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FAMILY INTERACTIONAL PATTERNS AS RELATED TO
INTERPERSONAL PERCEPTUAL STYLE

By

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ABSTRACT

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The purpose of this study was to examine the relationship between interpersonal perceptual style (IPS) and the social behaviors exhibited by a family triad. IPS is defined as the differential attention that people pay to the positive and negative behaviors of others. In order to obtain the parental IPS scores, the parents first viewed a videotape of a male or female "target" child interacting with an adult in a play room and then they completed a behavior checklist about the target child. The checklist measured their IPS. Thus, this investigation focused on the relationship between the extent to which parents are biased in their perceptions of the child-actor in the videotape and the nature of their interactions with their own spouse and child.

Earlier, Stollak, Messé, and their co-workers studied the relationship between IPS and the social behaviors of adult-child and adult-adult dyads. Based on their research results, it was hypothesized that parental IPS would be related to the overt social behaviors between the members of the family triad. For example, it was expected that negative

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bias in parents would be related to behaviors with their children that reflected dominance and a desire for interpersonal distance. Conversely, it was expected that the more negative the parents' IPS, the more constrained would be their child's behavior towards them. Finally, we expected to find an increasing rigid or structured mode of interacting between the parents as the negativity of IPS increased for both parents.

Thirty-one, two parent families of 5-7 year old children (17 males and 14 females) interacted in the playroom. They engaged in four-10 minute tasks: (1) free play, (2) teaching the child the meaning of some proverbs, (3) composing stories to two picture cards, and (4) discussing something that they disagreed about at home. The triads social behaviors were coded according to movement, social position, orientation (task or socio-emotional) and the behavioral target (spouse, child or spouse-child pair).

Correlational analysis of their interactions suggested that parental IPS influenced the social behaviors of the family triads. For example, an increase in negativity in the perceptual style of either parent seemed to have similar consequences for the structure of the triads and for the social behavior of the triads' individual members. Both the mothers and the fathers sought to increase the distance between the others and themselves, they both sought to control the behaviors of the sons more than the daughters, and they both separated the task-oriented and the socio-emotional roles.

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The daughters of negative perceiving parents appeared to either accept their role better or know better how to deal with their parents. The daughters may also not have been perceived as negatively as the sons who seemed to suffer most from their parents' negative perception of children (as measured by the SPS). The boys either have not learned their roles, they may have failed to adjust (rebellious against) their roles or there may be role confusion.

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CHAPTER I

INTRODUCTION AND HISTORICAL REVIEW

Introduction

This study was concerned with the relationship between interpersonal perception and behavioral patterns exhibited by the members of a family triad (two parents and a latency-aged child). Interpersonal perception has been described as the process by which one person comes to know, to think or to infer the external or internal states of other people (Warr & Knapper, 1968). The definition of interpersonal perception has also been used to include the inference of causality and intentions, the determination of the significance of attitudes, traits, emotions, ideas, abilities, overt-behaviors, and physical characteristics (Taguiri, 1969; Hastorf, Schneider, & Polefka, 1970; Kelly, 1955; Kelley, 1971). Other terms have also been used to describe one person's attempt to know and understand others, e.g., person perception, social perception, social cognition, empathy, impression formation, and sensitivity to others, to name just a few (Tagiuri, 1969; Warr & Knapper, 1968; Sarbin, Taft, & Bailey, 1960).

While most of the terms given above have been used interchangeably, social cognition has taken on a special connotation in the developmental literature (Livesly & Bromsley, 1973;

Shantz, 1975). It is used to describe the evolution of the skill of understanding others, as a cognitive process, in the maturing person. Warr and Knapper (1968) noted that the various terms and definitions for interpersonal perception have served to either reflect the orientation or interest of an investigator or to distinguish between the perception of humans and the perception of inanimate objects.

The many terms and definitions associated with interpersonal perception reflect both the complexity and the importance of this area of study. The importance of gaining knowledge about interpersonal perception lies in the fact that it occurs automatically in every encounter between individuals, groups or cultures (Tagiuri, 1969; Taft, 1955; Hastorf, Schneider, & Polefka, 1970). That is, each interactant in an encounter, be it social, hostile, chance, professional or otherwise, seeks to understand and to predict the behavior of the other(s) (Heider, 1958; Kelley, 1971, 1973; Jones & Davis, 1965). Further, Heider (1958) suggested that people engage in interpersonal perception in order to provide stability and predictability to their social environment. Moreover, the manner in which a person interacts with others is affected by her or his ability to form realistic and sensitive impressions of others (Hammond, Will, & Todd, 1966). Thus, social scientists have sought to understand both the process of interpersonal perception (impression formation) and the relationship between interpersonal perception and interpersonal behavior.

The remainder of this chapter provides a selective review of the historical development of research on interpersonal perception. This review focuses on variables in the vast person perception literature that are most relevant to the scope of the present work. Namely, the study of the perception of emotions, the process of impression formation, and the concept of interpersonal perceptual style.

Historical Review

Study of Emotions: Identification and Accuracy of Perceptions

The scientific investigations of interpersonal perception is reported to have begun in 1872 with the publication of Charles Darwin's book "The Study of Emotions in Man and Animals" (Tagiuri, 1969; Hastorf et al., 1970; Triandis, 1977). Based on his examination of still photographs, Darwin concluded that there was a biological (innate) link between the experiencing of an emotion and the expressions and gestures which are associated with these emotions (an emotion-to-expression link). He also suggested that there was a link between the emotion as expressed by a stimulus person and the manner in which a perceiver understands the expressed emotions (an expression-to-perception link). That is to say; since all humans experience the same emotions and express them innately, one human should readily be able to perceive and identify these emotions in another human.

Darwin's concepts lead social scientist of his day to assume that there was a one-to-one relationship between a

felt emotional state and its expression through verbal and non-verbal gestures, e.g., a smile always implies happiness (Hastorf et al., 1970). Moreover, it was assumed that these gestures could be used by an observer, regardless of society or culture, to readily and accurately identify the emotions being expressed. Thus, the concept that emotions, within a stimulus person, produced biologically determined movements (facial, body and verbal) which any perceiver should be able to identify motivated and guided research in the study of interpersonal perception from the late 1800s until the mid 1950s. Historically, however, most investigations have focused on the perceivers' role in understanding or lending the emotional state of the other (expression-to-perception link) rather than the biological origins of emotions.

The pre-1955 literature focused simultaneously on two aspects of the perceiver's role in interpersonal perception (Taft, 1955; Hastorf et al., 1970). While one line of research sought to determine the extent to which emotions are recognizable and distinguishable by perceivers as individuals and as members of separate cultures, another had sought to determine the level of accuracy with which one person judges the emotional and psychological state of another. Although the "ability" to judge emotions is still an area of active investigation, the work on "accuracy," for reasons discussed later, has not received much attention since the 1950s.

Initially, research on the ability to identify emotions employed the still photograph technique initiated by Darwin; in it, still photographs of facial displays are presented to judges and the judges are asked to select an emotional label from a list or provide one of their own. This work was criticized, however, because it relied too heavily on one source of information (the photograph or a simple message), while in real life perceivers have to distinguish between and to select from many cues. This criticism has been overcome to a major degree by recent advances in the techniques for recording human behaviors. Through the use of film, audio tape and video tape (Korchin, 1976), the person who is to judge the emotional state of another now has contextual, paralinguistic, verbal and nonverbal cues to aid them in forming their impression (Ekman & Friesen, 1975; Exline, 1971; Mehrabian, 1968, 1971).

In general, the studies of the "ability to perceive emotions" has shown that disagreement between judges decreases as the amount of information about the stimulus person increases, and that some emotions are more easily identified than other (Tagiuri, 1969; Hastorf et al., 1970; Izard, 1971; Ekman, 1972). For example, a judge might have difficulty distinguishing between joy, happiness and mirth (similar emotional states but they would seldom confuse happiness with sadness or grief (the opposite emotional state). Schlosberg (1954) found that people were better able to identify emotions when they were grouped together or placed along certain dimensions. He

proposed that an emotion could be characterized according to its degree of pleasantness/unpleasantness, attention/rejection and sleep/tension. Thus, an observer might not be able to distinguish between a cue depicting surprise or fear; but, according to Schlosberg, she or he would have no trouble in placing surprise closer to the pleasant end of the pleasant/unpleasant dimension and in placing fear at the unpleasant end.

Ekman, Sorenson, and Friesen (1969) presented pictorial data to judges from the United States, Brazil and Japan, and they found considerable agreement in the emotions identified by the people of these different cultures. Izard (1971) and Ekman (1972) reviewed much of the cross cultural literature on the identification of emotions and they both concluded that there are more similarities than differences between cultures in their abilities to identify emotions. Thus, although different people express the same emotion different ways (Davitz, 1964), within and across cultures, there is good evidence for the transcultural recognition of emotional states (Ekman, Sorenson, & Friesen, 1969).

While the fact that the same emotion may be expressed in different ways does damage to the concept of a one-to-one relationship between the "felt" emotion and its expression, the discovery of cross-cultural agreements in the identification of emotions adds credence to the concept of an expression to perception link. Thus, as Darwin proposed over 100 years ago, there may be universally identifiable expressions

of emotions. In fact, Ekman and Friesen (1975) have proposed six distinctive facial expressions which are generally perceived to represent the six emotional states of happiness, sadness, surprise, fear, anger, and disgust.

To summarize, it also has been shown that emotional extremes are not confused (Schlosberg, 1954) and that a judge's emotional state influences his perceptions of others (Schiffenbauer, 1974). Moreover, the perception of certain traits is more difficult than is the perception of others; for example, intelligence can be measured by standard test and beauty is a comparable trait but the traits of femininity, masculinity can be neither measured or gauged. The importance of contextual, paralinguistic, verbal, and nonverbal as cues in impression is well established. During staged interactions, Mehrabian (1968, 1971) notices clinched fists, closed lips, direct eye focus and body tenseness were strong indications of anger. These all fit Schlosberg's (1954) dimensions of rejection, unpleasantness and tension. On the other hand, Mehrabian describes a positive orientation as one involving relaxed eye-to-eye contact, forward body lean and enhanced periods of interaction (pleasantness, relaxation, and acceptance).

Asch (1946) reported that impressions of other are not based on long and careful considerations in different situations. Despite the number of cues presented or the brevity of an encounter, Asch believes that perceiver uses whatever

information that is available to form an impression of a complete and functional person. (Asch's work is presented in further detail when the process of impression formation is discussed below.) For a more detailed discussion of emotional states, the reader is referred to Izard (1971, 1978) and Ekman (1972).

Accuracy of Perceptions

By the mid 1950s, the scope of interpersonal perception had grown beyond just the study of emotions. Researchers were then seeking to determine the accuracy with which a wide range of behaviors, traits and psychological states could be identified by a perceiver (Taft, 1955). Attempts were also made which sought to distinguish between qualities of the good and the bad judge (Taft, 1955). Much of the growth in this area of interpersonal perception was catalyzed by the simplicity of the two principle methods employed to measure "accuracy" and the assumption that accurate perceivers functioned more productively and harmoniously in interpersonal situations than inaccurate perceivers (Shrauger & Altrocchi, 1964; Taft, 1955).

One method that was used compared a judge's prediction of how a stimulus person would behave or complete a self-report with the stimulus person's actual behavior or with how he or she, in fact, completed the self-report. The second method involved a comparison between the perceiver's impression of a stimulus person with mean description of all other observers of the stimulus person. Unfortunately, those

investigators who used these methods failed to recognize the conceptual and methodological difficulties inherent in their approaches and the implicit assumptions about accurate perception that are inherent in such procedures. In general, most research using these methods were criticized for a variety of reasons: they offered no valid criteria for accuracy, their work was often neither comparable nor replicable, their studies did not reflect real life, and there was a lack of strong, consistent evidence that "accuracy" generalizes over a variety of people or conditions (Cronbach, 1955; Shrauger & Altrocchi, 1964).

The method which compared the perceiver's judgment with the mean perception of other judges provided results was contaminated further by a "regression to the mean" (Cronbach, 1955; Shrauger & Atrocchi, 1964). This term, as used in this context, refers to the fact that "the person with the highest accuracy score is the one who most accurately judges the average response of the group." This effect makes such studies investigations of precision rather than accuracy. A group impression may be precise because they all hold the same view, but, it may not necessarily be accurate. Take for example, the various views of political parties in regards to who or what makes an electable president or other issues where the group may engage in stereotypic thinking.

The other method (judge's prediction vs. self-report) is contaminated by response sets which influence the perceptions of the perceiver and the manner in which actors complete

self-reports. The question of which variables influence the actor as she or he completes a self-inventory is too complex to be dealt with here, except, to discuss one major problem associated with comparing the self-report of an actor with the impressions of a perceiver. There is no objective method for determining who is actually correct--the perceiver or the actor. Jones and Nesbitt (1972) have shown, for example, that while the actor generally attributes his or her behavior to external influences, the perceiver usually attributes the actor's behavior to internal causes. If one attempts to resolve this issue by employing additional judges, one faces the problem of precision versus accuracy discussed above, plus the fact that interjudge reliabilities for inferring intentions is usually only 0.66 (Borke, 1967).

Studies of perceiver-based variables in the perceptual process have been somewhat more straight forward. Here too, however, several errors have been identified which serve as obstacles to understanding the role that such variables play in accurate perception (Tagiuri, 1969; Cronbach, 1955; Schraugher & Altrocchi, 1964). These errors are essentially cognitive, and they produce invariance in the way the perceiver knows and understands others. The perceiver's impression may be influenced by a number of potential contaminants: by his or her tendency to assume similarity with or dissimilarity from (like or dislike) the actor; by the degree of acquaintance between the perceiver-actor pair; by the perceiver's tendency to view the actor's behavior strictly in terms of internal

causality (Cronbach, 1955; Kelley, 1971, 1973; Jones & Nesbit, 1972; Tagiuri, 1969). Cronbach pointed to the fact that if a perceiver assumes that the observed person is similar (dissimilar) to himself or herself, and the observer person actually is similar (dissimilar) to the observer, then the perceiver will form what appears to be an accurate perception. It should be recognized, however, that this "accurate" score is the result of assumed similarity (dissimilarity) and not because the perceiver is an accurate observer of behavior.

Tagiuri (1969) described other sources of cognitive bias in the response sets of the observers. He related these errors to the observers' tendency to "maximize balance and to avoid dissonance" in their impressions. The "halo effect," which was described earlier by Thorndike (1920) is the tendency to generalize a positive impression about all aspects of the observed persons' behavior. A second source of error, stereotyping, occurs when a person places a stimulus person a category because of their age, sex, race, or some other easily identifiable trait; and then to attribute qualities to that person which are believed to be characteristic of all persons in that category. The logical error (Newcomb, 1931) a third source, describes the act of using stereotypes or popular logic as the bases for making non-varying judgments about people. The statements "women should be paid less than men because they have fewer responsibilities" or "all athletes are dumb" are examples of the "logical error" (stereotypic associations).

Cronbach (1955) believed that cognitive errors such as those discussed above cause the perceiver to form impressions in a way that goes beyond any identifiable stimuli associated with the actor. Thus, when an observer is given a few cues about an actor, the observer does not stop at these cues when describing the actor. Instead, the observer tends to form a complete and organized response which she or he uses to make predictions about the actor (Asch, 1946). For example, if the perceiver is told only that a person is self-made, the perceiver may employ the "logical error" to infer that the person is also hardworking, intelligent and organized. The perceiver's rules about which traits go with self-made or how any trait is correlated with any other trait is called her or his implicit personality theory.

The term implicit personality theory refers to the perceiver's "built in" conception of the order, significance, and the manner in which traits and behaviors of others are related (Tagiuri, 1969; Cronbach, 1955; Rosenberg & Sedlak, 1972). The perceiver consciously or unconsciously imposes these "built-in" correlations that he or she receives from the stimulus person because the perceiver believes that this is how personality is structured. It is also the perceiver's basic method of knowing and understanding others. Thus, a person may think that rich people are unhappy, that intelligent people are generous, and that athletes are dumb. This belief--that if a person possesses one trait, he or she must possess another--will go unchecked unless the implicit theories are

made explicit. Implicit personality theories may be changed by the introduction of new information and through further acquaintance with the stimulus person (Cronbach, 1955; Rosenberg & Sidlak, 1972). Moreover, individual differences in implicit personality theories may be produced by differences in such personal traits as intelligence, cognitive complexity, emotional states and past experiences--to name a few (Rosenberg & Sidlak, 1972; Shrauger & Altrocchi, 1964; Shrauger, 1967).

Accuracy of Perception Summary

Thus, it was clear that the response sets of the perceivers are characterized by the cognitive errors contained in their implicit personality theories and that the perceivers go beyond the stimuli associated with the actor when forming their impressions. These observations led Cronbach and others to conclude that the "accuracy" studies measured a process that is dominated more by what the perceiver brings to the interaction than by what the perceiver takes in during the interaction. They also concluded that conceptually "accuracy of perception" studies must consider the differential requirements for judges based on familiarity with the stimulus person, individual differences in cognitive sets and the context within which an interaction occurs. The problem of measuring an "accurate" perception is made more difficult by the fact that there is no standard or established criteria for accuracy.

Cline and Richards (Cline, 1964) attempted to identify the "pure components of accuracy," but they eventually gave

up their efforts because they could not establish reliable criteria by which to gauge accuracy. With the exception of a few efforts (see Cline's 1964 review), the investigation of "accuracy" had essentially ended by 1955. The study of emotions has continued but with a somewhat different emphasis (Izard, 1978).

These conclusions plus the earlier stated criticism of the methodologies used in the "accuracy" research resulted in a shift in research interest towards the process by which impressions are formed and the styles of interpersonal perception (Shranger & Altrocchi, 1964; Tagiuri, 1969; Livesly & Bromsely, 1973; Messe, Stollak, Larson, & Michalls, 1979).

The Interpersonal Perception Process

Is the interpersonal perception process an instantaneous, global and unidimensional response, or does it involve separate steps and stages? The answer to this question is basic to any understanding of the process by which impressions are formed. It was noted in the previous section that an individual's perception of another person is strongly influenced by what the perceiver brings to the interaction (Cronbach, 1955). Thus, the cues noticed, the associations made between various characteristics and traits, plus the descriptions and terms given are all determined by the way the perceiver knows and understands people; that is, by his or her implicit theory of personality. The perceiver's "knowledge" of people also constitutes his or her interpersonal cognitive system which is

part of the perceiver's total cognitive system (Tagiuri, 1969; Rosenberg & Sedlak, 1972; Shrauger & Altrocchi, 1964).

The research efforts of Asch (1946, 1952), Kelley (1950), Heider (1958), and others have shown that the perceiver integrates cues, traits and overt behavior of the stimulus person into complex images or structures. These structures are heirachically organized, complete, and they adapt to the rules of inference (Warr & Knapper, 1968). Therefore, it seems likely that any explanation of the process by which impressions are formed must allow for the reception, selection and the organization of cues by the perceiver. If this is the actual case, then it is very unlikely that the interpersonal personal perceptual process is unitary or global in nature (Shrauger & Altrocchi, 1964). Moreover, one might expect that even such rapid perceptual processes as first impressions also are multi-staged or stepwise.

The best known multi-stage descriptions of the interpersonal perception process are based on either time-sequential (impression formation) or information processing models. These two models differ in their conceptualization of how the perceiver's tend to evaluate cues and of how the perceiver intergrates or combines these cues to form a final impression. Although both models focus on the perceiver's role, it should be remembered that the total interpersonal perceptual situation involves the perceiver, the stimulus person and the context in which the interaction occurs (Tagiuri, 1969; Hastorf et al., 1970; Trandis, 1977). It

should also be remembered that the perceiver's motivation for engaging in the interpersonal perception process is based on his or her need to provide stability to their social environment (Heider, 1958).

Temporal Sequence Model

The temporal sequence (impression formation) model has been represented both schematically and descriptively (Warr & Knapper, 1968; Triandis, 1977; Taguiri, 1969; Shrauger & Atrocchi, 1964). The graphic models tend; however, to be more complex and to emphasize the outcome more than the temporal nature of impression formation. For example, Warr and Knapper (1968) employed one such schematic, but, most of their discussion focused on the three components (attribution, expectancy, and affect) which they feel characterize the final impression. Similarly, Triandis (1977) offered a schematic model which also examined the final impression in terms of three components; affect, attribution, and overt behavior. The descriptive models, on the other hand, focus on the step-wise nature of the impression formation process.

The descriptive models employ at least three phases or steps: cue selection, inference, and outcome (Schrauger & Altrocchi, 1967; Shrauger, 1967; Tagiuri, 1969; Triandis, 1977). Since the conceptually very similar descriptive models differed only in their terminology, Shrauger's (1967) model is used here as an example of the step-wise or multi-stage temporal sequence. Shrauger (1967) suggested that the

development of an impression involved the following different phases (Schrauger & Altrocchi, 1964; Livesly & Bromsley, 1973):

- (1) Cue Selection--The conscious or unconscious selection of only certain pieces of information from all of the information (e.g. physical, contextual, behavior) available about the stimulus person.
- (2) Interpretative inference--the perceiver interprets the selected cues in a manner that allows him or her to infer general traits and various personality characteristics upon the other.
- (3) Extended inference; the drawing of inferences about what additional traits a person might possess given the presence of some traits. The perceiver uses her or his implicit personality theory to categorize and organize information so that they may predict and evaluate new information.
- (4) Verbal report: the perceiver further organizes his or her theories of the stimulus person into a form that serves to direct responses to the observed person or which allows the perceiver to communicate her or his impressions to others.

This model is very flexible in that each phase may be expanded for a closer look at a particular aspect of perception (Tagiuri, 1969). It is also true; however, that in such cases as first impressions it may be difficult to identify more than just three phases (Shrauger & Altrocchi, 1967). That is, in many circumstances the phases may appear to overlap and not to be separable. Moreover, the manner in which a perceiver uses these phases may be affected by such considerations as order effects, the source of cues and the interactional context (Anderson, 1974; Kaplan, 1975).

Shrauger and Altrocchi (1964) suggested that a version of this model could be used to investigate individual differences in interpersonal perception. Shrauger (1967) later used it to study cognitive differentiation and the impression-formation

process. Tagiuri (1969) has also pointed to the fact that each phase of temporal sequence has produced a line of research in interpersonal perception. In fact, the use of descriptive models such as Shrauger's is supported by much of the research literature of the last 40 years. For example, much of what is known about cue selection comes from the previously discussed study of emotions (Tagiuri, 1969; Hastorf et al., 1970). This review selectively examines some of that literature.

During the cue selection phase, the perceiver may select from a wide variety of either direct or indirect sources of information about the stimulus person (Vernon, 1964; Livesly & Bromsley, 1973). While direct information is based on face-to-face contact or on observation of the stimulus person; indirect sources of information is provided by means other than personal contact with the stimulus person, e.g., clinical reports and recorded interactions (Vernon, 1964; Hastorf et al., 1970; Tagiuri, 1969; Warr & Knapper, 1968). For both informational sources, the range of cues varies from the concrete and obvious (e.g., as race and sex) to the more abstract cues (e.g., eye-contact and body lean) (Argyle, 1974; Mehrabian, 1968). Direct interaction provides the most information and it yields further benefits because of this information is not confounded by the intervention of another person's judgment or by the contextual limitations to which indirect sources of information can be subjected.

Cues commonly derived from direct interaction include the following: the stimulus person's physical appearance (e.g., hair and eye color, age, race, sex, and body build); their verbal statements and skills; his or her non-verbal and expressive behaviors (e.g., facial expressions, eye-contact, paralinguistics, proxemics and body language); the stimulus person's overt behavior (affective, social, emotional, task-oriented); and the cues derived from the physical and social environment in which the interaction occurs. In general, the perceiver uses physical appearance for gross estimations about the stimulus person--she is energetic; fat people are jolly; or redheads are argumentative. In contrast, non-verbal cues generally are used to infer emotional states such as sadness, tenseness, anxiety, or happiness, while verbal cues provide the perceiver with cues about the stimulus person's attitudes, beliefs and social orientations. Through the observations of overt behaviors (hostile, social, dominant, submissive) and consideration of the social environment, the perceiver attributes stable traits, dispositions and characteristics to the other (Heider, 1958).

Indirect sources of information include diagnostic reports, films, voice and videotape recordings, third person descriptions, job applications, grades, job evaluations and letters of reference (Warr & Knapper, 1968; Tagiuri, 1969; Triandis, 1977). The extent to which the perceiver relies upon indirect information is determined, in large measure, by how much faith he or

she places in the informational source (Rosenbaum & Levin, 1968, 1969). Luchins (1948) noted that the cues provided by indirect information may not be the same ones that the perceiver would select in a face-to-face situation. Despite this objection, Asch (1946, 1952) and others have noted that regardless of the source or the number of cues available to a perceiver, he or she will form an organized and complete impression of the stimulus person. An impression which not only determines the perceiver's expectancies about the stimulus person's intentions and behaviors; but which also determines how the perceiver will react to the stimulus person should they ever meet (Jones, 1977; Warr & Knapper, 1968; Triandis, 1977).

In situations where the cues about the stimulus person provide conflicting information, the perceiver may resolve the conflict according to his or her own needs or experiences (Gollin, 1954; Wishner, 1960). The perceiver also can resolve such conflicts by describing the person in such exclusionary terms as "queer" or "funny" (Pepitone & Hayden, 1955); or by focusing entirely upon overt behavior (Heider, 1958). In fact, Heider believed that behavior very often overshadowed all other cues. He argued that when the perceiver is seeking a sufficient reason for another person's behavior, that the perceiver's search comes to an end when an intention may be assigned to that behavior. This argument will be re-introduced when extended inferences are discussed below.

Thus, although the perceiver receives a great many cues from or about the stimulus person, she or he uses only a

selected portion of the cues as she or he combines the cues according to other stages in the temporal sequence. Moreover, just as it was found in the "study of emotions" the cue selection process depends upon such characteristics of the perceiver as his or her cognitive, affective and emotional state or style and how these characteristics cause the perceiver to accept, to alter or to reject the incoming cues (Cronbach, 1955; Tagiuri, 1968; Schiffenbauer, 1974; Shrauger & Altrocchi, 1964).

The interpretative inference phase marks the point at which the perceiver begins to organize the selected cues into initial opinions (first impressions) concerning the general traits, intentions and motives of the observed person. In this formulating step, the cues are evaluated and interpreted in accordance with the perceiver's implicit personality theory. The nature of the impression (first, partial, or final) depends upon: (a) the manner in which the perceiver evaluates and organizes the cues; and (b) how far the perceiver goes with the available data (Hastorf et al., 1970; Cronbach, 1955). Asch (1946) is credited with having pioneered studies on how people form impressions of others. Based on the results of his research, Asch proposed that people appear to combine stimulus cues configurally and that certain traits are more central than others in determining impressions.

In his experiment, Asch divided his subjects into two groups and each group was read a list of traits that described

a mythical person. The lists were identical except for one item. One group was read the list: intelligent, skillful, hardworking, warm, determined and practical. In the second list the word warm was replaced by the word cold. Asch then asked each of his subjects to write a more complete description of the mythical person in their own words. Finally, the subjects were given a list of 18 new traits and asked to underline any which they thought also described the stimulus person.

Since each student employed his or her individual implicit personality theory, there were differences across subjects with regard to the written descriptions and traits that were selected from the list. Further, he observed that subjects' descriptions were not just repetitions of the trait list or an accumulation of symptoms, instead each student formed a consistent and unified impression of the mythical person. That is, they perceived him as possessing characteristics that were interrelated and organized. Lastly, but of no less importance to this discussion, he also observed that the students responded quite differently to the 18 new traits and that the differences were greater between the warm and the cold than they were within each group. For example, while 90 percent of the warm group perceived warm and good-natured to be compatible, only 34 percent of those in the cold group viewed cold and good-natured as being compatible. These results led Asch to conclude: (1) that perceivers place the best possible organization upon whatever information that is available a consistent

and unified cognitive image (a gesalt) of the stimulus person; and (2) that some cues or traits are more important than others in their contribution to the resulting impression.

Asch explained that when traits like warm or cold are placed in conjunction with other traits (e.g., skillful or good natured) that they tend to alter the meanings of the other traits and thereby produce different impressions. Because of their influence on other traits, Asch categorized the terms warm and cold as central traits. When he repeated the experiment, he substituted several trait-pairs for warm and cold (e.g., blunt-polite, intelligent-stupid). He found that these pairs had far less impact upon the final impression than did warm or cold. Traits whose meanings are altered by central traits are called peripheral traits.

Asch's experiments have been questioned because they were deemed unrealistic in nature (Luchins, 1948; Wishner, 1960) and because others have observed that the order in which cues are presented effect the final impression (Anderson, 1974; Hastorf et al., 1970; Jones & Goethals, 1971). Asch's contributions have been supported, however, by the research of others (Golin, 1954; Koltuv, 1962; Kelley, 1950). For example, Wishner (1960) later explained that a traits importance depends upon both the perceivers' intentions and the context in which a judgment is made. That is to say, the traits warmth and intelligence may be central to the impression that a person forms of a sweetheart, but, they are more than likely to be

peripheral traits when one forms a concept of a soldier or a hockey player. Moreover, Kelley (1950) repeated portions of Asch's original experiment and replicated his findings.

Asch's original experiment was criticized as being unrealistic because it involved a few cues from indirect sources (Luchin, 1948). Kelley (1950) modified Asch's original experiment to include a more realistic direct encounter between his students and an unknown guest lecturer. Before the lecture started, each student received one of two written descriptions of the speaker. The two descriptions were identical except for the terms "rather cold" and "very warm." The lecture lasted for 20 minutes. After the lecturer had gone, they were asked to provide descriptions of him. Kelley's results involving the written descriptions were in close agreement with those of Asch. In addition to this, Kelley also reported that those students who had received the "very warm" description tended to enter into discussion with the guest lecturer more often than the other students. Thus, Asch's concepts of a perceptual "gesalt" and of trait centrality appears to be valid.

Along with demonstrating the influence that one cue or trait variations can have upon the perceiver's impression, the works of Asch (1946), Kelley (1950), and Wishner (1960) also has shown that some traits are more important than others and that initial inferences (quick or first impressions) have strong effects upon the expectancies, overt behavior, and the

attributional process of the perceiver. In the case of both Asch's and Kelley's studies, the initial inferences were based upon indirect sources of information. It was noted that the resulting impression did not change despite the additional information from both indirect (Asch) and direct sources (Kelley). Thus in the interpretative inference phase, it is the perceiver's needs, experiences, and intentions operating within a given context or situation; rather than the actual behavior of the stimulus person that causes the perceiver to organize incoming cues into an impression (Kelley, 1950; Wishner, 1960).

From this discussion, one may conclude that first impressions are strongly influenced by the perceiver's implicit theory of personality (including cognitive errors) and that they probably represent what Cronbach (1955) described as the perceiver's tendency to go beyond the data. Impressions based on this level of inference probably range from rigid stereotypes (final impressions) for the cognitively simple to working models or flexible *gesamt*s (partial impressions) for the more cognitively complex person (Kelley, 1955; Shrauger & Altrocchi, 1964). That is, it is likely that a person who is cognitively simple would stop or delay at this level rather than become overwhelmed by more data. On the other hand, a person with an extended personal construct theory might desire and could process more information.

In the extended inference phase, the perceiver expands upon his or her initial inferences by correlating these beliefs

with new information about the other. Although this organization of the new information still involves the perceiver's implicit theories of personality, the use of extended inference most likely means that the perceiver will not commit as many "cognitive errors," nor will he or she go as far beyond the data as perceivers do in the interpretative inference phase (Shrauger & Altrocchi, 1964; Shrauger, 1967; Warr & Knapper, 1968; Livesly & Bromsley, 1973). The overt behavior of the actor is one source of information that receives a great deal of attention during extended inference. The strength of behavior as a cue caused Heider to remark,

It seems that behavior in particular has such salient properties it tends to engulf the total field rather than be confined to its proper position as a local stimulus whose interpretation requires the additional data of a surrounding field . . . (Heider, 1958, p. 54).

This review takes the position that the perceiver's cognitive examination of new information, especially overt behavior during the extended inference phase, closely resembles the attribution process. Moreover, it is assumed that the extended inference phase can be understood by an examination of the attribution process (Heider, 1958; Warr & Knapper, 1968; Jones & Davis, 1965; Kelley, 1967, 1973). Basically the research on the attribution process has sought to understand the manner in which the perceiver forms an impression of the actor from the actor's observed behavior.

Heider (1958) theorized that the attribution process results from a person's need to impose order on the world around them and to be able to make predictions about future

events which might affect them. A perceiver satisfies this need by attempting to explain and to understand another person's behavior. Heider assumed that a perceiver attributes a stimulus person's behavior to either internal and external causes. If a person knowingly and willingly engaged in a behavior, then a perceiver is likely to assume that the behavior has an internal or personal causation and that the behavior was not caused by external forces. Observers generally place greater weight on personal behavior as a character trait. Kelley (1967, 1971) offered suggestions on how the perceiver distinguishes between internal and external causality of behavior.

Kelley proposed a system of attributing causality to behavior that is based on the idea that the perceiver was in many ways like a naive scientist. As a naive scientist, the perceiver examines his or her environment in order to find the causes of the events, phenomena, and behaviors that they observe. The goal of the naive scientist is to eliminate the variance produced by the many possible or plausible causes of behavior; so that, the causes of behavior may be either attributed to personal (internal causality) or environmental effects (external causality). In other words, a perceiver decides that an act has a certain, specific cause only if he can discount all other plausible or possible causes. When either discounting probable causes or eliminating the variance between behaviors, the perceiver tends to favor events indicating

internal causality (Jones & Nisbett, 1972; Heider, 1958; Kelley, 1971). Kelley believed that the naive scientist used three basic pieces of information to infer the meaning of a behavioral act: (1) distinctiveness of the act; (2) consensus (unique qualities) of the act; and (3) consistency of the act. An example should serve to demonstrate the discounting aspects plus the use of the "basic" information suggested by Kelley's theories.

If a person is working overtime, a perceiver may assume (among other things) that the person is a hardworker, a slow worker or under pressure from her or his boss or a project deadline. While the first two are personal causes, the last two are external in nature. Without further information, the perceiver cannot know which cause is correct and he or she can only draw interpretative inferences. However, if the boss is in the office or the deadline is posted (further information), the observer still cannot discount the internal causality unless the distinctiveness, consensus and consistency of the worker's behavior is considered. The behavior may be attributed to internal causes if the worker often works late (low distinctiveness and high consistency) and if he or she is the only one that works late (low consensus among coworker-high unique quality). The behavior may be attributed to external causes if everyone works late (high consensus); if there are obvious external pressures; or if the worker seldom works late (high distinctiveness, low consistency).

Jones and Davis (1965) have proposed a model that is congruent with Kelley's ideas on causality but which addresses another aspect of Heider's theory. In the discussion of Kelley's theory, the attribution on inferential process is implied to stop when the stimulus person's behavior can be assigned either an external (environmental) cause or if no cause can be identified. If, however, a person's behavior is attributed to personal causes, the observer's inferences are extended to dispositional attributes. Dispositional attributes are the predictions an observer makes about how the actor will behave in the future. Jones and Davis, in contrast, were concerned with the situation in which internal causes were identified or attributed to the stimulus person and the degree to which these attributions were seen to correspond with the actor's personality characteristics.

According to Jones and Davis' theory of correspondent inferences, an "inference is correspondent to the extent that the same term may be used to describe both the behavior and the disposition" of the actor. Thus, they were interested in two aspects of dispositional attributions; (1) the behavioral categories of actors which lead to an inference of internal causality and (2) the level of confidence the perceiver has in these conclusions. The behavioral categories that they suggested were noncommon effects and social desirability. Returning to the example of the person working late, the person may be seen as a hard worker if the observer knows that there are no external pressures (internal causality), that this

is unusual behavior for employees where he works (noncommon effect) and that he expects no social gains (social desirability). Thus, the inference that the term hardworker corresponds both to his behavior and his disposition may be made with some certainty. It may be apparent that socially desirable behavior tells the perceiver very little about the actor except that the actor conforms to external pressures.

Moreover, according to Jones and Davis, a behavior will only be attributed to an actor's personality when it produces the same effect over time and when it is considered socially undesirable or unexpected.

Jones and Davis also believed that two influences work upon the perceiver ability to attribute an actor's behavior to internal or personal causes: hedonic relevance and personalism. Hedonic relevance is concerned with the importance of the actor's behavior to the perceiver. That is, the more importance an observer behavior is to the perceiver, the more certain the perceiver will be that the actor's behavior is due to internal or dispositional causes. Similarly, personalism relates to the degree that an observer is personally affected by the actor's behavior. The greater the affect, the more likely the observer is to attribute the observer behavior to dispositional causes. If the worker in our previous example is seen working under two circumstances by his employer--during hours and after hours--the hedonic relevance and personalism will vary with each. During the working hours, the

importance of the act and its personal effect upon the employer is moderated by the fact that it is socially desirable and common behavior. The after hours work, however, maybe both more important to the employer and affects him or her more personally. In the later case, he may view the worker as a hard worker. This example, of course, makes the assumptions that the worker was working at an acceptable rate during the day and that he was not ordered to work overtime.

It should also be noted the hedonic relevance and personalism are possess high potential for sources of error in the extend inferential (attribution) process (Jones & deCharms, 1957). A co-worker who considers himself a competitor of the worker described above may be too personally affected or view the "work" as too important to his or her own future to derive a correct inference of the stimulus person's behavior.

Verbal Report

This final stage of the perceptual process could also have been labeled the covert and overt behavioral response phase; because, this is the point at which most of the perceiver's implicit theories, naive technologies and amateur detective work becomes explicit. Livesly and Bromley (1973) describes this phase as follows:

This stage is one of organization, in which the characteristics assigned to the other person are grouped and integrated to form a basis for consistent responses to the other person; the characteristics become explicit in the attempt to give a coherent verbal account of his behavior and personality. This may be further modified in the process of communicating the impression to other people--a kind of "secondary elaboration" (p. 17).

Although Livesly and Bromley were mainly concerned with verbal reports, others have suggested that the final impression is composed of attributional, affective, expectancy, plus behavioral (overt and covert) components (Warr & Knapper, 1968; Triandis, 1977).

With the possible exception of the behavioral component, all of the components mentioned above exert a very strong feedback influence upon the interpersonal perception process. For example, the attribution of an internal causality to a trait during the cue selection process will very likely influence the inferential stages that follow. The effect of the attribution component during the final steps of impression formation will then be to influence the behavior (verbal or motor) exhibited.

The overt behaviors (verbal or expressive physical movement) related to the final impression are readily observed and measured including their affective components (Bales, 1950; Messe et al., 1979). Moreover, affective and overt behaviors may be placed in the very broad categories of approach, avoidance and approach-avoidance conflict (Bales, 1950, 1970; Foa, 1966; Borke, 1967; Rutledge, 1974). Since not all aspects of the impression can be verbalized or translated directly into intentional, expression behavior; one must also be concerned with covert behaviors. These behaviors may be determined by relating the impression to a projective test or by the study of paralinguistic and non-verbal behaviors

during an interpersonal encounter (Bales, 1950; Borke, 1967; Livesly & Bromley, 1973; Mehrabian, 1968, 1971, 1973).

The responses of Kelley's (1950) students to their impressions of the instructor as being either warm or cold demonstrates effect of the final impression upon behavior. Those students who saw the lecturer as warm stayed longer, asked more questions, and stood closer to the instructor. In contrast, those students who saw him as a cold person closed off their encounter with lecturer as soon as possible.

The affective component is related to emotional reactions, such as, feelings of attraction or rejection. The feelings (if any) that the perceiver has for stimulus person may cause automatic responses to the other (Warr & Knapper, 1968). Cronbach (1955) felt that feelings of similarity-dissimilarity which in turn influenced the selection and the processing of incoming cues and traits by the perceiver. Thus, the affective component of the final impression may be the result of the perceiver having used the incoming data to validate the feelings which she or he originally held of the stimulus person. Of course, this may or may not happen and one might guess that the reliability of the affective components contribution to the final impression depends upon: (1) the intensity or the accuracy of any initial feelings by the perceiver for the stimulus person; and (2) the relevancy of these feelings to the impression being formed.

The expectancy component of the final impression may be either conscious or unconscious and this component may cause

the perceiver to assume that the behavior which he or she has attributed to internal forces in the stimulus person are consistent and that they will continue over time (Jones, Davis, & Gergen, 1961; Kelley, 1967, 1971, 1973; Kelly, 1955). Warr and Knapper (1968) described the consistency aspect of expectancy as the imputing of a "role" for the stimulus person. The role assigned to the stimulus person may become self-fulfilling in nature (Jones, 1977). The following example shows how the components of the final impression are related and how self-fulfilling prophecies may develop.

It has been clearly demonstrated that expectancy effects may function during teacher-child interactions. Rosenthal and Jacobson (1968) employed a bogus feedback about intelligence test scores to create the impression with several elementary school teachers that some of the students would exhibit significant increases in their academic performances over the school year. At the end of the school year, some of those students that had been designated as "spurters" actually showed a marked increase in their IQ scores over the previous year. Without defining a process, Rosenthal and Jacobson felt that the teachers' expectations had somehow been transmitted by the teachers to the students, who had them internalized. The transmission of expectations resulted in improved performances by the students. Although Rosenthal and Jacobson's methodology has been criticized, systematic teacher expectancy effects have been found elsewhere (Michenbaum, Bower, & Ross,

1969; Anderson & Rosenthal, 1968; Rosenthal, 1973; Hendrickson, 1971; Leacock, 1971; Bennett, 1976).

The relationship between the perceiver's expectations based on ethnic and social class stereotypes, and the self-fulfilling prophecies which result from the perceivers' behavior have been studied in situations involving: (1) differences in interviewers' behaviors and job-interview outcomes for black and white applicants; and (2) the nature of teacher's expectations for black and lower-class students (Word, Zanna, & Cooper, 1973; Snyder & Swann, 1978; Bennett, 1976; Clark, 1965). Moreover, others have investigated the process by which the perceiver's impression and expectations are communicated to the stimulus person (Adair & Epstein, 1968; Jones & Cooper, 1971).

Impression Formation Model Summary

In summary, a four-step, sequential model of impression formation was proposed as a possible explanation of the interpersonal perception process. A model which is supported by the literature (Tagiuri, 1969; Shrauger & Altrocchi, 1964; Warr & Knapper, 1968; Livesly & Bromley, 1973). Critics of this model have pointed to its difficulty in explaining order effects and in the resolution of inconsistent data (Hastorf et al., 1970; Jones & Goethals, 1971). Others have questioned the necessity of the concept of "key" or "central" traits and the nature of cue selection process (Anderson, 1974; Kaplan, 1975; Luchins, 1948).

The strength of this model, however, lies in the fact that it includes attribution theory, expectancy (self-fulfilling prophecies), and the concept of behavioral components for the final impression. Behavioral outcomes, after all, is an important reason for investigating interpersonal perception. This model may also be used to examine impressions formed from indirect or direct sources of information. Moreover, Shrauger and Altrocchi (1964) suggested that the model may be used to study individual differences in the perception process.

Information Processing Models

Information processing models developed in, part, out of a basic dissatisfaction on the part of some researchers who felt that Asch's (1946) theory of central and peripheral traits did not adequately explain either order effects or the perceiver's difficulty with inconsistent or conflicting stimuli (Anderson, 1974). An "order effect" occurs when the contribution of a portion of stimuli to the final impression is determined by the order in which it is presented (Hastorf et al., 1970). There are two types of order effects--primacy and recency. A primacy effect results when information presented first is more influential in determining the final impression than the information which follows it (Asch, 1946). A recency effect is the reverse of this, here the most recently presented information has the greatest impact (Jones & Goethals, 1971).

Inconsistent or conflicting stimuli occur in situations in which cues about the same stimulus person or event are contradictory, either evaluatively or logically. Hastorf provides an example of conflicting information in the perceiver who is told that another person is both kind and dishonest. Three ways have been suggested that this inconsistency between kind and dishonest can be resolved (Hastorf et al., 1970, p. 49): (a) relational tendency, in which either the inconsistent stimuli (or order effects) is either changed in meaning or new traits are inferred to relate the inconsistencies to order effects (Asch, 1946; Kelley, 1950), (b) discounting tendency, in which part of the stimulus information is either ignored or reduced in importance (Kelly, 1967, 1973; Anderson & Jacobson, 1965), or (c) linear combinations, in which the final impression is some additional or averaging combination of the properties of the stimuli (Anderson, 1974). Since both (a) and (b) were the basis of our discussion of the impression formation model, this discussion will now focus on (c) which is the basis for a discussion of the information processing models.

Information processing models argue that the interpersonal perception process involves (1) the separate evaluation of each cue or trait; and (2) a combination or integration of all cues or traits into a final impression (Anderson, 1974; Kaplan, 1975). That is, the total impression is evaluated as a function of all of its component traits. This is contrary to the previously discussion on the selective analysis of traits and to

Asch's belief that the perceiver does not consider each cue individually and then add them up. Information processing models are generally placed in one of three categories of: the addition or summation of traits, the averaging of traits, or the weight-averaging of traits. Although these models differ in their suggested method of combining or integrating cue into a final impression (as later discussion will show), they all share a common research methodology and a common means of evaluating cues individually during the cue selection or reception process. Their common means of cue evaluation employs the use of "scale values" for each cue in the judgment process (Anderson, 1968, 1974; Kaplan, 1975).

The function of "scale values" and a definition of the term has been provided by Kaplan:

The information we receive about another may be quite diverse in content. We may, for example, learn that a person is kind to his friends, likes football, and cheats on his income tax. To integrate these quite different behaviors into a unitary judgment of a person (say, fitness for the Presidency), we need some common means for considering each piece of information. This common denominator is given by the information's scale value (Anderson, 1974a). "Scale value" refers to the quantitative representation of the location of the information on a particular judgment dimension. It represents the person's subjective response to the information relative to the judgment in question. And so, income-tax evasion may have a low value for judgments of fitness to hold the office of President but a high value for judgments of psychopathy. A first step in judgment of the stimulus object, then, is to assign value, or meaning, to the informational components. It is important to note that value is always with reference to the judgmental dimension (Kaplan, 1975, p. 140).

Anderson (1968) has provided scale values for over 500 traits, and these values are commonly used when discussing the information processing models.

There is also a common research approach for most of the information processing models (Hastorf et al., 1970; Anderson, 1974). The subjects are presented with a list of traits which they have previously rated along a bipolar dimension specific to the judgment task (e.g., a good-bad or a likeable-dislikeable dimension). Once it has been determined how negatively or positively a subject has rated the information, he or she is asked how positively he or she would feel toward a person described by those cues or traits. Then, using a particular model (e.g., summation), the experimenter can then determine how well the subjects' final evaluation can be predicted from a knowledge of how positively the subject evaluates the component traits.

Additive or summation models propose the final impression is a linear function of the evaluation of the component traits, and, as such, this type of information processing may be represented mathematically by Equation 1. Accordingly,

$$\text{Equation 1.} \quad R_n = T_1 + T_2 + T_3 + T_4 \dots + T_n = \Sigma T_n$$

= the evaluation of the final
impression

where T_n = The scale value of each trait or cue

the cues are first assigned a scale value and the scale values are then combined through addition. Thus, the mathematical value of the final impression (R_n) equals the simple sum of the evaluation of each trait (T).

For example, if a perceiver is told that another person is warm, intelligent, sincere and hard working and it is known that these traits have scale values of 10, 8, 8, and 6 respectively along a likeable-dislikeable dimension. Then, according to the summation model, the evaluation of the final impression is 32. If, on the other hand, the same perceiver had been given the traits of intelligent, sincere and hard working then the final impression would be 22. The perceivers' impression changes much more dramatically; however, when a trait which has a negative scale value is introduced. If cold is substituted for warm, in the four trait case, then the value is reduced to 12. Thus, the summation model predicts that the strength of the perceiver's impression increases with the scale value of positive traits, that it decreases with the addition of negative traits, and that it increases as the number of positive traits increase.

Averaging models propose that the final impressions evaluation is a function of the average evaluation of each cue. As in the summation model, the cues are assigned scale values, summed and then divided by N. Equation 2 is

$$\text{Equation 2.} \quad R_n = \sum \frac{T_n}{N}$$

where T is the scale value of each trait
and N is the total number of traits

a mathematical representation of a simple averaging model and it involves the assumption that all stimuli are equally weighted (of equal importance). The use of Equation 2,

provides an evaluation of the final impression which is a function of the average evaluation of all the stimuli.

If the perceiver is presented four traits of warm, intelligent, hard working and sincere and if Equation 2 is used to compute the evaluation of his or her final impression, then: the final impressions value will be 8 ($R = 32/4 = 8$). For the three trait case and the case where cold replaces warm, the simple averaging model predicts impression evaluations of 7, 3, and 3 respectively. Thus, the averaging model, just as the summation model, indicates that the strength of the impression is increased by the presents of strong positive traits.

Although the summation and additive model show similar trends (they both have a simple addition basis), the two models differ in their predictions when the number of traits varied (Anderson, 1965, 1974). Suppose that one wishes to compare the evaluation of an impression, based on two traits versus one based on four traits. Further, let us say that the two traits are warm and intelligent and the four traits are warm, intelligent, hard working, and sincere. Then the summation models predicts an evaluation of 18 and the 32 for the two and the four trait impressions respectively, while the averaging model predicts evaluations of 9 (two trait) and 8 (four trait). Thus, the addition model continues to predict that the evaluation of an impression increase linearly with the increase in the positive value of traits (the reverse is of course true for negative traits). The averaging model predicts, however,

that the evaluation of an impression is diminished by the addition of less positively valued traits (and negative traits).

Hastorf et al. (1970) pointed out that the difference between these models is significant. The summation model suggests that more favorable impression are obtained by merely adding on more positive traits, even moderately positive ones. The averaging model, on the other hand, says that increased evaluations of a final impression are only obtained when the traits added have scale values greater than the existing averages. In the example presented here, the traits of hard working and sincere must possess scale values of 9 or better if they are not to reduce the evaluation of the original two trait impression. The conflict between these two results is presented more fully elsewhere (Anderson, 1974; Kaplan, 1975; Triandis, 1977). This review only point to the fact that its apparent resolution was found in the introduction of the concept of trait "weight."

Both Anderson (1974) and Kaplan (1975) have argued that a cue or trait has both a scale value and a weight or relative importance. The term "weight" refers to the functional importance of a given portion of the total stimuli for the judgment under consideration. If the trait warm had a high scale value for the like-dislike dimension, then it may also have a high weight in a judgment involving dates or intimate others. But, warm may carry a very low weight in a judgment involving survival or competition where other traits, skills or rewards are more relevant. Although scale value and weight may vary

independently, higher weights are generally associated with higher scale values and negative clues (Anderson, 1968, 1974; Kaplan, 1975). The higher weight of negative information has been observed often (e.g., Leventhal & Singer, 1964). The use of the scale value and the weight of the stimulus form the evaluative step, the way that they are combined is the basis of Anderson's Theory of Integration (Anderson, 1974).

Integration refers to the manner in which the cues or traits are combined to produce an overall impression. In Anderson's theory, the perceiver first assigns scale and weight values to each piece of incoming cue or trait; he or she then combines a weighted average of this information and his or her initial impression to produce an evaluation of final impression. This two step process is described mathematically by Equation 3 (Anderson, 1974; Kaplan, 1970)

$$\text{Equation 3.} \quad R_n = \frac{NwT}{Nw + (1-W)} + \frac{(1-W)I_o}{Nw + (1-W)}$$

= the evaluation of the final impression

Where W is the weight associated with the information T is the scale value of a single stimulus, N is set size - the total number of traits, and I_o is the perceivers initial or a priori impression.

This weighted-average model was developed by Anderson in order to demonstrate his belief that perceivers begin with an initial or aprior impression based on his or her dispositional or pre-existing biases. Moreover, this dispositional set is averaged upward or downward by positive and negative cues or traits

respectively. The second term in Equation 3 represents the weighted-average contribution of the perceiver's dispositional response set or pre-existing biases to the final impression.

The first term in Equation 3, therefore, represents the informational component of the final impression, its contribution is a function of the weighted-averaging of all the traits. It is the result of a modification of the simple averaging model (Equation 2) which includes a component for the unequal weights of each cue or trait. Hastorf has suggested that this weighted-average model is analogous to courses in which final grades are calculated on the basis of different weights for different examinations. For example, the final exam might be weighted twice as heavily as a midterm in calculating the final grade (Hastorf et al., 1970). In the case of Equation 3, the choice of which term is weighted more heavily depends upon the strength of I_o , the situation and judgment to be made. For applications of Anderson's Integration Theory the reader is referred to Anderson (1974) and the references that are cited therein.

There has been some criticism directed at impression processing models, in general, and Anderson's Integration Theory, in particular. These criticisms are being examined constructively, so that, the complexity of the perceptual process may be more fully understood.

Although Anderson and others strongly believe that the "cognitive algebra" depicted by Equations 1-3 provides a much stronger conceptual framework for the perceptual process than

the impression formation models; Anderson admits that all of the information processing models are faced with the following problems (Anderson, 1974). These problems are: (a) a variety of models are needed for a variety of possible judgments; (b) there are certain cases in which more than one model fits the data or for which non-linearity in the scale results in no model fit; (c) the weight parameters are arbitrary constants and they must make empirical sense; and (d) there is no mathematical explanation for the heavy impact of negative information. With regard to matching models to the judgments, it has been suggested that preference judgments require a subtracting model, serial integration requires both addition and subtraction models, and multiplying and ratio models are needed for more complex judgments (Anderson, 1974; Shanteau, 1975). As one reads Anderson's Integration Theory, some of his terms appear to be restatements of arguments used in the impression formation model. For example, his subtraction models are similar to Kelley's concept of discounting and serial integration resembles extended inference.

Anderson's model (Equation 3) has also received criticism from other information processing theorists. Anderson claims wide empirical support for his theory; but, Fishbein and Ajzen (1975) argue that Anderson's model is the result of curve fitting and it does not do a good enough job of predicting the way that perceivers evaluate cues and integrate information. Wyler has questioned the ability of Anderson's theory to explain the fact that cues and traits have different meanings in

different situations (Wyler & Wayson, 1969; Wyler, 1973). Anderson responded to Wyler's criticism by stating that the weight of the cue changes and not its value (Anderson, 1972, 1974).

The belief that cues change their weight led Anderson (1972) to argue, at least in the case of clinical judgment, that the cue selection process is configural because the weight of each element depends on the weight of the whole information set. And, in the case of order effects, Anderson explained that cues may be given unequal weights depending upon the significance of the order of the presentation to the perceiver (Anderson, 1974). Emphasis on the early traits (primacy effects) causes less attention to be paid to the traits presented later (the reverse is true of recency effects). Thus, as the perceiver pays less attention or discounts certain portions of the cues, he or she attaches less importance (less weight) to the discounted cues whatever their order in the presentation. To his critics, these examples were construed as "curve fitting"; that is, he was accused of modifying his theory to fit the data instead of using the theory to predict the data (Fishbain & Ajzen, 1975). It also seems that Anderson has succumbed to Wyler's (1973) suggestion that pieces of information are neither averaged or summed; rather the information is used to circumscribe several categories to which the object can belong. The object is then assigned to the most representative of these categories.

Despite the heavy criticism leveled at Anderson, his model is generally accepted as having contributed significantly to the theory of interpersonal perception by drawing attention to the concept of sign values, weights, and the possibility that weight-change rather than meaning change occurs for cues during the perception process. Moreover, this active debate among information processing theorists increases the likelihood that a mathematical model can be developed that will fulfill the potential that this approach possesses. Presently, however, it seems that the information processing models are more suited for situations involving decisions (e.g., where to invest, whom to hire, or whom to marry) rather than situations involving interpersonal encounters. This may be due to the fact that they work best or have been studied primarily in situations involving limited or indirect sources of information. Moreover, these models are not normally concerned with the outcome of perception-behavior.

For an example of the use of weighted-averaging to make gambling decisions; see Shanteau (1975), wherein he employed a multiplying model of information processing for the combination of probability and possible gambling outcomes. Although it remains to be seen whether or not information processing models can be expanded from the decision, per se, to direct interaction between the perceiver and the stimulus person, the application of Fishbein's expectancy-value model to perceiver's attitudes and attitude change may be a step in that direction (Fishbein & Ajzen, 1975).

In summary, there are supporters of each of the three information models discussed here. Fishbein, for example, argues that the summation model does a better job of predicting the results than either the simple or the weighted-averaging models (Fishbein & Ajzen, 1975). However, several reviews have presented comparisons of the several models and the consensus seems to be that the average model may have more general applicability (Triandis, 1977). More recently, Anderson (1974) and Kaplan (1975) favor the weighted-averaging model.

Although this discussion has focused on the three most popular information processing models, there are many variations of the summation, the simple averaging and the weighted averaging models in the literature. For examples of these variations, the reader is referred to Einhorn, Komorita, and Rosen (1972), Warr (1974), Triandis (1977), Kaplan (1975), and Anderson (1974).

Impression Formation and Information Processing-- A Comparison

The impression formation and the information processing models of the interpersonal perception process are distinguishable by at least three operations: (1) the use of direct or indirect sources on information; (2) the manner in which cues are selected or evaluated (individually vs. configurally); (3) the nature or the purpose of the final impression (decision or judgment). A convenient way to demonstrate these differences is to examine the cue selection process in terms of what Peabody (1970) and Rosenberg and Olshan (1970) labeled the

evaluative or descriptive meanings of information (Kaplan, 1975). While the evaluative meaning of a cue refers to its "scale value"--that arbitrary mathematical position that a perceiver assigns a cue along the judgment dimension (Anderson, 1974); the descriptive meaning of a cue suggest referrant behaviors--those behaviors which the perceiver implies from the cue (Peabody, 1970; Rosenberg & Oldshan, 1970; Kaplan, 1975).

The information processing models emphasize the evaluative meanings over the descriptive during the selection process. This model, which is generally based on indirect sources of information, also assumes that each cue is evaluated individually before it is combined with all other cues according to its weight. The weight of a cue is determined by its importance to the judgment under consideration, the judgment situation, and the perceiver's personal needs and experiences (Anderson, 1974; Shrauger & Altrocchi, 1964).

According to the information processing models, a knowledge of the conditions that provide "weight" to a cue or trait eliminates the necessity of a separate explanation for such descriptive considerations as implicit personality theory, cognitive sets or affective interpretations (Anderson, 1974; Kaplan, 1975). That is:

. . . any affect arising from social interaction, or any complex inference based on formal rules of attribution formation, can ultimately be considered as information in itself, requiring processing and integration into the observed judgment (Kaplan, 1975, p. 140).

Thus, the information processing model assumes that evaluation based on the cue's scale value and weight followed by integration of all the cues is sufficient description of the interpersonal perception process.

Contrary to this position, the impression formation model employs descriptive meanings in the cue selection process. The descriptive model employs a semi-evaluation step, in that, some cues are selected and some are ignored. Moreover, no mathematical assignments are made. It is also noted that the impression formation model employs cues from both direct and indirect sources, evaluates cues configurally (around central traits) rather than individually, does not evaluate all cues, and employs inference to build upon the initial impression. A perceiver arrives at a descriptive meaning for a cue or trait when he or she infers or associates other meanings to that cue (Peabody, 1970; Rosenberg & Olshan, 1970). Descriptive referent behaviors are behaviors commonly associated with or inferred from the descriptive meanings.

Referrant behaviors are those actions that a perceiver commonly attaches to a cue based upon his or her cognitive set (e.g., halo effect, logical error) or implicit personality theory, and they are reflected in the perceiver's tendency to go beyond the cues (Tagiuri, 1969; Cronbach, 1955). An example of referrant behavior may be those actions that a perceiver might attach to the trait, warm. If the perceiver tends to associate generous and understanding behaviors to

his or her descriptive meanings of "warm," then he or she will expect the stimulus person to behave in a generous and understanding fashion.

Descriptive meanings and refrant behaviors allow the perceiver to attribute emotional and external states to the stimulus, to expect behavioral patterns, to form likes and dislikes, and, finally, to plan his or her behavior toward the stimulus person (Warr & Knapper, 1968; Triandis, 1977; Tagiuri, 1969). Thus, impression formation models suggest the following components to this person perception process: (1) that perceivers evaluate (selects) some but not every cue during the evaluation step; (2) that they use descriptive meaning to establish refrant behaviors during the inference phases, and (3) that the final impression involves expectancy, attribution plus affective and overt behavior predictions for both the stimulus person and the perceiver.

The differences between the two types of models are attributable, in part to what each considers to be an appropriate source of information. While the information processing model was developed for use primarily with indirect source of information (Anderson, 1974), the impression formation model accommodates both indirect sources and the direct encounter between the perceiver and the stimulus person (Kelley, 1950, 1967, 1973; Vernon, 1964; Jones & Davis, 1965; Jones & Nesbit, 1971). Both models, however, imply that the meanings or the weight of words change according to the needs of the perceiver, the interactive situation and the purpose

of the judgment. Although this agreement reduces the distinctiveness between the models, in terms of explaining such phenomena as order effects and implicit personality theory, there are situations where one model might be more applicable than another.

The information processing model, for example, is probably most appropriate for those situations involving limited information and a judgment which requires a limited range of responses on the behalf of the perceiver. That is, the information processing model fits restricted, quantifiable bipolar judgments, such as whether or not to hire, to fire, to purchase or to gamble. Conversely, the impression formation model is probably better suited to the study of more complex situations which are not quantifiable and which requires a more complex response or a series of responses on the part of the perceiver. Such as first impressions and the resolution of inconsistent data.

At this time, it is not possible to choose a "best" model of the interpersonal perception process. It does seem, however, that under certain circumstances either model, the impression formation model or one of the information processing models, might provide the most accurate conceptualization of how people form impression (Hastorf et al., 1970; Kaplan & Kemmerick, 1974; Triandis, 1977). It should be noted that the study of both models is an active and ongoing process.

Regardless of the process which underlies the formation of an impression, the function of that impression is to enable

the perceiver to focus upon and to adjust his or her behaviors to the critical and significant features of his or her environment. Adjustments that are based on a realistic assessment of one's social environment provides the perceiver with feelings of mastery and competence along with a sense of stability and predictability in regards to his or her social environment (Heider, 1958). Since it appears that the manner in which a person interacts with others is affected by his or her ability to form realistic and sensitive impression, this review turns to some of the ways by which a person may characteristically perceive their environment. The relationship between interpersonal perception and interpersonal behavior is also discussed.

Interpersonal Perceptual Style

Up to now, this review has been concerned with the historical shifts in interpersonal perception research from a study of emotional states and other object person based stimuli to the study of the "accuracy of perception" to the processes by which final impressions are formed. The focus of this discussion now shifts to a topic of current interest--the correlation between interpersonal perception and interpersonal behavior. The study of this hypothesized relationship has been made difficult by the highly individualistic nature of impression formation and by the knowledge that a perceiver's impression of the same stimulus (person, object, or event) may vary according to the context or situation

involved. Thus, despite the fact that some investigators had suggested behavioral outcomes for the perceptual process, the link between perception and behavior received only superficial examination (Combs & Snygg, 1959; Kelly, 1955; Rogers, 1959; Hammond et al., 1966; Warr & Knapper, 1968; Tagiuri, 1969; Triandis, 1977; Livesly & Bromsely, 1973). There were, however, empirical results which did indicate the existence of such a link.

Kelley's (1950) previously discussed replication of Asch's work on traits in an example. He discovered that his subjects would respond to the guest lecturer according to their perception of him as warm or a cold person. Harrison, Messe, and Stollak (1971) studied the effect of race on interpersonal encounters. Messe, et al. (1979) recently described the situation as follows:

While studies such as Kelley's demonstrate that in general, person perception mechanisms play a role in people's overt social behavior, they do not establish the link between such behavior and an important class of person perception variables: those factors in the perceiver (e.g., personality, cognitive structure, etc.) that affect his or her impressions and judgments (Kaplan, 1976; Shrauger & Altrocchi, 1964). Perceptual set, as it was induced by Kelley, is a situational variable, whereas physical appearance variables are primarily factors in the target person. Thus the relationship between perceiver-based person perception variables and social behavior has not yet been clearly established.

The concern over individual differences and situational specificity was resolved by the introduction of the concept of "style" to interpersonal perception research.

Wallach (1962) explained that the word "style" is used in the psychological literature to signify certain kinds of generality, such as, the observation "that someone who reacts in one manner in one situation will react in a particular characteristic way in another." Thus, in the case of interpersonal perception, the problem is to learn the basis for predicting how the perceiver will react in different perceptual situations. To achieve this, according to Wallach, one must obtain knowledge about such characteristics; so that, one then knows how and where to look for other manifestations of this same style.

The development of interpersonal perception style as a theoretical basis for predicting the perceiver's behavior responses has evolved slowly over the last 30 years. The term individual perceptual style was first developed by Heider (1958, p. 56) to explain the natural occurrence of misperceptions or differences in interpretations and the effects of the object of perception. In regards to misperceptions, he said:

In all of the cases discussed, the reason for the misperception or differences in interpretations concerning another person lies in the lack of correlation between the raw material and the intended object of perception. We take the raw material too literally without taking into account additional factors that influence it.

When one takes the raw material (cues, traits, information) too literally; they are, for example, allowing behavior to "engulf" the perceptual field (Heider, 1958, p. 54). The "difference in interpretations" of the same stimulus person

by two or more perceivers was attributed by Heider to individual differences in perceptual style which he described as follows:

The fact that there is a lack of correspondence between the raw material of perception and the intended object of perception allows idiosyncratic approaches to the world on the part of the observer (that is) a much freer reign in the organization and interpretation of incoming proximal stimuli. The issue here does not concern errors of perception as much as it does perceptual styles--what the person extracts from his world because of his manner of perceiving. (Heider, 1958, p. 56)

Although any single or particular impression is the result of a complex set of the perceiver's individual characteristics, it is clear that individual perceptual style does not refer to a single, specific impression, nor does it refer to the "cognitive errors" to which a perceiver may be prone. Instead, Heider intended that a perceptual style refers to a consistent pattern of observing specific others based on the perceiver's way of seeing that class of stimuli or events. For example, if a man has a negative perceptual style towards women which cause him to view women as being mentally inferior to men, he will see women as being mentally inferior despite the environment and the circumstance. He might, therefore, see women engineers or surgeons as distinctly less competent than their male counterparts.

Heider's concept is supported by Kaplan's (1976) belief that perceivers may possess general response dispositions that influence how they react to their impressions of others. Anderson (1974) also made allowances for dispositional responses

by the perceiver in his mathematical equation of the information model of impression formation (see Equation 3). Not much was done with this concept; however, until Messé, Stollak and their co-workers interpreted individual perceptual style in a manner conducive to empirical testing and which links interpersonal perception directly to interpersonal behavior.

Since the mid-1970s, Messe, Stollak and their co-workers conducted a series of studies designed to investigate the link between perceptual style and interpersonal behaviors (Green, 1975; Larson, 1975; Michaels, 1977; Stollak, Messe, Michaels, & Ince, Note 1; Messe et al., 1979). They used the term interpersonal perception style (IPS) instead of individual perceptual style in order to emphasize both the interactive nature of perception and the fact that it involved an encounter between people. Interpersonal perceptual style (IPS) was defined as the extent to which a person is differentially sensitive to another's negative and positive behaviors. A brief description of how IPS was measured is given here. A more complete description may be found in Larson (1975) or in Messe et al. (1979).

IPS was measured by the Standard Perceptual Stimulus (SPS) procedure. The SPS is a 20-minute videotape of a child interacting with an adult (female graduate student) in a playroom setting. The child, a paid actor, exhibited an approximately equal number of negative and positive behaviors. Negative behaviors were those undesirable activities--e.g., aggression, lack of impulse control, etc.--that Ferguson,

Partyka, and Hester (1974) found to be used by parents to describe their clinic-referred children when compared to the reports of parents whose children had not been referred. Likewise, positive behaviors were activities, such as displays of competence, that the parents of nonclinic referred children reported seeing in their children much more frequently.

A modified version of the Children's Behavior Checklist (CBC) was used to determine IPS scores. The original CBC had been developed by Ferguson et al. (1974). After viewing the SPS, each subject checked those behaviors on the CBC that he or she had seen the exhibit on the video tape. IPS scores were computed by subtracting the number of negative behaviors checked from the number of positive behaviors checked. A subject was classified as (a) a balanced or accurate perceiver if they saw nearly equal amounts of positive and negative behaviors; (b) a negatively biased perceiver if they checked at least 14 more negative than positive behaviors; and (c) a positively biased perceiver if they checked at least 5 more positive behaviors than negative behaviors. Different criteria had to be used for the negatively and positively biased perceivers because relatively few respondents, they found less than 2%, checked at least 14 more positive behaviors than negative behaviors (Messe et al., 1979).

Thus, in accordance with Messe and Stollak's definition of IPS, a subject's IPS category depended upon his or her tendency to see primarily negative, positive, or equal (balanced

or accurate) amounts of positive or negative behaviors. Messe and Stollak and their co-workers have used their definition of IPS and their classifications system of IPS to investigate the manner in which IPS affects adult-child interactions (Green, 1975; Stollak et al., Note 1; Messe et al., 1979); adult-adult interactions (Larson, 1975); and the motivation to increase one's child-care giving skills (Michaels, Stollak, & Messe, 1979).

An example of their work is the Messe et al. (1979) investigation of the effects of the adult's IPS on the behavior exhibited by an adult-child dyad in a play situation. After the IPS of the adult was determined (positive, negative, or balanced), the adult-child dyad was then observed and their behaviors coded as they completed three assigned tasks. Based on the short term and cooperative nature of the encounter, Messe et al. expected to find a stronger relationship between the adult IPS and the adult behaviors than between the adult IPS and the behavior of the child. They also expected that the behavior of the adult would vary with their IPS category (negative, positive, or balanced). Their results supported their expectations.

Messe et al. observed that negatively biased adults tended to act to constrain the behavior of the child; while positively biased perceivers, especially males, tended to be more helpful. It appears that the social behaviors of the negative perceivers reflected a lack of trust by these adults.

Conversely, the positive IPS adults appeared to be more supportive or congruent with the child's behavior. Lastly, they reported that the child's behavior was related to the adult's IPS, but, not as strongly as that of the adult. These results support the conclusion that the social behaviors of an adult perceiver, in adult-child interactions, is related to perceiver based interpersonal perception processes.

In a second experiment, Messe et al. investigated the effect of IPS on adult-adult social behaviors in a mildly confrontational dyadic interaction (Larson, 1975). As in the case of adult-child interactions, they believed that IPS would be related to the social behaviors exhibited by two adults. They also sought to determine the relative effectiveness of adults, in each IPS category, to reach agreement with a person who holds a divergent view. This concept was tested by observing and coding an encounter between a subject (a negative, positive, or balanced perceiver) and a peer (a research confederate) in a structured situation that involved a revealed different task.

The positive IPS adults were found to have difficulty in dealing with another adult who held an opposite view in the mildly confrontational situation. Although the negative perceivers appeared to handle this situation better than the positive perceivers, they tended to spend more time in activities (e.g., sarcasm, disagreement) that did not move the situation towards compromise or resolution. On the other

hand, balanced perceivers not only handled the affective aspects of the confrontation better than either the positive or the negative perceiver, they also devoted more time to the resolution of subject-peer differences.

Since Larson (1975) employed the SPS (a recorded adult-child interaction) to measure the IPS of the subjects in her adult-adult interactions study, her results strongly suggest that the relationship between IPS and interpersonal behaviors categories may be consistent across different stimulus persons. Moreover, Michaels, Stollak, and Messe (1979) have shown that an individual's IPS may be altered by education and training.

More recently, Messe and Stollak have turned their attentions to the effects of parental IPS upon intrafamilial interactional patterns (the topic of this study). They also examined the effect of parental IPS upon the psychosocial development of the child (Stollak et al., Note 1).

Conclusion

In this chapter, an attempt has been made to examine the nature of the interpersonal perception process and its effects on interpersonal behavior. The perceiver, unlike a camera, seeks to know and to understand more about the stimulus person than his or her physical appearance. Not only does the perceiver attempt to determine the current state (emotions and feelings) of the other, within the context of their interactions, but, she or he also seeks to infer the more stable characteristics of the stimulus person. Thus, the final

impression is the result of the perceiver's efforts at gathering information about the other, the evaluation of this information, and the combination of this information into a consistent and unified impression of the other. Evidence suggests that perceiver based personality variables (e.g., cognitive sets, implicit personality theories and attributional theories) play an important part in the perceptual process. Moreover, individual differences in perception may cause two perceivers to reach entirely different perceptions of the same stimulus person. Research on interpersonal perception style (IPS) supports this position.

Messe and Stollak's work in IPS has shown the existence of a link between interpersonal perception and interpersonal behavior. That is, the perceiver's impression of the other will not only influence his or her current behavior towards the other, it will also lead him or her to make predictions about the other's future behaviors. Current research efforts indicate that IPS has implications for interpersonal situations beyond simple dyadic interactions.

Goals and Hypotheses of Present Study

The present study seeks to provide information about the manner in which parental interpersonal style (IPS) effects parent-child interaction patterns. Specifically, this investigation focused on the relationship between the extent to which parents are biased in their perceptions of the child-actor in the SPS, and how they interact with their own child. Since

Messe et al.'s (1979) past findings indicate that IPS is related to the social behaviors of adult in two experimental situations (adult-adult and adult-child interactions), it was felt that parental IPS should relate to overt social behavior of the two adult members and their 5-7 year old child that made the family triads. Further, the earlier efforts by Stollak, Messe, Michaels, and Ince (Note 1) suggest that a relationship between parental IPS and overt social behaviors was stronger for the father than for the mothers; that is, both the fathers' and the sons' behaviors were related to the fathers' IPS. The generalizability of their results were limited however, by a need for greater interrater reliabilities.

This study modifies and repeats portions of the Stollak et al. (Note 1) study in an effort to increase the generalizability of its results through the achievement of significant intrrater reliabilities, through identification of the targets of social behaviors, and through exploration of an expanded range of social behavior variables (see the Methods section). Thus, based on the past findings of Messe and Stollak, it was hypothesized that parental IPS would be related to overt social behavior between the members of a family triad.

For example, it appears reasonable to expect that negative bias in parents would be related to behaviors with their children that reflected dominance and a desire for interpersonal distance. Conversely, one might expect that the more negative the parents' IPS, the more constrained their child's

behavior towards them would be. Finally, one might also expect an increasing rigid or structured mode of interacting between the parents as the negativity of IPS increases for both parents.

CHAPTER II

METHOD

The videotapes used for this study were originally a part of an investigation by Stollak et al. (Note 1). They examined the relationship between "Children's Behavior Problems and Parental Perceptual Bias." The families involved in their study consisted of 37 volunteers, two parent families and their five-to-seven year old children from the public school districts of Lansing and East Lansing, Michigan. The families were paid for their participation. The present study used the videotapes to examine the relationship between family interactions and parental interpersonal perception styles.

Subjects: Determination of Parental IPS

This section is a general description of the procedures employed by Messe, Stollak, and their co-workers to determine the parental Interpersonal Perceptual Style scores and to produce the videotapes. More detailed descriptions of these procedures including reliability studies may be found in Messe, et al. (1979), Michaels, Stollak, and Messe (1979), and Ferguson, Partyka, and Lester (1974).

The participating parents and their child were received by a research assistant at an office in the Department of

Psychology, Michigan State University. The experimental tasks and procedures were then explained to the parents and they were informed of their right to refuse, without prejudice, to participate in any task that made them uncomfortable. After signing consent forms for their child and themselves, the parents and the child were separated for the first half of the experiment. While the child was in a playroom with an assistant, the parents viewed the Standard Perceptual Stimulus (SPS) and completed several questionnaires.

The SPS is a staged interaction between a child and a graduate student. This videotaped sequence was designed to provide subjects with a common target stimulus for their perceptions. As written, the SPS was designed to present an equal number of positive and negative behavior by the child actor. Thus, the child's behavior could be perceived as balanced (accurate perceiver) or as primarily negative or positive (inaccurate perceptions) depending upon the perceptions of the subject. The subjects' Interpersonal Perceptual Style is determined by how they score the child's behavior on the Children's Behavior Checklist (CBC--Appendix A).

The CBC is a modification of the instrument developed by Ferguson et al. (1974) and it contains 64 behaviors that the parents scored according to the behaviors that they perceived in the SPS. While fourteen of the items on the CBC were "neutral filters," there were also 25 positive and 25 negative behaviors. The CBC in Appendix A contains a scoring key that

indicates positive and negative behaviors. After independently scoring the CBC, each parent's IPS score was computed as follows:

$$\text{IPS} = \frac{(\text{No. of Positive Items Checked}) - (\text{No. of Negative Items Checked})}{(\text{Sum of Positive and Negative Items Checked})}$$

Thus, a negative parental IPS is the result of having checked more negative than positive items and the reverse is true for a positive IPS parent. A balanced IPS score, on the other hand, is a result of having checked an equal number of positive and negative items. The scores of the parents used in this study are listed in Appendix A.

After completion of the CBC, each set of parents were re-united with their child in the playroom where the family triad was videotaped as they completed a series of four pre-determined tasks. The four tasks were: (1) ten minutes of free play, (2) ten minutes of teaching proverbs to the child, (3) ten minutes of telling stories based on two TAT picture cards, and (4) a ten minute discussion of "some of the things that all of your disagree about at home."

The parental Interpersonal Perceptual Style scores and the videotapes of the four family tasks were used in the present study to investigate the possibility that the social behaviors displayed in the parent-child interactions are related to IPS. Thirty-one of the original 37 families were found to be appropriate for this purpose.

Coding Family Interactions

A coding system was developed for this study that quantifies the following aspects of the families' social behaviors, social position and orientation (Leary, 1957; Bales, 1950, 1970), social movement (Horney, 1945) and the social target. Brief definitions are given below and operational definitions are given in the coder's manual in Appendix B.

- A. Social Movement: Social behavior whose intent was to:
 - 1. Move towards: the actor showed affection for the target, agreed with the target, made a request of the target, etc.
 - 2. Move away: The actor ignored the activity of the target, the actor withdrew from the encounter, the actor engaged in solitary activity, etc.
 - 3. Move against: The actor showed antagonism toward the target, the actor disobeyed or disagreed, the actor failed to comply with a request, etc.
- B. Social position: The behavior suggested:
 - 1. Superordinate status: The actor treated the target as a subordinate.
 - 2. Equal status: The actor treated the target as an equal.
 - 3. Subordinate status: The actor treated the target as a superior.
- C. Orientation: The behavior indicated that the actor was:
 - 1. Task oriented: The behavior focused on the task.
 - 2. Socio-emotionally oriented: The behavior focused on the feelings and needs of the actor and/or the target.

D. Target: Each actor has three possible targets.

1. Parent as actor: (a) opposite sex parent, (b) child, and (c) opposite sex parent and child together.
2. Child as actor: (a) mother, (b) father, and (c) both parents.

Coding the social acts as a function of the factorial combination of the dimensions A, B, and C generates a rating system composed of 18 specific categories (i.e., 3 types of social movement X 3 social positions X 2 orientations). Additionally, by identifying the targets (Dimension D) of the social acts, this system provides 54 possible ratings for the social acts of each member of the triad (see the Scoring and Task Summary Sheets, Appendix B). Frequency counts were used to code the occurrence of social acts which satisfied each of the 54 possible ratings (Bales, 1950, 1970).

This system has the advantage of involving a reasonably small number of dimensions (A, B, and C) of interpersonal functioning, but at the same time--via factorially combining these dimensions--yielding a large enough number of specific categories of behavior to "capture" the range of activities that the family members displayed. Coders were trained to use this system to code the family triads' interactions during the time that the family spent work together on the four tasks.

Procedure for Coding Behavior Categories

The recorded sound of a bell set at 15 second intervals was used to divide the ten minutes required for each task

into 40 fifteen second segments. During each interval, the raters simultaneously observed and scored the frequency of the social acts according to the system described above. Each coder pair observed and scored only one member of the family. Moreover, only one behavioral category was scored during each 15 second interval. When more than one behavior was displayed, the coder would report the one which had the greatest impact on the triad or the task situation. If the behaviors had equal impact, then the behavior which had not been previously reported was scored.

In the very few cases where immediate decisions were not possible, the coder recorded the time segment and the behaviors involved and waited until the task was over before deciding. If necessary, the tape was reviewed. This non-stop procedure afforded a consistent coding sequence and environment for all coders. After each family's videotape had been scored for all four tasks, all scoring sheets and task summary sheets were collected. Although all coding was done independently and free of consultation between coder pairs, the coding was done in a group setting and under the supervision of a graduate student.

Training and Reliability of Coders

The coders were six M.S.U. undergraduates who received course credit for their participation. They were kept unaware of the purpose of this study until their part in the experiment was complete. After the IPS scores of the coders were

determined by the same procedure as that used for the parents, the coders received instruction on their part in the project and they viewed five minutes of a training tape. They were then introduced to the behavior rating system and given a scorer's manual, so that, they could learn the categories independently. For the next several sessions, coding techniques were refined through the use of training tapes and discussions.

The coders had no difficulty in specifying actors or in identifying behavioral targets. Their difficulties in distinguishing between the categories of Moving Towards, Superior and Moving Against had to be eliminated. The greatest problem, however, was the disparity in the total number of behaviors seen by each coder. This problem was removed by having the coders concentrate on producing only one score per 15 sec segment (see Preceeding section).

The scoring sheet in Appendix B was developed with the aid of the coders and this simple form turned out to be both an effective scoring device and a valuable training aid. It allowed the coders to score an entire task with a clear record of when behavioral categories had occurred. Previous to the scoring sheet, stoppage of the training tape after each 15 seconds was followed by a check of ratings by the individual coders. With the sheet, however, the determinations of the level of agreement could be delayed until the end of the tape and since areas of agreement were obvious any discussions and videotape review focused on problem areas.

This procedure not only expedited training it also enhanced interrater reliabilities.

Since all raters had negative IPS scores (Appendix C) and since there was good interrater agreement scores all six coders, coder pairs were assigned according to similarities in their work and study schedules. Each of the three pairs was assigned an actor in the family triad whom the coder pair scored for the entire 31 videotapes. The training sessions were done in a group setting and it involved four to six hours per week for seven weeks. Average interjudge reliability --the mean correlation across coder pairs for the 31 family interactions for all behavior categories--for these data was very high, $r = .97$.

Data Collection and Analysis

The above method produced frequency counts of the social acts displayed by each family member. Correlational analysis was used to discover the relationship between Parental IPS (PIPS) and the coded behaviors of the father, the mother, and the child. The Children's behavior was also examined in terms of the sex difference between the girls (N=14) and the boys (N=17).

CHAPTER III

RESULTS

Thirty-one of the original 37 videotapes were used in this study. Since the mean IPS scores for both the mothers (MIPS) and the fathers (FIPS) were negative ($-.2172$ and $-.2674$, respectively), this study provides information about the relationship between negative parental IPS and family interactional patterns.

Nature of Family Interactions

An idea of the overall nature of the family interactions may be found in the mean frequencies (averaged over coder pairs) of their social acts. Table 1 contains the mean frequencies of the 18 behaviors that each family member displayed for all 31 families and summed across the four tasks.

The most frequent behavior exhibited by all family members involved egalitarian, task-oriented, movement towards the other(s). This behavior is consistent with what one might expect of non-clinic referred, volunteer families who were aware that their activities were being recorded for detailed study. That is, all three family members tended to act in a socially appropriate manner. There are, however, some noteworthy differences in social acts among the individual family members.

Table 1.--Frequency of Social Acts Displayed by Family Members.

Category of Social Act	Family Role		
	Father	Mother	Child
Move toward, Superior, S-E	1.56	.98	.47
Move toward, Superior, Task	10.32	7.61	1.10
Move toward, Equal, S-E	3.69	1.84	17.27
Move toward, Equal, Task	131.10	146.21	122.21
Move toward, Subordinate, S-E	1.13	.11	.71
Move toward, Subordinate, Task	3.90	.95	2.77
Move away, Superior, S-E	1.06	.14	.26
Move away, Superior, Task	.76	.26	.21
Move away, Equal, S-F	1.71	.96	11.44
Move away, Equal, Task	1.29	.06	3.73
Move away, Subordinate, S-E	.50	0.00	.69
Move away, Subordinate, Task	.94	.27	.18
Move against, Superior, S-E	1.15	.08	.92
Move against, Superior, Task	1.21	.71	1.42
Move against, Equal, S-E	.21	.03	.52
Move against, Equal, Task	.81	.35	.18
Move against, Subordinate, S-E	.02	0.00	.24
Move against, Subordinate, Task	0.00	.02	.11

Note. N=31. S-E=Socio-Emotional.

While the mothers, for example, displayed more egalitarian, task oriented, movement towards behaviors than did either the fathers or the children; the fathers engaged the most frequently in all of the six different behaviors within the movement towards categories. Also, the fathers and the children appeared to have engaged in a wider range of behaviors than did the mothers. For example, the number of social acts with a mean frequency greater than 1.0 was 11, 7 and 3 for the fathers, children, and mothers respectively. The data in Table 1 show that the parents exhibited more movement towards other(s) from the superior position than did the children and that the children employed egalitarian, socio-emotional movements towards and away from their parents. The children also used movement away in order to complete the task.

A more specific picture of the family members' behaviors is presented in Table 2, which contains the most frequently displayed behaviors and their corresponding targets. Data based on the sex of the child is also included in this table. The target choices for the parent as actor were the child, the opposite-sex parent, and the child-parent pair (Both). For the child as actor, the target choices were the mother, the father, and both parents together. The mothers and the fathers showed similar target choice patterns, in that, most of their behaviors were directed at the child or the opposite-sex parent-child pair. Their behaviors, as indicated in

Table 2.--Most Frequent Behaviors and Corresponding Targets of Family Actors.

Category	Actor/Target	Frequency	Actor/Target	Frequency
Move Towards, Equal, Task	Mother/Child	71.24	Father/Child	63.16
	Mother/Both	61.36	Father/Both	50.76
	Mother/Father	13.60	Father/Mother	17.2
	Girls/Both	112.20	Boys/Both	83.2
	Girls/Mother	13.68	Boys/Father	15.2
	Girls/Father	10.2	Boys/Mother	12.16
Move Towards, Superior Task	Mother/Child	5.56	Father/Child	7.84
Move Towards, Equal S-E	Girls/Both	8.36	Boys/Both	12.0
	Girls/Mother	4.04	Boys/Father	5.6
Move Away, Equal S-E	Girls/Mother	5.04	Boys/Both	10.96
Move Away, Equal Task	Girls/Both	3.56	Boys/Both	3.08

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Note: Both for the child means both parents and Both for the parents means the opposite parent and the child together. N=31 for the Mothers and Fathers, N=17 for the Boys, and N=14 for the Girls.

Table 1, were primarily in the movement towards category. Two of the fathers' coded behaviors were not included in Table 2 because they lacked target specificity; that is, they were distributed equally over the three target choices. These behaviors were Move Towards, Equal, S-E and Move Towards, Subordinate, Task and Their frequencies were 3.9 and 3.6 respectively.

As in the case of their parents, the coded behaviors of the boys and the girls were also similar in category and number. The only case where they differed substantially in frequency was that of Move Away, Equal, S-E. In this case, the boys appeared twice as likely as the girls to disengage from the other(s) in order to satisfy socio-emotional needs. They also differed in target choice when interacting with their parents as individuals, in that, the child would tend to direct his/her behaviors at the same sex parents. The use of target choices by the individual members of the family triads is present in Table 3.

Table 3 lists the target choices of each actor in percent of the actors' total target choices. Clearly the parents directed most of their behaviors at the child or the opposite sex parent-child pair (Both). This behavior might be expected of parents who interpreted the objective of this study to be determination of how well they directed or governed their child or if they saw their child as the "task." The boys and girls, on the other hand, directed more than three-quarters

Table 3.--Most Frequent Target of Each Actor (In Percent).

Actor	Mother	Father	Child	Both
Mother		8.9	50.7	40.4
Father	12.4		51.1	36.5
Girls	11.3	6.5		82.2
Boys	8.5	14.7		76.8

Note: N=31 for parents, N=14 for Girls, and N=17 for Boys.

of their behaviors at both parents and they selected the same sex parent over the opposite sex parent by nearly a 2 to 1 margin.

This section clearly shows that there are observable and scorable patterns of behaviors in the interactional patterns of the individual members of the triad. Whether or not these behaviors are significantly related to parental IPS is discussed in the next section.

Correlation Coefficient Between Parental IPS and the Coded Behaviors

The possibility that the social behaviors expressed in the family interactions discussed above were related to parental IPS was investigated by correlating the IPS score of each parent with the mean frequencies (averaged across the coder pairs) that each of the 18 behaviors were expressed by one family member towards the other members of the triad. The correlation coefficients between the mothers' IPS scores

(MIPS) or the fathers' IPS scores (FIPS) and the 54 possible ratings (18 behavioral categories x 3 target choices) summed across the four tasks are listed in tables within this section. Since the mean parental IPS was negative for both the mothers' and the fathers' (-.2172 and -.2674 respectively); a negative correlation suggests an increase in the mean frequency of a coded behavior as the negative value of the parental IPS increases. Correspondingly, positive correlations are the result of a decrease in the frequency of the coded behavior as the IPS score increases in negativity.

MIPS and the Mothers' Coded Behaviors

There were 40 correlation coefficients found between the 54 possible rating categories for the mothers' coded behaviors and MIPS. The majority of the correlation coefficients in Table 4 were positive (reduction of frequency with increasing negativity of IPS) and these positive correlations focused on the mother-father interactions or the mothers' movements against other(s) involving all three target choices. The negative correlations were concentrated on movements away from the child plus movements toward both the child and the father-child pair.

The mother-father interactions indicates a slight tendency by the mothers to engage their husbands from a superior or dominate social position. The other mother-father behaviors which correlated with MIPS tended to decrease. Thus, as the negativity of MIPS increased, these mothers did not interact

Table 4.--Mean Correlations Between Mothers' IPS Scores and the Mothers' Behaviors Summed Across Four Family Tasks.

Category of Social Behavior	Father	Target Child	Both
Movement Toward			
SE, Superior	-.13	-.02	--
SE, Subordinate	.22	-.06	.09
SE, Equal	.44**	.17	-.20
TO, Superior	.18	-.18	-.02
TO, Subordinate	.17	-.05	-.04
TO, Equal	.28*	.16	-.29*
Movement Away			
SE, Superior	.22	-.04	-.10
SE, Subordinate	--	--	--
SE, Equal	--	-.21	.06
TO, Superior	.22	-.25*	--
TO, Subordinate	.22	.21	.12
TO, Equal	.19	-.04	.09
Movement Against			
SE, Superior	-.10	.12	--
SE, Subordinate	--	--	--
SE, Equal	--	.37***	--
TO, Superior	-.07	.09	.12
TO, Subordinate	--	-.08	--
TO, Equal	.22	.25*	.22

Note: N=31, SE=Socio-emotional, Dom=Dominance, and Sub=Submission. * $p < .10$, ** $p < .05$, *** $p < .01$.

with their husbands unless the mothers were dominant or unless their husbands were a member of the father-child pair. The nature of the mother-child social acts were such that the movement towards and away behaviors generally decreased with the same variable. The mothers do not appear to be interested in confronting or moving against behaviors--especially egalitarian (socio-emotional or task-oriented) against the children. There are six significant correlation coefficients in Table 4 and they support the trends described above.

Although more of the mother-child interactions increased with the negativity of MIPS than did those behaviors directed at the father, the mothers did not move towards or against either actor (as individuals) for socio-emotional need gratification or to work with the child or father to complete the task. The mothers did, however, show a tendency to move towards the father-child pair for both socio-emotional and task-oriented purposes. Moreover, they moved away from their children when employing task dominating behaviors; and, since the most significant behavior involves egalitarian movement against the son (a positive correlation), it seems that the mothers attempt to control their children by withdrawing rather than confrontation.

Thus, as the negativity of MIPS increases, mothers may become less likely to interact with their husbands and children as individuals and they may tend to ignore socio-emotional issues in order to complete the "task." These results suggest that she may see her role as one of being

responsible for the "task" and that she can accomplish this by directing her husband and child without confronting them and without being side-tracked with socio-emotional issues.

MIPS and the Fathers' Coded Behaviors

Forty-eight of the 54 possible rating categories correlated with MIPS. Thirty of these correlations were negative and therefore they increased with the increasing negativity of MIPS. While most of the movements away were negative for all three target choices, the movements towards the mothers and against the mothers and the children (as individuals) were positive. The majority of the behaviors involving the mother-child pair; however, tended to increase with MIPS for the husbands of negative IPS mothers. Thus, Table 5 seems to imply the following trends: these husbands tended not to engage their wives as individuals; they approached their children as individuals, but primarily to dominate them socio-emotionally; they readily moved away from the mothers and the children as individuals; and they readily interacted with the mother-child pair across all three movements.

There are 22 significant correlation coefficients and they involved behaviors directed at the mother, the child, and the mother-child pair in a ratio of 9:8:5 respectively. Interestingly, all of the positive correlations are directed toward the mother and the child as individuals. The strongest and most significant father-mother interactions were those that decreased with MIPS. Thus, as these behaviors declined,

Table 5.--Mean Correlations Between Mothers' IPS Scores and the Fathers' Behavior Summed Across Four Family Task.

Category of Social Behavior	Mother	Target Child	Both
Movement Toward			
SE, Superior	.24*	-.33**	-.08
SE, Subordinate	-.23	-.14	-.20
SE, Equal	.12	-.10	-.02
TO, Superior	.14	-.12	-.27*
TO, Subordinate	.08	-.11	-.38**
TO, Equal	.25*	-.01	.08
Movement Away			
SE, Superior	-.27*	-.29**	-.11
SE, Subordinate	.24*	-.34**	-.24*
SE, Equal	-.16	-.25*	.09
TO, Superior	-.18	-.14	-.06
TO, Subordinate	-.28*	-.39**	-.15
TO, Equal	-.24*	-.53***	.02
Movement Against			
SE, Superior	.18	-.11	
SE, Subordinate	.37**		
SE, Equal	.37**	.25*	-.24*
TO, Superior	.43	.19	-.24*
TO, Subordinate	--	--	--
TO, Equal	.02	.37**	.03

Note: N= , SE=Socio-emotional, Dom=Dominance, and Sub=Submission. *p<.10, **p<.05, ***p<.01.

the distance between the fathers and the mothers increased and the fathers did not confront their wives either socio-emotionally or for the "task." The negative fathers-mothers interactions show that they employed disengagement rather than confrontation to deal with their wives as individuals.

The significant fathers-children correlations indicate a willingness to approach the children, especially for socio-emotional dominant, but, a decreasing willingness to confront the children as equal. The movements away were the strongest and most significant father-child behavior and they presumably reflect a desire on the fathers' part to establish and to maintain their interpersonal distances. The fathers appeared to be most willing to engage the mother-child pair in task-oriented behaviors and in confrontations. Moreover, there was only one significant movement away for the mother-child pair.

The husbands of negative MIPS mothers do not seem to establish supportive or egalitarian bonds with their families in order to complete the task when dealing with individual family members. They either move away, use the superior-subordinate extremes, or concentrate on socio-emotional need gratification. They appear to interact more directly with the mother-child pair; but, this may only be a means of maintaining indirect participation with the individual members of the family.

MIPS and the Daughters' Coded Behaviors

Table 6 contains the thirty correlation coefficients which describes the relationship between MIPS and the daughters' coded behaviors. None of the 30 correlations was statistically significant nor were any very strong. The greatest number of correlations were found for the behavior directed at the mother-father pair. It is noted, however, that most of the listed correlations are negative, that they involve movements towards or away from other(s), and that the mother was the least selected target choice. Moreover, these correlations suggest the following behavioral possibilities for the girls in this sample.

They avoid submissive or subordinate behaviors with their mothers and they employ an egalitarian social status when approaching their mothers for socio-emotional or task-oriented purposes. The girls displayed a range of behaviors with their fathers which include acts of submissiveness and of confrontation for both socio-emotional and task-oriented goals. The daughters withdraw from all three target choices, especially for "task" behaviors. Therefore, it may be that the daughters focus on the task (as did their mothers), withdraw for help and support, and they may form an alliance with their fathers.

MIPS and the Son's Coded Behaviors

Correlation coefficients were obtained between MIPS and 51 of the boys' coded behaviors. There are twice as many positive as negative correlations (34 to 17) and the 12

Table 6.--Mean Correlations Between Mothers' IPS Scores and the Daughters' Behavior Summed Across Four Family Task.

Category of Social Behavior	Mother	Target Father	Both
Movement Toward			
SE, Superior	--	--	--
SE, Subordinate	--	-.16	-.31
SE, Equal	-.13	.00	.01
TO, Superior	--	--	.26
TO, Subordinate	.24	-.33	-.17
TO, Equal	-.15	.06	.24
Movement Away			
SE, Superior	--	--	--
SE, Subordinate	--	-.16	--
SE, Equal	.21	-.00	-.01
TO, Superior	-.11	-.18	-.18
TO, Subordinate	--	-.30	-.16
TO, Equal	-.24	-.31	-.08
Movement Against			
SE, Superior	--	--	.09
SE, Subordinate	--	--	--
SE, Equal	--	-.01	.29
TO, Superior	--	-.18	--
TO, Subordinate	--	--	--
TO, Equal	.08	--	.07

Note: N= , SE=Socio emotional, Dom=Dominance, and Sub=Submission. *p<.10, **p<.05, ***p<.01.

significant correlations are evenly split between positive and negative. Although the boys showed some variation in the behaviors directed at their parents as individuals, the big difference lies in manner that they interacted with their parents as individuals as opposed to the manner in which they interacted with the mother-father pair.

The boys show only a slight tendency to move towards the mother or the father individually. In fact, with the exception of seeking to dominate the father socio-emotionally or to engage the mother as an equal in the task, the coded movements toward them decrease for the son as MIPS increases in negativity. The movements against and away behaviors between the sons and their mothers are characterized by weak correlations describing socio-emotional moving away and a tendency not to move against their mothers at all. In the case of the fathers, the sons do not move away from them but they do confront them as equals from a hostile, socio-emotional posture.

The boys generally tended to move towards the mother-father pair as MIPS increased in negativity. The number of acts of socio-emotional domination, while withdrawing, plus the number of submissive, socio-emotional confrontations also increased for the boys--parent pair interactions. There were, however, a significant decrease in the number of submissive, socio-emotional movements away.

The significant correlations were divided among the mother, father, and the mother-father pair in a ratio of 3:3:6 respectively. The behaviors which have negative

correlation coefficients with MIPS were the strongest and the most highly significant; and, the targets of these behaviors, with one exception, were both parents together. In contrast, the behaviors that correlated positively with the sample MIPS were directed at either of the individual parents in five of the six cases. The significant correlation coefficients emphasize the general trends in Table 7 which were discussed above. That is, the boys tended not to move away or towards their parents as individuals. Although they did not move against their mother, they did display a strong tendency to move against their father socio-emotionally. The boys also showed a strong increasing tendency to interact with the mother-father pair in both socio-emotionally and task-oriented efforts, but only at the extremes of the subordinate-equal-superior continuum.

In relationship to the other members of the triad, the boys therefore may be described as displaying a wider behavioral range, as displaying more aggressive acts, as being more involved in non-productive, socio-emotional acts. They also failed to ally themselves with one or the other of their parents. The foregoing suggest that the sons of these negative IPS mothers may be inclined towards confrontive, manipulative and non task-oriented behaviors. Additionally, conflicts may arise in situations requiring direction and cooperation between the husbands and the sons of the mothers in our sample.

Table 7.--Mean Correlations Between Mothers' IPS Scores and the Sons' Behaviors Summed Across Four Tasks.

Category of Social Behavior	Mother	Target Father	Both
Movement Toward			
SE, Superior	.40	-.11	-.41**
SE, Subordinate	-.02	.24	-.56***
SE, Equal	.35*	.15	-.10
TO, Superior	.30	.37*	-.68***
TO, Subordinate	.06	.33*	-.31
TO, Equal	-.20	.08	.01
Movement Away			
SE, Superior	-.09	.25	-.59**
SE, Subordinate	-.13	.27	.46**
SE, Equal	-.09	-.07	.12
TO, Superior	.28	.28	--
TO, Subordinate	.28	.28	--
TO, Equal	.04	-.08	-.05
Movement Against			
SE, Superior	.32*	.25	.11
SE, Subordinate	.38	.28	-.59**
SE, Equal	.24	-.59**	.24
To, Superior	.28	.24	.30
TO, Subordinate	.28	.28	.28
TO, Equal	.15	.02	--

Note: N= , SE=Socio-emotional, Dom=Dominance, and Sub=Submission. * $p < .10$, ** $p < .05$, *** $p < .01$.

FIPS and the Fathers' Coded Behaviors

Forty-eight of the fathers' coded behaviors were found to correlate with FIPS. Thirty-one of the correlation coefficients in Table 8 were negative and ten of them were significant at the 0.1 level or better. The correlations involving behaviors directed at the mothers suggest that negative IPS fathers employed subordinate and/or equal social postures when moving towards or against their wives socio-emotionally. Conversely, the fathers employed movement away when seeking socio-emotional domination of their wives. Except for a slight tendency to dominate task-oriented activities, they showed a decrease in task-oriented behaviors with their wives. Although the social acts directed at the mother-child pair were similar in nature to those directed at the mothers, the fathers displayed different behavioral tendencies when interacting with their children.

With the exception of attempts at socio-emotional domination by moving away--a behavior that was consistent across the target choices--the fathers' socio-emotional interactions with the children decreased with the increase in the negativity of FIPS. Their interactions with their children for task-oriented purposes did, however, increase slightly (MAg Equal) with the FIPS of our sample. The significant task-oriented behaviors in Table 8 involved a tendency towards egalitarian, movement against the children and a propensity not to assume a subordinate posture while moving away from the mothers.

Table 8.--Mean Correlations Between Fathers' IPS Scores and the Fathers' Behavior Summed Across Four Family Task.

Category of Social Behavior	Mother	Target Child	Both
Movement Toward			
SE, Superior	.08	-.04	.04
SE, Subordinate	-.09	.26*	-.02
SE, Equal	-.18	.32**	-.22
TO, Superior	-.07	-.18	-.05
TO, Subordinate	.14	.09	.11
TO, Equal	.20	-.15	.11
Movement Away			
SE, Superior	-.37**	-.34**	-.29*
SE, Subordinate	.36**	.20	-.02
SE, Equal	-.15	-.11	.16
TO, Superior	-.06	-.14	-.16
TO, Subordinate	.26*	-.01	-.06
TO, Equal	-.11	.06	-.10
Movement Against			
SE, Superior	-.08	-.09	--
SE, Subordinate	-.26*	--	--
SE, Equal	-.26*	.23	-.18
TO, Superior	-.03	-.15	-.18
TO, Subordinate	--	--	--
TO, Equal	.05	-.26*	.13

Note: N=31, SE=Socio-emotional; Dom=Dominance, and Sub=Submission. *p<.10, **p<.05, ***p<.01.

The other significant correlations involved socio-emotional acts across the subordinate-equal-superior continuum. Overall, the significant correlation coefficients were of fair strength and they emphasized those acts that served to place the negative IPS father at a distance from the other(s), which allowed him to interact with his wife and child as individuals, and which placed him in a dominant or confronting position in relationship to his children. Additionally, since the father's ability to assume a subordinate, task-oriented role decreased or correlated weakly with negative IPS, this may reflect an inability by father to impart respect to others or to be aware of the needs of others (Carson, 1969). The division of significant correlations between target choices is 5:4:1 for the mother, child and the mother-child pair respectively. The patterns of social acts and behavioral target selection used by the fathers suggest that they interact with other members of the triad as individuals and for specific purposes. This relationship (IPS vs. targets and social acts) may be the result of how negative IPS fathers defined (for themselves) the roles and relative social position of each family member. Moreover, this relationship may also describe the method by which these fathers tried to satisfy their definitions (under conditions of this study).

If these fathers saw their role as being responsible for the "task" and for the child; they might have perceived the mothers' role as being one of support for themselves (Love &

Kaswan, 1974) and they might have perceived the child as a person to be controlled, confronted or cajoled (Messe et al., 1979). Moreover, they may have seen the child as the "task." The data listed in Table 8 suggest that they could have fulfilled these definitions or perceptions by dealing with their wives and children as individuals and by keeping their roles/functions separate and independent. That is, they may have gained socio-emotional satisfaction (support) from their wives while they worked on the "task" with their children from a superior or confronting position. These possibilities are consistent with the observations of others (Love & Kawsan, 1974; Larson, 1975; Messe et al., 1979) and with the earlier discussion of IPS.

FIPS and the Mothers' Coded Behaviors

Forty of the 54 possible ratings in Table 9 were found to correlate with FIPS. Most of the correlation coefficients in Table 9 are positive and therefore they represent behaviors which decrease with the increasing negativity of FIPS. Nine of the forty correlations were negative and only one of these negative correlations involved a behavior that the mothers directed at their husbands. There is a weak, negative correlation coefficient related to the mothers' egalitarian, socio-emotional movements towards their husbands. The mothers showed slightly more interactional flexibility with the other two target choices in that the mothers demonstrated an increasing tendency for egalitarian, task-oriented movement

Table 9.--Mean Correlations Between Fathers' IPS Scores and the Mothers' Behaviors Summed Across Four Family Tasks.

Category of Social Behavior	Father	Target Child	Both
Movement Toward			
SE, Superior	.08	.07	--
SE, Subordinate	.41**	.05	.04
SE, Equal	-.05	.03	-.08
TO, Superior	.13	.20	.26*
TO, Subordinate	.29*	.16	.14
TO, Equal	.37**	-.12	-.26*
Movement Away			
SE, Superior	.41**	.07	.12
SE, Subordinate	--	--	--
SE, Equal	--	-.06	-.04
TO, Superior	.41**	-.13	--
TO, Subordinate	.41**	.42**	.25*
TO, Equal	.62***	.14	.08
Movement Against			
SE, Superior	.12	-.12	--
SE, Subordinate	--	--	--
SE, Equal	--	-.26*	--
TO, Superior	.04	.15	.16
TO, Subordinate	--	.04	--
TO, Equal	.41**	.37**	.41***

Note: N=31, SE=Socio-emotional, Dom=Dominance, and Sub=Submission. * $p < .10$, ** $p < .05$, *** $p < .01$.

towards others as one goes from right to left across this category in Table 9. Also, there are several weak negative correlations for movements away from the other(s) and the mothers were inclined towards socio-emotional confrontations with their children.

There are 15 significant correlation coefficients in Table 9. Thirteen of this significant correlations are positive and they are spread over all three movement categories. The two remaining negative significant correlations involve task-oriented, equal acts toward the father-child pair and equalitarian, socio-emotional movement against the child.

The strongest and most significant correlations are positive and the strongest of these involve social acts in the movements away and against categories which have task-oriented objectives. The father was the target or shared target in 11 of the 13 positive correlations. Thus, as the negativity of FIPS increased, these women became less likely to move away or against the father as a means of getting the "task" completed. They also seemed to avoid the submissive and dominant extremes of the submissive-equal-dominant continuum. Although these results indicate that the mothers showed a decreasing tendency to engage in many behavioral categories with their husbands (even when their husbands were members of the father-child pair), they did attempt to dominate and to gain socio-emotional satisfaction through the child.

The strong decrease in the majority of the mothers' social acts with the increasing negativity of FIPS may be the result of a strong controlling influence by the negative IPS fathers over their wives. Except for the negative correlations discussed above, the mothers may not have felt free to interact without conflict; therefore, they choose not to act at all. At any rate, the ratio of positive to negative correlations with the negative FIPS seems to indicate more about what a mother did not do rather than what she did, at least, under these laboratory conditions.

FIPS and Daughters' Coded Behaviors

Table 10 contains thirty correlation coefficients between FIPS and the daughters' social behavior. Seventeen of the behaviors increase with negative FIPS and 13 decrease. There are fewer correlations for behaviors where the mothers were the target and for the movements against the other(s) than either of the other targets or movements. It is noted, however, that both the strength of the correlation coefficients and their level of significance are greater for the mother than for the father, but less than those of the parental pair. With the exception of egalitarian movements away, the daughters did not appear to engage in socio-emotional behaviors with their mothers. They did, however, demonstrate a strong increasing tendency to interact for task-oriented purposes. They would move towards or away from their mothers, but they tended not to engage them in conflictual situations nor did they tend to dominate them.

Table 10.--Mean Correlations Between Fathers' IPS Scores and the Daughters' Behavior Summed Across Four Family Task.

Category of Social Behavior	Mother	Target Father	Both
Movement Toward			
SE, Superior	--	--	--
SE, Subordinate	--	-.24	-.38*
SE, Equal	.01	.47**	.68**
TO, Superior	--	--	.30
TO, Subordinate	-.34	-.22	-.05
TO, Equal	-.61**	-.04	-.01
Movement Away			
SE, Superior	--	--	--
SE, Subordinate	--	.02	--
SE, Equal	-.29	-.02	.62**
TO, Superior	.19	.07	.07
TO, Subordinate	--	-.25	.07
TO, Equal	-.43*	-.38*	-.34
Movement Against			
SE, Superior	--	--	-.15
SE, Subordinate	--	--	--
SE, Equal	--	-.09	-.23
TO, Superior	--	.07	--
TO, Subordinate	--	--	--
TO, Equal	.62**	--	.65**

Note: N=14, SE=Socio-emotional, Dom=Dominance, and Sub=Submission. * $p < .10$, ** $p < .05$, *** $p < .01$.

The behaviors involving the father alone and the mother-father pair were similar. Although the daughters were not disposed towards dominating these two target choices, the girls did show a greater tendency to engage in submissive socio-emotional behaviors with them than with their mothers. The girls also tended towards egalitarian movement away from the fathers and both parents in order to complete the task. They were not inclined, however, to confront both parents in regards to egalitarian completion of the task.

Overall, the nine significant correlations are of good strength and they indicate a constant pattern of behavior as one goes from left to right across the three target choices in Table 10. For example, the daughters' tendency to engage in submissive, socio-emotional movements towards others increases as one goes from the mother to the father to both parents. The tendency not to engage in socio-emotional, equal behavior also increases in this direction. The reverse is true of the task-oriented behaviors, in that the frequency of these behaviors decrease as one goes from left to right.

Thus, the daughters of the negative IPS fathers engaged and withdrew across all three target choices; they were task-oriented in regards to their mothers; and they engaged in socio-emotional (and maybe aggressive) acts with their fathers and the parental pair. When withdrawing from the triad, they showed a greater tendency to withdraw from their parents as individuals than as a unit. Finally, they were not disposed

towards socio-emotional, equal or movements against their parents, and they did not seem to place distance between their parents and themselves.

FIPS and the Sons' Coded Behaviors

Correlation coefficients were obtained for 51 of the 54 possible ratings and only 13 of these coefficients were negative (see Table 11). The boys seemed to move towards their parents as individuals for socio-emotional purposes, but they only moved towards their fathers (as an individual) for the "task." They directed egalitarian, task-oriented movements toward both parents together, and they were more inclined to use submissive socio-emotional movements away from the parental pair than from either their mothers or their fathers. Twenty-seven (23 positive and 4 negative) of the 51 correlations were statistically significant and the contents of Table 11 show that the positive correlations are of greater strength and a higher level of significance than the negative ones.

The strongest positive correlations were found in the movement away and movement against categories. Moreover, the mother was the target of the positive correlations twice as often as the father was, and task-oriented behaviors decreased more often than socio-emotional behaviors by a 14 to 8 count. Conversely, the significant negative correlations were limited to movements towards or away from the parents, and they were disturbed across the three target choices. There were no

Table 11.--Mean Correlations Between Fathers' IPS Scores and the Sons' Behaviors Summed Across Four Family Tasks.

Category of Social Behavior	Mother	Target Father	Both
Movement Toward			
SE, Superior	-.24	-.03	.34**
SE, Subordinate	-.35*	-.44**	-.10
SE, Equal	-.03	.04	.15
TO, Superior	.34*	-.07	.06
TO, Subordinate	.48**	-.25	.21
TO, Equal	.15	.12	-.34*
Movement Away			
SE, Superior	.36*	.06	.08
SE, Subordinate	-.01	-.13	-.43**
SE, Equal	.18	.23	.02
TO, Superior	.59**	.23	--
TO, Subordinate	.59**	.59**	--
TO, Equal	.59**	.60**	-.01
Movement Against			
SE, Superior	.54**	.55**	.50
SE, Subordinate	.59**	.23	.08
SE, Equal	.62**	.08	.60
TO, Superior	.59**	.59**	.56**
TO, Subordinate	.59**	.59**	.59**
TO, Equal	.50**	.37*	--

Note: N=17, SE=Socio-emotional, Dom=Dominance, and Sub=Submission. * $p < .10$, ** $p < .05$, *** $p < .01$.

dominate or superior status behaviors among the significant negative correlations.

The boys seemed to have a limited selection of possible interactional modes with their parents. These results indicate that those behaviors which increase with increasingly negative FIPS are those which place the son in a socio-emotional, submissive posture to his parents or those which restrict his task-oriented behaviors to his father or the mother-father pair. Since none of the movements against ratings correlated negatively with FIPS, these boys did not seem to be aggressive or domineering and it may be possible that they direct most of their attention at their fathers. Additionally, since the preponderance of the coded behaviors decreased (correlated positively) with the negative mean FIPS, the restrictions on the boys' behavior, especially with their mothers may be a result of the fathers' control or definition of the triads' roles in this experimental situation.

Results, Summary and Conclusions

MIPS

There are 168 correlation coefficients in Tables 4-7, 23% (39 of 168) of which were significant at the 0.1 level or better. The correlations are less than the 216 that were possible (4 actors times 54 rating categories), because not all of the social acts were observed for all the actors. The majority (55.9%) of the significant MIPS correlations were negative and most of these negative correlations were

associated with behaviors which involved the fathers or the sons as actor. There were no significant correlations between MIPS and the daughters' coded behaviors.

A review of the behaviors that correlated significantly with MIPS indicate that as the negativity of MIPS increases the structure of the triad will tend to be represented by the mother as task leader, the father as socio-emotional leader and the child as member-supporter or as member-deviant. While the nature of the child's status appears to be sex dependent, both the boys and girls had less influence on social behavior than did the parents. Moreover, the leadership roles are attributed to the parents, since nearly all of the parents attempted to lead their children through the various tasks.

The mothers are seen as task leaders because they essentially limited themselves to task-oriented, equalitarian, and non-confronting behaviors; in addition, they exhibited few socio-emotional behaviors. The mothers were present but they were not particularly active. The fathers are seen as socio-emotional leaders because they made substantial use of socio-emotional behaviors, they operated at the extremes of the superior-subordinate continuum, they employed confronting behaviors, and they disengaged across all three target choices. Moreover, the father did not interact with the others as individuals. Neither the mothers nor the fathers, however, promoted closeness within the triad. Although the MIPS correlated behaviors indicate that the parents sought to lead or

direct the child, the results do not indicate that they focused on each other.

The daughters' behaviors did not correlate significantly with MIPS and her behavior was represented by fewer of the communication channels (coded behavior categories) than any other actor. These results could reflect the fact that girls behaviors are not seen as negative by the mother or that the girls limit their behaviors to those which are acceptable to their negative IPS mothers. At any rate, a minority of the correlations listed in Table 6, and none of the father-daughter interactions correlated positively with the negative MIPS of our sample. This pattern may indicate that the daughters are accorded a reasonable degree of freedom in their roles as members of the family. In any event, the boys' status within the triad seems to be different from that of the girls.

The most complex role seems to be that of the boys. Although the employed 51 of the 54 possible communication channels, there seems to be a restrictive or constrained quality to their behaviors. That is, as the negativity of MIPS increased, their tendency to interact with their parents as individuals generally decreased. The one exception was a tendency to move against their fathers. Further, the boys did not move away from their parents, either as individuals or as a parental pair, except when seeking to dominate them socio-emotionally. Thus, the boys were a part of the group, but they were operated within certain, selected categories--most

of which were with the parental pair. The acting-out character of the boys' behaviors appears to place him in a confrontive and hostile relationship to their fathers as the culturally formal head of the family. Moreover, the nature of the boys' behavior plus the strength of the significant correlations strongly suggest that the boys may well fulfill their mothers' negative expectations as measured by the SPS. One may also expect that the boys' role in the triad approaches that of deviant member as the negativity of MIPS increases.

FIPS Results Summary

Tables 8-11 contain the 169 correlation coefficients which were obtained for the relationship between FIPS and the coded social behaviors. Thirty-five percent (59 of 169) of the correlations were significant at the 0.1 level or better. The majority (76.3%) of the significant correlations were positive thus, allowing the conclusion that a negative FIPS would indicate a restriction of or a limit on the range of social behavior for the members of the family triad.

The structure of triads with negative IPS fathers loosely approximates what is seen as the formal structure of western families (Strodtbeck, 1951); that is, the father is the head who is supported by the wife and with child occupying the lowest status. Despite the fact that the fathers, in the increasing negative FIPS case, appeared to be the leader of the triad (they assumed some task responsibilities); the fathers' major function still appeared to be that of

socio-emotional leader. But, unlike the case of negative MIPS, the negative FIPS fathers confronted the others as individuals, disengages to achieve socio-emotional dominance, and their tasks oriented behaviors involved conflict situations with the boys.

The mothers' behavior which correlated significantly with FIPS showed a decrease in social behaviors even beyond that of the MIPS (Table 6 vs. Table 9). Whereas in the case of MIPS the mothers seems to have chosen not to interact socio-emotionally with the others, the strong, positive significant correlations with FIPS indicate an increasing prohibition of interacting with others (especially with the fathers) as FIPS increases in negativity. The only behaviors which increased in frequency for the mothers involved movement against the child and task-oriented movements toward the father-child pair. The wives of the most negative FIPS may have been more like observers than participants under the conditions of this experiment.

The controlling aspects of a negative FIPS were also greater on the behaviors of sons than were those of MIPS. The significant correlations in Table 11 provides the appearance of a strong inhibition against acting out or disengaging behaviors by the son. Unless, the movements away involve a socio-emotional, subordinate status. Also, the boys could move towards either parent for socio-emotional need satisfaction (subordinate position), but task-oriented behaviors

tended to involve both parents. The nature of the significant correlations in Table 11, suggest that the fathers may have been successful in regulating their sons' behavior. This would be consistent with observations of Messe et al. (1979) in regards to the interactional patterns of negative perceiving adults with children.

The daughters appear to be the only actor whose communication channels increased with the increasing negativity of FIPS. Thus, this pattern of results support the idea posited earlier that the daughters' role in the family triad may be the most flexible. The girls engage both of their parents as individuals and they may direct their task-oriented behavior towards their mothers while interacting in socio-emotionally manner with their fathers. It may be that daughters learn very early that one does not confront negative perceiving parents and that one can accomplish a desired task by either moving away from either parent or by moving towards their mothers. It may also be worth noting that the daughters assume task oriented roles (like their mothers) and socio-emotional roles (like their fathers).

Conclusion

An increase in negativity in the perceptual style of either parent seems to have similar consequences for the structure of traids and for the social behavior of the triads' individual members. Both the mothers and the fathers seek to increase the distance between the others and themselves,

they both seek to control the behaviors of the sons more than the daughters, and they both separate the task-oriented and the socio-emotional roles.

The daughters of negative perceiving parents appear to either accept their role better or know better how to deal with their parents. The daughters may also not be perceived as negatively as the sons who seem to suffer most from their parents' negative perception of children (as measured by the SPS). The boys either have not learned their roles, they may have failed to adjust (rebellious against) their roles or there may be role confusion. Alternatively, they may also be imitating their fathers.

Based on these results, one may wonder about the existence of alliance between members of triads in families with negative perceiving parents. For example: Is there a father-daughter alliance in our sample? These results also have social learning theory implications for how the child learn their roles or how the parents' expectations are passed on to the child.

CHAPTER IV

DISCUSSION

There are several aspects of the results section that stand out because they differ from previous reports on the relationship between adult IPS and interpersonal behavior. First, the behavior of the child correlated more strongly with parental IPS than did the behaviors of either parent. Secondly, sex differences were observed for both the parents and the children. Thirdly, these results provide insight into the roles and structure of families with one or two negative IPS parents.

In their study of adult-child interactions and IPS, Messe et al. (1979) reported that the behaviors of the adult but not the child was predictable from the adult IPS. Although the parents' behaviors, reported here, were related to their IPS; our results indicate a much stronger relationship, especially for the boys, between negative parental IPS and the behaviors of the children. The differences between the results of this study and those of Messe et al. (1979) may be due to the fact that the subjects in the earlier study were not related and that their study employed one adult while this study involved both parents. It may also be true that while the behaviors exhibited in this study required an

adaptation of existing behavior patterns to an unfamiliar setting; the Messe et al. study required the two participants, who were strangers, to establish new behavior patterns in unfamiliar surroundings.

The latter point being the case, the adults in the restricted study may have assumed responsibility for the initiation and maintenance of the social interactions--in accordance to his or her interpersonal perceptual style. Moreover, the child not knowing or understanding the adults' cues may have limited his or her behaviors to psychologically safe and neutral interactional behaviors (e.g., parallel play); thus, the child's behaviors would not correlate strongly with the adults' IPS. This argument is supported by the work of Rutledge (1974).

In his study of adult-child play encounters, Rutledge studies the behaviors of an undergraduate and a child, who were strangers, in an unstructured play situation. Under these conditions, he found that 92% of the child's behaviors fell within the very narrow limits of what he called neutral, interactional behaviors. These behaviors consisted of the child mainly just smiling, sitting and following the lead of the adult. Because of the global nature of such behaviors, one might readily expect that they are independent of the adult's IPS.

Neutral interactional behaviors were not characteristic of the present study. Instead, the nature of the observed behaviors appeared to be an attempt on the part of the

children to respond to, or to deal with, their parents directly. It should be pointed out, however, that the children were not allowed to either challenge their parents or the experimental situation; that is, defiant and independent behaviors were controlled by the parents. This is consistent with Mess et al. (1979) report that negative IPS adults act "as if" they do not trust the child to act "appropriately" without supervision and control.

Parents could exert their control either by engaging (Movements Towards or Against) or by isolating (Movements Away) their children. Either form of control was experienced negatively by the child. Quite often, in fact, several of the children became so frustrated that they cried or withdrew from their parents. Such frustrations were usually greater for the boys and they usually occurred when both parents focused upon the child. A review of the tape showed that parental control was most evident for the last three tasks (teaching a proverb, the TAT, and the family disagreement task). During these three tasks, the child was mainly permitted only those behaviors which enlisted the aid of both parents or which involved socio-emotional relief for the triad. Once again, this was especially true for the boys, because the girls were allowed a freer range of behaviors (across all three movements).

Sex Differences (Adults)

Although both the fathers and the mothers in our sample were primarily negative perceivers, it was fairly obvious that their social behaviors in the experimental situation could be grouped together or classified along gender lines. Moreover, the same could be done with the social behaviors of the children of these negative IPS parents. The fathers acted to maintain discipline by primarily socio-emotional means and the predictability of FIPS for the social behaviors of the children was nearly the same for both the boys and the girls. The mothers, on the other hand, were not as much concerned with discipline as they were in completing the task; and, the predicting power of MIPS was reduced by the fact that there were no significant correlations between the daughters' behaviors and MIPS.

These sex-of-parent related behaviors are in addition to the behaviors that parents shared in common as negative perceivers; that is, both the mothers and the fathers exhibited behaviors which communicated superior status and which were intended to either control the child or to place distance between the child and themselves. Moreover, the difference in the predictive powers of MIPS and FIPS may be due to the fact that the procedure used to measure IPS in the present research was not as valid for mothers as it was for fathers. Some mothers, but no fathers, in fact remarked after seeing the SPS that they were upset by the target

child's inconsistent behaviors. Perhaps, mothers tend to be especially sensitive to the issue of predictability in children, and the absence of this quality in the child portrayed in the videotape affected their responses on the CBC. Thus, asking mothers (and fathers) their perceptions of a target child (or children) who display less extreme and more ambiguous behaviors might yield a more valid measure of IPS.

On the other hand, it could be that the results of the present research reflect a valid difference between fathers and mothers with regard to the impact that their behavior has on their child's psychosocial development and intellectual development. Evidence from past research supports this speculation.

Over the past two decades, several studies indeed have suggested that the fathers and mothers contribute to the development of their children in different ways (Goodenough, 1957; Brofenbrenner, 1961; Lewis, 1972; Lynn, 1974; Lewis & Weinraub, 1976; Parke & Sawin, 1976; Parke & O'Leary, 1976; Parke & Sawin, 1977). For example, while the father's greatest contribution to an infant's cognitive processes may come from the quality of his play with the young child, it is the mother's verbal stimulation that is the best predictor of the infant's cognitive level (Lewis & Weinraub, 1976; Lewis, 1972, Parke & Sawin, 1977). Lewis (1972) observed that mothers engaged (handled, touched and talking) their

their 6-month old daughters more than they did their sons. When these same mother-child pairs were observed seven months later, the daughters, in turn, talked to and touched their mothers more than did the sons.

While verbal stimulation and conventional game playing (peek-a-boo) characterize mothers' play with the infant, fathers tend to engage in more physically arousing and unusual activities; for example, tossing the baby in the air (Parke & Sawin, 1976, Parke & O'Leary, 1976). Interestingly, the infants' responses appears to be more positive to the fathers' style of play than the mothers'. Moreover, the quality and nature of the fathers' interactions with the infant appears to have a strong effect on the child's development, especially boys (Lewis & Weinraub, 1976; Parks & Sawin, 1977). That is, infants as young as five months old are more at ease in unusual situations with strangers when their fathers have helped to take care of them and have played with them.

In a study with older children, Goodenough (1957) contends that while fathers may treat their daughters very differently from the way that they treat their sons, mothers may not discriminate between their sons and daughters at all. Instead, mothers see them both as simply children. One might suspect that Goodenough's observations are age specific. In agreement with Goodenough, however, Bronfenbrenner (1961) contends that fathers, more so than mothers, give their daughters more

affection, attention and praise than they give their sons. Moreover, the sons are subjected to more discipline and to greater pressures to perform and to conform to paternal guidelines.

In another example, St. Pierre, Stollak, Ferguson, and Messe (Note 2) examined interactions between parents and their first or second grade boys. The boys had been rated as "normal" or problem by their teachers. They found that the fathers of problem boys displayed more negative behaviors than did fathers of normal boys, but the mothers' behaviors did not differ as a function of their sons' adjustment level. St. Pierre et al. offered the possible explanation that such specific differences are limited to parents of school-aged children.

Based on the research finding stated above, the observation that there are sex differences in the behaviors of negative IPS parents (in addition to the behaviors they share in common) appears to be valid and worthy of further study. For example: Do parents who are positive or balanced perceivers exhibit both IPS-related and sex-related behaviors, as do negative IPS parents?

Sex Differences (Children)

Given that they are treated differently by their negative IPS parents, it is not surprising that the boys and girls exhibited different behavioral patterns. Overall, the boys' behaviors were randomly distributed across 51 of the 54

possible behavior categories, but, as the negativity of the parents' IPS increased their behaviors were restricted to engaging both parents for the task, withdrawal from the triad from a subordinate position and occasional confrontations.

The behaviors exhibited by the girls were more selective than those of the boys, but they were not as restrained or pressured by the parents to conform. This may be due to the fact that the girls were task-oriented, that they often engaged their mothers and that they seldom challenged their fathers. It could also be the case that negative IPS parents have more confidence that their daughters can be trusted to behave in the test situation. Moreover, a review of the tapes leads one to believe that the girls engaged in more neutral interactions such as smiling and parallel play--they make fewer demands--than did the boys. This latter point may explain, in part, why the girls' behavior did not correlate significantly with MIPS.

Roles and Family Structures

As the negativity of parental IPS increased, the families in this study took on a family structure which had the father as the socio-emotional leader, the mother as the task leader, the daughter as a participating member, and the son as a silent or resistant member. The son's role was also less clearly defined than the roles of the others. Although this family structure for negative IPS parents is common to small group structures (Hare, 1976), they do not fit the common

family stereotypes (Strodtbeck, 1951; Parson & Bales, 1955; Sears, Rau, & Alpert, 1965; Lynn, 1974). In order to establish a frame-of-reference by which to compare the results of this study, the behavior observed by the triads will be examined for a fit with the Parson and Bales (1955) model of the family which assigns an "instrumental" role to the father and the "expressive" role to the mother. The sons and daughters are also assigned the "instrumental" and "expressive" roles respectively, but their positions are of considerably less power than their parents.

According to Parsons and Bales, the father--as head of the family--controls the supplies, encourages the children to seek independence from their mothers (especially their sons), provides authority and discipline, and makes neutral, objective and sound judgments. He is also expected to absorb the hostility generated by the nature of his role. The negative IPS fathers in this study filled few of these functions. Although they did provide a form of authority and discipline in their role as socio-emotional leader, they were neither neutral, objective or hostility absorbing; nor did they encourage their sons towards independence.

The expressive role of the mother involves the managing of the internal affairs of the family. She does this by maintaining smooth relations between family members (through the regulation of intra family tensions), by the administration of emotional support, by mediating the father-children

relationships, and by controlling sibling rivalries. Thus, through her expressive role, the mother not only helps to maintain good feelings between family members, she also communicates the father's viewpoint to the children. The mothers, in our sample, took on few of the expressive roles described here. In fact, Parson and Bales' expressive role more closely describes the socio-emotional leadership role of the fathers than it does the task-oriented mothers of this study.

A review of the videotapes, however, revealed that some, but not all, of the mothers in this study did attempt to smooth intrafamily tensions during the family disagreement task. Moreover, the mothers did allow a much closer father-daughter relationship than father-son relationship; but, this may have been due to the fact tht the girls' mothers trusted them to behave more than the boys' mothers trusted their sons.

The boys in our sample did not display executive or instrumental behaviors nor did their parents encourage them to do so. As stated earlier, their behaviors were controlled and restricted by their negative IPS parents who afforded them few opportunities for independence and growth. The girls were the only actors in our sample who displayed behaviors that fit Parsons and Bales' model. The girls displayed many of the functions of the expressive role, that is, they mediated the relationship between their parents, attended to the task and they provided emotional support to their parents.

As stated earlier, the Parson and Bales model was introduced for the purposes of comparing our results with their model. Their model, for example, assumes a good working relationship between the father and the mother. Such a relationship might exist in the home of the families that were studied, but it was not effectively demonstrated under the conditions of this study. Nevertheless, one might speculate that a good working relationship might exist between parents who are balanced or positive perceivers. Thus, it would be interesting to determine how variations in perceptual style produce variations in family structure and roles.

Conclusion

While the specific correlations that this study uncovered were interesting and reasonable, caution should be exercised with regard to using them as the basis for generating specific conclusions regarding precise relationships between parental IPS and parent-child interactions. First, as noted above, the family members knew that they were being observed, and they knew that the interaction being studied (in a setting that was new to them) was of a very short duration. Thus, their behavior--especially parental activity--might very well have been affected by the novelty and intrusiveness of the setting, and the specific relationships between this behavior and parental IPS that were found might have limited generality. Second, the relatively small sample size no doubt introduced a degree of instability to the obtained findings.

These warnings notwithstanding, the results are important because they did support in general the basic premise of this research; there is a relationship between IPS and social behavior. The way in which parents behave towards their children and vice versa was related to parental (especially fathers) perceptual bias. This general finding--assuming it has some reasonable degree of external validity--has some implications for the study of the role that person perception processes play in family interactions. First, it suggests that more extensive investigations of this issue would prove fruitful. Thus, it would be reasonable to examine perception variables like IPS and social behavior in a variety of "natural" and laboratory settings. It also would be reasonable to examine a sufficiently large number of families to permit more precise conclusions to be drawn. For example, it is reasonable to expect that the sex of the child is a moderator of the relationship between perception and behavior and that various combinations of parental IPS would have different effects on parent child behaviors. Moreover, it is essential that future research explore differences between the two types of perceptual bias (positive and negative) and perceptual accuracy; such an exploration, however, would require a very large sample of families to accomplish well.

Second, the findings of this study increase the plausibility of the Messe and Stollak's belief that long-term relations with perceptually biased (versus perceptually accurate) persons

will affect children's psychological development, since such findings suggest that the processes of family interactions, including those that involve child caregiving and socialization practices (Baumrind, 1971, 1975), are influenced by parental person perception mechanisms. Thus, these perceptual mechanisms should affect children's psychological development to the extent that they affect those parental (and other caregivers) behaviors that have an influence on children's development. Clearly, long-term longitudinal research is required to establish the causal links between parental perception and children's psychological functioning.

In summary, the present research, as well as past work (Messe et al., 1979; Stollak & Messe, 1979), has supported the many theories of complex human functioning that posit a link between person perception processes like IPS and social experience. While the exact nature of that linkage has yet to be specified precisely, findings like those of the present research provide the necessary background for fruitful exploration of these more complex issues.

APPENDICES

APPENDIX A

PARENTAL IPS SCORES

CHILDREN BEHAVIOR CHECKLIST

APPENDIX A
PARENTAL IPS SCORES

Family No.	IPS Score		Family No.	IPS Score	
	Mother	Father		Mother	Father
1	-.41935	-.03704	21 ^a	--	--
2 ^a	-.58621	-.51724	22	-.38462	-.15789
3	-.00000	+.33333	23	-.11111	-.02564
4	+.05882	+.08333	24	-.29032	-.02564
5	-.40741	-.46154	25	-.21429	+.37931
6	+.03226	-.16667	26	-.58333	-.53846
7	-.51724	-.29412	27	-.25000	+.02857
8	-.22581	-.57143	28	-.05263	-.47826
9 ^a	-.64286	-.39130	29	+.17647	-.56522
10	-.30769	-.10345	30	-.46154	-.41935
11	-.15789	-.16129	31	-.17241	-.28000
12	-.14286	-.09091	32	-.06250	-.43750
13	-.54839	-.45455	33 ^a	-.50000	-.46667
14	-.26667	-.30769	34 ^a	-.03226	-.54545
15	-.38462	-.06250	35 ^a	-.03030	-.09677
16	-.06667	-.23077	36	-.23077	-.04000
17	-.39394	-.35714	37	-.84615	-.14286
18	-.46667	-.57143	38 ^a	--	--
19	-.36364	-.16667	39 ^a	--	--
20	-.40000	-.30769			

^aNot used in this study.

CHILDREN'S BEHAVIOR CHECKLIST--FORM A (MALE) AND FORM B (FEMALE)

(SCORING KEY)*

Name of Person (completing checklist): _____

Date: _____

Directions:

Below is a list of items describing many aspects of children's behavior--things that children do sometimes, ways that they act and feel. Of course, not all of these items apply to the child in the playroom that you first observed on the videotape, but, quite a few of them do.

First, read Item 1 carefully and then make up your mind about whether or not it describes the way he/she acted in the playroom. If so, mark an "X" in column one; if not put a zero in the first column. Then, go on to the second item and decide whether or not this behavior applies to the child's behavior, marking it the same way. Do this for all 64 items, putting an "X" in the first column of each item which you feel is applicable to his/her playroom behavior and a "0" for each item you feel is not applicable to the behavior you observed.

Once you have completed this task, go back to the first item, and this time decide if the behavior described applies to the way that you think that the child acts in general--that is, not just his/her behavior in the playroom, which you saw, but behavior which you think occurs in other situations such as at home, in school, on the playground, with friends, etc., as well. If you do not think so, put a zero in the second column. On the other hand, if you think this item applies to his/her behavior in general, put an "X" in the second column (whether or not you put one in the first column). Again, go through all 64 items deciding for each whether or not each item applies to his/her behavior in general.

Item	Column 1 Applies to behavior in playroom which I saw in general	Column 2 Applies to his/her behavior in general
1. Is happy when he/she does a "good job."	_____	_____
2. Gets carried away by his/her feelings.	_____	_____
3. Is tidy and neat, perhaps even a little bit fussy about it.	_____	A _____
4. Can't wait--wants to have things immediately.	_____	B _____

*A = Positive Behavior

B = Negative Behavior

Item	Column 1 Applies to behavior in playroom which I saw	Column 2 Applies to his/her behavior in general
5. Is concerned about the feelings of of adults.	_____	<u>A</u>
6. Gets irritated or angry easily.	_____	<u>B</u>
7. Feelings are apparent in his/her facial expressions.	_____	<u>A</u>
8. Plays with toys in a rough way.	_____	<u>B</u>
9. Handles small objects skillfully.	_____	<u>A</u>
10. Doesn't pay attention to what others say.	_____	<u>B</u>
11. Activity is focused on a particular purpose, seems to accomplish what he/she sets out to do.	_____	<u>A</u>
12. Looks awkward when he/she moves around.	_____	<u>B</u>
13. Accepts new ideas without getting upset.	_____	<u>A</u>
14. Acts in ways that makes adults not like him/her.	_____	<u>B</u>
15. Shows pride in accomplishment.	_____	<u>A</u>
16. Appears stiff in walking or moving about.	_____	<u>B</u>
17. Seemed comfortable in the situation that you observed.	_____	<u>A</u>
18. Has trouble finding the right words to say what he/she means.	_____	<u>B</u>
19. Wants very much to be approved of.	_____	_____
20. Seems to do things just go get adults angry at him/her.	_____	<u>B</u>
21. Moves gracefully--well coordinated.	_____	<u>A</u>
22. Has a characteristic mannerism or nervous habit.	_____	<u>B</u>

Item	Column 1 Applies to behavior in playroom which I saw	Column 2 Applies to his/her behavior in general
23. Plays to win.	_____	A
24. Quickly loses interest in an activity.	_____	B
25. Does what persons ask him/her to.	_____	A
26. Never gets excited about anything, even when you expected him/her to be pleased with something.	_____	_____
27. Makes friends quickly and easily.	_____	A
28. Seems sad and unhappy.	_____	B
29. Self-confident.	_____	A
30. Tends to go too far unless reminded of rules.	_____	B
31. Talks all the time.	_____	A
32. Often has to be reminded of what he/she can and can't do.	_____	B
33. Affectionate--enjoys being physically close to adults.	_____	_____
34. Threatens to hit or hurt others.	_____	B
35. Is able to stand up for himself/herself.	_____	A
36. Seems out of touch with what is going on around him/her--off in his/her own world.	_____	B
37. Is polite and cooperative.	_____	_____
38. Has uncontrollable outbursts of temper.	_____	B
39. Is easily embarrassed.	_____	A
40. Often breaks the rules in games.	_____	B
41. Is careful in explanation--precise.	_____	A
42. When told to do something he/she doesn't want to do, he/she becomes angry.	_____	B

Item	Column 1 Applies to behavior in playroom which I saw	Column 2 Applies to his/her behavior in general
43. Is curious about things.	_____	A _____
44. Plays aimlessly, doesn't seem to make or accomplish anything.	_____	B _____
45. Prefers competitive games.	_____	A _____
46. Seems selfish, always wants his/her own way.	_____	B _____
47. Showed appreciation when others helped or did things for him/her.	_____	A _____
48. Seldom laughs or smiles.	_____	_____
49. Energetic.	_____	A _____
50. Doesn't seem to care about how he/she looks--often looks sloppy.	_____	B _____
51. Asks sensible questions.	_____	A _____
52. Blows up very easily when bothered.	_____	B _____
53. Shows pleasure and involvement in most things he/she does.	_____	A _____
54. Fidgety and restless.	_____	B _____
55. Is competitive.	_____	A _____
56. Acts as if adults are against him/her.	_____	B _____
57. Pitches in when things have to be done.	_____	A _____
58. Often seems angry for no particular reason, expresses it in many different ways.	_____	_____
59. Quick and clever.	_____	A _____
60. Aggressive and overpowering.	_____	_____
61. Learns quickly.	_____	_____

APPENDIX B

TASK SUMMARY SHEET

CODING MANUAL

APPENDIX B
TASK SUMMARY SHEET

Person _____
Rater _____

Task _____
Tape _____

Family Interaction Scale

	Actor 1	Actor 2	Both
Movement Towards			
SE, Superior			
SE, Subordinate			
SE, Equal			
TO, Superior			
TO, Subordinate			
TO, Equal			
Movement Away			
SE, Superior			
SE, Subordinate			
SE, Equal			
TO, Superior			
TO, Subordinate			
TO, Equal			
Movement Against			
SE, Superior			
SE, Subordinate			
SE, Equal			
TO, Superior			
TO, Subordinate			
TO, Equal			

Coding Manual

This project is concerned with the social behaviors emitted by a family triad during the performance of four assigned tasks. There were 39 families who participated in the following tasks: (1) ten minutes of free play, (2) ten minutes of teaching the child a proverb, (3) ten minutes of telling stories to two stimulus cards, and (4) a ten minute discussion of "some of the things that all of you disagree about at home." These tasks are on videotape and it is our job to study the tapes and to collect relevant information for purposes of reporting on the family triad's social behaviors.

Purpose of the Manual

The purpose of this manual is to provide you with the background information and to help us develop the skills necessary for us to score the observed interpersonal behaviors.

Basic Concepts and Categories of Behavior

Our basic concepts reflect a concern with the way people move in relationship to each other, how they dominate or submit to each other, and how closely they stick to the assigned task. We have assigned the following definition to these behavioral concepts:

Moving Toward Others--seeking closer proximity with others.

Moving Away from Others--seeking to reduce proximity with others.

Moving Against Others--behaviors which indicate opposition, confrontation or threat

Socio-emotional--behaviors designed to gain satisfaction or to provide satisfaction of a social or emotional need instead of being directed at the task.

Task-oriented--behavior which focus on completing the task or obtaining a goal

Superior--behaviors which seek to control, to direct, or to compete with other members of the triad.

Subordinate--behaviors which defer to, comply with or follow the edicts of other members of the triad.

Equal (balanced or neutral)--behaviors by two or more triad members efforts or attempts to cooperate with or to be involved with each other.

It should be noted that movement, as we employ it, is primarily physical movement in relationship to others (away or towards). Movement against; however, must be inferred or understood as the result of verbal or nonverbal behaviors.

Another distinction that may not be obvious is the one between task-oriental and socio-emotional behavior. That is in a series of behaviors, it may be necessary to wait until the series is complete before one can say that the task was the reason for the behavior.

These basic concepts were combined to produce 18 (3 x 3 x 2) distinguishable categories for analysis. The categories are fully described in the section on scoring the transcriptions.

Scoring Instructions: The videotapes will be scored according to the 18 categories outlined below:

Moving Against--Task-oriented--Superior
 Moving Against--Task-oriented--Subordinate
 Moving Against--Task-oriented--Equal

Moving Against--Socio-emotional--Dominance
 Moving Against--Socio-emotional--Submission
 Moving Against--Socio-emotional--Equal

Moving Toward--Task-oriented--Superior
 Moving Toward--Task-oriented--Submission
 Moving Toward--Task-oriented--Equal

Moving Toward--Socio-emotional--Superior
 Moving Toward--Socio-emotional--Submission
 Moving Toward--Socio-emotional--Equal

Moving Away--Task-oriented--Superior
 Moving Away--Task-oriented--Submission
 Moving Away--Task-oriented--Equal

Moving Away--Socio-emotional--Superior
 Moving Away--Socio-emotional--Submission
 Moving Away--Socio-emotional--Equal

Frequency counts will be used to indicate a single behavior occurrence.

For instructional purposes, we will first look at the combination of the dimensions of movement (against-towards-away) and the dimension of dominance-submission-equal before we add the distinction between task-oriented and socio-emotional behavior.

1. Moving Toward--Dominance: In this category the dominance orientation contains elements of positive affection and friendliness. Although the person exhibiting this behavior may attempt to boss and to direct others; they do it with concern for the others. They guide, advise, direct, teach, assume responsibility; plus, they give and offer help. The prevailing attitude ranges from: "I am a strong, competent empathic person on whom you may count on for understanding and emotional support" to "I am a person on whom you may rely for effective guidance and leadership."
Task-oriented, Moving Toward-Dominance, behavior allows for the actor to help another without showing feeling.
 Example: Here, let me do that for you. Come here, I will show you how. I can do it with my eyes closed.
Socio-emotional, the actor who satisfied his/her own needs by controlling others and ignoring the task.
 Examples: Put that down, I have something to tell you. What time is it. We can stop now and talk.

2. Moving Toward--Submissive: This behavior includes acts of ready compromise, attempts to provoke tenderness, attempts to elicit aid and incidents of constant agreement. It is submissiveness, but friendly in character. The range of verbal messages may go from: "I am a friendly, unchallenging person" to "I am weak and helpless" to "I am unworthy and deserving of your domination." The behaviors may range from docility and dependency to groveling weakness and self-condemnation.
Task-oriented, Moving Toward--Submissive, behaviors allows the actor to use the task in order to get help, aid or to be dominated by another.
 Example: Please help me with this, I can't do it. Daddy, you can solve anything. Mom, I can see how to do this as well as you can.
Socio-emotional acts plays the actors in a vulnerable position. She/he moves outside of the task and asks to be helped but he/she is weak and in need.
 Example: Daddy, may I sit in your lap. Mommy, may I kiss you. Father attempts to move closer to the mother while telling how nice she looks.

3. Moving Toward--Equal: This category describes behaviors which are affectionate, friendly and love provoking. There are cooperative-shared behaviors by two or more members of the triad. The individuals involved are flexible in that they are both accepting of and seeking friendship and cooperation. They indicate to each other: "I am a capable person, you are a capable person, let's cooperate (enjoy, share) one another."
Moving Toward--Task-oriented--Equal behaviors are designed to accomplish the task using all the resources of the family efficiently.

Example: Here, let's do that together. How do you feel about doing it this way? Maybe, we should work towards the middle.

Socio-emotional--equal movement towards another results in needs or feelings of gratification.

Example: Mother and child hug each other. Father and child sit close and touch. Mother and father engage in smiling and nonspecific talking.

4. Moving Against--Dominance: These behaviors are designed to gain control by direct frontal attack and without friendliness. The major purpose of this category is to get a submissive response. The actor employs criticism, unkind acts, commands others, expresses anger and disrespect, plus aggression. The person indicates: "I am a dangerous and threatening person, and you are a suitable target for my wrath," and "I am superior to you, and you, being a lesser person and hardly worthy of my serious consideration." There is a substantial direct expression of hostility and dominance with a distinctly aggressive component which involves an implicit devaluation of another person. The behaviors range from frank, forthright critical acts to unprovoked criticism and the actor may be pompous, boastful, exhibitionistic and blandly rejecting of others.

Task-oriented components of this category indicate that the task will not be done properly unless the actor does it.

Example: Here stupid, let me do it. Can't you do anything right. Give it to me, I don't have all day to wait on you.

Socio-emotional, the task is ignored as the actor wants to dominate a member of the triad in order to reduce the threat or danger to him/herself.

Example: I don't care what you say, I want more time. You're stupid, that's not what I mean. Can't you tell time.?

5. Moving Against--Submission: In this behavior, the hostility and anger are expressed from a stance of relative passivity and powerlessness. By being weak, powerless and helpless; the actor indicates that they mistrust and reject the object of their anger, who is unworthy of the actor's esteem. The bitterness and complaints which may accompany this category may invite a domination response. Suspiciousness and expectations of punishment (hostility, anger) are also seen as a part of this category.

Task-oriented behavior for this category would involve dumping the project in the lap of another in a hostile fashion with the full expectation of retaliation by the other person. Usually, through an act of domination.

Example: Here! You know that I can't do it, you do it. you are so much smarter than I am, you do it.

Socio-emotional behaviors would interrupt on-going activities in an abrupt, unfriendly way.

Example: The child pulls on the clothing of an adult while crying. An adult demands attention because they are uncomfortable and another person should help them.

6. Movement Against--Equal: This category describes critical discussions or interchanges which are based on hostility, unfriendliness, competitiveness or aggression. Two or more people are involved as equals in punitive, sarcastic or unkind actions. They clearly indicate their low esteem for one another by screaming at, bickering with or interrupting to one another.
Task-oriented behaviors are the focal point of the argument in the Moving Against-Task-oriented-Equal category. They argue over who is doing it best, who should be doing it, why it can't be done or why there are better ways. The competitiveness and aggression between the actors inhibit the completion of the task.
 Example: Any direct argument or disagreement over the task between two family members.
Socio-emotional: The task is irrelevant here and the argument focuses on the rejection of feeling, goals and needs in others. The behaviors are patently non-caring and non-nurturing.
 Example: I don't care how you feel. I didn't want to come anyway. Why do you waste my time on these things? I could be sleeping.

7. Moving Away--Dominance: The actor is using movement away in order to stop on-going activity and to direct attention to her/himself. This is active evasion, resistance or a avoidance which may be accompanied by brief statements of criticism or devaluation of people or events. The actor creates tension by leaving the others and the actor will disregard any attempts to interact except on his/her terms. The actor says: "I will not share, care or be with you under the existing conditions." The behavior includes topic changes, simultaneous or parallel conversations (non-argumentative) and assumption of the role of a victim.
Task-oriented behavior involves a hands-off attitude until the task is done in the actor's chosen manner.
 Examples: It is stupid to work at this. I will just sit here until you need help. I can wait all day for my turn. Did I tell you what happened at work (school, home) today. After you dummies finish, I will show you the right way. The actor moves out of the field but continues to criticize.
Socio-emotional behaviors that make up a Moving Away-Socio-emotional-Dominance category are designed to ignore the task and satisfy the needs of the actor.

Examples: I will do nothing until you listen to me. This is stupid, I would rather go home. The actor withdraws and sulks, interrupts or starts a parallel conversation.

8. Moving Away--Submission: The actor separates from the triad in an effort to be alone. The actor says: "I want to be alone." Behavior includes physical isolation, mumbling, passivity or becoming noncommittal. The actor may give unclear, ambiguous responses in order to be left alone; but, they will show tension (attempt to reduce tension) by withdrawing from others. This category of behaviors usually/may results from someone trying to dominate, control or criticize them. The withdrawal may complete a dominance-submission cycle. Task-oriented (Moving Away-Submission). The actor leaves the task to others and she/he watches passively or begins an activity of his/her own. The actor may be abandoning the task as a result of an attempt at domination by another. Example: The actor leaves the task and looks out the window. The actor leaves what she/he is doing to another and does not engage in any cooperative or sharing effort. Socio-emotional (Moving Away-Submission). The actor makes no attempt to join or to be a part of the family activities. He may watch but he doesn't say anything. She listens and looks but remains at a distance.

9. Moving Away--Equal: Mutual separation by two or more members of the triad without acts of submission or dominance. Isolation by mutual consent and without an attempt by anyone to come together. This may reflect evasion, resistance or avoidance; but it must be a shared act. The parties in effect, say: "I am not in contact with you." The behaviors include silence, simultaneous or parallel (non-argumentative or non-interacting) conversations, sulking. Chaotic choices may result from this behavior. Task-oriented behaviors for Moving Away--Equal are the product of an abandonment of the task by two or more members of the family. They stop working and leave it. Examples are any behaviors where the task is ignored while two of the family members separates to do things individually. Socio-emotional interactions are abandoned along with the task for the Moving Away-Socio-emotional-Equal category. Example: Well, what do we do now. Silence. No verbal or non-verbal contact to satisfy the needs, feelings or goals of another.

APPENDIX C

RATER IPS SCORES

APPENDIX C

RATER IPS SCORES

Rater No.	Sex	IPS Score	Person Rated
1	F	-.41936	Father
2	F	-.31035	Father
3	M	-.41936	Mother
4	F	-.31035	Mother
5	M	-.37500	Child
6	F	-.33333	Child

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