THE EFFECTS OF COGNITIVE CONFLICT ON INTERPERSONAL ATTRACTION

by

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Introduction

Analyzing the conditions which are likely to bring about international conflict, Hammond (1965) concluded that "The prime source of war in the future is likely to lie in cognitive differences concerning the means as to how common ends may be best achieved (pp. 44-45)." Hammond's conclusion follows from what he discerned to be the changing nature of interpersonal conflict. He saw "a change from a world in which there has been conflict over ends ... but agreement as to the means ... to a future in which there will be agreement over ends but cognitive conflict over means (p. 46)."

By calling this new type of conflict cognitive, Hammond identified it with ideas, or better, with ideologies. The conflict is cognitive because it results from differences in what people believe to be the best way to solve their problems. Cognitive conflict, then, is that type of interpersonal conflict that results when men think differently about mutual problems. It is interpersonal conflict over means.

Because the role that cognitive conflict plays in the affairs of men is growing, it becomes increasingly important to understand the consequences of cognitive conflict. This study constitutes one step in that direction; namely to discover the effects of cognitive conflict on interpersonal attraction.

Background and Theory

The research literature pertinent to the present study is reviewed in the following order; first, the literature of cognitive conflict, and then the literature relevant to the cognitive conflict-interpersonal attraction

hypothesis.

Cognitive Conflict

Cognitive conflict is an interpersonal, noncompetitive type of conflict arising when persons working together to achieve a mutually desired goal think differently about their common problem.

Rappoport (1965) states three pre-conditions for the occurrence of cognitive conflict: (1) mutual aims or goals, i.e., shared fate; (2) discrepant cognitive processes, i.e., individual differences in thinking; and (3) uncertainty, i.e., equivocal environmental information.

Mutual aims or goals. In order to classify interpersonal conflict as cognitive, it is necessary that the parties in conflict be working to achieve mutually desired goals, and that both parties share the consequences of their joint efforts. Experiments on cognitive conflict must, therefore, be arranged so that it is to the advantage of both parties to cooperate with each other in order to maximize their chances of being successful.

Discrepant cognitive processes. The primary cause of cognitive conflict is differences in the way two persons think about their mutual problem. This condition is often described in terms such as conflicting value systems or ideological differences.

It is important at this point to distinguish between cognitive conflict and competitive conflict. Cognitive conflict is noncompetitive; it can occur in the absence of competition under conditions of cooperation. The theoretical distinction between competitive and noncompetitive conflict rests on the assumption of different causal factors (Rappoport, 1965). With competitive conflict the primary cause of conflict is assumed to be desire for individual gain; one person seeks to gain something at the expense of

another, e.g., player motives in a zero-sum game such as poker in which one player's loss is his opponent's gain. With cognitive conflict, however, persons are working cooperatively toward a goal mutually desired by both, and it is assumed that the primary cause of conflict is discrepant thinking about their problem.

Rappoport uses the example of a bridge game to exemplify the two different kinds of conflict. Competitive conflict exists between opponents in a bridge game, while noncompetitive, cognitive conflict exists between partners.

While it is beyond the scope of this paper to elaborate in detail the theoretical distinction between competitive and noncompetitive conflict, it is important to note that this distinction separates cognitive conflict research from the great body of existing game-theory research, which deals almost exclusively with competitive conflict.

Furthermore, while competitive conflict has been researched extensively, research on cognitive conflict was only begun in 1963. This fact is particularly unfortunate in view of the opinion of many social scientists (see Hammond, 1965) that in the future man's most pressing problems will be how to resolve ideological differences, i.e., cognitive conflict over what means to utilize to achieve generally agreed upon ends. A timely example from the present is the cognitive conflict between civil rights moderates and extremists in the United States over what means are most appropriate to attain equal rights for the Negro.

Uncertainty. Uncertainty is a crucial situational factor for the development of cognitive conflict. Serious cognitive conflict is only expected to occur when a situation is uncertain enough to support different

points of view. If information from the environment is unambiguous, and/or the consequences of alternative actions fully predictable, conflicting points of view may either not arise, or be immediately resolved.

Uncertainty can of course take different forms. Even if information is clear cut, it may be difficult to organize. Because the environment "scatters its effects randomly" (Heider, 1958, p. 72), i.e., because the information from the environment upon which the organism bases its decisions is frequently equivocal and ambiguous, cognitive conflicts can and do frequently arise.

The Laboratory Model of Cognitive Conflict

To study cognitive conflict under controlled conditions, Hammond created a research paradigm based upon Brunswik's (1952, 1956) perceptual lens model. The lens model of cognitive conflict has been used to construct several cognitive conflict tasks, different in content, but with identical formal properties which satisfy the three theoretical conditions of cognitive conflict listed above. A review by Hammond, Hursch, and Todd (1964) provides a description of the general character of the lens model, and its potential for studies of cognition. The general rationale of the lens model paradigm has been discussed by Hammond (1965, 1966). For examples of its application to the study of interpersonal conflict see Rappoport (1965) and Todd, Hammond, and Wilkins (1966). The technical basis for the analysis of data produced by the lens model is discussed in Hursch, Hammond, and Hursch (1964), Hammond, Hursch, and Todd (1964), Hammond and Summers (1965), Summers and Hammond (1966), Peterson, Hammond, and Summers (1965, 1966). For an excellent general philosophical discussion of the lens model, see Hammond (1964).

Brunswik's lens model, as it has been modified for the study of

interpersonal cognitive conflict, is diagrammed in Figure 1. Note that the generation of cognitive conflict between subjects is a two stage process.

Training stage. In the training stage subjects receive discrepant experiences as they are given individual practice on different versions of the same multiple-cue probability learning task. The training tasks for both subjects are identical except for the cue validities; each subject is exposed to a substantially different set of cue validities. During training, subjects therefore learn to base their judgments of the distal variable (criterion) on different cues. In theoretical terms, the Ss develop different cognitive systems based on different cue dependencies.

For example, in the training tasks diagrammed, it is clear that subject 1 and subject 2 are exposed to substantially different cue validities. In learning to predict the criterion variable, subject 1 will learn to depend mostly upon cue #1, less upon cue #2, and least upon cue #3. Subject 2, however, will learn to depend mostly upon cue #3, less upon cue #2, and least upon cue #1. As a result of their experience with the task, assuming learning occurs for both subjects, subject 1 and subject 2 will have developed substantially different cognitive systems.

Conflict stage. In the conflict stage, subjects with different cue-dependencies are brought together to work jointly on a third version of the same task, the conflict task. The conflict task differs from both training tasks in that it utilizes a new set of cue validities different from the validities used in either of the practice tasks. Now, on each trial, subjects are required to agree among themselves on a single, joint judgment of the criterion variable. As indicated in the diagram, the subjects must now reconcile their different individual judgments in some fashion if they are

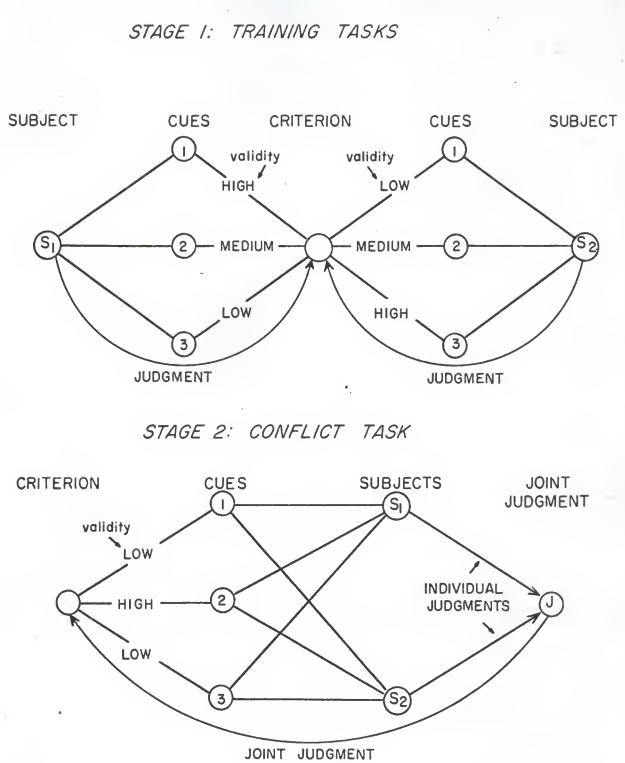

Fig. 1. Diagram of the two-stage lens model paradigm for the study of two-person cognitive conflict.

to reach agreement on a single joint judgment. The cognitive conflict should emerge at this point because each subject will be relying on cue validities substantially different from those of his partner.

Satisfying the conditions of cognitive conflict. The three conditions given as necessary requirements for cognitive conflict are satisfied by the laboratory model in the following manner. Mutual aims or goals and shared fate are arranged through instructions to the subjects which stress the importance of the mutual goal, i.e., accurate joint judgments in predicting the criterion variable, and a procedure which provides subjects with shared fate in the form of accuracy feedback on their joint judgments. Discrepant cognitive processes are induced in training where subjects are given discrepant experiences with the task from which they learn different sets of cue dependencies. The degree of uncertainty is built into the task itself by specifying the degree of correlation between each cue variable and the criterion variable. The task typically contains irreducible uncertainty in that it is not completely determined, i.e., the multiple correlation coefficient expressing the degree of relatedness between cues and criterion is less than unity.

Aside from meeting the conditions of cognitive conflict specified above, the laboratory model is a research paradigm that allows relevant characteristics of subjects' cognitive systems to be specified by the experimenter. Thus, the investigator can manipulate precisely the degree and kind of cognitive differences the subjects bring to the conflict task.

Research based on the laboratory model of cognitive conflict. Todd, Hammond, and Wilkins (1966) studied the differential effects of ambiguous and exact feedback on two-person conflict and compromise. In the ambiguous

condition subjects were provided with "right or wrong" outcome feedback for their joint judgment of the criterion. Subjects in the exact feedback condition were given feedback for their joint judgments consisting of the exact criterion values they were attempting to predict. Results indicated that the two feedback conditions did not have a markedly differential effect on the reduction of conflict, but did have a differential effect on whether conflict would be resolved by compromise or capitulation. Where exact information was provided as feedback, conflict was resolved by compromise ("splitting the difference" between the two individual judgments); where right or wrong outcome feedback was provided, conflict was resolved by capitulation ("giving in" to the individual judgment of one of the persons).

Rappoport (1965) studied the effects of an analytical and an intuitive cognitive set on initial conflict, conflict persistence and tendency to compromise. Subjects given the analytical set received instructions designed "to encourage a problem-solving, system-building orientation toward the task. Subjects given the intuitive set received instructions designed to induce a 'hunch-playing' or general-impression orientation toward the task (p. 327)." Results indicated that subjects with the intuitive set developed less initial conflict (conflict over the first 10 trials of a 50 trial task) and had a greater tendency to resolve their conflict by compromise, than subjects with an analytical set. The difference in conflict persistence between the two groups was not significant.

Hammond, Todd, Wilkins, and Mitchell (1966) used the lens model paradigm in three different studies of two-person cognitive conflict. The first study investigated the effect of early versus late confrontation with critical events (large cognitive differences between pairs) on the reduction of

conflict over time. "A critical trial was designed in which the expected divergence in judgment was 18 points (on a 20 point scale). This divergence was ... extreme ..., since ... discrepancies in judgment on all other trials were limited in range from 4 to 12 points" (p. 348). For the early confrontation group, the critical trial was placed sixth in the series of 20 trials; for the late group, the critical trial appeared on the sixteenth trial. Results indicated a substantial reduction of both overt and covert conflict over trials for both the early and late groups. Neither overt nor covert conflict reduction was differentially affected by the placement of critical trials.

The second study investigated the effects of different types of verbal interchange between persons. Subjects were trained to use two types of persuasive techniques in resolving their conflict. Subjects in the "own focus" condition were trained to present only their own point of view in the verbal interchange with the other person. Subjects in the "region of validity" condition were trained to present not only their own point of view but also to delineate the domain of validity of the other person's argument, i.e., to restate accurately the other person's position, giving reasons for agreement and disagreement with the other person's argument. Results indicated that while conflict was substantially reduced over trials for both experimental groups, the type of persuasive technique employed by the subjects in their verbal interchange did not differentially affect conflict reduction.

The third study investigated the effect of differences in complexity of the subjects' cognitive systems on conflict reduction. One member of each pair of subjects was trained to use a complex cognitive system, i.e., to use a nonlinear relationship between cue and criterion, and the other

member of the pair was trained to use a simple cognitive system, i.e., a linear relationship between cue and criterion. Results suggested that the complex subject was less willing to compromise in the face of large differences than the simple subject; the complex subject stayed closer to his original policy. Not only did the simple subject relinguish his training more readily, but the greater the difference in actual judgments, the more cognitive change induced in the simple subject.

Socially induced cognitive differences: a methodological innovation. The studies of cognitive conflict reviewed above demonstrate that cognitive conflict is amenable to laboratory investigation using the lens model paradigm. However, in all the studies reported, the cognitive conflict between persons has been generated by training subjects to think differently about their mutual decision-making task. One of the challenges to make the lens model paradigm more representative is to isolate cognitive differences as they exist outside the laboratory rather than to artificially produce them. If the results of research based on the paradigm are to be generalizable to conflict situations existing beyond the laboratory, it must be demonstrated that cognitive differences acquired in natural social experience generate conflicts with the same properties as those produced by differential laboratory training. The studies described below are methodologically different from the preceding studies because subjects were selected for cognitive differences rather than trained to be cognitively different.

Summers (1967) selected persons who believed that the status of minority groups could be changed only through increased education and paired them with persons who believed that both increased education and government legislation were necessary. When these subject pairs attempted to reach

mutual decisions regarding minority status, their disagreements were described as being caused by socially-induced cognitive differences. That is, their previous social experience had in some way led these subjects to think differently about the problem of minority status. Results indicated that the amount of initial conflict between Ss was inversely related to subsequent compromise. However, while Summers selected subjects for cognitive differences, he did not manipulate these differences as an independent variable.

A study by Rappoport (1967) was specifically designed to investigate the effects of different levels of socially induced cognitive differences on cognitive conflict. He selected pairs of subjects who, presumably as a function of differential social experience thought differently (judgments negatively related; $\bar{X}_r = -.75$), similarly (judgments positively related; $\bar{X}_r = .93$), and independently (judgments not systematically related; $\bar{X}_r = .09$) about racial integration. Results indicated that the pairs characterized by cognitive differences showed significantly more conflict than the others. His results parallel earlier findings (Rappoport, 1967) obtained with discrepantly trained subjects on a very similar task, and it was concluded that socially-induced and laboratory-induced (trained) cognitive differences have similar effects on major components of the lens model.

The foregoing may be summarized by stating that (1) the study of cognitive conflict is important, (2) that a model has been developed for its study, and (3) that a body of empirical data regarding its resolution has been collected.

Cognitive Conflict and Interpersonal Attraction

None of the research carried out to date by Hammond and associates has investigated the consequences of cognitive conflict on any variables other

than those related to the outputs of the lens model. In both the Summers (1966) and Rappoport (1967) studies, the dependent variables studied were measures of cognitive conflict resolution generated by the lens model methodology. In short, prior research has studied cognitive conflict for the most part only as a dependent variable; seldom as an independent variable and never as an independent variable affecting a dependent variable outside the framework of the lens model. The present study is intended to explore the effect of cognitive conflict on interpersonal attraction, a dependent variable formally and substantively beyond the framework of the lens model.

Are cognitive conflict and interpersonal attraction related? One of the aims of the present study is to test the hypothesis that conflict and attraction are related. The support for such a hypothesis is derived from several different sources.

First, folk psychology or the psychology of common sense suggests a relation between cognitive similarity and interpersonal attraction. One common notion about interpersonal attraction is that it varied with similarity; e.g., "Birds of a feather flock together." Since cognitive conflict varies inversely with cognitive similarity (Rappoport, 1967), might it not follow that interpersonal attraction varies inversely with cognitive conflict? The notion of similarity as a determinant of attraction is not very helpful because it is indiscriminate; it does not specify which similarities will and which will not affect interpersonal attraction. There is, for example, neither good reason nor good evidence for believing that persons with similar blood types are especially attracted to one another. In short, it is not apparent whether or not cognitive similarity should be an important determinant of attraction. There is also the problem of reconciling

the similarity notion with the equally widely held notion that "opposites attract." Thus, an appeal to folk psychology and common sense results in equivocal predictions, suggesting that the question must be answered empirically.

Second, observations of subjects discussing their policy differences in cognitive conflict experiments suggest a relation between cognitive conflict and interpersonal attraction. Subjects working in cognitive conflict experiments typically show serious emotional involvement in the task. For example, it has been reported (Rappoport, 1968, personal communication) that while working together under conditions of cognitive conflict, subjects often argued heatedly over their differences and sometimes continued their arguments after the experiment was over. But while such observations of emotional arousal under conditions of cognitive conflict suggest an affective component to cognitive conflict, they have not revealed whether subjects are more or less attracted to each other as a consequence of their conflict experience.

Third, a review of the research literature suggests not only that cognitive conflict and interpersonal attraction are related, but also that they are inversely related; i.e., as cognitive conflict is reduced between subjects, interpersonal attraction between subjects increases.

In more general terms, the question addressed by this study, i.e., can changes in interpersonal attraction be predicted as a function of the amount of cognitive conflict persons experience in a decision task?, is a question directed at the relation between cognition and emotion as determinants of behavior. The idea that cognition and emotion interact in determining behavior goes back as far as Plato (see Allport, 1954) who conceived of the

mind as made up of three inter-related, interacting faculties--cognition (thought), affection (feeling), and conation (striving). This conception is reflected in modern concepts of behavior which construe the individual act as deriving from a cognitive-emotional-motivational matrix of determinants (see Scheerer, 1954).

But the aim of the present study is limited to examining the specific relation between how people think about a mutual problem (cognition) and how they feel about each other (emotion); in particular, the relation between cognitive conflict (the extent to which people think differently about a mutual problem) and interpersonal attraction (the extent to which they are attracted to each other).

In the empirical social psychological literature, the idea that cognitive conflict has an affective emotional component is suggested in a series of group pressure experiments by Asch (1956). Asch's experimental procedure was to ask a subject to announce his judgment of an obvious matter after hearing a unanimous majority (who were accomplices of the experimenter) make a false judgment. Asch has noted that the naive subjects, confronted by a discrepancy between two normally trustworthy sources of information--their own senses and the judgments of others, experienced a profound conflict and many became emotionally upset.

The Asch studies are clearly relevant to the question addressed by the present study. However, since Asch was primarily interested in the modification of individual judgment by group influence and did not investigate changes in interpersonal attraction, his results are more suggestive than definitive of the question at hand.

The prediction of interpersonal attraction. The task of answering the

question--are cognitive conflict and interpersonal attraction related?--suggests a review of the interpersonal attraction literature; specifically a review of those studies using interpersonal attraction as a dependent variable, and particularly those studies exploring the effects of cognitive variables on interpersonal attraction.

The antecedents of interpersonal attraction have been investigated in several different environmental settings. Most notable of the studies in a natural setting is Newcomb's study (1956, 1959 and 1961) of the acquaintance process. Newcomb's research objective was to observe the relationship between attraction and similarity of attitudes as it changed over time. His objective required (1) that his subjects be complete strangers at the start of the experiment in order to establish an interpersonal attraction baseline of zero against which to measure change; (2) that his setting be such that it would be possible for a high degree of positive attraction to develop; and (3) that regular and repeated observations be conveniently made.

To fulfill these requirements, the following arrangements were made. A student house was rented, and male transfer students, all strangers to the University of Michigan, were offered the opportunity of receiving free room rent for a full semester. In return, they were to spend four or five hours a week responding to questionnaires and interviews, and participating in experiments. From those who submitted applications to live in the house under these conditions, 17 (the capacity of the house) were selected, no two of whom had ever lived in the same city, nor attended the same school. The men were given complete freedom, except for choice of roommates, to conduct the house as they chose.

In this setting, data was obtained by questionnaire and interview, at

semi-weekly intervals. A wide range of attitude responses was obtained, as well as extensive data concerning interpersonal attraction. Measures of the latter were derived from responses to direct questions about how favorably each house member felt toward each of the others. Newcomb labeled the measures "General Liking" responses and his own evaluation of the measures was that they were quite sensitive toward negative attraction. As measures of positive attraction, however, they were more often an index of "'admiration at a distance' than of direct contact and communication" (p. 580).

Most notable of those studies carried out in a laboratory setting are the investigations by Byrne and his associates of attitude similarity and interpersonal attraction. Typically, Byrne's experimental procedure (see Byrne, 1961, 1962) involved (1) assessing the subjects' attitudes on a series of topics, and later (2) presenting the subjects with the attitudes of a stranger on the same topics and finally, after the subjects have read the strangers' responses, (3) asking the subjects to rate the strangers on a set of six 7-point scales including two scales intended to measure attraction of the subjects for the strangers.

An interesting experiment, prototypic of Byrne's methodology, is an investigation by Byrne and Nelson (1965) of the differential effects of proportion versus number of similar attitudes on interpersonal attraction. A 4 x 3 factorial design was utilized which permitted a comparison of the effect of number of similar attitudes (16, 8, and 4) with the effects of proportion of similar attitudes (1.00, .67, .50, and .33) on attraction. Each of the 12 cells contained 14 subjects, divided approximately evenly with respect to sex.

Each subject responded to one of several forms of an attitude scale

ranging in length from 4 to 48 items. Responses to each item were made on a 7-point scale and the topics were balanced with respect to degree of importance. The attitude items ranged across a variety of topics including fraternities and sororities, integration, science fiction, discipline for children, and gardening.

About a week after responding to the attitude scales, the subjects reported in small groups for "another experiment." Subjects were told that the experiment concerned the accuracy with which individuals can make interpersonal judgments on the basis of limited information. They received an attitude scale purportedly filled out by an anonymous stranger (a student of the same sex as themselves), read that person's responses and then made several judgments about him or her. The stranger's attitude scale was actually a bogus one constructed by the experimenter so as to constitute the desired similarity-dissimilarity ratio for each subject.

After reading the "stranger's" responses, each subject rated him on the Interpersonal Judgment Scale (Byrne, 1961, 1962; Byrne and Wong, 1962) which consisted of six 7-point scales concerning intelligence, knowledge of current events, morality, adjustment, and two attraction scales (probable liking for the stranger and probable enjoyment of working with him). In previous investigations (e.g., Byrne, 1961) responses to the latter two scales have been analyzed separately as alternative measures of the dependent variable. The results suggest that the probable liking scale is the most sensitive and most reliable measure of interpersonal attraction.

The Newcomb and the Byrne and Nelson studies have been presented as examples of research methodology used to investigate the antecedents of interpersonal attraction. The present study investigates the hypothesis

that cognitive conflict affects interpersonal attraction and the remainder of this chapter reviews the support for that hypothesis. First to be considered will be the results of studies that have investigated the effect of various stimulus characteristics on interpersonal attraction.

In experimental investigations of interpersonal attraction, various stimulus characteristics associated with an individual have been manipulated and found to exert an effect on attraction toward that individual (for a review, see Byrne, Clore and Worchel, 1966). For example, the Newcomb study of the student living group found that subjects tended to like (1) those by whom they thought they were liked, (2) those who they thought would describe them in most favorable terms, (3) those who agreed with the subjects on generalized (Allport-Vernon) values, (4) those who shared proximity with the subjects, "mean attraction among all pairs living on each of the two floors of the house was higher than for all inter-floor pairs" (Newcomb, 1956, p. 580) and (5) those with whom they were attitudinally similar, particularly those with whom they shared similar attitudes regarding characteristics of the other members of the living group. The proposition that "the greater the similarity between any two members in assigning General Liking scores to the other 15 members, the higher their attraction for each other" (p. 582) received clear support. Individuals in high agreement with each other about the other 15 house members clearly tended to be attracted to each other.

The Byrne and Nelson study found that attraction was not significantly affected by the number of similar attitudes shared by subject and stranger, but was significantly affected only by the proportion of similar attitudes shared by subject and stranger. Byrne and Nelson utilized these and data from other published studies (Byrne, 1961a, 1961b, 1962; Byrne and McGraw,

1964; Byrne and Wong, 1962) for a total of 790 subjects, and showed that the functional relationship between proportion of similar attitudes and attraction is a positive linear one.

Some other stimulus characteristics found to exert an effect on interpersonal attraction are the expression of positive or negative evaluations concerning the subject (Backman and Secord, 1959; Byrne and Rhamey, 1965; Deutsch and Solomon, 1959; Jones, Hester, Farina and Davis, 1959; Keislar, 1961), the sequence in which these evaluations are expressed (Aronson and Linder, 1965), behavior which results in the reduction of the threat that the subject will fail at a task (Kleiner, 1960), behavior which is responsible for the subject's failure at a task (Lerner, 1965), the administration of punishment in the form of insults to another individual (Pepitone and Sherberg, 1957), the fact of being present when the subject is rewarded (Lott and Lott, 1960), and the proportion of expressed attitudes and opinions which are similar to those of the subject (Byrne, 1961, 1962; Byrne and Wong, 1962; Byrne and Nelson, 1965; Byrne and Rhamey, 1965).

With reference to the last series of findings regarding attitude similarity and attraction, it should be noted that no other single variable has proved to be such a powerful determinant of interpersonal attraction. Specifically, Byrne has studied the following variables: (1) economic similarity-dissimilarity (1966), (2) similarity-dissimilarity of personality characteristics (1967), (3) importance of the topic (Byrne and Rhamey, 1965), (4) number of similar attitudes (1965), and (5) prestige similarity-dissimilarity (1966); he has found none to be as important as the proportion of similar-dissimilar attitudes in effecting change in interpersonal attraction.

Several years prior to Byrne, Newcomb (1956) reached a similar conclusion regarding the importance of attitude similarity as a determinant of attraction:

> "In short, I am attempting to defend the thesis that interpersonal attraction always and necessarily varies with perceived similarity regarding important and relevant objects (including the persons themselves). While I regard similarity of attitudes as a necessary rather than a sufficient condition, I believe that it accounts for more of the variance in interpersonal attraction than does any other single variable." (1956, p. 579)

A reinforcement theory of interpersonal attraction. How may these diverse findings--particularly the relation between attitude similarity and interpersonal attraction--be accounted for? A substantial number of investigators have accepted a reinforcement theory of interpersonal attraction (e.g., Byrne, 1961; Golightly, 1965; Kleiner, 1960; Lott and Lott, 1960; McDonald, 1962; Nelson, 1965; Newcomb, 1956, 1961; Pepitone and Sherberg, 1957). In essence, the theory states that the relation between attitude similarity and interpersonal attraction is "a special case of the effect of positive and negative reinforcement on attraction through the operation of consensual validation" (Byrne, 1966).

More specifically, the theory, as derived by Byrne (1961) from a statement by Newcomb (1956), states that: (1) Persons have a learned drive to be logical and to interpret the world correctly (see also Festinger, 1954). This drive is reinforced by consensual validation and frustrated by consensual invalidation. (2) Perceived attitude similarity reduces the drive by providing consensual validation and therefore is reinforcing; conversely, perceived attitude dissimilarity frustrates the drive and is punishing. A similar attitude, therefore, may be equated with positive reinforcement; a dissimilar attitude with negative reinforcement. (3) Attraction between

persons is a function of the extent to which reciprocal rewards are present in their interaction. (4) Finally, attraction toward a stranger, other things being equal, should increase as a function of the proportion of similar attitudes shared with the stranger (positive reinforcements present in the interaction) and decreases as a function of the proportion of dissimilar attitudes shared with the stranger (negative reinforcements present in the interaction).

In elaborating the reinforcement theory of interpersonal attraction, Byrne and Nelson (1965) have proposed a law of attraction stating that "attraction toward X is a positive linear function of positive reinforcements received from X" (p. 662). This tentative law of attraction, $A = (A_X\ mPR_X + k)$, has been demonstrated to hold for a variety of reinforcing stimuli, including similar and dissimilar attitude statements (see Byrne and Nelson, 1965).

Implications for the present study. Byrne's major theoretical statement is that interpersonal attraction is a function of the proportion of similar-dissimilar attitudes shared between persons. If similar and dissimilar attitudes may be equated with cognitive similarities and dissimilarities, then it follows that cognitive similarities should be reciprocally reinforcing and cognitive dissimilarities should be nonreinforcing. It also follows that subjects who experience cognitive conflict as a result of their cognitive dissimilarities should subsequently like each other substantially less than persons who experience less cognitive conflict because of cognitive similarities. Therefore, it is hypothesized that in the present experiment an inverse relationship will obtain between cognitive conflict and interpersonal attraction; i.e., as cognitive conflict is reduced between subjects,

interpersonal attraction between subjects will increase.

Aims of the present study. The aims of the present study are as follows: (1) The empirical aim is to test the hypothesis that cognitive conflict is inversely related to interpersonal attraction. (2) The methodological aim is to extend the generality of the lens model paradigm of cognitive conflict by (a) examining an emotional consequence or correlate of cognitive conflict, and (b) employing a new substantive task involving child-rearing material that should generate emotional arousal in subjects.

Method

The research design can best be understood in terms of three conceptual stages: first, subjects were selected for cognitive differences and similarities; second, subjects were brought together to perform a task in which their cognitive differences would result in cognitive conflict; and third, subjects were asked to rate their attraction toward their partners at three different times during the experiment.

Selection of subjects for cognitive differences and similarities. An assessment instrument was used to select pairs of subjects who thought differently and similarly about child-rearing practices, presumably as a consequence of their previous natural social experience. Prior research by Rappoport (1967) has indicated that pairs of subjects characterized by cognitive differences will experience more conflict than pairs characterized by cognitive similarities. Thus, conditions of potentially high and low cognitive conflict were arranged by pairing subjects who thought differently (high conflict pairs) and similarly (low conflict pairs) to work jointly on a task in which their cognitive differences would result in two different levels of cognitive conflict.

Generation of cognitive conflict. In order to generate conditions of high and low cognitive conflict, selected subjects worked together on an uncertain, multi-cue task involving joint judgments about child-rearing practices. The methodology employed to generate cognitive conflict was based upon the Hammond (1965; see also Hammond, et al., 1966) research paradigm for the study of cognitive conflict.

The formal properties of the task were the same as in the cognitive

conflict studies cited above, i.e., subjects were presented with cues probabilistically related to a criterion variable and asked to make judgments concerning the value of the criterion. Three cues were used in the task; the high validity cue correlated -.92 with the criterion, while the cue-criterion correlations for the other two cues were zero-order--.19 and -.12, respectively.

The verbal content of the cues and the criterion, however, was unique to this study. The criterion to be predicted was the level of adjustment of a child during his first year of school. The cues were: (1) the PERMISSIVENESS of the child's parents, (2) the USE OF NON-PHYSICAL DISCIPLINE in disciplining the child, and (3) INDEPENDENCE TRAINING received in the home. The verbal content of the task was developed in a survey study by Zola and Rappoport (1968).

In the conflict stage of the experiment, subjects were brought together to make joint judgments of the level of adjustment (criterion) based upon the levels of permissiveness, non-physical discipline, and independence training (cue values). Because the task fulfills the conditions necessary to generate cognitive conflict (see pp. 2-4 above), it was predicted that subjects would disagree as to the predicted level of adjustment for the child. During the conflict stage of the experiment, subjects were required to make criterion predictions for 15 different cases. Each case or trial consisted of a different configuration of cue values.

The scales of assessing interpersonal attraction between subjects were the same as those used by Byrne and his associates (e.g., see Byrne, 1961; Byrne and Nelson, 1965): (1) a measure of how much subjects like each other, and (2) a measure of to what extent subjects are willing to work

together again at some future time. On the basis of prior research, Byrne (1961) has concluded that these two scales are the most reliable and sensitive measures of interpersonal attraction that he has used.

These measures were repeated at three different times during the experiment: prior to the beginning of the conflict task, i.e., time 0; and after trials 3 and 13 of the 15 trial task. The zero time measurement was taken to establish a baseline against which to measure changes in attraction. Measures were also taken at trials 3 and 13 because prior research with the conflict paradigm suggested that conflict should be close to maximum at trial 3 and substantially reduced by trial 13.

Subjects were asked to rate both their attraction to their partners and their attraction to the experimenter. Since subjects were not in cognitive conflict with the experimenter, the latter measure served as a control; if changes in the dependent variables were reflected in the ratings of the experimenter, then they would have to be attributed to something other than the manipulation of the independent variable.

Independent Variables

To study the effect of cognitive conflict on interpersonal attraction, the amount of cognitive conflict generated in the conflict task was manipulated. This was accomplished by pairing subjects selected for cognitive differences (high conflict pairs) and cognitive similarities (low conflict pairs) to work jointly on a task in which their cognitive differences and similarities would result in two different levels of cognitive conflict; high and low cognitive conflict between subjects in the former and latter pairs, respectively.

The basic data from the conflict paradigm. The Hammond paradigm allows quantification of cognitive conflict in terms of the data obtained on each trial during the conflict stage. These basic data (see Hammond, 1965) are shown in Figure 2. Here, T1 and T2 represent the prediction that each subject would make if he followed the policies he developed as a consequence of his previous natural social experience exactly. The T's are derived from the multiple regression equation describing the policy each subject used in coping with the selection task. The scores S1 and S2 represent the subjects' initial predictions of the criterion which they exchange and discuss to reach their joint judgment, J. The scores S'1 and S'2 represent the private predictions which each subject made following the discussion to reach a joint judgment. The Y score represents the response that would be correct if the ecological system were not probabilistic, while Y' represents the feedback received by the subjects.

Cognitive conflict. The basic data were combined to provide measures of both overt and covert conflict. These two measures allow the experimenter to assess the amount of disagreement at both the beginning and the end of each conflict trial. Overt conflict is measured in terms of the absolute difference between the subjects' initial predictions, i.e., $S1-S2$; covert conflict is measured in terms of the absolute difference between the private predictions which the subjects made after their discussion to reach a joint judgment, i.e., $S'1-S'2$.

Since it is possible to measure the total amount of cognitive conflict generated for each pair of subjects during the task, it becomes possible to assess how effectively the independent variable has been manipulated; to ascertain whether there is, in fact, more cognitive conflict experienced

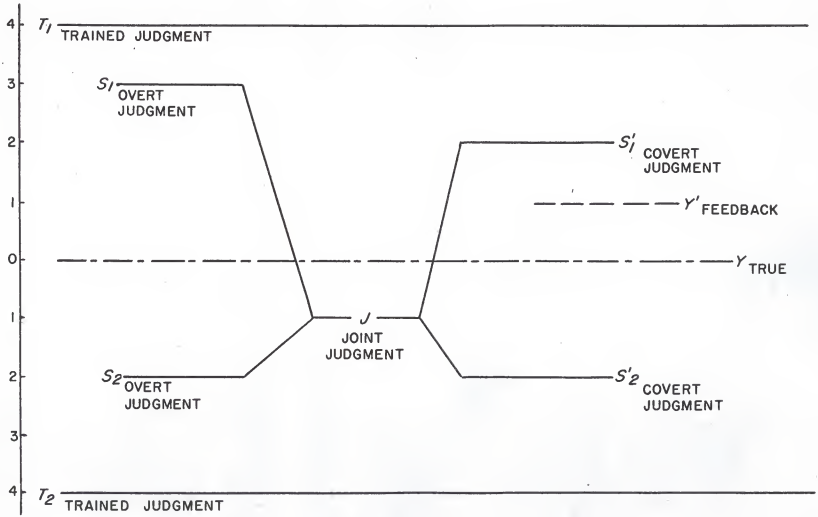

Fig. 2. Basic data obtained on a single trial.

by the group selected for high conflict (composed of cognitively different pairs) than in the group selected for low conflict (composed of cognitively similar pairs).

Dependent Variables

Interpersonal attraction. Two measures of interpersonal attraction were taken; a measure of the extent to which subjects liked their partners and a measure of the extent to which subjects were willing to work together again with their partners on another experiment. The measures consisted of the subject's numerical ratings of his feelings toward the other person marked along a continuum divided into 20 units.

Summary

The general purpose of the present study was to examine the relation between cognitive conflict (the extent to which people think differently about solutions to their mutual problems) and interpersonal attraction (the extent to which they are attracted to each other). This purpose was accomplished by using the lens model of cognitive conflict in conjunction with the methods and procedures associated with the study of interpersonal attraction. Specifically, subjects were selected for cognitive differences and similarities to generate high and low cognitive conflict, and measures of interpersonal attraction were taken after varying amounts of interaction on the conflict task. In more technical terms, the design may be seen as a repeated measures one-way analysis of variance comparing the effects of two levels of cognitive conflict on different measures of interpersonal attraction repeated at three different times.

Procedure

The second major aim of the present study was to extend the generality of the lens model of cognitive conflict to the study of cognitive conflict over child-rearing practices. In general, prior studies of cognitive conflict have involved task materials that were not of immediate personal relevance to the subjects. Because this study concerned immediate emotional aspects of cognitive conflict, it was important to employ a task which was of direct personal relevance to subjects. A child-rearing task was developed for the present study because it was reasoned that it should be directly relevant to subjects insofar as they have all been children and will be, or are, parents. While the formal properties of the child-rearing task remained the same as in prior lens model research (i.e., uncertain cues to a criterion variable) the unique content of the new task offers definite advantages for the present study in that it provides issues which are both personally relevant and controversial.

Selection Procedure

In order to accomplish the aim specified above, a policy assessment instrument was devised to select pairs of subjects who, presumably as a consequence of their previous natural social experience thought differently and similarly about child-rearing practices.

Construction of the selection task. Most of the material needed for construction of the selection instrument was obtained in a study by Zola and Rappoport (1968). The basic procedure for constructing the instrument was as follows: (1) A series of free response interviews was conducted with

a representative sample of college students. The interviews consisted of asking three open-ended questions related to global aspects of rearing children and were intended to obtain a thorough sampling of beliefs regarding child-rearing characteristics of the college population. (2) From the information obtained in the interviews, eleven different matters relevant to child-rearing were extracted for use in a questionnaire. Respondents rated the relative importance of all eleven matters to rearing well adjusted children. (3) On the basis of the responses to the questionnaire, three child-rearing practices were picked as cues to be used in the selection instrument; permissiveness, use of non-physical discipline, and independence training. These three child-rearing practices were used as cues because questionnaire responses to these three items indicated that (1) subjects regarded all three practices as important to child adjustment, but that (2) subjects disagreed as to the relative importance of the practices as determinants of child adjustment. Thus, subjects' responses indicated that persons existed in a potential subject population who thought similarly and differently regarding the relative importance of these practices as determinants of child adjustment.

The selection instrument. Using these three child-rearing practices as cues, an instrument was constructed for selection of subjects with similar and different policies regarding child-rearing practices. The instrument consisted of (1) a Case Information Booklet, (2) a Case Judgment Booklet, and (3) a set of instructions.

The selection task. For the selection task each subject was presented with: (1) a set of mimeographed instructions; (2) a booklet of 15 stimulus cards each showing values on three 10-point bar graphs labeled respectively,

PERMISSIVENESS, USE OF NON-PHYSICAL DISCIPLINE, and INDEPENDENCE TRAINING, and (3) a booklet of fifteen, 20-point, empty bar graphs titled ADJUSTMENT DURING THE FIRST YEAR OF SCHOOL, the criterion in terms of which the subject made his predictions.

The subject predicted the future level of the criterion, adjustment during the first year of school, from the levels of the three cues, permissiveness, use of non-physical discipline, and independence training, presented on each stimulus card. He recorded prediction for each of the 15 stimulus cards. No feedback was provided the subject as to the accuracy of his predictions.

Selection instrument instructions. The mimeographed selection instructions were the same for all of the subjects (see Appendix 1). These instructions informed each subject that his task was "to make a series of judgments concerning child-rearing practices and their effects." In particular, he was told to judge "how certain child-rearing practices influence a child's adjustment in his first year of school." His judgments were to be made on the basis of information provided in the 15 page CASE INFORMATION BOOKLET, each page presenting information about a "case study" of a different child (see Appendix 2 for sample case information sheet). For each child the subject was told he would be given the extent to which the following three child-rearing practices had characterized the child's early childhood.

"(1) the permissiveness of the child's parents, i.e., the degree to which the child has been free to behave as he wishes;

(2) the use of non-physical discipline, i.e., the degree to which the child's parents have used non-physical forms of punishment in disciplining the child; and

(3) independence training, i.e., the degree to which the child has been encouraged to make decisions for himself."

The subject was told that his task would be "to examine the individual information given for each child in the case information booklet, and then to make a judgment as to how well the child will adjust during his first year in school."

Specific instructions were given and special materials provided the subjects for recording their judgments. Each subject received a mimeographed 15 page CASE JUDGMENT BOOKLET containing a separate page on which to record his judgment about each case (see Appendix 3 for a sample sheet from the CASE JUDGMENT BOOKLET). It was explained to the subject that the judgment scale for each case "is divided into 5 major levels of adjustment" ranging from "very good adjustment" to "very poor adjustment" with the general meaning of the five categories described on the judgment scale itself (see Appendix 3), and that each of the five categories was subdivided into four units numbered from one to four within each category to enable the subject to "express the degree to which you think a given child's adjustment is described precisely by a given major category of the judgment scale." In short, the subject was directed to mark his judgments along a criterion continuum consisting of a 20-point scale divided into five major categories labeled adjustment during the first year of school.

Each subject was instructed to make a judgment about each of the 15 cases in the CASE INFORMATION BOOKLET and to record his judgment for each case on a separate page of the CASE INFORMATION BOOKLET.

Subjects

One hundred forty-four females, all undergraduate students at Kansas

State University filled out the PRIMARY SCHOOL ADJUSTMENT QUESTIONNAIRE. On the basis of responses to the questionnaire, 30 pairs were selected to participate in the conflict task.

The subjects volunteered for the experiment entitled, Research on Child Rearing Practices, in order to earn hours of credit for experimental participation. One hour of credit was awarded for filling out the questionnaire and an additional hour of credit was awarded for participating in the conflict task.

Only females were used as subjects because the study required emotional involvement in the task and it was reasoned that a task related to "child rearing practices" would more likely engage the interest of females than males.

The purpose of administering the selection task was to assess cognitive differences and similarities shared by pairs of subjects. In order to carry out this objective, each subject's 15 responses to the cases presented in the PRIMARY SCHOOL ADJUSTMENT QUESTIONNAIRE were correlated with all other subjects' responses to the questionnaire. From the pool of 144 selection questionnaire respondents, two groups of subjects were selected. The HIGH CONFLICT GROUP consisted of 15 pairs of subjects selected for cognitive differences; the average correlation (Pearson product moment) of each subject's responses with the responses of his partner was -.27. It would have been desirable to use subjects that were more cognitively different than the group selected, but relatively few negatively correlated pairs were obtained.

The Low Conflict Group consisted of 15 pairs of subjects selected for cognitive similarities; average correlation of each subject's responses

with the responses of his partner was .88.

Conflict Procedure

Conflict task. Following selection, two subjects were brought together and each presented with: (1) a second set of mimeographed instructions, (2) a set of 15 stimulus cards of the same form as those used in the selection questionnaire, but with feedback in terms of the criterion printed on the reverse side, and (3) individual forms for each subject for recording his responses.

Working together, the task for both subjects was to reach a joint prediction of the future level of the criterion, level of adjustment during the first year of school, on the basis of the given levels of the three cues; permissiveness, non-physical discipline, and independence training. Each of 15 conflict trials proceeded in the following way: after observing the given cue values the subjects were requested (1) to make individual predictions of the level of the criterion, (2) to exchange these individual predictions with one another, (3) to discuss any differences that occurred, and (4) to agree on a joint judgment about the level of the criterion.

Each subject's task was to learn to predict the future level of the criterion from the given levels of the three cues by making predictions for each stimulus card and checking these predictions against the feedback given on the reverse side. In order to predict successfully the level of the criterion, the subject had to learn the cue validities, i.e., the correlations between the cues and the criterion.

Conflict task instructions. Like the instructions for the selection task, the mimeographed conflict instructions were the same for both subjects (see Appendix 4). The instructions informed the subjects that they were

"to make a series of judgments concerning child-rearing practices and their effects" on the basis of information presented on CASE INFORMATION CARDS. For each of the 15 cases presented, the subject was instructed to "make a judgment as to how well the child will adjust during his first year of school." The cues to be used in making the judgments were defined and the method to be used in recording the judgments was discussed. Instructions regarding the cues, the predicted criterion and the method of recording judgments were identical to those used in the selection task.

Each subject was further informed that he was to work together with his partner according to the following procedure: After examining the information provided on the CASE INFORMATION CARDS and recording his own FIRST INDIVIDUAL JUDGMENT (and after his partner had done the same), the subject was directed to reach agreement with his partner on a JOINT JUDGMENT that "both of you feel is the best judgment as to the level of adjustment." Subjects were informed that they were "free to consult with each other or discuss the information" in any way they chose. Once a joint judgment had been agreed upon, it was recorded by the experimenter.

Interpersonal Rating Procedure

Interpersonal rating task. For the interpersonal rating task, each subject in each conflict pair was presented with: (1) a single sheet of mimeographed instructions, and (2) a set of three forms for recording his rating of his feelings toward his partner.

The subject's task was to answer three questions.

(1) "How much do you like your partner compared with all the other people you know?"

(2) "How much would you like to work with your partner on another experiment of this type compared with all the other people you know?"

(3) "How much do you like the experimenter compared with all the other people you know?"

The questions were answered by marking individual scales (see Appendix 5) provided for each question. Each interpersonal attraction rating scale consisted of a continuum of 20 units, divided into four major categories ranging from "Very Much" to "Below Average" with each category subdivided into five sub-categories ranging from "hi" to "lo."

Each subject rated his feelings toward his partner and the experimenter at three different times; immediately after reading the conflict task instructions, before interacting with the other person, and after trials 3 and 13 of the conflict task.

Interpersonal attraction task instructions. Like the instructions for the conflict task, the mimeographed interpersonal attraction task instructions were the same for both subjects (see Appendix 6). The instructions informed each subject that he was to indicate his feelings on the scales provided toward the person specified and instructed him in how to use the scales. He was assured that his ratings would be considered confidential information and would not be communicated to his partner. He was encouraged to be frank in his ratings and directed not to ponder the ratings but to put down his first feelings.

Stimulus Materials

Selection and conflict stimulus cards. The format of the stimulus cards was the same for both the selection and conflict tasks. On the face of each

8-1/2"by 11" stimulus card were printed three bar graphs, titled PERMISSIVENESS, USE OF NON-PHYSICAL DISCIPLINE, and INDEPENDENCE TRAINING (see Appendix 3). All three of these bar graphs, which represented 10-point scales, were divided into 5 equal segments, levels, each of which was further divided in half to make two units. The five levels were labeled with captions ranging from "Very High" at the top to "Very Low" at the bottom. The height of the colored area in the bar indicated scale values, i.e., the extent to which each of the three factors was present in the homelife of the child.

Criterion scale. Feedback, stated in terms of the criterion scale, was printed on the reverse side of each of the conflict stimulus cards. No feedback was used in the selection task. The criterion scale, called LEVEL OF ADJUSTMENT DURING THE FIRST YEAR OF SCHOOL, was presented as a bar graph. The format of the criterion bar graph was the same as the format of the bar graphs representing the cue values (see Figure 4). However, since the criterion represented a 20-point rather than a 10-point scale, each of the five levels was divided into four steps instead of two. Each of the five levels was labeled with captions ranging from "Very Good Adjustment" to "Very Poor Adjustment," and each of the four units within a level was numbered. The height of the colored area in the bar indicated the "correct" prediction based on the cue values presented on the front of the card.

Cue-criterion correlation for the conflict task stimulus samples. Only one of the cues, independence training, was a useful predictor of the criterion values; $r = -.92$. The cue-criterion correlations for the other two cues, permissiveness and non-physical discipline, were $r = -.12$ and $r = .19$, respectively. The multiple correlation coefficient for all three cues with

the criterion was r = .93, indicating that the task was partially indeterminate. It should be recalled that one of the theoretical conditions for a cognitive conflict task is probabilistic cue-criterion relations and indeterminacy or irreducible error. The statistical properties of this task fulfill these requirements.

Results

Cognitive Conflict

Overt cognitive conflict was measured in terms of the absolute difference between the individual judgments of paired subjects; $|S_1 - S_2|$. The amount of overt conflict was computed for each pair for each conflict trial and averaged across each successive block of three trials. These average conflict scores were then averaged across the fifteen pairs of subjects in each selection group. The average overt conflict scores for each group are plotted as a function of trial blocks in Figure 3.

The difference between the two groups in average overt conflict for each of the five three-trial blocks was analyzed by a mixed design analysis of variance. The analysis of overt conflict scores (see Table 1) shows that there is significantly more conflict among the cognitively different pairs

TABLE 1

Analysis of Variance of Overt Conflict Scores

Source	SS	DF	MS	ET	F
Groups (B)	22.93	1	22.932	1	14.9196*
Blocks (A)	7.49	4	1.872	2	.9158
A by B	7.97	4	1.992	2	.9744
Error Terms					
Subj. W. Groups (1)	43.04	28	1.537		
A x Subj. W. Groups (2)	228.93	112	2.044		

*$p < .005$

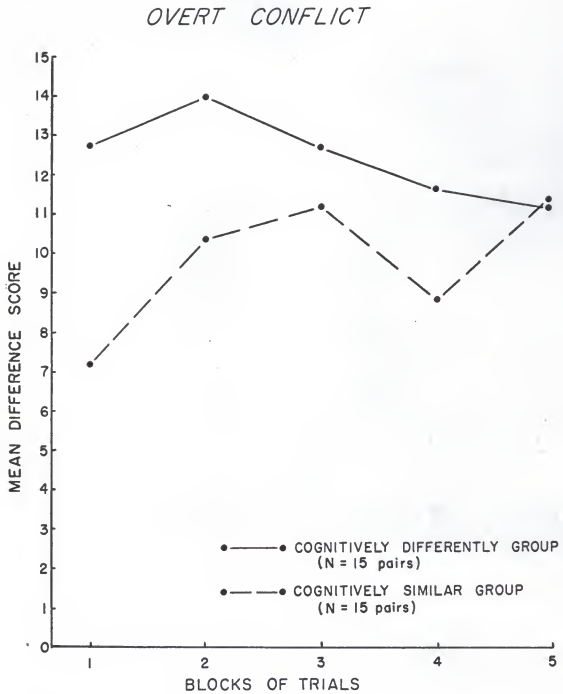

Fig. 3. Mean overt conflict scores per pair plotted as a function of trial blocks for selected groups of cognitively similar and dissimilar subjects.

than there is among the cognitively similar pairs ($F = 14.92$, $p < .005$). There is no significant effect for either trial blocks or groups by trials interaction.

These results demonstrate that the selection of subjects for cognitive differences and similarities is an effective technique for producing significantly different levels of cognitive conflict between subjects. In terms of the design of the present study, these results are presented as evidence of the successful manipulation of the independent variable; subjects selected for cognitive differences did, in fact, show significantly more cognitive conflict than subjects selected for cognitive similarities.

Cognitive Conflict and Interpersonal Attraction

Interpersonal attraction was measured in terms of numerical ratings on a scale running from 1 to 20 representing the subjects' feelings toward the persons they were asked to rate. Two different measures of interpersonal attraction were taken; measures of the degree to which subjects liked the other person (hereafter called the "Like" measure), and measures of the extent to which subjects were willing to work together again with the same person on another experiment (hereafter called the "Work" measure). The interpersonal attraction ratings were repeated at three different times during the experiment; immediately prior to the conflict task (at time-0), and during the conflict task after trials 3 and 13.

The average interpersonal attraction scores for each of the two, 15-pair conflict groups are plotted as a function of trials in Figures 4, 5, 6 and 7. The attraction functions for each of the two conflict groups are based on the mean of the attraction ratings recorded by each pair of subjects in each conflict group at each time, i.e., the average of the summed

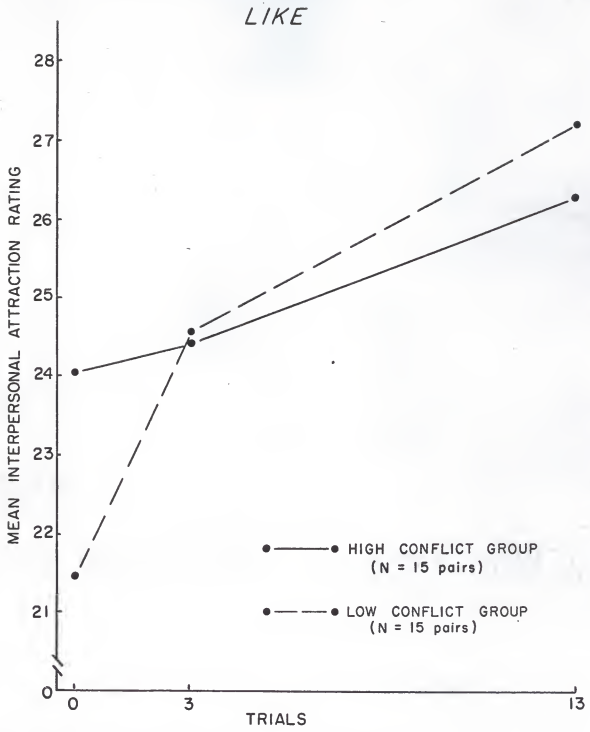

Fig. 4. Mean interpersonal attraction ratings per pair plotted as a function of trials for two groups of subjects selected for high and low cognitive conflict respectively. Based on the Like measure of attraction.

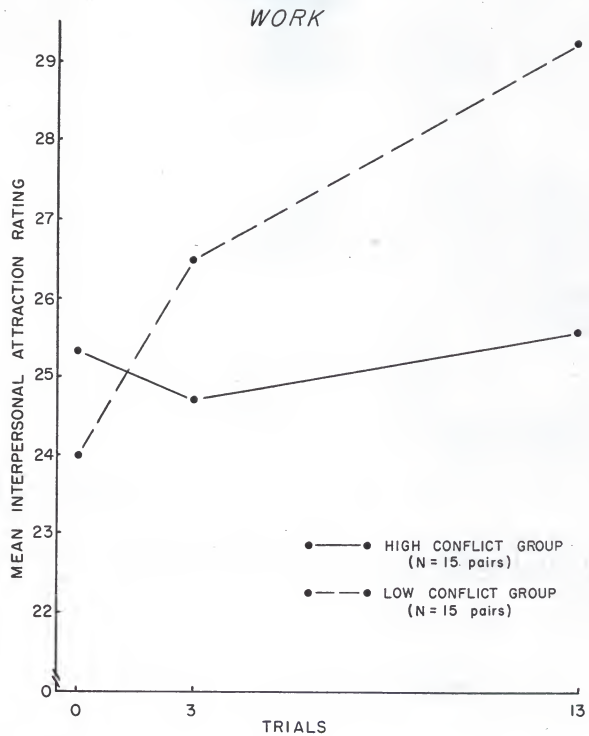

Fig. 5. Mean interpersonal attraction ratings per pair plotted as a function of trials for two groups of subjects selected for high and low cognitive conflict respectively. Based on the Work measure of attraction.

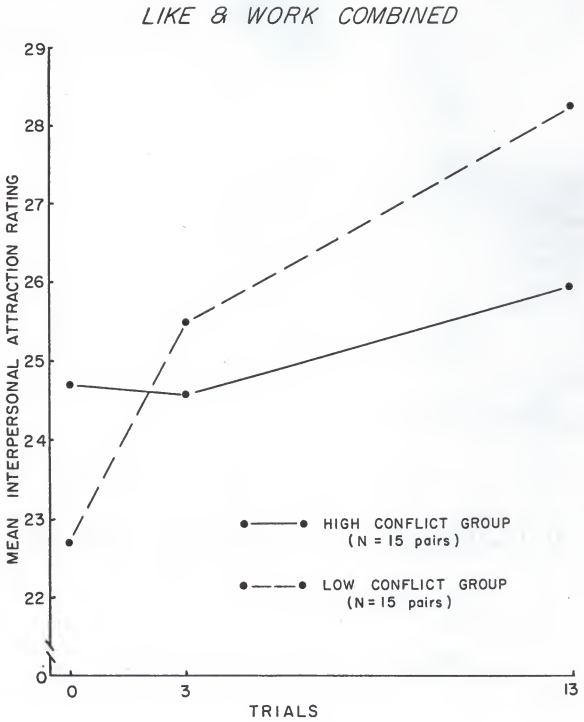

Fig. 6. Mean interpersonal attraction ratings per pair plotted as a function of trials for two groups of subjects selected for high and low cognitive conflict respectively. Based on the combined Like and Work measures of attraction.

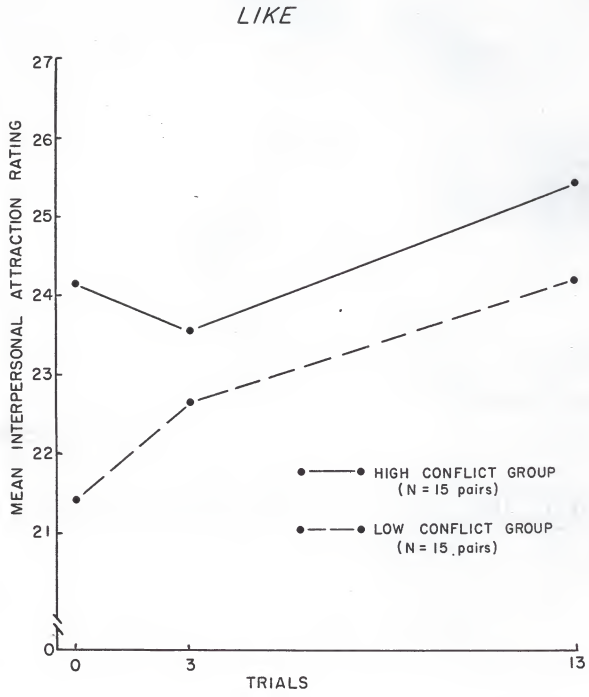

Fig. 7. Mean interpersonal attraction ratings per pair for the Experimenter plotted as a function of trials for two groups of subjects selected for high and low cognitive conflict respectively. Based on the Like measure of attraction.

attraction ratings of individual pair members.

Figure 4 shows the attraction of subjects in each of the two conflict groups for their partners immediately prior to and during the conflict task. The attraction ratings recorded are based on the Like measure of attraction; i.e., how much each subject recorded that he liked his partner. Figure 5 differs from Figure 4 only in that the attraction ratings in Figure 5 are based on the Work measure of attraction; i.e., how much each subject recorded that he would like to work further with his partner. Figure 6 is based on a combination of the Like and Work measures of attraction; subjects' Work and Like ratings recorded at each point in time were added together and the sums averaged for each group. Figure 7 shows the attraction of subjects in each conflict group for the experimenter and is based on the Like measure of attraction.

Figures 8, 9, 10 and 11 correspond to Figures 4, 5, 6 and 7, respectively. The data base for the two series of figures is exactly the same; the only difference between the two sets of figures is that whereas Figures 4, 5, 6 and 7 are based on attraction scores, Figures 8, 9, 10 and 11 are based on attraction change scores. Change scores are computed from the difference in attraction scores recorded at two different points in time; the measure recorded first chronologically is subtracted from the measure recorded last and the difference equals the change score recorded for that unit of time. Attraction change scores are analyzed in the present study rather than attraction scores because there is some evidence (see Figures 4, 5, 6 and 7) that the high conflict group was pre-disposed to make consistently higher interpersonal attraction ratings at time-0 than the low conflict group. The largest difference in initial interpersonal attraction ratings

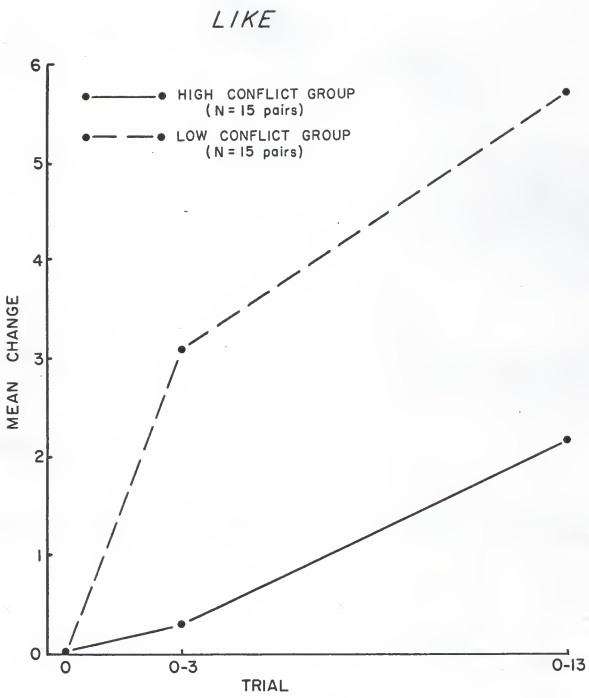

Fig. 8. Mean change in interpersonal attraction ratings per pair plotted as a function of trials for two groups of subjects selected for high and low cognitive conflict respectively. Based on the Like measure of attraction.

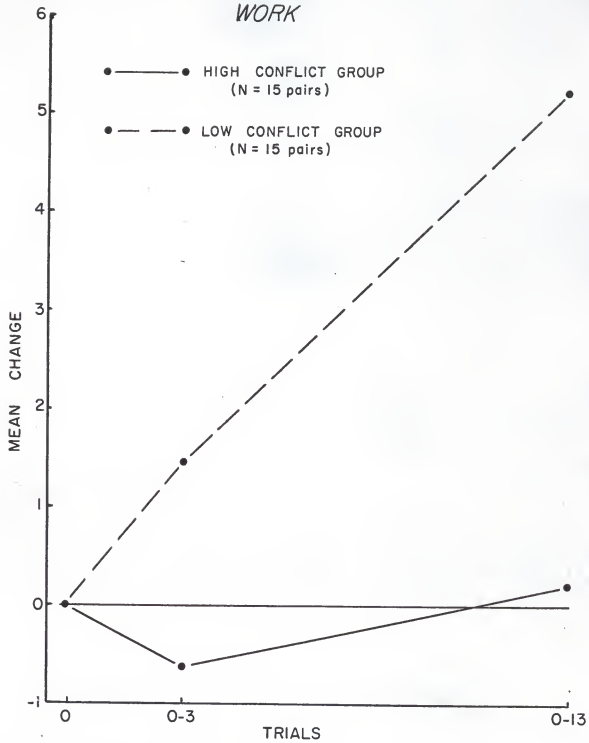

Fig. 9. Mean change in interpersonal attraction ratings per pair plotted as a function of trials for two groups of subjects selected for high and low cognitive conflict respectively. Based on the Work measure of attraction.

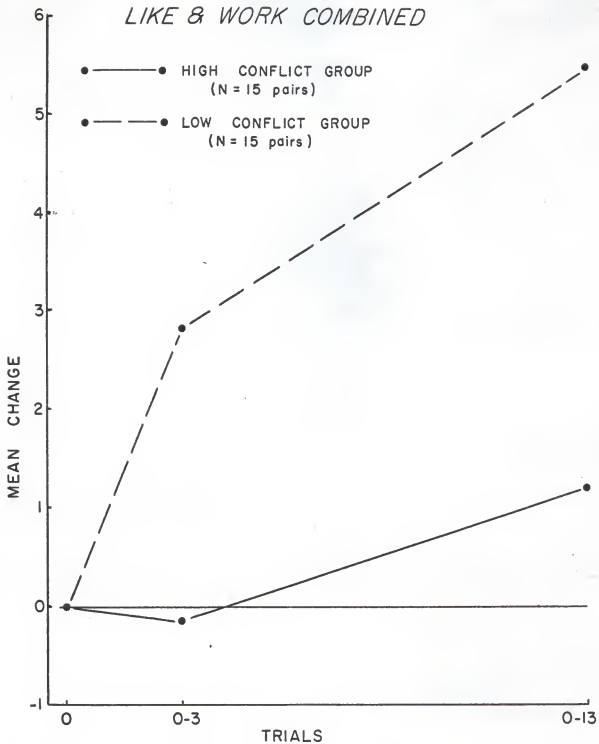

Fig. 10. Mean change in interpersonal attraction ratings per pair plotted as a function of trials for two groups of subjects selected for high and low cognitive conflict respectively. Based on the combined Like and Work measures of attraction.

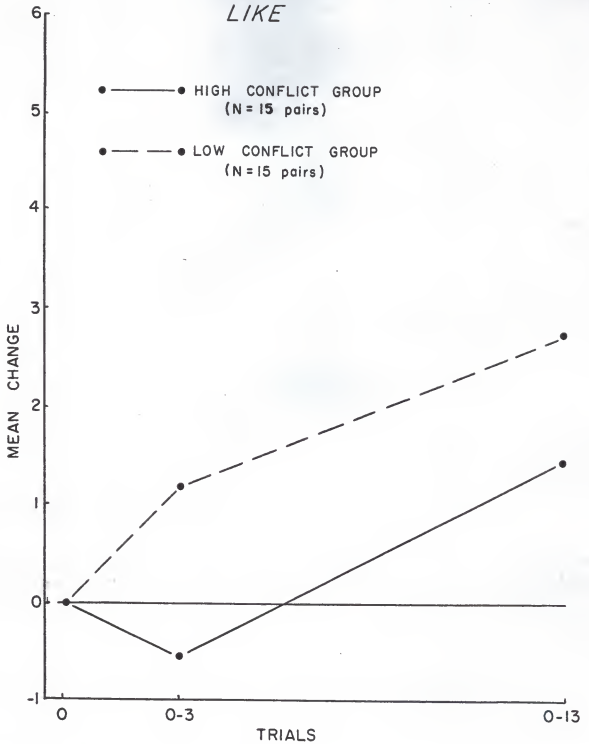

Fig. 11. Mean change in interpersonal attraction ratings per pair for the Experimenter plotted as a function of trials for two groups of subjects selected for high and low cognitive conflict respectively. Based on the Like measure of attraction.

for the two conflict groups appears at time-0 with the Like measure (see Figure 4), but the difference is not significant ($t = 1.44$, $p > .10$). Nevertheless, by using change scores in the analysis of attraction ratings, the high and low conflict groups are equated for initial levels of interpersonal attraction at time-0.

Linear trends in attraction change scores. The relation between cognitive conflict and interpersonal attraction was examined by means of a linear trend analysis of the attraction change scores. The change in interpersonal attraction across time was analyzed by fitting a least squares regression line to the interpersonal attraction change scores recorded across the three points in time.

In order to ascertain whether there were significant linear trends, the slopes of the attraction change curves for both levels of selected conflict were tested against zero. The results of these analyses are presented in Tables 2, 3, 4, 5, 6 and 7.

TABLE 2

Analysis of Linear Trend of Interpersonal Attraction Change Scores: High Conflict Group "Like" Scores Against Zero

Source of Variation	SS	DF	MS	F
Total	95.50	30		
From C	18.15	1	18.15	6.80*
Within Groups	77.35	29	2.67	

* $p < .05$

TABLE 3

Analysis of Linear Trend of Interpersonal Attraction Change Scores:

Low Conflict Group "Like" Scores Against Zero

Source of Variation	SS	DF	MS	F
Total	194.00	30		
From C	123.27	1	123.27	50.54*
Within Groups	70.73	29	2.44	

* $p < .01$

TABLE 4

Analysis of Linear Trend of Interpersonal Attraction Change Scores:

High Conflict Group "Work" Scores Against Zero

Source of Variation	SS	DF	MS	F
Total	107.50	30		
From C	.15	1	.15	.04
Within Groups	107.35	29	3.70	

TABLE 5

Analysis of Linear Trend of Interpersonal Attraction Change Scores:

Low Conflict Group "Work" Scores Against Zero

Source of Variation	SS	DF	MS	F
Total	274.00	30		
From C	101.40	1	101.40	17.04*
Within Groups	172.60	29	5.95	

* $p < .01$

TABLE 6

Analysis of Linear Trend of Interpersonal Attraction Change Scores:

High Conflict Group "Like" Scores Against Zero (for Experimenter)

Source of Variation	SS	DF	MS	F
Total	81.50	30		
From C	7.35	1	7.35	2.87
Within Groups	74.15	29	2.56	

TABLE 7

Analysis of Linear Trend of Interpersonal Attraction Change Scores: Low Conflict Group "Like" Scores Against Zero (for Experimenter)

Source of Variation	SS	DF	MS	F
Total	85.50	30		
From C	28.02	1	28.02	14.13*
Within Groups	57.48	29	1.98	

* $p < .01$

The results of the trend analysis presented in Tables 2, 3, 4, 5, 6 and 7 indicate that there is a significant positive linear increase in attraction for both high and low conflict groups across trials for the Like measure of attraction (see Tables 2 and 3). The Work measure of interpersonal attraction also shows a significant positive linear increase across trials for the low conflict group (see Table 5), but not for the high conflict group (see Table 4). Attraction ratings of liking for the experimenter, the control condition, show a significant positive linear increase for the low conflict group (see Table 7), but not for the high conflict group (see Table 6). Examination of the graphs of the attraction functions and the results from the linear trend analysis of attraction change scores may be summarized as indicating a general tendency for all subjects to show an increase in their attraction ratings across time.

Group comparisons. In order to ascertain whether there were significant differences in the attraction change curves for the high and low conflict groups, the trends of the attraction change curves for the two groups were analyzed against each other. The results of these analyses are

presented in Tables 8, 9, 10 and 11.

TABLE 8

Analysis of Linear Trend of Interpersonal Attraction Change Scores: High Conflict Group "Like" Scores Against Low Conflict Group "Like" Scores

Source of Variation	SS	DF	MS	F
Total	289.50	60		
From C	118.01	1	118.01	46.22*
From BC	23.41	1	23.41	9.17*
Within Groups	148.08	58	2.55	

* $p < .01$

TABLE 9

Analysis of Linear Trend of Interpersonal Attraction Change Scores: High Conflict Group "Work" Scores Against Low Conflict Group "Work" Scores

Source of Variation	SS	DF	MS	F
Total	381.50	60		
From C	54.67	1	54.67	11.33*
From BC	46.87	1	46.87	9.71*
Within Groups	279.95	58	4.83	

* $p < .01$

TABLE 10

Analysis of Linear Trend of Interpersonal Attraction Change Scores: High Conflict Group "Like" + "Work" Scores Against Low Conflict Group "Like" + "Work" Scores

Source of Variation	SS	DF	MS	F
Total	671.00	120		
From C	166.67	1	166.67	45.10*
From BC	68.27	1	68.27	18.47*
Within Groups	436.07	118	3.70	

* $p < .01$

TABLE 11

Analysis of Linear Trend of Interpersonal Attraction Change Scores: High Conflict Group "Like" Scores (for Experimenter) Against Low Conflict Group "Like" Scores (for Experimenter)

Source of Variation	SS	DF	MS	F
Total	167.00	60		
From C	32.03	1	32.03	14.11*
From BC	3.33	1	3.33	1.47
Within Groups	131.63	58	2.27	

* $p < .01$

The results of the trend analyses presented in Tables 8, 9, 10 and 11 reflect the same general tendency for attraction scores to show a linear increase across time (see "From C" entries in Tables 8, 9, 10 and 11). The attraction change scores collapsed across conflict groups show a significant linear increase for both the Like and Work measures of attraction combined (see Table 10), and also for both of the measures considered invidually (see Tables 8 and 9). Finally even the Liking change scores for the experimenter reflected the same general increase across time (see Table 11).

However, when the attraction change curves for the high and low conflict groups are contrasted (see "From BC" entries in Tables 8, 9, 10 and 11) their rate of increase proves to be significantly different. For both the Like and the Work measures of attraction, considered together (see Table 10) or considered individually (see Tables 8 and 9), the low conflict group shows a significantly faster rate of increase than does the high conflict group ($p < .01$). In the control condition, however, the ratings of attraction for the experimenter do not show a differential rate of increase for the two conflict groups (see Table 11).

The major results of the present study may be summarized as follows:

(1) Fifteen pairs of subjects in both the low and high conflict experimental conditions show increased interpersonal attraction as a function of trials.

(2) The increase in attraction in the low conflict condition is significantly greater than the increase in attraction in the high conflict condition.

Discussion

The aims of the present study were as follows: (1) The empirical aim was to examine the relationship between cognitive conflict and interpersonal attraction. It was hypothesized that cognitive conflict is inversely related to interpersonal attraction. (2) The methodological aim was to extend the generality of the lens model paradigm of cognitive conflict by (a) examining an emotional consequence of cognitive conflict, and (b) employing a new substantive task involving child-rearing material that should generate emotional arousal in subjects. With respect to these aims, results obtained in the present study will be discussed at two different levels; first at the empirical level and then at the methodological level.

Cognitive Conflict and Interpersonal Attraction

Two important empirical results were obtained in this study. First, all subjects showed a general tendency to increase their attraction ratings as a function of trials in the conflict task. Second, the increase in attraction in the low conflict condition was significantly greater than the increase in attraction in the high conflict condition.

Thus it may be concluded that the amount of cognitive conflict experienced between subjects in a decision-making task does significantly affect interpersonal attraction. While all pairs of subjects tend to show a definite increase in attraction across time, the subjects experiencing less cognitive conflict show a tendency to increase their attraction for each other at a faster rate than those subjects experiencing more cognitive conflict. In short, the effect of cognitive conflict on interpersonal attraction seems to be to significantly inhibit or suppress the increase of interpersonal

attraction across time.

How are these two findings to be explained? Both findings are entirely consistent with a reinforcement theory of interpersonal attraction (see Newcomb, 1956; Byrne, 1961; and pp. 20-22 of the present paper). It has been theorized that attraction between persons is a function of the extent to which reciprocal rewards are present in their interaction. Through the operation of consensual validation, cognitive similarities should be reciprocally reinforcing and cognitive dissimilarities should be nonreinforcing. It follows therefore that subjects under conditions of low cognitive conflict should experience greater rewards in their interaction and should increase their attraction for each other at a faster rate than persons interacting under conditions of high cognitive conflict. The finding that attraction between all subjects shows a general tendency to increase over trials follows from the reasonable assumption that subjects in both conflict conditions are probably more alike than different in their totality of attitudes as a consequence of their common membership in the female, undergraduate, university community.

Since subjects were not in cognitive conflict with the experimenter, the ratings of attraction for the experimenter served as a control condition. The fact that the increase in attraction for the experimenter was not significantly different for the two experimental groups supports the contention that the differential increase in attraction evidenced by the two conflict groups is attributable to the effects of different levels of cognitive conflict on interpersonal attraction.

The tendency of the high conflict group to make higher initial (time-0) interpersonal attraction ratings than the low conflict group remains

unexplained. While the difference between the two conflict groups in initial attraction ratings does not achieve significance, the tendency is consistent for both the Like and Work measures of attraction and obtains not only in the initial attraction ratings for the experimenter, but also persists inexplicably in the later measures of attraction for the experimenter taken after trials 3 and 13 of the conflict task. It should be stressed, however, that: (1) the differences do not achieve significance, and (2) the major findings of this study are based on analyses of attraction change scores which equates the conflict groups for initial levels of interpersonal attraction.

Extending the Generality of the Lens Model

The generality of the lens model was extended by the present study in three ways. First, a substantively new conflict task was generated and the lens model paradigm was applied for the first time to cognitive conflict over the effects of child-rearing practices, an important area of interpersonal decision-making. Second, cognitive conflict was studied for the first time as an independent variable operating on a dependent variable formally and substantively outside the framework of the lens model paradigm. Showing that cognitive conflict affects interpersonal attraction, an important variable outside the framework of the lens model, increases the construct validity of cognitive conflict. Third, by replicating Rappoport's (1967) finding that different levels of cognitive conflict can be generated by pairing subjects selected for cognitive differences and similarities, the present study extends the generality of the selection method for generating different levels of cognitive conflict.

In discussing the methodological implications of the present study,

it is important to consider some important differences between the design of the present study and the designs employed by Byrne and Newcomb discussed above. The methodology of the present study offers an advantage over Byrne's methodology in that it allows changes in interpersonal attraction to be studied as a consequence of social interaction. Byrne's method of asking subjects to rate their attraction for a bogus stranger on the basis of "his" responses to an attitude questionnaire precludes interaction between the subject and the person he is asked to rate. Such a limitation raises serious questions regarding the generality of Byrne's findings to situations outside the laboratory.

While Newcomb's design allowed interaction between subjects in a natural social environment, his results are equivocal because it is not clear exactly what variables were influencing attraction ratings. There was no control condition, and Newcomb was unable to go beyond demographic and attitude questionnaire data in specifying in what ways his subjects were different and similar. The lens model methodology employed in the present study offers an advantage over Newcomb's methodology in that it allows the experimenter to specify precisely the amount and the way in which subjects differ cognitively.

Implications for Further Research

First, the finding that cognitive conflict between persons engaged in a decision-making task affects their attraction for each other raises questions as to what the other consequences of cognitive conflict might be. The effects of cognitive conflict on other dependent variables should be investigated. For example, it would be interesting to study the effects of cognitive conflict on joint and individual cognitive adaptation to the

environment.

Second, the effect of lens model variables other than cognitive conflict on interpersonal attraction needs to be studied. For example, one might study the effects of different modes of conflict resolution, compromise and capitulation, on interpersonal attraction. While it was beyond the intent of the present study to analyze all of the outputs of the lens model paradigm, it should be noted that much more data were collected than were presented here.

Finally, it would be interesting to investigate the effects of interpersonal attraction as an independent variable influencing the dependent variables of the lens model paradigm of cognitive conflict. For example, one might study the effects of different levels of interpersonal attraction on the method persons employ to resolve their cognitive conflict.

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APPENDIX 1

Selection Instrument Instructions

PRIMARY SCHOOL ADJUSTMENT QUESTIONNAIRE

Explanation of the Task:

We want you to make a series of judgments concerning childrearing practices and their effects. In particular we want you to judge how certain childrearing practices influence a child's adjustment in his first year of school. Two types of task materials have been provided you: (1) a case information booklet, and (2) a case judgment booklet.

The case information booklet contains information about case studies of 15 different children. For each child you will be given the extent to which the following three factors have characterized the child's early childhood. The three factors are:

(1) the permissiveness of the child's parents, i.e., the degree to which the child has been free to behave as he wishes;

(2) the use of non-physical discipline, i.e., the degree to which the child's parents have used non-physical forms of punishment in disciplining the child; and

(3) independence training, i.e., the degree to which the child has been encouraged to make decisions for himself.

Experts in psychology and education agree that these factors are critical determinants of the child's school adjustment, but opinions vary as to which factors are most or least important. Your task will be to examine the information given for each child in the case information booklet, and then to make a judgment as to how well the child will adjust during his first year in school.

How to Record Your Judgments:

For each of the 15 cases presented in the case information booklet, there is a page in the booklet which presents information about the extent to which the three factors described above were present in the child's home. The case judgment booklet contains a separate page on which to record your judgment about each case. The judgment scale for each case (see the case judgment booklet) is divided into 5 major levels of adjustment: very good adjustment, above average adjustment, average adjustment, below average adjustment, and very poor adjustment. The general meaning of these five categories is described on the judgment scale itself. Since most persons have difficulty expressing their views precisely using only these five major categories, each of the five categories is subdivided so that you may express the degree to which you think a given child's adjustment is described precisely by a given major category of the judgment scale.

The general procedure to follow in making your judgments is this: first, decide which of the 5 major categories is most appropriate; then, decide whether the child's adjustment will be closer to the category immediately above or immediately below the one you have selected. For example, if you think the child will make an average school adjustment, but is likely to be very close to being above average, circle the number 4 in the average category. If you think he will be moderately close to the above average category, circle the number 3; moderately close to the below average category, circle the number 2; very close to the below average category, circle the number 1.

Summary of Instructions:

For each of the 15 cases examine the information given in the case information booklet, record your judgment of the child's adjustment in the case judgment booklet, and then go on to the next case. When you have judged case 15, you are finished with the questionnaire.

APPENDIX 2

Sample Case Information Card

Case Number _____

CASE INFORMATION CARD

	Very High
	Above Average
	Average
	Below Average
	Very Low

PERMISSIVENESS

	Very High
	Above Average
	Average
	Below Average
	Very Low

USE OF NON-PHYSICAL DISCIPLINE

	Very High
	Above Average
	Average
	Below Average
	Very Low

INDEPENDENCE TRAINING

SCALE VALUES indicate the extent to which each of the three factors has characterized a given child's early childhood, i.e., the extent to which each factor was present in the homelife of the child.

APPENDIX 3

Sample Sheet from Case Judgment Booklet

Case Number _____

4	Very Good Adjustment
3	The child is very enthusiastic about school, likes and is well liked by his teachers and classmates, and learns very easily.
2	
1	
4	Above Average Adjustment
3	The child actively enjoys school, gets along very well with his classmates, and learns rapidly.
2	
1	
4	Average Adjustment
3	The child likes school, gets along well with most of his classmates, and shows satisfactory progress in his learning.
2	
1	
4	Below Average Adjustment
3	The child is reluctant to attend school, makes few friends, and appears to be a slow learner.
2	
1	
4	Very Poor Adjustment
3	The child must be forced to attend school, dislikes most of his classmates, and appears to be learning nothing.
2	
1	

ADJUSTMENT DURING THE FIRST YEAR OF SCHOOL

APPENDIX 4

Conflict Task Instructions

INSTRUCTIONS

Explanation of the Task:

We want you to make a series of judgments concerning childrearing practices and their effects. In particular, we want you to judge how certain childrearing practices influence a child's adjustment in his first year of school.

The CASE INFORMATION CARDS in front of you contain information about case studies of 15 different children. For each child you will be given the extent to which the following three factors have characterized the child's early childhood. The three factors are:

(1) the PERMISSIVENESS of the child's parents, i.e., the degree to which the child has been free to behave as he wishes;

(2) the USE OF NON-PHYSICAL DISCIPLINE, i.e., the degree to which the child's parents have used non-physical forms of punishment in disciplining the child; and

(3) INDEPENDENCE TRAINING, i.e., the degree to which the child has been encouraged to make decisions for himself.

In brief, your task is to examine the information given for each case and then to make a judgment as to how well the child will adjust during his first year in school.

How to Record Your Judgments:

For each of the 15 cases presented on the case information cards, there is a corresponding sheet in the INDIVIDUAL CASE JUDGMENT BOOKLET. The individual case judgment booklet contains a separate page on which to record your judgment about each case. The judgment scale for each case (see the individual case judgment booklet) is divided into 5 major levels of adjustment: very good adjustment, above average adjustment, average adjustment, below average adjustment, and very poor adjustment. The general meaning of these five categories is described on the judgment scale itself.

Since most persons have difficulty expressing their views precisely using only these five major categories, each of the five categories is subdivided so that you may express the degree to which you think a given child's adjustment is described precisely by a given major category of the judgment scale.

The general procedure to follow in making your judgments is this: first, decide which of the 5 major categories is most appropriate; then, decide

whether the child's adjustment will be closer to the category immediately above or immediately below the one you have selected. For example, if you think the child will make an average school adjustment, but is likely to be very close to being above average, circle the number 4 in the average category. If you think he will be moderately close to the above average category, circle the number 3; moderately close to the below average category, circle the number 2; very close to the below average category, circle the number 1.

Working Together on the Task:

In carrying out the task, you are to work together according to the following procedure:

First, examine the information presented for each individual case. Then record your own judgment of the child's school adjustment in your individual case judgment booklet on the scale labelled FIRST INDIVIDUAL JUDGMENT. Do this without consulting your partner.

Second, on the basis of what you know about your partner, you are to predict what your partner's judgment of the child's adjustment will be. Record your prediction in the individual case judgment booklet on the scale labelled PREDICTION OF PARTNER'S JUDGMENT. Do this, of course, without consulting with your partner.

Third, after each of you has recorded your individual judgment and your prediction of your partner's judgment, you are to reach a single, collective or JOINT JUDGMENT for the case. You are now free to consult with each other or discuss the information in any way you choose. Once you have agreed on what both of you feel is the best judgment as to the level of adjustment, relate your joint judgment to me in order that I may record it.

Fourth, after your joint judgment has been recorded, you are to make a SECOND individual judgment of the level of adjustment for the same case. Record this judgment in your individual case judgment booklet on the scale labelled SECOND INDIVIDUAL JUDGMENT. Since the discussion may have raised points which you had not previously considered, this second individual judgment need not be consistent with either your first individual judgment or the joint judgment. Feel free to make this second individual judgment according to how you see the situation at that time.

Fifth, after recording your second individual judgment, the case information card is to be turned over to enable you to see the correct answer before going on to the next case.

Summary of Instructions:

(1) You are individually to make a FIRST INDIVIDUAL JUDGMENT and a PREDICTION OF YOUR PARTNER'S JUDGMENT.

(2) Then, you are jointly to reach agreement on a single JOINT JUDGMENT which you are to relate to me so that I may record it.

(3) Next, you are individually to make a SECOND INDIVIDUAL JUDGMENT.

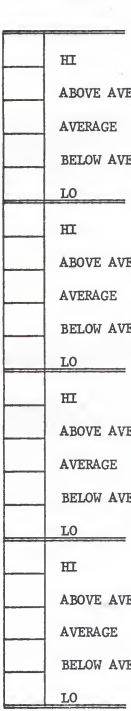
(4) Finally, you are to note the correct answer on the back of the case information card and then proceed to the next card.

APPENDIX 5

Interpersonal Attraction Rating Scales

IPA AFTER _____

YOUR SUBJECT NUMBER _____



Scale #1

SCALE #1. On scale #1 you are to RATE HOW MUCH YOU LIKE YOUR PARTNER in comparison with all of the other people that you know. Mark an "X" in the category space which best corresponds to the way that you feel about your partner.

IPA AFTER _____ YOUR SUBJECT NUMBER _____

	HI VERY MUCH CATEGORY
	ABOVE AVERAGE
	AVERAGE
	BELOW AVERAGE
	LO
	HI ABOVE AVERAGE CATEGORY
	ABOVE AVERAGE
	AVERAGE
	BELOW AVERAGE
	LO
	HI AVERAGE CATEGORY
	ABOVE AVERAGE
	AVERAGE
	BELOW AVERAGE
	LO
	HI BELOW AVERAGE CATEGORY
	ABOVE AVERAGE
	AVERAGE
	BELOW AVERAGE
	LO

Scale #2

SCALE #2. On scale #2 you are to RATE HOW MUCH YOU WOULD LIKE TO WORK WITH YOUR PRESENT PARTNER ON ANOTHER EXPERIMENTAL TASK OF THIS SORT. Mark an "X" in the category space which best corresponds to the way that you feel about your partner.

IPA AFTER _____ YOUR SUBJECT NUMBER _____

	HI VERY MUCH CATEGORY
	ABOVE AVERAGE
	AVERAGE
	BELOW AVERAGE
	LO
	HI ABOVE AVERAGE CATEGORY
	ABOVE AVERAGE
	AVERAGE
	BELOW AVERAGE
	LO
	HI AVERAGE CATEGORY
	ABOVE AVERAGE
	AVERAGE
	BELOW AVERAGE
	LO
	HI BELOW AVERAGE CATEGORY
	ABOVE AVERAGE
	AVERAGE
	BELOW AVERAGE
	LO

Scale #3

SCALE #3. On scale #3 you are to RATE HOW MUCH YOU LIKE THE EXPERIMENTER in comparison with all of the other people that you know. Mark an "X" in the category which best corresponds to the way that you feel about the experimenter.

APPENDIX 6

Interpersonal Attraction Rating Instructions

INSTRUCTIONS

Explanation of the INTERPERSONAL RATING PROCEDURE:

Using the three scales provided, you are to indicate your feelings toward the specified other person in the following manner: MARK AN "X" IN THE CATEGORY SPACE WHICH CORRESPONDS TO THE WAY YOU FEEL ABOUT THE PERSON YOU ARE ASKED TO RATE. Note that each large category on the scales, e.g., AVERAGE, is divided into five sub-categories ranging from HI, e.g., HI AVERAGE, to LO, e.g., LO AVERAGE. Note the sample rating--"ABOVE AVERAGE AVERAGE."

	LO
	HI AVERAGE CATEGORY
X	ABOVE AVERAGE
	AVERAGE
	BELOW AVERAGE
	LO
	HI

Please be frank in making your ratings. Your ratings are confidential. They will only be identified by your subject number, and your partner will not see the ratings you make.

Do not ponder the ratings. Put down your first feelings; BE IMPULSIVE.

When you have finished making your ratings, please TURN THE RATING SHEETS OVER ON YOUR DESK and wait for further instructions.

THE EFFECTS OF COGNITIVE CONFLICT ON INTERPERSONAL ATTRACTION

by

CARL EDWIN KUHLMAN

B. A., The University of Kansas, 1964

AN ABSTRACT OF A THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Psychology

KANSAS STATE UNIVERSITY
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This study relates two hitherto separate problem areas in psychology: interpersonal conflict and interpersonal attraction. In the former area, research has generally focused on the stimulus situation as the cause of disagreements. Game theory studies are based on manipulation of pay-off conditions, and cognitive conflict studies demonstrate that conflict can be generated by discrepant meanings persons assign to stimuli. In the latter area, studies show that persons with similar attitudes generally like each other better, or are attracted to each other more, than persons with dissimilar attitudes. The present study brings these two lines of work together by placing subjects in a cognitive conflict situation and tapping their emotional feelings toward each other as they work through a conflict task.

The conflict task required subjects to agree on a series of judgments concerning the effects of certain child-rearing practices. Fifteen pairs of female subjects who thought differently about the child-rearing practices, and who therefore were expected to disagree, were compared with fifteen pairs of females who thought similarly about the child-rearing practices. Results show: (a) that subject pairs in the former group disagree with each other significantly more than pairs in the latter group, (b) that while all pairs show evidence of an increase in interpersonal attraction during the task, pairs in the latter group who experience less conflict, show a significantly greater increase in attraction than pairs in the former group.

These results are interpreted as evidence of a clear relationship between cognitive and emotional aspects of interpersonal conflict. The amount of cognitive conflict experienced by subjects working on a decision-making task has a significant effect on how much they like each other. Discussion of this finding emphasizes possibilities for future research, including comparisons with male subject pairs, and exploration of other cognitive and emotional aspects of interpersonal conflict.