and simultaneously takes into account the orientations of more than one "other." We have already considered how the orientation of O toward (the self of) P will influence P's orientation toward O. Now we are asking, if there is more than one O in the situation, will P's response to given others' evaluation of self be influenced by the orientations of the relevant O's to each other. If we assume that there are two significant others in the situation, one a negative evaluator of P and the other a positive evaluator, we now have a system made up of four elements: P (perceiver), X (self), O₁ (negative evaluator), and O₂ (positive evaluator). The question, is there any reason to believe that P's evaluation of and likings for the negative evaluator and the positive evaluator will be different when the relationship of the two others to each other is positive from when it is negative. Since several studies have found strong evidence that subjects will tend to react positively to the positive evaluator and negatively to the negative evaluator, we can consider the amount of balance resulting

in the four-element system from this reaction in each of the two group balance conditions. If the reciprocating reaction leads to different levels of system balance in the two conditions (liking of the two O's of each other vs. disliking of each other), we should expect that the reciprocal process should be facilitated in the condition that leads to greater balance.

The problem of measuring amount of balance in systems with more than three elements has been addressed by Cartwright and Harary (1956). Their system involves counting the number of positive and negative cycles in the system. Negative cycles are those with an uneven number of negative links. All other cycles are positive. The amount of balance in a system, then, is the proportion of cycles that are positive. Using the Cartwright and Harary technique, we can measure the amount of balance in the four element system proposed earlier. In the condition in which the relationship between O_1 and O_2 is negative, reciprocal responses by P to O_1 and O_2 will result in all seven cycles in the system being positive; i.e., reciprocal responses by P (negative O_1 and positive O_2) will result in a system with 100 percent balance. We can refer then to the condition in which the relationship between O_1 and O_2 is negative as the High Group Balance Condition. In the other condition, in which the relationship between O_1 and O_2 is positive, reciprocated evaluations by P result in a system in which only three of the seven cycles are positive. Since there would only be 43 percent balance in this condition, we will refer to it as the Low Group Balance Condition. Using the Cartwright and Harary technique we can measure the amount of balance present in the condition in which P makes other than reciprocal

responses. An analysis of the alternative orientations of P in the system reveals that in the High Group Balance Condition, reciprocity leads to 100 percent balance. All alternatives to reciprocal responses lead to a system with 43 percent balance. The advantage, then, of reciprocal responses in the High Group Balance Condition is a gain in system balance of 57 percent. In the Low Group Balance Condition, all combinations of responses, including reciprocal ones, lead to a system with 43 percent balance. It can be seen then that in the High Group Balance Condition, reciprocal responses, and only reciprocal responses, will raise the level of group balance from 43 percent to 100 percent. In the Low Group Balance Condition, neither reciprocal responses, nor any other mode of responding, will change the amount of balance in the system. If, in the paradigm proposed, a need for group balance operates to influence responses, we could expect that the reciprocal (evaluative congruent) process would be facilitated in the High Group Balance Condition, but not in the Low Group Balance Condition.

Statement of the Hypotheses

The purpose of this study was to test the effects of the three congruency variables: evaluative congruency, descriptive congruency and group balance, on interpersonal attraction.

The evaluative component deals with the favorableness of O's evaluation of P. Reciprocity theory and congruency theory predict that evaluation of O will covary with O's evaluation of P. Our first hypothesis then is as follows: —

H₁--In a three person group, if member P perceives that he is evaluated less highly by O₁ than by O₂, he will respond with more liking for and higher evaluations of O₂ than O₁. ✓

Descriptive congruency concerns the degree to which O's definition of P's personality is in agreement with P's conception of himself. ✓ It is to be kept in mind that descriptive congruency is independent of overall evaluation. Newcomb (1963) pointed out that the high agreement between a subject's description of himself and his perception of his friends' descriptions of him was true for negative items as well as positive items. ✓ This seems to suggest that an individual is attracted to those who validate his own self perceptions of what are his weak points and strong points. Our hypothesis concerning descriptive congruency, then, is as follows:

H2a- A subject will be more attracted to other group members if their evaluations of him on a number of traits holding overall evaluation constant show profile agreement with his own description of himself. ✓

In addition, descriptive congruency may interact with overall evaluation. It may be that descriptive agreement has the effect of increasing the liking for a positive evaluator and increasing the disliking for a negative evaluator. Therefore, the second descriptive congruency hypothesis is stated as follows:

H2b--In the positive evaluation condition subjects will be more attracted to evaluators whose evaluations indicate high descriptive agreement with subject than those indicating low agreement. ✓ Attraction will be lowest to evaluators in the negative evaluation condition who show high descriptive agreement.

In addition to perceiving the orientation of others toward highly relevant attitude objects such as self, the individual is also conscious of the orientations of significant others to each other.

If the cognitive world of an individual is to be balanced, he must perceive that a friend likes his other friends and dislikes his enemies. The design of the experiment calls for P to be in a situation in which he is negatively evaluated by O_1 and positively evaluated by O_2 . We have hypothesized that P will like O_2 more and evaluate him more highly than he will O_1 . The present question is, can we facilitate or retard this difference by varying the responses of O_1 and O_2 toward each other?

Using the Cartwright and Harary technique we have shown that conditions can be varied such that evaluative congruency will lead to either high or low group balance. The fourth hypothesis deals with the group balance variable and is stated as follows:

H₃--The difference in amount of liking for O_1 vs. O_2 will be greater when the relationship between O_1 and O_2 is negative than when it is positive.

The rationale behind this hypothesis is, as explained earlier, that when the relationship between O_1 and O_2 is negative (High Group Balance Condition), P can, by reciprocating, achieve a system with 100 percent balance. If the relationship between O_1 and O_2 is negative (Low Group Balance Condition), neither the presence nor absence of reciprocity will have an effect on the amount of group balance.

Another question to be answered was what effect the reciprocating or not reciprocating of high and low evaluations would have on the way the subject perceived the importance of the evaluation period. If it is assumed that reciprocation is one way of reducing dissonance experienced in the evaluation period, it could perhaps be expected that the degree to which this method was utilized would be related to

the degree to which the subject agreed with dissonance reducing items on a postexperimental questionnaire. The last hypothesis is stated as follows:

H₄--The degree to which a subject reciprocates evaluations will correlate positively or negatively with his agreement to statements depreciating the meaningfulness of evaluations. ✓

The direction was not predicted because two opposing reactions seem plausible. It may be that those subjects who experienced the most dissonance would reduce it by reciprocation and depreciation of the evaluation period. This would result in a positive relationship. On the other hand, one might expect that those subjects who reciprocated during the evaluation period would feel less need to depreciate its meaningfulness; this would result in a negative relationship.

CHAPTER II

METHOD AND DESIGN

Subjects

The subjects used were undergraduate females in introductory psychology courses. Participation in psychology experiments was required as part of the course. The subjects were tested in groups of three. The experimenter made sure that subjects in the same group did not know each other prior to the experiment.

Materials and Apparatus

The printed materials consisted of five forms. Form 1 listed three personal descriptions: "generous--willing to help others," "does a good job--efficient and dependable," and " gets along well with people--friendly." These three descriptions were chosen because a Q sort of a number of descriptions had indicated that these three are about equal in social desirability. A place was provided to check which one of the three descriptions was most self descriptive and which one least self descriptive. (Form 1 can be found in Appendix A.) Form 2 (Appendix B) was an evaluation sheet. On this form was listed six traits, derived from the descriptions on Form 1, and a place to record evaluations made on each of these traits. Form 3 (Appendix C) was designed to measure the amount of liking that subjects felt for the other two group members. Liking was indicated by marking a

17.2 centimeter continuum line which represented a range of liking from "not at all" to "very much." Form 4 (Appendix D) was designed to measure perceived liking relationships within the group. This form provided for marking the liking continuums as it was estimated they had been marked by the other two members of the group.

A postexperimental questionnaire was also used (Appendix E). On this form six statements are made. Under each statement there was a continuum line on which one indicated the amount of agreement with the statement.

The testing area consisted of two rooms. One was a discussion room containing a table and three chairs. The other room contained a modified Crutchfield conformity apparatus. This apparatus, as used in this experiment, consists of four separate booths facing a screen. In one booth was an opaque projector which was operated by the experimenter. The subjects sat in the other booths. In each subject's booth there were three switches; these switches were labeled "above average," "average" and "below average." Each booth also had a panel of lights which supposedly revealed all responses made in all of the booths.

Procedure

Upon arriving at the testing building, the subjects were taken as a group to a discussion room. Here they were each given Form 1. They checked which of the three descriptions was most like them and which least like them.

After Form 1 was collected, the subjects were told that they were taking part in a study of how people become acquainted. They were advised that they would have ten minutes in which to become

acquainted. They were instructed to spend this time telling each other about themselves. They were told that after the ten-minute period, the experimenter would return and ask them some questions. The experimenter then left the room. During this ten-minute period, while the subjects were becoming acquainted, the experimenter used the self description information from Form 1 to prepare the the next stage of the experiment.

At the end of the ten-minute period the experimenter returned to the discussion room. After making sure that the subjects had not forgotten each other's names, he took them into another experimental room. Each subject was given a slip of paper containing the names of the three subjects and a "member number" (1, 2 or 3) assigned to each. Each subject was led to believe, from the information on the slip, that she was Member Number 1. One of the others girls was supposedly Member Number 2 and the third was supposedly Member Number 3. The assignment of Member Numbers 2 and 3 were balanced in such a manner that each name appeared once as Number 2 and once as Number 3. Therefore, each possible 2-3 combination of names appeared once and only once. This technique was used to minimize the effect of actual differences in attractiveness of the three group members.

The subjects were told that they were to use the observations they had made during the acquaintance period to evaluate the other two subjects on a number of traits. Subjects indicated evaluations of other group members on particular traits by throwing one of the switches. Supposedly, they could tell by the panel of lights all evaluations that were made. Actually the subjects saw no valid responses except their own. The responses supposedly made by Members 2 and 3 were

made by the experimenter.

The order of evaluations was controlled by projecting on the screen the number of the trait involved and the number of the member to be evaluated. For instance, the first card read "Trait 1, Member 1."

Before the evaluations began, each subject was given Form 2, on which she was asked to record the evaluations made of her. This form listed six traits numbered one through six. The order in which the traits were listed was not consistent from subject to subject; the order of listing the traits was manipulated in order to manipulate the Descriptive Congruency variable. In the High Descriptive Congruency Condition, each subject's list of traits was ordered in such a way that she received high evaluations on those traits which she had indicated as most descriptive of her and low evaluations on those traits she had indicated as least like her. In the Low Descriptive Congruency Condition, the traits were ordered in such a way that the opposite result occurred--i.e., low evaluations on traits chosen as most self descriptive and high evaluations on traits chosen as least self descriptive.

Control over the Group Balance variable was accomplished by varying the evaluations of Member 2 by Member 3. In the High Group Balance Condition, the evaluations of Member 2 by Member 3 were mostly negative. In the Low Group Balance Condition these evaluations were mostly positive.

The first response in the Crutchfield apparatus was the evaluation of Member 1 on Trait 1 by Member 2. Then Member 3 evaluated Member 1 on Trait 1 (both of these responses were made, of course, by

the experimenter). Then Member 2 was evaluated by Members 1 and 3 on that trait. And then Member 3 was evaluated on that trait by Members 1 and 2. This completed the evaluation of all members on Trait 1. The same procedure was followed for the other five traits.

The subject saw herself and the other two members evaluated on each of the six traits. Since the subjects did not evaluate themselves, the responses observed by each subject were evaluations by two members of each of three members on six traits, for a total of 36 responses. Except for the 12 responses made by the subject herself, all observed responses were made by the experimenter. The 12 responses made by each subject consisted of six evaluations of Member 2 and six evaluations of Member 3. From these responses the evaluation dependent data were derived.

After the evaluation period was completed, the subjects remained in the booths and were given Form 3 to complete.

After completing Form 3, each subject completed Form 4. This form required an estimation of how the other two members had answered Form 3. This information was needed in order to evaluate the degree to which the subjects perceived the intragroup relationships in a manner consonant with the experimental manipulation.

After the completion of Forms 3 and 4, the subjects were taken back to the discussion room where they answered the post experimental questionnaire. Three of the questionnaire statements--those dealing with the shortness of the acquaintance period, the selection of traits to be used, and the meaningfulness of the evaluations--were included because they allowed the subject to reduce dissonance she might be feeling. Analysis of answers on these three items was used to test Hypothesis 4.

After the postexperimental questionnaires were completed, the subjects were debriefed. The technique and purpose of the deception used was explained to them and their questions answered. Most subjects expressed relief that the low evaluations of them which they had seen were not actually made by a member of the group. After being urged not to discuss the experiment with potential subjects, they were dismissed.

CHAPTER III

RESULTS

The first aspect of the data that was analyzed was that which reflected how successfully the variables had been manipulated. Of greatest concern was whether the group balance variable had been successfully manipulated. The reason for concern was that this variable involved the perception of evaluations which did not directly involve the subject. The group balance variable involved differences in the evaluation of Member 2 by Member 3. The subjects were instructed to pay close attention to all evaluations, but it was feared that the subjects might concentrate so strongly on the evaluations which they were making and receiving that they would fail to pay sufficient attention to other evaluations. In order to check this possibility, the responses to Question 4 on Form 4 were analyzed. Since evaluations of Member 2 by Member 3 were lower in the High Group Balance Condition than in the Low Group Balance Condition, it was expected that the subjects would perceive lower liking of Member 2 by Member 3 in the High Group Balance Condition than in the Low Group Balance Condition. This expectation was supported with the respective means being 8.870 and 10.173. A t test of the difference between the means, however, revealed a t of only .587, which does not approach significance. It must be kept in mind then that the Group Balance treatment, as judged

by the perception of the subjects, was weak.

The next question to be considered was how many of the six evaluation traits were to be included in the dependent evaluation scores. Analysis of the data indicated that there was a trials effect such that the evaluations of Member 3 went up and the evaluations of Member 2 went down. Since this effect was minimal in the last three trials, the responses on those three trials were summed to provide a single evaluation score.

The first hypothesis predicted that the subjects would be more attracted to the positive evaluator (Member 3) than to the negative evaluator (Member 2). This variable, Evaluative Congruency, was tested (as were all of the first three hypotheses) by comparison of differential evaluation scores and differential liking scores. An analysis of variance of evaluation scores (Table 2) revealed an F of 69.963 with one and 77 degrees of freedom ($p < .001$) on the evaluative congruency variable. Likewise an analysis of variance of liking scores (Table 3) resulted in an F of 50.679 with one and 77 degrees of freedom ($p < .001$) on that variable. By noting Table 1 it can be seen that the difference in means was in the direction predicted. That is, the subjects tended to evaluate higher and like more the positive evaluator than the negative evaluator.

Hypothesis 2a stated that greater attraction would result from evaluations which revealed a profile in agreement with the subject's own self description. The descriptive congruency variable tested this hypothesis. Tables 2 and 3 reveal that the main effect, Descriptive Congruency, did not approach significance in the analysis of either evaluation or liking scores.

Table 1

Means of Evaluation and Liking Scores

	High Descriptive Congruence		Low Descriptive Congruence	
	High Group Balance	Low Group Balance	High Group Balance	Low Group Balance
High Evaluative Congruency				
Evaluation scores	7.25	7.30	7.35	7.85
Liking scores	12.17	12.31	11.69	13.08
Low Evaluative Congruency				
Evaluation scores	5.70	5.80	5.15	5.60
Liking scores	8.80	8.52	8.62	9.69

Table 2

Analysis of Variance of Evaluation Scores
(First Experiment)

Source	Sum of Squares	df	Mean Square	F
Independent observations:				
Descriptive Congruence (DC)	.026	1	.026	.019
Group Balance (GB)	3.026	1	3.026	2.225
DC x GB	1.598	1	1.598	1.175
Residual between subjects (error)	103.350	76	1.360	
Total independent	<u>108.000</u>	<u>79</u>		
Correlated observations:				
Evaluative Congruence (EC)	140.625	1	140.625	69.963*
EC x DC	4.899	1	4.899	2.437
EC x GB	0	1	0	0
EC x DC x GB	.027	1	.027	
Residual within subjects (error)	150.449	76	2.033	
Pooled error term	(150.476)	(77)	2.010	
Total within subjects	<u>296.000</u>	<u>80</u>		
Total for experiment	404	159		

* $p < .001$

Table 3

Analysis of Variance of Liking Scores
(First Experiment)

Source	Sum of Squares	df	Mean Square	F
Independent observations:				
Descriptive Congruence (DC)	4.096	1	4.096	.575
Group Balance (GB)	13.340	1	13.340	1.872
DC x GB	17.031	1	17.031	2.390
Residual between subjects (error)	541.625	76	7.127	
Total independent	<u>576.092</u>	<u>79</u>		
Correlated observations:				
Evaluative Congruence (EC)	463.761	1	463.761	50.679*
EC x DC	1.225	1	1.225	.134
EC x GB	1.333	1	1.333	.146
EC x DC x GB	.029	1	.029	.003
Residual within subjects (error)	704.571	76	9.271	
Pooled error term	(704.600)	(77)	9.151	
Total within subjects	<u>1170.919</u>	<u>80</u>		
Total for experiment	1747.011	159		

* p < .001

Hypothesis 2b predicted an interaction of descriptive congruency with evaluative Congruency such that high descriptive congruency would result in greater attraction to the positive evaluator and greater rejection of the negative evaluator. As revealed by Tables 2 and 3, this hypothesis was not supported. The F of the Evaluative Congruency by Descriptive Congruency interaction approaches significance in neither the analysis of evaluation scores nor liking scores.

Hypothesis 3 was based on balance theory and predicted differences in attraction to Member 2 and Member 3 by the subject as a function of the attraction of Members 2 and 3 to each other. The effect of liking (Low Group Balance Condition) vs. disliking (High Group Balance Condition) by the other two group members was tested in two ways. First, it was expected that group balance would interact with evaluative congruency to increase the attraction toward the positive evaluator and to decrease the attraction toward the negative evaluator. However, it can be seen in Tables 2 and 3 that this interaction was not significant in the analysis of evaluation or liking scores. This hypothesis was also checked in another manner. Since balance could be achieved in opposition to the evaluative congruency variable as well as in interaction with it, a test was used which dealt only with discrepancy of responses to Member 2 vs. Member 3, regardless of direction of difference. It was expected that the magnitude of difference would be greater in the High Group Balance Condition than in the Low Group Balance Condition. A t test of differences in magnitude of discrepancy in evaluation scores in the two group balance conditions resulted in a t of .162 (not significant); a similar t test of differences in liking scores resulted in a t of .164 (not significant).

An interesting observation concerning the group balance variable was that evaluations, as can be noted in Table 1, were higher toward both other group members in the Low Group Balance Condition than in the High Group Balance Condition. This was true for both evaluation scores and liking scores though the difference was not significant in either case.

Hypothesis 4 predicted that those subjects who reciprocated low and high evaluations to Members 2 and 3, respectively, would react differently to dissonance reducing statements on a postexperimental questionnaire. Questions 2, 3 and 4 on the postexperimental questionnaire were used to test this hypothesis. Responses on these items were correlated with a combined reciprocity score. This score was derived in the following manner: First, a raw score of evaluation of the positive evaluator by each subject minus her evaluation of the negative evaluator was obtained. Then the liking for the positive evaluator minus the liking for the negative evaluator was obtained. These two raw scores for each subject were then converted to Z scores and added together. A constant was added to the sum to eliminate negative numbers.

This combined reciprocity score was correlated first with Item 2 of the postexperimental questionnaire. Item 2 states, "There was not enough time provided to become acquainted." The correlation coefficient of relationship between responses on this item and combined reciprocity scores was .008 (not significant). Item 3 reads, "I would probably have been evaluated higher if more important traits had been chosen." Degree of agreement with this item correlated .117 (not significant) with the reciprocity score. Item 4 states,

"Evaluations of this kind are very meaningful." Responses on this item correlated $-.013$ with the reciprocity score. In short, no significant relationship was found between the subjects' reciprocation of attraction and rejection and their utilization of an opportunity to reduce dissonance.

Although the other questions in the postexperimental questionnaire did not bear directly on any of the hypotheses, responses on these questions were also compared with the degree to which the subject reciprocated evaluation and liking. Item 1 in the postexperimental questionnaire states, "I enjoyed the evaluation period." Expressed agreement with statement correlated only $.061$ with the combined reciprocity score. Item 5, which states, "I was evaluated carefully and fairly," correlated only $.058$ with the combined reciprocity score. Item 6 on the postexperimental questionnaire states, "I was influenced in my evaluations of the others by their evaluation of me." Degree of agreement with this statement correlated $.270$ ($p < .02$) with the combined reciprocity scores.

Since two dependent measures of attraction, evaluations made and liking indicated, were used in this experiment, it was of some interest to determine the relationship between the two measures. This relationship was analyzed by means of two product moment correlations. The first correlated the evaluations made of the positive evaluator with the liking indicated for this member. The correlation coefficient was $.591$ ($p < .01$). Evaluation of and liking for the negative evaluator was also correlated and resulted in a coefficient of $.469$ ($p < .01$). The relationship then between evaluation scores and liking scores was positive at a highly significant level.

After analyzing the results of the experiment it was decided that a follow-up experiment should be conducted. There were several reasons for making this decision. Although the evaluative congruency variable had a very strong effect in the experiment, the descriptive congruency and group balance variables had almost no effect at all. Before concluding that these variables have no significant effect on interpersonal attraction, possible reasons for their failure were considered. One possibility was that the evaluative congruency effect was so strong that the influence of the other variables was greatly reduced. Another possibility was that the subjects were so concerned with the degree of favorableness of the evaluations which they were receiving that they did not adequately perceive other aspects of the evaluation period. This belief was supported by the finding stated earlier that the amount of liking of Member 3 for Member 2 perceived by subjects in the two group balance conditions did not significantly differ. It was decided, therefore, to conduct a follow-up experiment which eliminated some of the weaknesses necessary in the first experiment. The second experiment was designed exclusively to provide an improved test of the descriptive congruency and group balance variables.

The second experiment differed from the first experiment in the following ways:

1. The evaluative congruency variable was dropped. Instead of having one group member appear as a positive evaluator and the other as a negative evaluator, the total evaluations across all traits made of the subject by the two other group members were quantitatively equal.

2. The treatment of the descriptive congruency variable was greatly strengthened. Instead of varying descriptive congruency by groups, it was varied within each group. One member evaluated the subject completely congruently (as far as profile of strong and weak traits was concerned) with the subject's self description. The second member's evaluations, though quantitatively equal overall with the evaluations made by the first member, were completely opposite to the self description given by the subject.

3. The group balance treatment was also greatly strengthened. Whereas in the first experiment only the evaluations of Member 3 for Member 2 were differed in the two conditions, in the second experiment the evaluations of both 2 and 3 for each other were manipulated. In the High Group Balance Condition, each supposedly evaluated the other as "below average" on four of the six traits; in the Low Group Balance Condition each supposedly evaluated the other "above average" on four of the six traits. Also, to insure that the subjects paid attention to these evaluations, they were required to record all evaluations except those which they made themselves.

In analyzing the data from the second experiment, the first consideration was whether the subjects perceived greater liking between Members 2 and 3 in the Low Group Balance Condition than in the High Group Balance Condition. A greater degree of liking was perceived in the Low Group Balance Condition. A t test of the differences between the means of liking perceived as evidenced by responses to Questions 2 and 4 on Form 4 resulted in a t of 2.228 ($p < .05$). The differences in perception of liking by the other two members for each

other attempted by the group balance treatment was achieved.

The dependent data in the second experiment consisted of the liking scores of the subjects for Members 2 and 3. Table 4 presents the analysis of variance of these scores. The descriptive congruency variable resulted in an F of 1.332 which does not approach significance.

The group balance variable was tested by noting the differences in liking for the other two members. Since balance can be achieved in the High Group Balance Condition only by dissimilar liking for the other two members and in the Low Group Balance Condition by similar liking, it was expected that there would be a larger magnitude of difference, regardless of direction, between liking for Members 2 and 3 in the High Group Balance Condition than in the Low Group Balance Condition. However, the mean difference in the High Group Balance Condition was 3.38 as opposed to 3.78 in the Low Group Balance Condition. A t test of the difference between the means resulted in a t of .249 (not significant).

At this point, it was decided to check the group balance variable in an additional manner. First, each liking score was assigned either a "+" or "-" depending upon whether the score was above or below the midpoint (8.6) on the liking continuum. A "+" was considered as liking and a "-" as disliking. There were two signs for each subject--one for his liking or disliking of Member 2 and one for his liking or disliking of Member 3. Balance theory would predict that the two signs would be the same (either plus or minus) more often in the Low Group Balance Condition than in the High Group Balance Condition. There were 12 subjects in each of the two balance conditions.

Table 4
 Analysis of Variance of Liking Scores
 (Second Experiment)

Source	Sum of Squares	df	Mean Square	F
Independent observation:				
Group Balance (GB)	44.660	1	44.660	4.133
Residual between subjects (error)	237.745	22	10.807	
Total independent	<u>282.405</u>	<u>23</u>		
Correlated observations:				
Descriptive Congruency (DC)	12.710	1	12.710	1.332
DC x GB	0.100	1	0.100	.010
Residual within subjects (error)	209.865	22	9.539	
Total within subjects	<u>222.675</u>	<u>24</u>		
Total for experiment	505.080	47		

For nine of the subjects in the Low Group Balance Condition, the two signs were the same. This was true for only three subjects in the High Group Balance Condition. A X^2 test of the differences in the two frequencies resulted in a X^2 of 3.0 ($p < .10$). This difference was in the direction predicted by balance theory.

One further finding in the second experiment should be noted. As can be seen in Table 4, the group balance main effect resulted in an F of 4.133, which with one and 22 degrees of freedom, falls just short of reaching the .05 level of significance. This F resulted from the fact that subjects in the Low Group Balance Condition indicated more liking for the other two members than subjects in the High Group Balance Condition. The means were 8.86 and 10.81, respectively. It should be noted that the direction of this effect is the same as that found in the first experiment.

CHAPTER IV

DISCUSSION

This study tested the contribution of three variables--evaluative congruency, descriptive congruency, and group balance--to interpersonal attraction. It was clear from the results that evaluative congruency accounted for almost all of the non-error variance. That member who consistently evaluated the subject positively was in turn evaluated positively by the subject. On the other hand, the subject reciprocated low evaluations to that member who evaluated him negatively. Amount of liking expressed for the other person was likewise a function of the overall positivity or negativity of the evaluations received from that other person. This is in complete agreement with the idea that a person tends to like those whom he feels evaluate him favorably. The reasons that one would tend to like those whom he feels evaluate him highly would seem to be many. First of all, favorable evaluations of self are gratifying in their own right. By seeking friendship interactions with a positive evaluator, one increases the likelihood of enjoying further pleasant evaluations of self. On the other hand, one might well avoid interaction with someone who challenges one's favorable self concept. Such favorable self concepts and their defenses have developed over a number of years. It would seem that it is easier to reject the other person than to reappraise radically one's self concept.

Another reason that a negative evaluator might be devalued is that to devalue the source of evaluations tends to devalue the evaluations as well. Low evaluations which might otherwise pose a threat to self esteem lose much of their force if one has to "consider the source."

There is also a matter of status which would cause one to reciprocate low evaluations or disliking. To express liking for a person who does not return the feeling may cause one to lose prestige socially. Unrequited liking is usually thought of as directed upward in the status hierarchy. To persist in this behavior would suggest that the subject is in some way inferior to the person liked.

It should also be considered that in the experimental situation the subject had to consider what effect his exchange with the negative evaluator would have upon his interaction with the positive evaluator. If the subject gives equal evaluations to both members, the positive evaluator might see no advantage to extending positive evaluations. In fact, he might feel somehow depreciated since he has obtained, by offering very much, what the other member has obtained by offering very little.

There is also a realistic factor to keep in mind when considering the evaluations made of the negative evaluator. The fact that a person evaluates anyone below average on the experimental traits may be taken as indication that he is neither a friendly nor a generous person. As one subject expressed if after the experiment, "Everyone wants to be at least average on all of those traits." To indicate that anyone falls below the mean on desirable traits may be seen as logically necessary, but socially unnecessary.

In contrast to the evaluative congruency variable which had a very strong effect on attraction, the descriptive congruency variable had no effect at all. Neither Hypothesis 2a nor 2b was confirmed. This was true in the first experiment, in which both evaluative congruency and descriptive congruency were varied and also in the second experiment, in which evaluative congruency was held constant. The failure of this variable suggests that cognitive or descriptive congruency does not play the important part in interpersonal attraction, as has been theorized by Secord and Backman (1964). Basic to their theory is that attraction will result from perceiving that the other person holds a congruent definition of self. Congruency is presented as having two aspects--the cognitive and the affective. Affective congruency is agreement about positivity of self; cognitive congruency implies agreement about descriptive aspects of self in addition to the evaluative or affective aspect. The effect of the affective component was not apparent at all. This is in seeming contrast to the finding that persons like those whom they perceive as choosing the same adjectives or traits to describe them that they choose to describe themselves (Newcomb, 1963; Broxton, 1963; Backman and Secord, 1962). In these studies, however, the evaluative element was not controlled.

In our experiment the evaluative element was controlled by using traits that had been judged as equivalent on a scale of social desirability. This would suggest that the effect of congruent self descriptions on attraction results from the evaluative rather than the descriptive connotations of the trait chosen.

Hypothesis 3 predicted that the amount of group balance present would influence attraction. Specifically it was expected that group

balance would interact with evaluative congruency in such a way as to lower evaluations toward the positive evaluator. This expectation was not supported. In another test of this hypothesis, the direction of difference was not predicted, but only that the difference in liking of the two members would differ more in the High Group Balance Condition than in the Low Group Balance Condition. This expectation was likewise not supported. However, when the liking scores were converted to positive or minus signs based on whether the score was above or below the midpoint of the liking continuum the results, though not quite significant, were in the direction expected. The fact that balance theory received slight support when a dichotomous sign score was used but none when a discrepancy score was used has some theoretical significance. In the Heider and Newcomb balance systems liking and disliking are treated dichotomously. In the Osgood system, evaluations are not treated dichotomously, but as falling on a continuum. Our results would suggest that equal intervals of the liking-disliking continuum have different underlying values at different points of the continuum. Differences in scores which involve differences in direction from the midpoint of the continuum probably have greater significance than equal differences which do not involve changes in direction. The treating of evaluation or liking in a balance formulation as dichotomous may, though more crude, be more meaningful.

This interpretation is consonant with the position taken by Cartwright and Harary (1956). Their system accounts for various degrees of balance but does not consider degrees of affection. In retrospect, it can be seen that the signed scores rather than discrepancy scores would have been in more accord with the Cartwright

and Harary theory.

One other finding concerning the group balance variable should be considered. In both experiments, the tendency was for evaluations of both other members to be higher in the Low Group Balance Condition than in the High Group Balance Condition. It should be kept in mind that the only difference between the two conditions was that the evaluations of the other members for each other were higher in the Low Group Balance Condition than in the High Group Balance Condition. The difference in levels of evaluations by the subjects in the two conditions may be interpreted as resulting from a difference in adaptation level. Dependent evaluations were higher in the condition in which independent or controlled evaluations were higher, which is in agreement with adaptation level theory (Helson, 1948). Another possible interpretation is that the subjects in the High Group Balance Condition felt unattracted to both other members because of their negative evaluations of each other. This interpretation is in accord with the finding of Worthy, Wright and Shaw (1964) that when one member of a group accuses another member without justification of poor performance, the other members of the group become less willing to interact with both the accused and the accuser.

Hypothesis 4 predicted that subjects who reciprocated low evaluations and liking to the negative evaluator and high evaluations and liking to the positive evaluator would react differently to dissonance reducing statements on a postexperimental questionnaire. No relationship was found between reciprocation and the rationalizing or dissonance reducing statements chosen. One conclusion that could be reached is that reciprocation did not result in the lowering of

any dissonance felt in the evaluation situation. However, this can not be stated with any certainty at all since we do not know that the dissonance initially felt by those who reciprocated and those who did not was equivalent.

Reciprocity was positively related to agreement with one statement on the postexperimental questionnaire. This statement read, "I was influenced in my evaluations of the others by their evaluations of me." It is evident from this finding that reciprocity operated at a relatively conscious level.

Another finding which is parenthetical to the testing of the hypotheses was the finding that liking for a member of the group correlated significantly with evaluation of that member. This finding supports the assumption that evaluation and liking are not independent aspects of interpersonal attraction. This tendency to evaluate highly those whom one likes and to like those one evaluates highly may be seen as rooted in the maintenance of a positive self concept. Since one's friends may be viewed as a part of the extended self, it is self enhancing to evaluate one's friends positively.

To conclude, the primary conclusion concerning determinants of interpersonal attraction that is derived from this study is that interpersonal attraction in a three person, ad hoc group of females depends to a very great extent upon the perception that one is perceived by the other person in a positive manner. Descriptive agreement, devoid of its evaluative quality, has no effect on attraction. The effect of group balance on attraction is not clear from this study but it is clear that if there is any effect it is minor compared to the effect of the positivity of evaluations, which a person perceives that he is eliciting.

CHAPTER V

SUMMARY

The present study investigated the effect of three variables, evaluative congruency, descriptive congruency and group balance, upon interpersonal attraction. Evaluative congruency deals with the amount of agreement between how positively a person views himself and how positively he is viewed by some other person. If a positive self concept is assumed, evaluative congruency may be thought of as the degree of positivity of the evaluation by the other. Descriptive congruency deals with the amount of agreement in self description which is non-evaluative in nature. These variables are equivalent to what Secord and Backman (1964) have called affective congruency and cognitive congruency. Group balance deals with the possibility of establishing a balanced state within the group. It was predicted that the patterns of attraction which led to greater balance within the group would be more likely to occur than other patterns. The balance theory of Cartwright and Harary (1956) provides a method for measuring the amount of balance present in a pattern of interpersonal orientations.

Another hypothesis which was tested was that persons who react to evaluations of themselves by reciprocating the same level of evaluation to the person who made the evaluation would react differently to a chance to reduce dissonance by devaluating the episode than would

persons who had not reciprocated.

In order to test the hypotheses, three person groups of female college students were brought together for an acquaintance period. After the acquaintance period the members of the group evaluated each other as "above average," "average," or "below average" on six traits. The evaluations took place in a modified Crutchfield conformity situation. The subjects saw by means of separate panels of lights all apparent evaluations. Actually, all evaluations which the subject saw were controlled by the experimenter. The evaluations were manipulated such that the subject thought she was evaluated very high by one member and very low by the other. This constituted the evaluative congruency treatment. In half the groups, evaluations tended to follow a profile in agreement with the subject's own self description as obtained earlier. In the other half of the groups, evaluations were manipulated to show profile disagreement. This difference constituted the descriptive congruency treatment. The apparent evaluations between the other two members of the group were manipulated such that with half the groups the attraction between the other two members appeared to be high and in the other half of the groups the attraction of the other two appeared to be low. This constituted the group balance treatment.

Two dependent measures of attraction of each subject for the other two members were taken. One was the evaluations made of the others on the last three traits. The other measure was amount of liking for each other member indicated by marking a liking continuum line after the evaluation period. Dependent data on the tendency to reduce dissonance was obtained by means of a postexperimental questionnaire.

The results were analyzed by analyses of variance of evaluation and liking scores, a t test of mean discrepancies in evaluations of the other two members in the two group balance conditions, and correlations between degree of reciprocity manifested and dissonance reducing items on the postexperimental questionnaire. The result of the analyses was that evaluative congruency had a very significant effect on attraction, but that descriptive congruency and group balance did not have a significant effect on attraction.

Degree of reciprocity manifested did not correlate with any of the dissonance reducing items on the postexperimental questionnaire.

Serendipitous findings indicated that overall evaluations were higher in the Low Group Balance Condition groups than in the other groups. Also, it was found that the more subjects reciprocated high or low evaluations to the members who evaluated them high or low, the more willing they were to agree that they had been influenced by the evaluations of them made by the others. Finally, it was found that there was a significant positive relationship between evaluation scores and liking scores.

A second experiment was conducted which was designed to strengthen greatly the descriptive congruency and group balance variables by eliminating the evaluative congruency variable and by increasing the discrepancy between the High and Low Descriptive Congruency Conditions and between the High and Low Group Balance Conditions. Again, however, neither descriptive congruency nor group balance had a significant effect on attraction. It was found, however, that if liking scores were converted to plus or minus, depending on which half of the liking continuum they fell, the group patterns which resulted tended to

support the group balance expectations.

The results were interpreted as giving strong support to the theory that interpersonal attraction is a reciprocal process. The failure of the descriptive congruency variable was interpreted as resulting from experimental controls which kept descriptive congruency independent from evaluative congruency. It was suggested that Secord and Backman's (1964) treatment of cognitive congruency of self definitions as a cause of interpersonal attraction, separate from affective congruency, should be re-examined. The failure of the group balance condition was interpreted as indicating that the effect of group balance on interpersonal attraction is insignificant when viewed independent of reciprocity. In short, it was concluded that in three person, ad hoc groups of females, one member is attracted to another as a function of perceiving that she is perceived positively by the other member.

APPENDICES

APPENDIX A

FORM 1

Name _____ Age _____

Below are three descriptions. Read them carefully.

1. "gets along well with people--friendly"
2. "does a good job--efficient and dependable"
3. "generous--willing to help others"

Which of the above descriptions is most like you? 1 2 3
(circle one)

Which of the above descriptions is least like you? 1 2 3

APPENDIX B

FORM 2

Group No. _____

Member Rated: Member No. _____

Rated by:

TRAIT 1 Efficiency _____

TRAIT 2 Getting along with people _____

TRAIT 3 Generous _____

TRAIT 4 Friendliness _____

TRAIT 5 Dependability _____

TRAIT 6 Willing to help others _____

Note: There are other variations of Form 2 which have the traits listed in different order.

APPENDIX C

FORM 3

Group No. _____

Member No. _____

Please answer the following questions. Indicate your answer by marking the appropriate place on the line below each question. You may mark anywhere on the line.

How much do you like Member No. _____?

very much

not at all

How much do you like Member No. _____?

very much

not at all

APPENDIX D

FORM 4

On this form we would like for you to guess how the other two members answered the questions on the last form. First guess how Member No. _____ answered the following questions:

How well do you like Member No. _____?

very much not at all

How well do you like Member No. _____?

very much not at all

Now answer the questions as you think they were answered by Member No. _____.

How well do you like Member No. _____?

very much not at all

How well do you like Member No. _____?

very much not at all

APPENDIX E

POSTEXPERIMENTAL QUESTIONNAIRE

Now that the experiment is over, I would like to ask you some questions that may help us in understanding the evaluations that were made. Indicate the degree to which you agree with the following statements.

1. I enjoyed the evaluation period.

Agree

Disagree

2. There was not enough time provided to become acquainted.

Agree

Disagree

3. I would probably have been evaluated higher if more important traits had been chosen.

Agree

Disagree

4. Evaluations of this kind are very meaningful.

Agree

Disagree

5. I was evaluated carefully and fairly.

Agree

Disagree

6. I was influenced in my evaluations of the others by their evaluation of me.

Agree

Disagree

REFERENCES

- Backman, C. W., and Secord, P. F. The effect of perceived liking on interpersonal attraction. Hum. Relat., 1959, 12, 379-384.
- Backman, C. W., and Secord, P. F. Liking, selective interaction, and misperception in congruent interpersonal relations. Sociometry, 1962, 25, 321-335.
- Broxton, J. A. A test of interpersonal attraction predictions derived from balance theory. J. abnorm. soc. Psychol., 1963, 66, 394-397.
- Burke, R. L. Ratings of self and others as a function of expectations and evaluations. Dissert. Abstr., 1962, 23, 1814.
- Byrne, D. Interpersonal attraction and attitude similarity. J. abnorm. soc. Psychol., 1961, 62, 713-715.
- Byrne, D., and Blaylock, B. Similarity and assumed similarity of attitudes between husbands and wives. J. abnorm. soc. Psychol., 1963, 67, 636-640.
- Cartwright, D., and Harary, F. Structural balance: a generalization of Heider's theory. Psychol. Rev., 1956, 63, 277-293.
- Dittes, J. E. Attractiveness of group as a function of self-esteem and acceptance by group. J. abnorm. soc. Psychol., 1959, 59, 77-82.
- Goulder, A. W. The norm of reciprocity: a preliminary statement. In E. E. Sampson (Ed.) Approaches, contests and problems of social psychology. Englewood Cliffs, N. J.: Prentice Hall, Inc., 1962, pp. 78-95.
- Harvey, O. J. Personality factors in resolution of conceptual incongruities. Sociometry, 1962, 25, 336-352.
- Harvey, O. J., Kelly, H. H., and Shapiro, M. M. Reactions to unfavorable evaluations of self made by other persons. J. Pers., 1957, 25, 398-411.
- Heider, F. Social perception and phenomenal causality. Psychol. Rev., 1944, 51, 358-374.

- Heider, F. Attitudes and cognitive organization. J. Psychol., 1946, 21, 107-112.
- Heider, F. The psychology of interpersonal relations. New York: John Wiley & Sons, Inc., 1958.
- Helson, H. Adaptation-level as a basis for a quantitative theory of frames of reference. Psychol. Rev., 1948, 55, 297-313.
- Horowitz, M. W., Lyons, J., and Perlmutter, H. V. Induction of forces in discussion groups. Human Relations, 1951, 4, 57-76.
- Hovland, C. I., Janis, I. L., and Kelly, H. H. Communication and persuasion. New Haven: Yale University Press, 1953.
- Jones, E. E., and Dougherty, B. N. Political orientation and the perceptual effects of an anticipated interaction. J. abnorm. soc. Psychol., 1959, 59, 340-349.
- Jones, E. E., Gergen, K. J., and Davis, K. E. Some determinants of reactions to being approved or disapproved as a person. Psychol. Monogr., 1962, 76, (Whole No. 521) 17 p.
- Kogan, N., and Tagiuri, H. Interpersonal preference and cognitive organization. J. abnorm. soc. Psychol., 1958, 56, 113-116.
- Miller, A. L. Evaluation of prospective social relationships: a function of comparison level and predicted outcome level. J. abnorm. soc. Psychol., 1963, 67, 437-445.
- Morrisette, J. An experimental study of the theory of structural balance. Hum. Relat., 1958, 11, 239-254.
- Newcomb, T. M. An approach to the study of communicative acts. Psychol. Rev., 1953, 60, 393-404.
- Newcomb, T. M. The prediction of interpersonal attraction. Am. Psychol., 1956, 11, 575-587.
- Newcomb, T. M. Stabilities underlying changes in interpersonal attraction. J. abnorm. soc. Psychol., 1963, 66, 376-386.
- Osgood, C. E. Cognitive dynamics in the conduct of human affairs. Publ. Opin. Quart., 1960, 24, 341-365.
- Pepitone, A., and Sherberg, J. Intentionality, responsibility and interpersonal attraction. J. Pers., 1957, 25, 757-766.
- Precker, J. A. Similarity of valuing as a factor in selection of peers and near-authority figures. J. abnorm. soc. Psychol., 1952, 47, 406-414.
- Reader, N., and English, H. B. Personality factors in adolescent female friendships. J. consult. Psychol., 1947, 11, 212-220.

- Richardson, H. M. Community of values as a factor in friendships of college and adult women. J. soc. Psychol., 1940, 11, 303-312.
- Runkel, P. J. Equilibrium and "pleasantness" of interpersonal situations. Hum. Relat., 1956, 9, 375-382.
- Sampson, E. E., and Insko, C. A. Cognitive consistency and performance in the autokinetic situation. J. abnorm. soc. Psychol., 1964, 68, 184-192.
- Secord, P. F., and Backman, C. W. Personality theory and the problem of stability and change in individual behavior: an interpersonal approach. Psychol. Rev., 1961, 68, 21-33.
- Secord, P. F., and Backman, C. W. Social psychology. New York: McGraw Hill Book Company, 1964.
- Sherif, M. An experimental study of stereotypes. J. abnorm. soc. Psychol., 1935, 29, 371-375.
- Tagiuri, R., Blake, R. R., and Bruner, J. S. Some determinants of the perception of positive and negative feelings in others. J. abnorm. soc. Psychol., 1953, 48, 585-592.
- Thibaut, J. W., and Kelly, H. H. The social psychology of groups. New York: John Wiley & Sons, Inc., 1959.
- Worthy, M., Wright, J. M., and Shaw, M. E. Effects of varying degrees of legitimacy in the attribution of responsibility for negative events. Psychon. Sci., 1964, 1, 169-170.
- Zajonc, R. B., and Turnstein, E. Structural balance, reciprocity and positivity as sources of cognitive bias. Technical Report No. 29, Contract NONR-1224 (34) (NR 170-309). Ann Arbor, Michigan: October 15, 1964.

BIOGRAPHICAL SKETCH

Morgan Worthy was born March 8, 1936, at Spartanburg, South Carolina. In May, 1954, he was graduated from Parker High School, Greenville, South Carolina. In May, 1956, he received the Associate of Arts degree from North Greenville Junior College. From January, 1957, until December, 1960, Mr. Worthy served with the United States Air Force and was stationed for two years in Germany. In 1961, he received the degree of Bachelor of Arts from Furman University. During the 1961-62 school year, he taught history and democracy at Slater-Marietta High School, Slater, South Carolina. In September, 1962, he enrolled in the Graduate School of the University of Florida. In December, 1963, he received the degree of Master of Arts. Since that time he has worked toward the degree of Doctor of Philosophy.

Morgan Worthy is married to the former Linda Pauline Hammond. They have one daughter, Bonnie Lyn.

