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CONNECTED SELF ORIENTATION, EMPATHY AND
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SANDRA JEAN FRASSETTO

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CONNECTED SELF ORIENTATION, EMPATHY AND RELATIONSHIP DYNAMICS IN ADULTS AND THEIR COLLEGE AGED CHILDREN

By

Sandra Jean Frassetto

A THESIS

Submitted to
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ABSTRACT

CONNECTED SELF ORIENTATION, EMPATHY AND RELATIONSHIP DYNAMICS IN ADULTS AND THEIR COLLEGE AGED CHILDREN

By

Sandra Jean Frassetto

This study was designed to look at empathy and its relationship to a self-orientation referred to as the Connected Self. Levels of empathy and connected self were examined in a group of college students and their parents. Higher levels of empathy and connected self were found in females for both mothers and their daughters. For individuals, mothers, fathers, sons and daughters affective components of empathy and connected self were found to be related. Opposite sex parental effects were found with mothers' and sons' scores on affective and cognitive components of empathy being correlated as well as fathers' and daughters' levels of connection and separate self. When fathers' levels of empathy and connection were combined it was found to be related to their college aged sons levels of affective empathy.

TABLE OF CONTENTS

LIST OF TABLES

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INTRODUCTION

Purpose of the Present Study

The study reported here was designed to examine the relationships between empathy and separate and connected self orientation in college-age young adults and their parents.

Traditional theories that look at identity and self development propose that this process occurs through separation from others (Freud, 1946, Erikson, 1950, Levinson, 1978, Mahler, 1975). There is an assumption in these theories that a child in infancy does not differentiate processes initiated by self from those processes/experiences initiated by the mother or caregiver. From this theoretical basis it is proposed that as the children begin to mature and to develop their own sense of self a process of separation or pulling away from the parent must occur. This merging and separation is generally spoken of in terms of the relationship between the mother and the child; the relationship with the father and its importance in the child's development of self is not addressed in these theories, though there is no reason to assume different processes would be proposed.

Object relations theorists have discussed empathy in terms of the connection between parent and child, and have related the emotional

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expression of empathy is to the symbiotic merging between mother and child. In this context, empathy in adults has been described as requiring a softening of ego boundaries and a regression to a less mature state of functioning. Like identity theory, this theoretical approach assumes that separation for the individual is more advanced or more developmentally mature; connection is viewed in terms of merging as a less mature or advanced state. According to these perspectives, being separate and individuated are seen as being the higher or more optimal state in development.

Recent research suggests another way of looking at the development of self and argues that it may be necessary to differentiate between two modes of self-organization or self description, connected self and separate self. This theoretical perspective proposes that instead of there being only one path that an individual may take when developing a sense of self there may actually be two ways for the process to occur with both being considered to be optimal or developmentally mature. Some individuals may develop a sense of self based on connection and relationships with others; for these people, themes of care and compassion, relationships and connection to others are core issues for the self. This has been referred as the connected self. For others the road to the development of the self may lie in separation, and for them personal achievement, individual rights, justice and autonomy are central issues which are core to their sense of self. This perspective is called the separate self.

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The major purpose of this study was to test hypotheses derived from a theoretical model concerning the role of empathy in a person with a connected-self orientation. Since a central feature of self definition for a connected person is through personal relationships and interactions with other people, it follows that developing and using attributes such as empathy which can promote, strengthen, and allow relationships to function more smoothly would be of greater importance to a person with a connected-self orientation. Because theories relate parents' socialization and modeling to behavioral effects in children, we investigated the relationship between 1) the levels of empathy in children and their parents, 2) separate and connected self-orientation in parents and children; and 3) the connections between these dimensions.

To provide the background for the study, a definition of empathy will be proposed and a brief overview of the components and dimensions of empathy will be reviewed. Then the relationship self will be discussed; and connections between empathy and relationship self proposed. There is a large body of literature that deals with empathy from a clinical perspective, from a psychodynamic orientation, and with the development and use of empathy in the clinical relationship between client and therapist. There is also a voluminous literature that looks at the link between empathy and its relationship to social behavior such as altruism and peer relationships. Since

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these literatures are not directly relevant to this study, for purposes of this

research and paper these areas will not be discussed any further.

Empathy

Empathy as an intricate and fascinating human emotion has been the

focus of much research in psychology. M. Hoffman (1981) argues that

empathy is a universal neurologically-based human response which is present

at birth. He further states that empathy may be the biological basis for the

development of altruism which he proposes has survival value for the species

as a whole since humans tend to live in cooperative social units. Empathy is

considered to be the motivating factor for many prosocial acts as well as

being related to moral development (Hoffman, 1963, 1982b). Empathy has

also been proposed as an inhibiting component in the expression of

aggression; promoting empathy development in delinquent adolescents has

been proposed as a method to reduce aggression and to increase role taking

capacity (Gibbs, 1985). Jordon (1984) describes empathy as a complex

process which is indicative of the individual's level of psychological

development and ego strength. For these later theorists the greater the

empathy the greater the ego strength and individuation, a position opposite to

the notion of regression to a less developed state. Further connections have

been made by Surrey (1984) to a person's potential for emotional closeness,

relatedness and the development of empathy.

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Definition of Empathy

Definitions of empathy and methods of measurement vary considerably from one study to the next. When giving the definition of empathy it is generally contrasted with sympathy. Both of these words have the Greek term **pathos** or **feeling** as a root and, according to Webster's (1984 edition) sympathy refers to "together feeling" as opposed to empathy which is defined as "in feeling". Therefore being sympathetic means that you have the ability to share another's ideas or emotions and understand those feelings. In contrast empathy refers to becoming one with the other person, having a much stronger identification with their feelings and in fact, being able to experience the same emotion that someone else is experiencing.

Goldstein and Michaels (1985) state that when being sympathetic the person is more focused on their own emotions rather than the other persons'. In contrast, empathy refers to an intellectual or emotional identification with another person in a stronger more intense way, where you actually feel the other person's emotion as if it were your own. It involves at least these features: role taking; awareness of the other's affective state and situation; the ability to read nonverbal cues; and communication of caring about what the other is experiencing (Goldstein and Michaels, 1985).

Among other definitions advanced by psychologists, Feshbach and Roe (1968) propose a three component model of empathy that involves both affective and cognitive components of empathy. These components include 1)

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the cognitive ability to recognize the affective states of others and to realize that they are distinct from your own, 2) the more advanced cognitive skill that allows an individual to recognize the perspective or role of another, and 3) emotional responsiveness that is defined as the ability and the readiness to experience the emotion which is being observed. This third component, the orientation toward feeling, is the one most frequently identified as being the central element in the empathy construct. This is the communication of caring referred to by Goldstein and Michaels.

Nancy Eisenberg, who has done a great deal of research on empathy and how it relates to children's prosocial development, defines empathy as the affective state that results from the awareness of another's state or condition and is congruent with it (Eisenberg, 1987). This definition includes both vicarious experiences of another's state as well as the matching of affective states. Vicariously experiencing anothers state involves imagining oneself in the same situation and assuming that the emotions elicited are those that the other person is experiencing. For example with a mother who shares the story of losing a young child in a car accident to a group of mothers, the listeners experiencing an empathic response that involved a vicarious experience would imagine themselves in the same situation and picture what their own response would be. This process does not necessarily involve the listener actually experiencing the emotion. A matching of affective states is much more visceral in a sense and involves a person experiencing

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the same emotion as another. In the example above, this would involve a person feeling the emotion of sadness in response to seeing the other person experience sadness when telling of the loss of her child.

Hoffman (1982b), in contrast, describes empathy as only a vicarious affective response, in reaction to anothers' situation. This affective response is considered to be more appropriate to the other person's circumstance than it is to one's own circumstance. According to Hoffman, it is not necessary for the observer and the participant to have matching affective responses as Eisenberg describes to label the reaction empathy. The operational definition used in this study is similar to Hoffman's; empathy is a vicarious affective state that is more appropriate to another's circumstance than one's own. Unlike Eisenberg this definition does not require that the affective states of observer and participant match but simply that the observer be aware of what the participant is feeling.

A primary distinction made by empathy researchers is between the affective and cognitive components of the construct. The main focus until fairly recently has been on the affective component since that is the one which is the most easily observed and measured. However, in current research concerning the development of cognitive abilities some theorists argue that the cognitions must come prior to the actual behavior and that this dimension is also an important component of empathy (Eisenberg, 1987). Hoffman (1984) in contrast, argues that when an infant responds to another

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infants' crying by crying itself, this response does not involve perception on the part of the infant that it is separate and responding to another. He proposes that the early precursors of empathy are primarily affective and that perspective taking increases with age as the child becomes less egocentric. Eisenberg and Strayer (1987) contend that perhaps even very young children also may be able to make some distinction between their own affective response and another's.

Development of Empathy

Hoffman (1982,1988) proposes that there are stages in the development of empathy. **Stage One: Global empathy** This is the behavior observed during the first year. This involves the infant matching an emotion expressed by another with their own affective expression. For example if the infant hears another infant crying, they also begin to cry. **Stage Two: Egocentric empathy** This stage begins between 12 and 18 months. Although the child has some awareness of being separate from others they are still unable to determine what would be comforting to another person showing distress. At this level the child will comfort another by giving them something such as a blanket which they themselves find soothing. This level of perspective taking involves at least a minimal awareness of the separation between the self and other. **Stage Three: Empathy for Another's Feelings** Starting around 2 or 3 years of age children notice others feelings, and respond to them in increasingly less egocentric ways. They become more

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competent at identifying emotions and better able to read more subtle cues.

Stage Four: Empathy for Another's Life Condition During the period of late childhood and adolescence, children become more able to understand more general life conditions and not just immediate situations. As their understanding of the world grows they come to recognize and feel for others in certain universal conditions such as poverty.

Davis

The construct of empathy has traditionally been measured as a single dimension, with no differentiation of affective and cognitive components in terms of measurement. In contrast to other researchers, Davis (1980) attempts to examine both affect and cognition in empathy, manifested as four dimensions which can be looked at separately. This allows the researcher to look for specific elements in the empathy construct which may relate to other individual characteristics or constructs. Davis breaks empathy down into four components: perspective taking, fantasy, empathic concern, and personal distress, each of which is considered to be specific aspects contained within the global concept of empathy. Of these, Perspective Taking is the primary cognitive component and Empathic Concern is the main affective component. A person's ability to fantasize about fictional situations has been related to the ability to experience emotional reactions to others and to act on those reactions with prosocial or helping behavior. Fantasy is also considered to be one of the cognitive dimensions of empathy. Davis, using the measure he

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developed to examine the four components found the highest positive correlations between Empathic Concern and Fantasy and Empathic Concern and Perspective Taking for both males and females. The Personal Distress scale is based on the idea that as a person develops they move from a self-oriented reaction to another's distress to a more other-oriented reaction which involves concern and sympathy (Hoffman, 1977). The Personal Distress scale involves measuring the individual's level of personal distress in tense interpersonal situations. Personal Distress according to Davis is an inherent part of the emotional component of empathy.

Davis argues that other researchers have in fact used items that tap both the cognitive and emotional components of empathy. He contends, however, that other researchers have confounded those dimensions by combining them in the testing and by adding all the scores together to create one global empathy score. Davis believes that the cognitive and emotional components of empathy should be separated and looked at individually in order to measure and predict influences on behavior. He also states that perspective taking is generally confounded with social insight. Davis (1983) also proposes that personal distress will decrease with age as the child becomes more proficient at identifying emotions and behaving in prosocial ways which alleviate the feelings of distress. Davis argues that a fully empathic individual will have a high score in each dimension of his measure. For the purposes of this study, Davis's conceptualizations of empathy will be

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accepted and will be used to look at patterns of empathy between parents children.

Sex Differences In Empathy

Whether or not sex differences are found in the measurement of empathy depends greatly upon how the empathy construct is operationalized and the method used for measurement of the construct. Eisenberg and Lennon (1983) did a review of gender differences on empathy and found that paper and pencil self-report instruments usually show the largest discrepancy between males and females. Paper and pencil instruments generally show females with higher empathy scores than males. Research with children 1 year or younger show higher levels of global empathy in female infants as measured by reflexive crying. These studies which measure the response of a child to another infant's crying have been criticized by researchers who found that varying the sex of the infant used as a stimulus influences the empathic response of other children. Babies have been found to respond more frequently to the crying of another infant who is the same sex. When sex of the child used for the stimulus cry is controlled for, researchers have found no gender differences in reflexive crying (Martin & Clark, 1982). Research among older children and adults that used facial/gestural or physiological measures showed no gender differences and picture/story procedures tend to show very small differences in empathy between males and females. Eisenberg and Lennon. (1987) argue that the higher empathy

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reported by females in the studies using verbal report measures may be due to a bias in reporting. Because of differences in socialization, females may be more likely to report feelings related to concern and care for another person. They state that this difference may be an actual increase in the vicarious affective response by females due to socialization or it may be a stereotyped response, with both sexes reporting what they perceive is expected of them. This is referred to as social desirability, a response bias. Social desirability is the tendency to present oneself in ways which match the person's view of what is socially desirable. According to this theory the response a person makes may reflect their true response or may be based on the person's expectation of what is acceptable. Males also may have the same emotional response to a situation as females but not label it empathy since males have not been socialized to label or express emotions in the same way that females are.

Empathy research that exposes subjects to audio or video tapes meant to elicit an emotional response (e.g. the person is in need) shows a mixed pattern in terms of sex differences. When the participants were asked to report on feelings of compassion or care in relation to the tapes, one of the studies on adults (Archer, Foushee, Davis, & Aderman, 1979) found males reporting more empathy than females. However a number of other similar studies found females reporting more empathy while still other researchers have found no gender differences using the same methodology (Eisenberg &

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Lennon, 1983). Although there are mixed results in terms of sex differences in empathy, Lennon and Eisenberg (1987) report that overall most studies show females scoring higher on empathy measures than males do. In the present study, which uses self-report methods, it was expected that females would score higher in empathy than males, both because females generally score higher in empathy overall and also because the measure used is a paper and pencil self-report one. Davis found females scoring higher on his empathy subscales with the largest difference between sexes occurring on the fantasy subscale (Davis, 1983).

Socialization of Empathy

Parents have many opportunities to be models of empathic and connected behavior. They also have the ability and motivation to shape and reward the child's behavior since socialization is considered to be one of the most important roles in parenting. Bandura (1963) argues that observing and modeling or imitating parents' behavior is one of the primary methods by which children learn. He also states that the more power and attractiveness a person has the more likely they are to become models. Parents tend to seem very attractive and powerful to children thus making them obvious models for behavior. According to Bandura the process continues as the adults reinforce the behavior that they approve of in the child.

The relationship between parents' methods of socialization and their children's levels of empathy have been examined by many psychologists.

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Based on his review of this literature, Martin Hoffman (1982) suggests that the child develops empathy through being socialized by the parents in five ways. The first is through being exposed to experiences which allows the child to experience many different emotions. This experience makes it easier for the child to identify with another and to empathize since they have experienced the same emotion. Second, the development of empathy can be encouraged by socialization which directs the attention of the child to the feelings of others. Hoffman argues that this focus on internal states is learned through the use of inductive reasoning which asks the child to think about how the other person felt in a particular situation or to actually put themselves into the person's place. This use of induction by the parent focuses the child's attention on the negative or positive consequences of their actions for someone. The third way in which parents may increase development of empathy in children, according to Hoffman, is through the use of role-taking which will enhance the child's cognitive awareness of others. The fourth socialization technique is giving children a lot of affection. With the child's own needs met, they are able to be more open and responsive to others' needs thus allowing for more empathic feeling. The fifth method is through the parents modeling prosocial behavior and acting and speaking empathically about other persons (Hoffman, 1982b).

Feshbach (1982) examined parental behaviors which were related to increased empathy in their children aged 6 to 8 years. She argues that

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empathy in girls is related to behavior by the mother which results in a positive and nonconfining relationship between mother and daughter. Feshbach found that higher levels of empathy in girls was positively correlated with maternal tolerance and permissiveness and negatively correlated with maternal conflict, excessive control, punitiveness and rejection. She did not find any paternal childrearing practices which related to daughters' empathic responsiveness. The only relationship found between sons and their fathers was an inverse relationship between the father's encouragement of competitive behavior and empathy. The more the father encouraged competition the lower the son's empathy score was (Feshbach, 1982). Based on the above theories and research about the socializing effects parents have on their children we expected to see some relationship between parents' and childrens' levels of empathy.

Empathy in Children and Parents

The question arises of how children and parents resemble each other in empathy. Surprisingly little such research has been done, and none of it with families in which children were of college age. Nonetheless, it is worth looking at studies with younger children for suggestions they may contain regarding family patterns which may still persist in late adolescence. A study by Barnett, King et al. (1980) measured empathy in 4-to 6-year old children and their parents. The Feshbach and Roe (1968) measure was used which consists of showing the children narrated slide sequences of young children

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in situations intended to elicit emotions in the viewer such as happiness, sadness and fear. Following each slide sequence the child is asked, "How do you feel?" Each response is rated on a 0-2 point scale with a total of 16 points possible. Each parent was asked to complete the Mehrabian and Epstein (1972) paper and pencil empathy measure. The results showed that the daughter's empathy scores were positively correlated with the mother's scores but negatively correlated with the father's scores. Mothers' scores on the adult scale (M = 41.92) were significantly higher than the fathers' empathy scores (M = 33.72). The boys' and girls' scores on the Feshbach and Roe measure did not significantly differ (M's = 7.43 and 7.00 respectively). An interesting relationship was discovered when median splits were done to separate the mothers and fathers into groups of high versus low scorers. When four mother/father empathy combinations were examined in relation to their children's scores it was found that daughters with the mother high empathy, father low empathy configuration had significantly higher empathy scores than did daughters in any other groups. There were no statistically significant correlations between son's empathy scores and any of the parental measures (Barnett, King, Howard & Dino, 1980). For the present study, in the absence of other research and despite the difference in developmental status of the children, it was proposed that this pattern found in young children and their parents will also be found in college-aged daughters and their parents.

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Why the differential impact of fathers and mothers on sons and daughters? Some researchers have found females to be better at reading nonverbal signals and expressions of affect (Hall, 1978) and argue that this social sensitivity may be "hardwired' in for mothering and that this makes the survival of the infant more likely. Alternatively, L.W. Hoffman (1977) proposes that these sex differences may be the result of sex stereotyped expectations by parents for their children. She found that parents desire career success for sons and want daughters to be more proficient in social skills and to be unselfish, loving, attractive and well-mannered. This focus for daughters is other-oriented where the main thrust for males is on the self. Other researchers found that boys rated high in competitiveness were found to be less empathic than peers who are less competitive (Barnett, Matthews & Howard, 1979). They speculate that focusing on self achievement may interfere with the ability to pay attention to the needs of others. This would relate to the orientation of being more separate than connected (see definition in next section) and would support the theory that individuals higher in empathy would be higher on Connected Self than Separate Self. Based on the research looking at measurements of parents' and children's empathy scores, a stronger relationship was expected between the scores of mothers and daughters than between other parent-child pairs.

Relationship Self

Identity development has historically been explained as proceeding through a process of separation from others (Freud, 1941; Erikson, 1950; Levinson, 1978). Through this process of separation it is theorized that an individual develops a sense of self as distinct from others and that the normative path leads to autonomy and individuation. Viewing development through this model, connection with others may be conceptualized only in regressive forms such as dependency or as enmeshment, and may be seen as an unhealthy and even a pathological developmental pathway. Gilligan (1982) as well as other theorists has criticized these separation theories of identity development as incomplete and has proposed a complementary pathway for healthy identity development based on connection and relationships with others. Miller (1984), Surrey (1984) and their colleagues speak of self-in-relation; Gilligan distinguishes the care voice and the justice voice in moral judgments and self description. In both cases, these conception have as their foundation an orientation towards connection and relationships as central to self. These later theorists began with a focus on woman's development and argue that the connected self orientation is more characteristic of, though not exclusive to, women.

Gilligan further proposes three phases or manifestations of the care voice, subcategories which are distinguished by the meaning of care for others as well as the self. At the least mature level, the focus is on caring for

oneself because others will not or are unable to care. At the next level, the care of others has priority over self care. This is considered to be the stereotypic traditional feminine role. Finally, at the most mature level, care for everyone including the self is equally important.

In contrast, the self orientation referred to as the separate self is based on the development of the self through separation, reciprocity as opposed to equality in relationships, individual achievement and is more characteristic of, although not exclusive to, men (Gilligan, 1982). In fact one finds both orientations in both men and women, though the centrality of the orientations to the self differs for men and women.

Empathy Relating to Sense of Self

A number of theorists have implicated connection in the development of empathy. Theorists from the Stone Center propose that empathy is a central process through which development of a sense of self takes place and that the connection between mother and daughter provides the clearest example of this process. Alexandra G. Kaplan (1983) argues that empathy develops over time in parent-child relationships, and that this is especially salient in the mother-daughter relationship which focuses on the socialization of women to be caretakers. She further argues that this development becomes a central part of the woman's sense of self. Judith Jordon and Janet L. Surrey (1983) propose that women are socialized to be attuned to relationships and to develop empathy to facilitate this attunement. Judith

Jordon (1983) further states that characteristics which are useful in the mothering/nurturing role such as empathy are encouraged in females while these traits in males may be actively discouraged in the process of socialization. Brenda Bryant (1985) argues that there is a fundamental human need for closeness and emotional responsiveness to others; she states that the first expression of this lies in the infant's basic survival need for attachment to a caregiver. Bryant further states that this need for emotional closeness continues throughout life and that fullfilling it is necessary for mental health. Marsh, Serafica and Barenboim (1981) propose that affective perspective taking and being empathic are, in part, the foundation for the development of competence in relationships. Shure (1982) also argues that competence in social interactions is the result of being able to empathize and take the perspective of another. Judith Jordon (1981) proposes that "Generally females are more empathic because of socialization experiences, early childhood identification, and sex role identification - all shaped by prevailing cultural mores. Having the same gender nurturing figure significantly influences the quality of empathy that develops in females. In this culture, the special quality of attachment and identification between mother and daughter foster the development of empathy."

These themes also have some support from research findings. Maccoby and Jacklin (1974) describe how women view themselves as being superior in terms of characteristics which are important in relationships; and

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consider themselves to be nurturing, sensitive and to show concern for others. Martin Hoffman (1977b) specifically relates empathy to prosocial behavior and states that empathy may be a component of an affective, prosocial other-oriented concern.

Another association between children and same sex parent interactions has been found by Cherry & Lewis, (1976) who found that at preschool age mothers tend to interact more with daughters and fathers with sons. Margolin & Patterson (1975) found the same tendency in elementary school children and their parents. Bryant (1985) found that maternal concern at age 7 predicted empathy in their daughters at age 10. This effect was stronger for daughters than sons and is another piece of evidence that maternal behavior specifically affects her daughter's development.

The primary thrust of research and theory relating to the development of empathy and its influence on the dimension of the self referred to as connected self has been focused on the processes which occur as a result of the relationship between the mother and daughter. Although some of the same dynamics may be operating in terms of fathers and sons, fathers and daughters and mothers and sons; examining these relationships will be exploratory since there is no theoretical base from which to predict patterns. However it seems reasonable that some of the same processes will be occurring with the son's identification with his father, socialization factors and

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father, son sex role identification. If similar patterns are to be expected they would be more prevalent between the parent and the same sex child.

Summary

This research study examined the relationship between empathy and the relationship self constructs in late adolescent children and their parents. It looked at correlations between parents and their children's scores as measured using paper and pencil instruments to examine the connection between mothers and daughters, fathers and sons as well as that between parents and their opposite sex children.

There is a strong theoretical basis proposing that parents influence the development of empathy in their children (Hoffman, 1977). However, very little empirical research has been done that specifically looks at parents and children and their levels of empathy and what has been done is almost entirely with preschool and elementary school children. There is also a theoretical foundation that suggests that the development of empathy may be related to a dimension of the self referred to as the connected self. This study attempts to integrate these theoretical orientations and examine the connection between levels of empathy and the connected self. There has been a lack of theoretical or empirical attention to males and their parents and how levels of parental empathy influence their male children and if development of empathy in males is related to the connected self orientation.

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Comparisons for males in levels of empathy or connection and their parents were exploratory.

Statement of Hypotheses

Empathy

1) Females will have higher empathy scores than males on all subscales with the largest difference occurring on the Fantasy subscale in the Davis measure.

2) Perspective Taking will be positively correlated with Empathic Concern for all groups, mothers, fathers, sons and daughters.

3a) There will be more positive correlations between Empathy scores of mothers and daughters than between mothers and sons.

3b) There will be more positive correlations between the subscale score Empathic Concern of the Davis measure for the father and son than between father and daughter.

Connected Self

4) Females will score higher on the RSI measure than males on all subscales except Separate Self, where males will score higher.

5) There will be more positive correlations between the scores of the mother and the daughter on the RSI measure than there will be between the scores of the father and the daughter, on both Connected Self and Separate Self scales.

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5a) There will be more positive correlations between the scores of the father and the son on the RSI measure than there will be between the scores of the mothers and their sons.

Empathy/Connected Self

6) There will be a positive correlation between the Connected Self subscale of the RSI measure and Empathic Concern, Fantasy and Perspective Taking for females; the highest correlation will be between Connected Self and Empathic Concern.

6a) Mothers who are high in levels of Empathic Concern and Connected Self scales will have daughters who score highly on the Connected Self subscale.

6b) Mothers who are high in levels of Empathic Concern and Connected Self scales will have daughters who are high on the Empathic Concern subscale.

7) Fathers who are high in levels of Empathic Concern and Connected Self scales will have sons who are high on the Connected Self subscale.

7a) Fathers who are high in levels of Empathic Concern and Connected Self scales will have sons who are high on the Empathic Concern subscale.

8) Triads showing a "traditional" pattern with mothers high in empathy and fathers low in empathy will have daughters higher in empathy than triads showing other patterns.

9) Triads with both parents high on Connected Self will have children who score highly on the Connected Self subscale of the RSI.

10) Triads with both parents high on Connected Self and Empathic Concern will have children who score high on the Connected Self subscale and the Empathic Concern subscale.

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METHODOLOGY

The data used to test the hypotheses of this study were obtained by administering intrument packets to college undergraduates enrolled at a large Midwestern State University and their parents.

Participants

The subjects in the project from which this study is drawn consist of a sample of 423 college students, 288 females and 135 males and 303 of their parents consisting of 162 mothers and 141 fathers; the total sample consists of 726 subjects. Female students ranged in age from 17 to 50 with a mean age of 19, male students 17 to 24, with a mean age of 19: and parents' ages were from 36 to 68 years. The students were recruited from undergraduate psychology courses and in most cases were given extra credit for their participation.

The data to be used for this study includes all mother daughter pairs (N = 106), all father son pairs (N = 41), all mother son pairs (N = 50) and all father daughter pairs (N = 92). Data involving triads will also be used when appropriate, parent daughter triads (N = 67), and parent son triads (N = 29). Individual data from all subjects was also analyzed separately.

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There are 100 triads with a student and both of their parents responding, 29 male and 67 female students. Data were collected in two waves, the first spring term (April-June) 1989 where 157 students, 104 females and 53 males participated and 103 parents responded, 52 mothers and 51 fathers. The second wave of data was collected during the fall term (September-December) 1989; during these sessions 268 students, 185 females and 83 males and 200 of their parents: 110 mothers and 90 fathers participated. Approval for the research was given by the Human Subjects Committee.

Procedure

Undergraduate students were recruited through sign-up sheets which were posted in their pychology classes and labeled the Student-Parent Study. Prepared packets of instruments were administered to the students in groups ranging from 10-100 students by female researchers. An instructional presentation (see Appendix H) and instructions (shown in Appendix D) were given at the beginning of each session. Packets of instruments took from 30 to 70 minutes approximately to complete. The subjects were told that participation was voluntary, that they could omit materials if they chose, and that they could stop at any time and discontinue participartion in the research. The students were then asked to address a packet of similar instruments to each of their parents; these packets were subsequently mailed to the parents by the researchers. Students were also told that sending instrument packets

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to their parents was voluntary and that packets could be sent to one, both or neither parent. Some students expressed the desire to mail packets to persons other than parents who had raised them, such as grandparents or aunts and uncles. These requests were complied with and the packets were subsequently recorded as being from caregivers other than parents. (None of these packets were used for parent student analyses). Letters were enclosed in the parent packets which asked for their voluntary involvement in the research (see Appendix C). In cases where extra credit was given for student participation, credit was given for participating in the project independent of whether or not the parents filled out and returned their materials. To ensure that all scores and information from subjects were kept confidential, each triad of parents and children was assigned a subject number which was precoded on packet materials, to permit collection of data from family members without use of names. Each student was given debriefing information regarding the study upon completion of their instrument packet; both parents and students were given opportunities to request more information about the study when results become available.

Instruments

The instruments used for this research were part of a research packet containing five instruments, demographic information and instructions. The subset of instruments used in this study included the Relational Self Inventory, (Pearson, Reinhart, Strommen et al., 1985), the Davis

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Interpersonal Reactivity Index, (Davis, 1980), the student demographic information (found in Appendix A) and parent demographic information information (see Appendix B). Other instruments administered which were not used in this study were: the Bem Sex Role Inventory, the Frassetto Interaction Index (FII) and an open-ended questionaire about relationship changes, the Earliest Memory Questionaire, and the Learning Experience Questionaire. FII, Earliest Memory and Relationship Changes are all new questionaires developed for use in this study. The questionaires are listed in the order they were administered in the research packet.

Empathy

Students and parents' empathy was measured using the Davis (1980) Interpersonal Reactivity Index (IRI) (see Appendix E). This measure was chosen because it has a multi-construct design which measures the four components of empathy proposed by Davis, as discussed earlier: **persective taking, empathic concern, fantasy empathy** and **personal distress**.

The **perspective taking subscale** contains items which measure an individual's ability to see things from another person's point of view and to anticipate others' reactions and behavior. This is the cognitive component of Davis's empathy measure and is based on Piaget's theoretical work which emphasizes an individual's ability to see things from another's perspective when acting in a nonegocentric way.

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The **empathic concern subscale** measures the person's tendency to experience feelings of sympathy and concern for other; this aptitude is considered to be a dimension of emotionality. Empathic concern is the traditional definition of the emotional or affective component of numerous empathy scales and includes the person's feelings of compassion, warmth and concern for others.

The **fantasy subscale** measures the ability of the individual to get involved in fictional works such as plays, books and movies. Davis included the fantasy dimension because of the work of Stotland et al (1978), who found that persons who score high on Fantasy-Empathy tend to show greater physiological arousal in response to another's distress and also to show a greater tendency to help another person.

The **personal distress subscale** measures the person's emotional reaction and feelings of personal anxiety which come from viewing another person's distress or negative experience. Personal distress was included by Davis as a dimension which appeared during factor analysis. It clearly emerged as a separate factor and was found to be equally present in both sexes. Davis argues that it is necessary for an individual who is being empathic to recognize feelings of fear, apprehension and discomfort in themselves.

Each item in the Davis scale is rated on a Likert scale ranging from 1 (Does not describe me well) to 5 (Describes me very well).

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Test-retest reliability is adequate with r's above .60 each time and internal consistency is good with alphas above .70 for all subscales (Davis, 1980). A factor analysis of the measure showed the factors loading on the four dimensions as predicted.

Relationship Self

Connected Self orientation for both students and parents was measured using the Relationship Self Inventory (RSI) which measures the personal dimensions proposed by Gilligan and others and which is characterized by a person's orientation toward relationships to others (see Appendix F). The instrument is composed of 60 statements which are rated on a 5 point scale: 1= Not like me at all; 5 = Very much like me. These statements comprise 4 scales: **Connected Self, Separate Self, Primacy of Other Care, Self & Other Care.**

The **Connected Self** scale measures the degree to which a person has an orientation towards self-definition which involves connection to others and in which concerns of care are central. Of primary importance to a connected person are issues of nurturance, equity and compassion. A sample statement would be: "Activities of care that I perform expand both myself and others".

The **Separate Self** scale measures the degree to which an individual defines the self through an emphasis on individual achievement and where reciprocity is considered to be of primary importance in relationships. The

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focus for the individual with this orientation is towards individual rights, justice, equality and fairness. A sample of a separate statement is "I believe that in order to survive I must concentrate more on taking care of myself than on taking care of others".

The remaining two scales were designed to measure manifestations of the Connected Self which differ in their relative maturity and in their links with other variables.

The **Primacy of Other Care** scale measures the importance of the theme of caring for others in a relationship. In this orientation the care of others has priority over the care of self. An example from this subscale: "I feel that my development has been shaped more by the persons I care about than by what I do and accomplish".

The **Self and Other Care** scale measures the individual emphasis on care for all. The primary focus for this characterization is that relationships involve the care of self as well as care for others (Gilligan, 1982, Lyons, 1983). A sample from this scale: "True responsibility involves making sure my needs are cared for as well as the needs of others".

Standardization was done on 1145 subjects ranging in age from 16 to 78. Subjects included high school and college students, adults attending continuing education programs at a university, and a group of recently separated or divorced individuals.

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Internal consistencies (Cronbach's Alpha) for the scales were acceptable: Separate Objective = .78, Connected Self = .72, Primacy of Other Care = .65, and Self and Other Care = .72. The expected relationships among scales was found, as follows; a low but negative correlation was found between Connected and Separate Scales for both men and women (-.23). The Connected Self subscale has a moderatedly positive correlation with the POC (.56) and SOC (.52) subscales.

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RESULTS

Preliminary Analyses

This study involved the use of two measures, the Relationship Self Inventory and the Davis IRI. Each has four subscales. One-way Anovas were done on the data from waves 1 & 2 before combining to ensure that data from the two waves were comparable. These analyses are reported in Appendix K. Of the 16 comparisons with the IRI, only three were significant. On the Davis Personal Distress subscale a significantly higher score was found for all groups except fathers for wave 2 participant. Of the 16 comparisons on the RSI, only two were significant: Fathers' Primacy of Other Care subscale of the RSI was higher for wave 1 subjects; and Sons' scores on the Connected Self subscale of the RSI were higher for wave 1 subjects. However the absolute difference in terms of means is very small and the large sample size may contribute to making that small difference significant (see Tables 1 & 2).

It is not clear why the significant differences between waves one and two. Students comprised the bulk of the data and it is possible that there are some differences in first term freshmen (Wave 2) and the group composed of

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Table 1
Means And Standard Deviations IRI-Wave Differences

	Wave 1 Mean	SD	Wave 2 Mean	SD
Personal Distress (Daughters	19.54	5.03	20.82	3.69
Personal Distress (Sons)	16.75	4.56	18.61	3.94
Personal Distress (Mothers)	18.18	5.14	21.19	6.72
Personal Distress (Fathers)	16.63	4.59	17.33	4.22

Table 2
Means And Standard Deviations RSI-Wave Differences

	Wave 1 Mean	SD	Wave 2 Mean	SD
POC (Fathers)	3.28	.47	3.06	.50
Connected Self (Sons)	4.08	.38	3.91	.45

last term freshmen (Wave 1) that is not apparent in the analyses which were done for this study. For first term freshmen this is probably the first time they have spent any extended time away from home. Because of this they may be more focused on themselves and this could cause inflated scores in terms of their levels of Personal Distress. Mother's higher levels of Personal Distress may also be due to concern for a child who is away from home for the first time. Despite the observed differences, data for the two waves were

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combined on these grounds: 1) The Davis Personal Distress scale is not one of the focal scales for the hypotheses in this study. 2) Other wave differences are not part of any coherent pattern and involve only 2 of 28 comparisons on the two instruments so the differences are probably due to chance. 3) As mentioned, actual mean differences were small. 4) The patterns of correlations for each group is the same for both waves.

Analyses Related to Predictions

To do further analyses relating to hypotheses, parents were divided into groups based on median splits of their Connected Self scores of the RSI and of their Empathic Connection scores on the Davis, IRI. Subjects were placed into groups based on their status (above or below the median) on both measures (see Tables 3 & 4). This was done separately for mothers and fathers.

Table 3
Parent's Empathic Concern and Connected Self Score
(MOMHH, DADHH)

		EMPATHIC CONCERN SCORE	
		Above Median	Below Median
CONNECTED SELF SCORE	Above Median	High-High	Low-High
	Below Median	High-Low	Low-Low

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The group with parents who scored above the median for both subscales was labeled High-High and for the analyses this group was compared with all others. The group of mothers who were above the median in both connection and empathy was labeled MOMHH (mothers-high on both). The fathers with scores on each subscale above the median were labeled dadhh (fathers high on both).

Medians used for the divisions are as follows:

	RSI Connected Self	Davis Empathic Concern
Fathers (N = 141)	3.87	26.65
Mothers (N = 162)	4.12	28.94

For the analyses relating to 3-member families (Hypotheses 8-10), a similar division was made based on scores of mothers and fathers from the same families combined together. In order to replicate a pattern found in previous research (Hypothesis 8), the group with Mothers scoring high in empathy and fathers scoring low in empathy were combined and labeled pemp (parental empathy) to represent a stereotypical pattern of parent empathy (Table 4).

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Table 4
Parent's Empathy Scores Combined (PEMP)

		MOTHER'S EMPATHIC CONCERN SCORE	
		Above Median	Below Median
FATHER'S EMPATHIC CONCERN SCORE	Above Median	High-High	Low-High
	Below Median	High-Low	Low-Low

Groups were similarly developed called prel (Parental-Connected Self) where both parents scores were combined based on their Connected Self scores of the RSI. The group where both parents scored above the median on the Connected Self subscale of the RSI was labeled High-High and this group was compared with all others (see Table 5).

Table 5
Parent's Connected Self Combined (PREL)

		MOTHER'S CONNECTED SELF SCORE	
		Above Median	Below Median
FATHER'S CONNECTED SELF SCORE	Above Median	High-High	High-Low
	Below Median	High-Low	Low-Low

To test Hypotheses 9 and 10, all parents were put into groups based on their scores on median splits for both Empathic Concern and Connected

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Self. The four categories, Empathic Concern, Connected Self, Mother and Father were put into all possible combinations which resulted in 16 groups of parents. Four groups each were also formed for sons and daughters separately for levels of Connected-Self and Empathic Concern. This was done in the same way it was done for parents (see Table 3). Chi-square analyses were done using the above groups to look for relationships between parent levels of connection and empathy and scores in their children on the same measures. These analyses were done separately for sons and daughters.

Basic Statistics:

Summary statistics in Tables 6 & 7 show means and standard deviations for the subscales of each measure. The calculated means for each measure were very similar to those found in other research using these instruments.

Reliability and Validity of Empathy Measure (IRI)

Internal consistency for the Davis IRI was at acceptable levels with alpha levels ranging from a low of .62 for the father's personal distress subscale to a high of .82 for the daughter's fantasy subscale, the overall median was 76 (see Table 9). It has been reported that an adequate level of reliability for an alpha for research purposes is above .60 (Nunnaly, 1967). It is necessary to view subscales with low alphas with caution since so much

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Table 6

Relationship Self Inventory (RSI) Scale Means and Standard Deviations

Group	Separate	Connected	Primacy of Other Care	Self and Other Care
Men (Fathers) N=141				
Mean	2.71	3.88	3.20	3.87
SD	.56	.55	.50	.50
Men(Sons) N=135				
Mean	2.75	4.02	3.18	3.89
SD	.51	.42	.42	.4
Men N=276				
Mean	2.73	3.95	3.19	3.88
SD	.53	.50	.46	.46
Women (Mothers) N=162				
Mean	2.47	4.12	3.26	3.89
SD	.46	.45	.53	.43
Women (Daughters) N=288				
Mean	2.61	4.24	3.30	4.08
SD	.50	.45	.42	.40
Women N=450				
Mean	2.56	4.20	3.29	4.01
SD	.49	.45	.46	.42

Table 7

Davis (Interpersonal Reactivity Index) Scale Means and Standard Deviations

Group	Fantasy	Empathic Connection	Perspective Taking	Personal Distress
Men(Fathers) N=141				
Mean	18.79	26.65	24.57	16.89
SD	5.53	4.71	4.46	4.46
Men(Sons) N=135				
Mean	22.14	25.79	23.13	17.47
SD	5.44	4.34	4.46	4.42
Men N=276				
Mean	20.43	26.23	23.86	17.17
SD	5.72	4.54	4.51	4.44
Women(Mothers) N=162				
Mean	22.10	28.94	25.90	19.15
SD	6.46	4.51	4.80	5.85
Women(Daughters) N=288				
Mean	26.22	29.05	25.06	20.00
SD	5.72	3.95	5.15	4.63
Women N=450				
Mean	24.74	29.01	25.36	19.70
SD	6.31	4.15	5.04	5.12

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of the variance is due to measurement error and this will tend to lower the correlations with other measures.

As Davis (1983) found in his study, convergent validity was shown in the present sample with negative correlations between perspective taking and personal distress found on subscales for daughters and a positive correlation between perspective taking and empathic concern found for all groups (see Tables 10-13).

Reliability of Connected Self Measure (RSI)

To ensure that scales were reasonably reliable, internal consistency was checked for all subscales on the RSI. The Relationship Self Inventory has coefficient alphas ranging from .58 for the daughter's primacy of other care subscale to an alpha of .81 for both the father's and son's Separate Self subscale with a median of .71. These scores are shown in Table 8.

Table 8
Coefficient Alphas for Relationship Self Inventory by Group, Fathers, Sons, Mothers and Daughters

	Separate	Connected	Primacy of Other Care	Self and Other Care
Fathers N = 141	.81	.78	.69	.78
Sons N = 135	.81	.69	.63	.73
Mothers N = 162	.71	.67	.71	.68
Daughters N = 288	.79	.75	.58	.72

Table 9

Coefficient Alphas for for Davis Interpersonal Reactivity Index by Group, Fathers, Sons, Mothers and Daughters

	Fantasy	Concern	Perspective	Distress
Fathers N = 141	.77	.77	.74	.62
Sons N = 135	.81	.78	.77	.74
Mothers N = 162	.79	.76	.75	.74
Daughters N = 288	.82	.71	.80	.69

Empathy Scales

Hypothesis 1 stated that sex differences would be found with females expected to have higher empathy scores than males on all subscales with the largest difference occurring on the fantasy subscale. For male and female groups overall this hypothesis was supported (see Table 6). Paired t-tests show all these differences to be significant (Fantasy $t = 4.91, p \leq .001$; Perspective Taking, $t = 2.82, p \leq .01$; Empathic Concern, $t = 4.26, p \leq .001$; and Personal Distress, $t = 3.45, p \leq .001$). However, when the males and females are broken down into parent-child groups one minor reversal of this general pattern appeared. As Table 6 shows, for the fantasy subscale, sons scored higher at 22.14 than mothers did at 22.10. This difference however was not significant ($n = 51, t = -1.09, p > .05$.

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It was further predicted in Hypothesis 1 that the largest difference

would occur between male and female means on the fantasy subscale of the

Davis IRI. Table 2 shows that the largest difference in group means for any

parent-child combination was indeed on fantasy subscale with males having a

mean score of 20.43 and females a mean score of 24.74, supporting this

prediction.

Hypothesis 2, that Perspective Taking would be positively correlated

with Empathic Concern was supported for all groups. The highest correlation

was observed for fathers, (r = .50, p < .001), and the lowest for daughters (r =

.37, p < .001). Intercorrelations between empathy subscales are shown in

Tables 10-13.

Table 10
Correlation Coefficients for Daughters Empathy Scores on All Subscales
(n = 288)

	Fantasy	Pertak	Empcon	Perdis
Fantasy	-----	.18 **	.37 ***	.09
Pertak		-----	.37 ***	-.15 *
Empcon			-----	.14 *
Perdis				-----

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

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Table 11

Correlation Coefficients for Sons Empathy Scores on All Subscales
(n = 135)

	Fantasy	Pertak	Empcon	Perdis
Fantasy	-----	.31 ***	.36 ***	.26 *
Pertak		-----	.48 ***	.02
Empcon			-----	.21 *
Perdis				-----

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Table 12

Correlation Coefficients for Mothers Empathy Scores on All Subscales
(N = 162)

	Fantasy	Pertak	Empcon	Perdis
Fantasy	-----	.30 ***	.27 ***	.22 **
Pertak		-----	.43 ***	.08
Empcon			-----	.33 ***
Perdis				-----

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Table 13

Correlation Coefficients for Fathers Empathy Scores on All Subscales
(N = 141)

	Fantasy	Pertak	Empcon	Perdis
Fantasy	-----	.22 **	.30 ***	.26 **
Pertak		-----	.50 ***	.08
Empcon			-----	.05
Perdis				-----

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

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Empathy Scale Patterns Between Parents and Children

To test the third hypothesis that there will be more positive correlations between the empathy scores of mothers and daughters than mothers and sons, correlations were done on all subscales of the IRI for mothers and daughters and mothers and sons. This hypothesis was not supported. Rather, more correlations were observed for mothers and sons than for mothers and daughters.

Only one correlation was significant for the scores of mothers and daughters, mother's levels of Empathic Concern and Daughter's levels of Empathic Concern ($r = .20$, $p < .05$). Three of the correlations between mothers and sons empathy scores were significant ($N = 51$) Mothers' and Sons' Fantasy ($r = .26$, $p < .05$), Empathic concern ($r = .26$, $p < .05$) and Sons' Personal Distress and Mothers' Empathic Concern ($r = .32$, $p < .05$). See Appendix J for these tables of correlations.

Hypothesis 3b predicted more positive correlations between the Empathic Concern scores of fathers and sons than fathers and daughters. Correlations were done on all subscales of the IRI for fathers and sons and fathers and daughters. This hypothesis was supported (see Appendix J) with the correlation between fathers and sons levels of empathic concern being positive and significant ($r = .51$, $p < .001$). The correlation between fathers and daughters was not significant. See Appendix J.

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Connected Self Scales (RSI)

Hypothesis 4 predicted that females would score higher on all

subscales of the RSI measure except Separate Self, where males would

score higher. This pattern was found as Table 6 shows. However, the only

significant difference between connected scales was for Connected Self (t =

4.68, $p \leq$ .001). For the Separate Self subscale males did in fact score higher

than females (t = -3.34, $p \leq$ .001). Overall sons scored the highest and

mothers the lowest.

The prediction for the connection-related subscales that females would

score higher than males was also supported, with one exception: mothers

and sons both have the same means for Self and Other Care $\underline{M}$ = 3.89.

However the t-tests show these differences in means to be nonsignificant.

Self and Other Care (t = .87, p > .05), SOC (t = .87, p > .05), and POC (t =

.51, $p \geq$ .05).

Connected Self (RSI) Scale Patterns Between Parents and Children

Hypothesis 5 predicted that there would be more positive correlations

between the scores of mother and daughter on the Connected Self and

Separate Self subscales of the RSI than there would be with fathers and

daughters. Contrary to the hypothesis, only one of the correlations between

any RSI scale scores of mothers and daughters were significant, daughters

SOC and mothers POC (r = -.30, p < .01). Three significant correlations were

found between the subscales of father and daughter (N = 92) which had not been predicted (see Appendix J).

Hypothesis 5a, that there would be more positive correlations between the scores of father and son on the Connected Self and Separate Self subscales of the RSI than would occur between mothers and their sons was similarly not supported. The only significant correlation for fathers and sons occurred on the sons' Separate Self and the fathers' SOC (r = .40, p < .01). See Appendix J.

Overall Patterns Between Empathy and Connected Self

Intercorrelations between the Davis IRI and the RSI for all groups are found in Tables 14, 15, 16, and 17. For females, all Davis subscales except Personal Distress were expected to be positively correlated to the Connected Self subscale of the RSI, with the highest correlation between Connected Self and Empathic Concern. Positive correlations between all three connection-related RSI scores and Empathic Concern, Fantasy and Perspective Taking subscales were found as predicted for daughters, with the highest correlation occurring between Connected Self and Empathic Concern (r = .43, p < .001), as predicted (see Table 14). For mothers, however, the only positive correlations between subscales were between two connection-related scales and the Empathic Concern subscales (Table 16). Table 16 shows that the correlations between Connected Self and Fantasy and Connected Self and Perspective Taking were not significant for mothers.

Table 14

Correlation Coefficients for Daughters Empathy and Relational Self Inventory, all Subscales (N = 288)

	Sepobj	Conrel	Poc	Soc
Fantasy	-.21***	.30***	.17*	-----
Pertak	-.24***	.33***	-----	.15*
Empcon	-.44***	.43***	.24***	-----
Perdis	-----	-----	.23**	-.17**

$^*p \leq .05$, $^{**}p \leq .01$, $^{***}p \leq .001$, two-tailed

Table 15

Correlation Coefficients for Sons Empathy and Relational Self Inventory, all Subscales (N = 135)

	Sepobj	Conrel	Poc	Soc
Fantasy	-----	.24**	.31***	-----
Pertak	-.34***	.32**	.29***	-----
Empcon	-.41***	.39***	.41***	-----
Perdis	-----	-----	.26**	-.25***

$^*p \leq .05$, $^{**}p \leq .01$, $^{***}p \leq .001$, two-tailed

Table 16

Correlation Coefficients for Mothers Empathy and Relational Self Inventory, all Subscales (N = 162)

	Sepobj	Conrel	Poc	Soc
Fantasy	-----	-----	-----	.16*
Pertak	-.20*	-----	-----	-----
Empcon	-.29***	.29***	.22**	-----
Perdis	-----	-----	.24**	-----

$^*p \leq .05$, $^{**}p \leq .01$, $^{***}p \leq .001$, two-tailed

Table 17

Correlation Coefficients for Fathers Empathy and Relational Self Inventory, all Subscales (N = 141)

	Sepobj	Conrel	Poc	Soc
Fantasy	-----	.22**	.23**	-----
Pertak	-.33***	.23**	-----	-----
Empcon	-.38***	.49***	.31***	-----
Perdis	-----	-----	.22**	-----

*p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Within-Family Comparisons for Empathy and Connected Self

To do further analyses on the triads for which mother, father, and child data were available, median splits were done of mothers and fathers scores on the Empathic Concern Subscale of the IRI and the Connected Self subscale of the RSI to create groups which are either high on both or low on both or mixed high and low for the subscales (see Table 3). One-way Anovas were then done to determine if the parents levels on these subscales was related to their child's level of Connected Self or Empathic connection. These analyses were done separately for sons and daughters.

Maternal and Child Levels of Empathy and Connected Self

It was predicted in Hypothesis 6a that mothers who are high on levels of empathic concern and connected self subscales would have daughters who are high on connected self. For this analysis, mothers were divided into two groups using levels shown in Table 3 with the HI-HI mothers in one group

and all the other mothers in the other group; the daughters scores were then compared to determine if the group the mother was in was related to daughter levels of Connected Self. The results of this analysis were not significant ($\underline{F}$(1,105) = .05, $\underline{p}$ > .05).

Similarly, Hypothesis 6b, that mothers who are high on levels of Empathic Concern and Connected Self subscales would have daughters who are high on the empathic concern subscale of the IRI, was not supported ($\underline{F}$ (1,105) = 1.35, $\underline{p}$ > .05).

Paternal and Child Levels of Empathy and Connected Self

It was predicted in Hypothesis 7a that fathers who are high on levels of Empathic Concern and Connected Self subscales would have sons who are high on the Connected Self subscale (N = 41). For this analysis fathers were divided into two groups, (using levels shown in Table 3) with the HI-HI fathers in one group and all other fathers in another group. The analysis looked at the fathers' groups to determine whether the levels were related to sons' levels of Connected Self. This prediction was not upheld (F (1,41) = .09, $\underline{p}$ = > .05).

The prediction in Hypothesis 7a that fathers who scored highly on the Empathic Concern and Connected Self subscales would have sons who would score high on the Empathic Concern subscale was supported, see Table 18 (F(1,41) = 6.37, $\underline{p} \leq$ .01).

Table 18

Effect of Fathers Levels of Empathy and Connected Self on Sons Levels of Empathy (N = 41 pairs)

Variable	Sum of Squares	DF	Mean Square	F	Sig of F
Between Groups	154.4464	1	154.4464	6.3725	.0157
Within Groups	969.4583	40	24.2365		
Total	1123.9048	41			

Empathy Patterns in Triads

To examine whether Triads showing a "traditional" pattern of empathy with mother high and fathers low in empathy would have daughters who are high in empathy (Hypothesis 8) as found in previous research with young children, median splits were done; and families in which mothers scored higher than the mean and fathers who scored lower than the mean on Empathic Concern were combined into a group. Daughters from these families were then compared to all other daughters using One-way Anova. The results were not significant, the hypothesis was not supported.

Connected Self Patterns in Triads

Hypothesis 9 predicted that parental and child levels of connection would be related. Parents who both scored highly on the Connected Self subscale of the RSI were expected have children who score higher on the

Connected Self subscale than other children. A One-way Anova was done separately for daughters and sons. The hypothesis was not supported for either group.

Connected Self and Empathy Patterns in Triads

Parents who scored high on both the Connected Self subscale of the RSI and the Empathic Concern subscale of the Davis were predicted to have children who would score highly on the Connected Self subscale and the Empathic Concern subscales. To test this hypothesis, all possible groups of parents were formed based on their levels of connection and Empathic Concern creating 16 groups. Separate Chi-Square analyses by sex were done to test for a connection between the parent's levels and the children's levels when the scores from both tests were combined. The parent-daughter analysis involved 67 triads and the parent-son analysis involved 29 triads. The Chi-Square analyses for neither sons or daughters was significant.

Additional Analyses

Although not predicted in the hypotheses the Separate Self scale of the RSI was found to be negatively correlated with the empathy subscales Empathic Concern and Perspective Taking. The Primacy of Other Care subscale of the RSI was actually more consistently correlated with the IRI subscales for men than for women (see Tables 14-17). POC showed the strongest relationship to the empathy subscales for sons who had highly significant positive correlations between POC and all 4 of the Davis

subscales. The Primacy of Other Care subscale of the RSI was found to be positively correlated to the Empathic Concern subscale of the Davis for all groups, with the highest correlation occurring for fathers (r = .41, p < .001) (see Table 17). Primacy of Other Care was also positively correlated with the Davis Personal Distress subscale for all groups. SOC showed the least consistent pattern of correlations with the empathy subscales but showed a generation contrast with a negative correlation with Personal Distress for children but no correlation for parents.

DISCUSSION

Sex Difference (IRI)

Some of the hypotheses were supported and others were not. Hypothesis 1 predicted that females would score higher on all the empathy subscales than males, and females did in fact score higher on all subscales with only one nonsignificant reversal. On the fantasy subscale sons scored fractionally higher than mothers. A t-test showed this difference to be nonsignificant so it was probably due to chance. A significant difference was found between subscale means for males and females on the fantasy subscale which replicates Davis's (1983) findings. As found in other research (Lennon & Eisenberg, 1983) higher female scores were found on both the cognitive and emotional components of empathy when measured using self-report inventories. Since the measure used was a paper and pencil self-report inventory this difference between men and women was expected.

Hypothesis 2 predicted that the cognitive component, Perspective Taking and the emotional component, Empathic Concern of the Davis instrument would be positively correlated and this was supported for all groups. This replicates past research (Davis, 1983) which found the correlation for both males and females also. This research gives more

specific information about males and females of different ages and expands

Davis' finding since his research subjects were all college students. Empathic

Concern and Perspective Taking are the considered to be the primary

components of empathy so a positive correlation between these subscales is

to be expected if the measure is actually measuring the construct of empathy

(Eisenberg, 1983; Hoffman, 1982; Davis, 1980).

Empathy Patterns Between Parents and Children

It was expected that there would be more positive correlations on the

empathy measures between the same sex parent and child than between the

opposite sex parent and child. In fact for mothers only one of the correlations

were found to be significant with daughters, and three significant correlations

were found between mothers and sons; mothers' levels of Empathic Concern

was positively correlated with sons' levels of Empathic Concern and Personal

Distress and both mothers' and sons' levels of fantasy were positively

correlated. It was expected that because of nature of the mother-daughter

relationship and the opportunity for modeling the behavior of the same sex

parent that mothers and daughters levels of empathy would be similar. This

was not the case at least for middle-aged mothers and college-aged

daughters. The reason that this pattern did not show up in the data may be

because of the different developmental levels of mothers and daughters. It is

very possible that if we could measure daughters' levels of empathy later in

life, at the same age and same life period their mothers are in now, we would

find a pattern of similarity. It may be necessary for mothers and daughters to have experienced some of the same life events and to be in the same stage developmentally for the influences to be clearer.

For fathers and sons, in contrast, this same sex parent-child prediction was supported with the expected positive correlation found between fathers' and sons' levels of empathic concern. None of the correlations for fathers and daughters on the IRI subscales were significant.

The expected relationships between mothers and daughters were not supported by the results of the analyses and it is unclear exactly what process is occurring which may obscure this connection or it is of course possible that the theorized relationship does not exist. An alternative explanation may be that some variable which was not measured is the critical component in the connection. Or perhaps it is the process of emotional autonomy discussed by Frank (1988) which is the most salient factor occurring in the relationship at this stage of development since the children in the study have a mean age of 19 years. Frank describes this stage as one where the adolescent pulls away from the parent, questioning their knowledge and values and feeling anger, disillusionment and betrayal while finding that their parents don't indeed know all. This process of pulling away may be stronger in the relationship between mothers and daughters during this time thus obscuring some of the similarities which would be apparent at a different developmental stage in the daughter's life. Why the relationship would

appear for cross-sex comparisons but no same-sex comparisons is difficult to explain. Since three of the 16 correlations for mothers and sons were significant, it is probably not a matter of chance. The reason for the link between mothers' and sons' levels of empathy is unclear. Theory describes the link between mother and daughter as being very strong, if the relationship between mother and son is close but does not require the pulling away from each other then this may explain why the relationship between levels of empathy shows up for sons and not for daughters. This research looked at parent and child empathy using the same instrument. Very little research has been done on parent and child empathy and what has been done has been on young children and their parents generally using different instruments for each group.

Sex Differences RSI

The prediction that females would score higher on subscales of the RSI relating to Connected Self was partially supported. Females did in fact score higher on the Connected Self and the Primacy of Other subscales however for the Self and Other Care, both mothers and sons have the same means. Males did in fact score higher on the Separate Self subscale as predicted.

Connected Self Patterns between Parents and Children

As with the empathy subscale it was expected that there would be patterns of similarity between same sex parents and children which was stronger than with opposite sex parents. This hypothesis was not supported.

Only one of the correlations between subscales of the RSI for mothers and daughters was found to be significant; the daughters' levels of Self and Other Care was found to be negatively correlated with the mothers Primacy Of Other Care subscale. Apparently having a mother who emphasizes caring for others makes it more likely that college-aged daughters consider it important to care for self as others as well, which is theoretically a more mature position. It is also possible that daughters learn from their mothers focus on others the personal cost of not including the self in that care and move to include themselves in that care orientation. There may also be a generational or cohort difference between mothers and daughters that would account for these differences. It would be interesting to see what happens as daughters assume adult roles and become mothers themselves.

A significant correlation was also found between mothers' levels of Connected Self and sons' levels of Primacy of Other Care. This is interesting since it appears possible that mothers who are more highly connected may tend to influence their sons to value and consider the care of others to be important. It is also interesting because assuming it is not a matter of chance, it suggests that cross-sex parent-child influences on empathy and connection are at least as important as same sex influences. The prediction in hypothesis 5 was similarly not supported, there was a stronger correlation between subscales of the RSI between fathers and daughters than between fathers and sons. Significant correlations were in fact found between fathers

and daughters on the Separate Self subscales, and the fathers Separate Self subscale and the daughters Self and Other Care subscale. Other positive correlations were found between the fathers' level of Connected Self and daughters' levels of Primacy of Other Care and between father's and daughters Primacy of Other Care. So for both fathers and mothers and their opposite sex children the patterns of correlations were stronger than for their same sex children.

The lack of similar patterns between mother and daughter and fathers and sons may have a similar mechanism operating as is occurring with the empathy scores. If the child and their parent would have levels of connection tested at the same time developmentally in their lives then the patterns of similarity may emerge. There may also be other processes occurring because of the age of the daughters. As the adolescent sorts through all the information they have, deciding for themselves what to believe in and follow, it is possible that patterns of behavior are rejected or in fact go underground for a period of time. Carol Gilligan also discusses the notion that the care voice (on which the Connected Self is partially based) goes underground when she reports on research done on young adolescent girls. If so, and if this process is still in place in late adolescence, it could also generate patterns of dissimilarity between mothers and daughters. Alternatively it may be that opposite-sex parents really are the important agents in the development of these empathic and self-orientation characteristics.

Empathy and Connected Self

Hypothesis 6 predicted that there would be positive correlations between the Connected Self subscale of the RSI and Empathic Concern, Fantasy and Perspective Taking for females with the highest correlation between Connected Self and Empathic Concern. This prediction was only upheld for daughters. For mothers the only positive correlation occurred between Connected Self and Empathic Concern. Empathic Concern is the affective component of the Davis scale and it appears that there is some other process which is operating for the mothers' cognitive components of empathy. It is also possible that since the mothers are developmentally at a different level than their daughters that there may be some other dynamic operating which involves variables which were not measured in this study.

Maternal and Child Levels of Empathy and Connection

Hypotheses 6a & 6b predicted that mothers who scored above the median on both Empathic Concern and Connected Self would have daughters who would score highly on both these subscales. These predictions were not supported. Actually when the patterns of correlations failed to follow predictions in the simpler analyses it seemed apparent that combining scores on subscales to make more complex predictions would not be fruitful. It appears that the process which is occurring involving these levels of affective empathy and connection are more complex than proposed and may involve variables which were not measured in this study. Some individual

characteristics such as self-esteem, extroversion, developmental history or levels of depression would no doubt affect a person's relationships. Specific qualities of the relationship between mother and daughter in terms of quality and intensity would also impact on the patterns of similarity or lack of it between mothers and their daughters.

Paternal and Child Levels of Empathy and Connection

Similar to mothers and daughters, fathers' levels of Empathic Concern and connection did not predict levels of Connected Self in their sons. They did however predict levels of Empathic Concern in their sons. When a son has a father who is high on both these dimensions it apparently is a strong enough model to affect his son in terms of levels of empathy. Perhaps when the father follows a nonstereotypic pattern and is high in empathy this results in having an impact on his sons' levels of empathy.

Empathy Patterns in Triads

It was predicted that families in which mothers are high in empathy and fathers are low in empathy would have female children who scored highly in empathy. This hypothesis was not supported. This was an attempt to replicate a study by Barnett and King (1980) which found this in school-aged children. Apparently having parents with this pattern does not influence college-aged women in the same way that it does young children. Or if the previously suggested issues having to do with emerging autonomy and with suppression

of parts of the self are valid, any link would similarly be suppressed in late adolescence but might reemerge as daughters move through adulthood.

Connected Self and Empathy Patterns in Triads

Triads where both parents scored highly on the Connected Self subscale were predicted to have children who scored high on the Connected Self subscale. This hypothesis was not supported. In fact no relationship was found when parents were grouped in this way.

The hypothesis that triads in which parents both scored above the median on these subscales would have children who scored highly on the Connected Self and Empathic Concern subscale was similarly not supported.

Since for these analyses all three family members son or daughter, mother and father had to respond to the survey, the N in these analyses was greatly reduced, especially for males who were a much smaller group.

There were 16 possible combinations for the parents and four for the children. So the already very small N was divided among many cells for the Chi-Square analysis. It is difficult to predict what results could have been expected given a larger N since the intercorrelations between subscales followed such a different pattern than predicted. Results from this data must also be viewed with caution considering the pool of subjects was a relatively homogeneous sample of primarily white middle-class college students. However this is the same group that was used in the majority of the research to develop these theories. The sample of parents were the ones who chose to

respond to a written survey mailed to them from their children and this may have influenced results in a way which was not measured.

Conclusion

Parents appear to play different roles in their children's development of empathy and connection. It was argued that mothers' levels of empathy and connection would be related to the development of empathy and connection in their daughters but these predictions were not upheld. Actually the pattern appeared to show a greater father-child effect rather than a mother-child effect overall. It is possible that this is due to the stereotypic assignment of Empathic Concern and Connected Self. It is expected in females but not in males so when it is high in males, in this case in fathers, it may have a greater impact. It is also possible that parents, and especially fathers, were self-selected in terms of their levels of connection and empathy with parents who had a closer connection to their child being more likely to respond to the questionnaire. It would have been useful to have some instrument which measured the subjects perception of the closeness of their relationship. Parents levels of education were also very high with 54% of the fathers having a bachelor degree or higher, and 40% of mothers having a bachelor degree or above, this is a group with educational attainments far above the average in the U.S, where only 20% of adults have bachelor degrees. Using median splits for analyses may have also resulted in an artificially restricted range which impacted on the analyses. In addition, on the analyses done on

triads the N was very small since it was necessarily reduced to students who had two parents respond to the survey. For parent-daughter analyses the N was 67 and for parent-son analyses, the N was 29. These small N's no doubt influenced the analyses and the ability to find small differences which may have occurred between groups. There were also almost twice as many females in the study as males, and although the mean age for both male and female students was identical, 19, there was a much larger range of ages for female students (17-50) than there was for males (17-28). There may have also been a problem with the subscale which was chosen to represent empathy. Empathic Concern was chosen since it was the primary affective component in the Davis scale. The affective component has been frequently identified as the central element and isolated out for measurement in previous empathy research. Goldstein and Michaels (1985) refer to it as the communication of caring and consider it to be the primary dimension of empathy. Eisenberg (1987) and Hoffman (1982b) also refer to the affective state or affective response as the critical component in empathy. Davis' subscales were developed to use separately and not to combine into one global empathy score. However there is the growing recognition that cognition comes before behavior and using only the affective component for this study my have ignored the impact which cognition plays and thus affected the results of the study.

Obviously processes which occur between parents and children in terms of levels of empathy and connection involve much more than simple socialization. Maccoby (1992) points out that the socialization of the child by the parent does not necessarily result in the child turning out like the parent. She further states that this parent-child socialization process is not one where ways of behaving are learned and this behavior is just reproduced with other relationships as the child goes out into the world. As it was necessary to add the component of cognition to social learning theory, it is necessary to add something to a simple socialization theory. As children develop relationships of their own, they bring to them something which they learned from their parents but they also bring something unique of their own to the experience. Maccoby proposes that we need to look at what children learn from experiences from their same sex peers during middle childhood to be able to better answer these questions. Undoubtedly children continue to learn from peers in adolescence as well. There is also the fact that the relationship between parents and children is bidirectional and we are not sure exactly of the mechanisms operating to affect both individuals in the relationship (Maccoby, 1992). It is obvious that much more research is needed to explore these patterns of relationships between characteristics of the parent and child.

APPENDICES

Appendix A

DESCRIPTIVE INFORMATION: STUDENTS

1. Gender: Female _____   2. Age (Years)_____
   Male _____

3. What is your college major? _____

4. What is your college status?

   Year: _____ Freshman   Term:_____ First term
   _____ Sophomore   _____ Second term
   _____ Junior
   _____ Senior
   _____ Graduate Student

5. Do you do volunteer work? Please describe it briefly.

6. Marital status
   _____ Single   _____ Married   _____ Divorced
   _____ Cohabitating   _____ Separated   _____ Widowed
   _____ Divorced, remarried   _____Widowed, remarried

7. Do you have children?   _____ Yes   _____ No
   If yes, how many _____

8. Your current residence: Dorm _____   Apartment or house _____

9. Do you live with:
   Roommate(s) _____   Spouse or mate _____
   Family of origin _____   By yourself _____
   Other: Please describe _____

10a. Please tell us about the parent(s) you spent the most time with as you were growing up. (If you were mostly in a single parent family, answer for the parent whom you lived with most of the time.)

<u>Mother</u>   <u>Father</u>

Education   Education

High school or less _____   High school or less _____
Some college_____   Some college_____
College graduate_____   College graduate_____
Some graduate study_____   Some graduate study_____
Graduate degree _____   Graduate degree_____

Occupation: Please specify Occupation:

_____   _____

                            Mother   Father

Percent of family
income contributed_____/_____

Percent of child care_____/_____

10b. Did you have two parents in your home most of the time when you were growing up? Yes_____   No_____

If your answer to 10b was no, with which parent did you live most of the time?
Mother_____   Father_____   Other relative or guardian_____

10c. Are your biological parents divorced: No_____Yes_____

   If yes, how old were you when they separated?

10d. If one of the parents you described in 10a was a stepparent, which one was it?_____

10e. Is the mother you described the one you intend to give the questionnaire to?

10f. Is the father you described the one you intend to give the questionnaire to?

11. How many brothers and sisters do you have? (If none, go to question 12). List them from oldest to youngest by sex and age; include adopted children and stepchildren, and include yourself. Put an S by the entry for stepchildren; put A by entries for adopted children.

Example: Your family:

Boy, 24 S
Girl, 22
Girl, 19
Boy, 1

12. Do you belong to any organizations or groups?
_____Yes   _____No

If yes, please list them below. Then using the scale shown, put a number next to the name of each organization or group which shows how meaningful it is to you.

Not meaningful at all		Undecided		Very Meaningful
1	2	3	4	5

Name of Organization   How meaningful?

What do you think this study was about? What specific question(s) do you think we are trying to answer? For the following, please write your answers down in the space provide on this page.

Appendix B

DESCRIPTIVE INFORMATION: PARENTS

1. Gender: Female _____   2. Age (Years) _____
            Male _____

3. What is your occupation? _____
    Do you work: _____Part time   _____Full time?

4. Do you do volunteer work?   Please describe it briefly.

5. What is your education?

    _____ High school or less
    _____ Some college
    _____ College degree
    _____ Some graduate study
    _____ Graduate degree

6. Marital status
    _____Single   _____Married   _____Divorced
    _____Cohabiting   _____Separated   _____Widowed
    _____Divorced, remarried

7. How many children do you have? Include adopted children and
    stepchildren. List them by sex and age, starting with the first born.
    Put an S next to information for stepchildren, and A next to the
    information for adopted children.

    Example: Your family:

    Girl, 29
    Boy, 24
    Girl, 19
    Boy, 15 S

8. Circle the name above which is the daughter or son from whom you
    received this packet of materials.

9.   How many brothers and sisters do you have? (If none, go to question 10.) List them as you did your own children, including yourself. Circle your place on the list.

10.   Please estimate the percent of family income and the percent of child care contributed by you and your spouse (if applicable).

	Mother	Father

Per cent of family
income contributed_____

Percent of child care
contributed _____

11.   Do you belong to any organizations or groups?

_____ Yes   _____No

If yes, please list them below. Then using the scale shown, put a number next to the name of each organization or group which shows how meaningful it is to you.

Not meaningful at all		Undecided		Very meaningful
1	2	3	4	5

Name of Organization   How Meaningful?

Appendix C

PARENT'S LETTER

Dear Participant: Parent

Family interaction patterns take many different forms. We are interested in how different family interaction patterns are related to similarity or differences in family members' orientations toward self and relationships, and in other personal attributes. This packet of materials contains measures of each of these; the packets completed by other members of your family contain similar materials. We are asking for your help in completing these measures. Most people are able to finish in 45 minutes to an hour. Please wait to discuss any of the materials until after all family members have finished their own packets.

Your answers are confidential. Do not put your name or other identifying information on any of the research materials. Participation is strictly voluntary. You may choose not to participate at all or to stop at any time without any penalty to your child. Packets from a given family will have the same number, but we will have no way of knowing what family filled out any set of packets. You are free to omit material, or to stop at any point; but we hope that you will complete all of the materials.

You may return materials to us by sending them back with the child who addressed them to you, or by mailing them to us at the address below. Please mail back the packet and your answer sheet. Keep the instruction letters in case you wish to contact us. Use the enclosed envelope to return your completed materials. The pencil is yours, with our compliments. If you wish to be reimbursed for postage, write to us separately giving your address and postage costs.

Brief summaries of our study will be available once it is completed. If you are interested in receiving a copy of this summary, please send us a post card with your name and address. Ask for the results of the Student-Parent Study 1.

To be sure you understand your rights as a research participant, read these statements carefully:

I freely consent to take part in the study being conducted by Professors Donelson and Strommen of the Department of Psychology. I understand that the study is about orientation toward relationships and personal attributes, and that my part in the study is to complete a questionnaire.

I understand that I am free not to participate at all or that I can stop at any time without penalty.

I understand that responses made are strictly confidential and that I will remain anonymous. Within these restrictions, results of this study will be made available to me at my request. In addition, at my request I can receive additional explanation of the study after my participation is completed.

I understand that my participation does not guarantee any beneficial results to me.

I understand that my compliance in completing the questionnaire constitutes my informed consent for participation in the study.

If you do not understand any statement, or if you want more information before beginning the questionnaire, please call one of us at the numbers listed below. If you agree with the statements, then go ahead and begin work on the questionnaire.

Thank you for your participation in this project.

Elaine Donelson, Professor
Department of Psychology
Michigan State University
East Lansing, MI 48824
(517) 353-3936

Ellen Strommen, Professor
Department of Psychology
Michigan State University
East Lansing, MI 48824
(517) 353-3935

Appendix D

STUDENT'S INSTRUCTIONS

Dear Participant: Student

Family interaction patterns take many different forms. We are interested in how different family interaction patterns are related to similarity or difference in family members' orientations toward self and relationships, and in other personal attributes. This packet of materials contains measures of each of these; the packets completed by other members of your family contain similar materials. We are asking for your help in completing these measures. Please wait to discuss any of the materials until <u>after</u> all family members have finished their own packets.

Your answers are confidential. Do not put your name or other identifying information on any of the research materials. Packets from a given family will have the same number, but we will have no way of knowing what family filled out any set of packets. You are free to omit material, or to stop at any point; but we hope that you will complete all of the materials.

Brief summaries of our study will be available once it is completed. If you are interested in receiving a copy of this summary, please leave your name and address on the list kept for this purpose as you leave the session. Be sure, too, to sign your name on the experiment participation sheet.

To be sure you understand your rights as a research participant, read these statements carefully:

I freely consent to take part in the study being conducted by Professors Donelson and Strommen of the Department of Psychology. I understand that the study is about orientation toward relationships and personal attributes, and that my part in the study is to complete a questionnaire.

I understand that I can stop at any time without penalty.

I understand that responses made are strictly confidential and that I will remain anonymous. Within these restrictions, results of this study will be made available to me at my request. In addition, at my request I can receive additional explanation of the study after my participation is completed.

I understand that my participation does not guarantee any beneficial results to me.

I understand that my compliance in completing the questionnaire constitutes my informed consent for participation in the study.

If you do not understand any statement, please ask for clarification. If you agree with the statements, then go ahead and begin work on the questionnaire.

Thank you for your assistance in completing the questionnaire.

Elaine Donelson
Professor
353-3936
355-9561 (messages)

Ellen Strommen
Professor
353-3935
355-9561 (messages)

Appendix E

DAVIS INTERPERSONAL REACTIVITY INDEX (IRI)
BY SCALE

Please read each statement and chose the number which best describes you. Then fill in the corresponding space on your answer sheet.

Does not describe me well				Describes me very well
0	1	2	3	4

Fantasy

1.　　I daydream and fantasize, with some regularity, about things that might happen to me........　　＿＿＿＿＿

5.　　I really get involved with the feelings of the characters in a novel..........　　＿＿＿＿＿

7.　　I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.......　　＿＿＿＿＿

12.　　Becoming extremely involved in a good book or movie is somewhat rare for me......　　＿＿＿＿＿

16.　　After seeing a play or movie, I have felt as though I were one of the characters....　　＿＿＿＿＿

23.　　When I watch a good movie, I can very easily put myself in the place of the leading character....　　＿＿＿＿＿

26.　　When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.....　　＿＿＿＿＿

Perspective Taking

3.　　I sometimes find it difficult to see things from the "other guy's" point of view........　　＿＿＿＿＿

8.   I try to look at everybody's side of a disagreement
before I make a decision.....   _____

11.   I sometimes try to understand my friends better
by imagining how things look from their perspective......   _____

15.   If I'm sure I'm right about something, I don't
waste much time listening to other people's arguments...... _____

21.   I believe that there are two sides to every
question and try to look at them both....   _____

25.   When I'm upset at someone, I usually try to
"put myself in his shoes" for awhile............   _____

28.   Before criticizing somebody, I try to imagine
how I would feel if I were in their place.....   _____

Empathic Connection

2.   I often have tender, concerned feelings for
people less fortunate than me.........   _____

4.   Sometime I don't feel very sorry for people
less fortunate than me........   _____

9.   When I see someone being taken advantage of,
I feel kind of protective towards them.....   _____

14.   Other people's misfortunes do not
usually disturb me a great deal.......   _____

18.   When I see someone being treated unfairly,
I sometimes don't feel very much pity for them....   _____

20.   I am often quite touched by things that
I see happen....   _____

22.   I would describe myself as a pretty soft-hearted
person.......   _____

Personal Distress

6. In emergency situations, I feel apprehensive
    and ill-at-ease.......   _____

10. I sometimes feel helpless when I am in the
    middle of a very emotional situation........   _____

13. When I see someone get hurt, I tend to
    remain calm.....   _____

17. Being in a tense emotional situation scares me....   _____

19. I am usually pretty effective in dealing with
    emergencies....   _____

24. I tend to lose control during emergencies.......   _____

27. When I see someone who badly needs help in an
    emergency, I go to pieces.......   _____

Appendix F

THE RELATIONSHIP SELF INVENTORY (RSI) BY SCALES

Instructions: Read each statement below and decide how much it describes you. Using the following rating scale, select the most appropriate response and blacken the corresponding circle on your answer sheet.

Not like me at all				Very much like me
1	2	3	4	5

SEPARATE SELF SCALE

47. I believe that in order to survive I must concentrate more on taking care of myself than on taking care of others.

13. I try not to think about the feelings of others when there is a principle at at stake.

34. Even though I am sensitive to others' feelings, I make decisions based on what I feel is best for me.

43. The feelings of others are not relevant when deciding what is right.

58. I try to approach relationships with the same organization and efficiency as I approach my work.

3. I cannot choose to help someone else if it will hinder my self-development.

53. I cannot afford to give attention to the opinions of others when when I am certain I am correct.

9. Loving is like a contract; if its provisions aren't met, you wouldn't love the person any more.

21. When a friend traps me with demands and negotiation has not worked I am likely to end the friendship.

6. I find it hard to sympathize with people whose misfortunes I believe are due mainly to their own shortcomings.

45. I make decisions based upon what I believe is best for me and mine.

10. In my everyday life I am guided by the notion of "an eye for an eye and a tooth for a tooth".

33. What it all boils down to is that the only person I can rely on is myself.

52. You've got to look out for yourself or the demands of circumstances and other people will eat you up.

19. I believe that I have to look out for myself and mine, and let others shift for themselves.

14. I don't often do much for others unless they can do some good for me later on.

26. People who don't work hard to accomplish respectable goals can't expect me to help when they're in trouble.

46. Once I've worked out my position on an issue I stick to it.

CONNECTED SELF SCALE

15. Activities of care that I perform expand both me and others.

55. Caring about other people is important to me.

49. Doing things for others makes me happy.

54. If someone does something for me, I reciprocate by doing something for them.

60. I like to acquire many acquaintances and friends.

27. Relationships are a central part of my identity.

37. Those about whom I care deeply are part of who I am.

41. I is necessary for me to take responsibility for the effect my actions have on others.

20. Being unselfish with others is a way I make myself happy.

36. I like to see myself as interconnected with a network of friends.

12.   I believe that one of the most important things that parents can teach their children is how to cooperate and live in harmony with others.

18.   I am guided by the principle of treating others as I want to be treated.

PRIMACY OF OTHER CARE SCALE

50.   All you really need to do to help someone is to love them.

29.   If someone offers to do something for me, I should accept the offer even if I really want something else.

30.   The worst thing that could happen in a friendship would be to have my friend reject me.

22.   I feel empty if I'm not closely involved with someone else.

1.   I often try to act on the belief that self-interest is one of the worst problems facing society.

40.   The people whom I admire are those who seem to be in close personal relationships.

48.   The best way to help someone is to do what they ask even if you don't really want to do it.

8.   Being unselfish with others is more important than making myself happy.

25.   I feel that my development has been shaped more by the persons I care about than what I do or accomplish.

7.   I try to curb my anger for fear of hurting others.

5.   In making decisions, I can neglect my own values in order to keep a relationship.

16.   If what I want to do upsets other people, I try to think again to see if I really want to do it.

28.   I often keep quiet rather than hurt someone's feelings, even if it means giving them a false impression.

2. A close friend is someone who will help you whenever you need help and knows that you will help if they need it.

SELF AND OTHER CARE CHOSEN FREELY SCALE

42. True responsibility involves making sure my needs are cared for as well as the needs of others.

23. Sometimes I have to accept hurting someone else.

56. I other people are going to sacrifice something they want for my sake I want them to understand what they are doing.

11. I want to learn to stand on my own two feet.

17. I do not want others to be responsible for me.

51. I deserve the love of others as much as they deserve my love.

44. I someone asks me for a favor I have a responsibility to think about whether or not I want to do the favor.

39. I believe that I must care for myself because others are not responsible for me.

35. Even though it's difficult, I have learned to say no to others when I need to take care of myself.

24. In order to continue a relationship it has to let both of us grow.

59. If I am to help another person it is important to me to understand my own motives.

4. I want to be responsible for myself.

38. I accept my obligations and expect others to do the same.

32. Before I can be sure I really care for someone I have to know my true feelings.

57. When I make a decision it's important to use my own values to make the right choice.

31.   If I am really sure that what I want to do is right, I do it even if it upsets others.

APPENDIX G

STUDENT-PARENT STUDY
Post-Session Feedback

Our research program is focused around concepts about self and how those concepts involve relationships with other people. Particularly, we have been developing an instrument to measure some aspects of self-in-relationship-- the Relationship Self Inventory, RSI. The concept of relationship self style refers to whether a person tends to organize the self around relationships with other persons--the Relational Self--or around individual personal development and achievement--the Separate/Objective Self. Both kind of people enjoy and value other people but simply have a different style of relating to others and to themselves. Most of us show some of both types of self style, but in general, the Relational Self is thought to be more characteristic of women, while the Separate/Objective Self is thought to be more characteristic of men.

Similarly, while most people show some feminine and some masculine attributes, most men tend to score higher on scales of masculinity and women on scales of femininity. In a previous study, we did find that a measure of masculinity is associated with the Separate/Objective Self while a measure of femininity is associated with the Relationship Self, though there were some interesting twists. For example, the relationship between Masculinity and Separate/Objective scale was stronger for women than for men ($r=.29$ vs $r=.10$) while Femininity was more strongly correlated negatively for men than for women ($r=-41$ vs $r=-.11$). We have also related the RSI scores to other measures and generally shown that the RSI is a workable useful instrument.

Now, we are trying to find out more about relationship self styles and how they might develop. Thus, we included other measures to help us understand relationship self styles. And, we asked you to volunteer your parents to participate. We expect that parents' answers will give us useful clues about how some of the views of students might have developed.

Obviously we do not have the results of this study but we can tell you about some of the measures used in the study and what we expect. The first questionnaire you filled out was the RSI. At the end of it was a short list of adjectives to rate. Those are from the Bem Sex Role Inventory, giving a quick measure of femininity and masculinity so we may see if previous results hold. The next set of questions was the Davis measure of empathy. Empathy is though to be important in interpersonal interactions but not much is known about it. Our question is, do people who have a stronger relationship self than separates self have higher empathy scores? The next instrument you

completed, the Intimacy Interaction Index is a new instrument we are using for the first time. It is aimed at finding out people's views about some of the relationships they have--are they meaningful, growthful, conflictful, frustrating. In this case, relations between parents and students are of the most concern. The final measure was a measure of Early Memories. We expect some relationship between how people see themselves now and the early memory reported. For example, a fond memory of a parent and a relationship-self style now, or a memory of being alone and having a separate-self style now.

The last page you filled out was a straight-forward measure of some demographic information so that we can describe the basic features of the people who participate in this research. What is true for one group of people might not be true for others. Some items may also help us understand what kind of people tend to have one style more than the other, and why. At the end of the Demographic Information, we asked you what you thought the study was all about. Sometime research participants do develop ideas about a study. Their ideas can be relevant in understanding the results. Sometimes, this "debriefing" information gives clues about how to improve the research. Do you think that what you thought the study was about affected the answers you gave?

We did not tell you all the details at the beginning of the research session because knowing what the instruments were measuring could have set up expectations for how they are related to one another and distorted the results. Because your parents have not yet participate in the study, it is important that you not tell them anything about the study. Before they record their answers, they should know only what you knew before starting to answer the packet. Of course, after they have sent in their answers, you may share this information.

If you would like to discuss our work, please get in touch with us by calling or leaving a note in our mailbox in Room 137 Snyder Hall.

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125 Snyder Hall
353-3935
messages: 355-9561

Professor Elaine Donelson
408 Baker Hall
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Recommended reading: Gilligan, Carol (1982). In a different voice. Cambridge, MS: Harvard University Press.

Appendix H

STUDENT EDUCATIONAL PRESENTATION

Thank you for coming. As your instructor probably has told you, the Psychology Department requires an educational presentation when students participate in research. Because you will be leaving at different times we are giving that educational presentation now. What we are going to discuss is the kind of information about families that we expect to get with our particular method compared to other methods.

One of the aims of this study is to compare the responses of young adults and their parents on several psychological measures. Therefore, we are asking you to participate in this research session and to address packets of similar materials we will send to your parents. Since we are getting the information from you and your parents at about the same time, this is a cross-sectional study. In a cross-sectional study, people at two or more different ages are compared. In this case, you and your parents.

Our primary interest in this study is in some characteristics that have only recently been defined. Theories suggest there should be patterns of similarities and differences between parents and children. Though no one has yet checked it out in a research study. So the first question to be asked is whether or not there are any patterns of similarities and differences. There may not be, and if there are, what are they?

Of course, if we find associations, we are going to want to know how they came into being--and there we run into some limitations of cross-sectional designs such as this. For that, it would be necessary to know what kinds of parental influences there were in your home as you were growing up and how they operated. For example, did you learn by modeling, through observation of how your mother or your father acted? Or did thy teach you to be different from them? Was there specific training, with rewards and punishments? Were there values which your parents applied in judging what people did, including things that you did, so that you learned these values as bases for viewing different actions as good or bad? Questions like these ideally require a longitudinal study--one in which the researchers start working with families while children are young, and continue studying these same families over a period of time. In this way, you can look to see whether certain interactions or patterns of training in earlier years are associated with development of the characteristics you are interested in as the children grow up. However, longitudinal studies are expensive and very time-consuming. One the other hand, if studies such as the one we are doing indicate that the

expected correlations exists, then some kind of longitudinal study would be appropriate.

There are short-cuts which try to get at some of the information usually provided by a longitudinal study. One of these is to ask parents and children to try to remember what things were like in earlier years. Studies which ask people to remember previous times are retrospective. A serious problem with the retrospective method is there is a lot we tend to forget. Even what we remember is likely to be distorted in various ways. For example, people often tend to remember themselves more positively than records show. We also tend to reinterpret the past in light of our present views and understanding. If a college student thinks of herself as shy, she is likely to describe her five-year old self as shy even though records of her at the time do not show her as being any more shy than other children. For these reasons, retrospective methods may not always give a very accurate picture.

Another approach starts with the assumption that the important thing is not how parents actually acted while you were growing up, but your perceptions of what they were like. That is, instead of asking both child and parents for information, you have the child tell you about the parents as well as about themselves. We are not using either of these approaches. Instead we are asking you and your parents separately to tell us what each of you are like as you are now. We can then look to see what kinds of similarities and what kinds of differences there are among you and your parents. Depending on what we learn, we can then proceed to ask how the patterns we find might have come into being. This is the kind of information which could lead to actually doing a longitudinal study some time in the future.

Are there any questions?

Please wait to begin until I have gone through the top sheet marked INSTRUCTIONS FOR STUDENTS with you.

Appendix I

RELATIONSHIP SELF INVENTORY

Correlation Coefficients for Daughters Relational Self Inventory, all Subscales
(N = 288)

	Sepobj	Conrel	Poc	Soc
Sepobj	-----	-.23 ***	-.19 ***	.42 ***
Conrel		-----	.39 ***	.29 ***
Poc			-----	-.19 ***
Soc				-----

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Correlation Coefficients for Son's Relational Self Inventory, all Subscales
(N = 135)

	Sepobj	Conrel	Poc	Soc
Sepobj	-----	-.15	-.22 **	.38 ***
Conrel		-----	.44 ***	.36 ***
Poc			-----	-.13
Soc				-----

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Correlation Coefficients for Mothers Relational Self Inventory, all Subscales
(N = 162)

	Sepobj	Conrel	Poc	Soc
Sepobj	-----	-.20 *	-.07	.36 ***
Conrel		-----	.47 ***	.16 *
Poc			-----	-.15
Soc				-----

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Correlation Coefficients for Fathers Relational Self Inventory, all Subscales (N = 141)

	Sepobj	Conrel	Poc	Soc
Sepobj	-----	-.09	-----	.53 ***
Conrel		-----	.53 ***	.36 ***
Poc			-----	.20 *
Soc				-----

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, two-tailed

Appendix J

Correlation Coefficients for Mothers' and Daughters' Empathy Scores on all
Subscales (N = 106)

	(DAUGHTERS)			
	DFantasy	DPertak	DEmpcon	DPerdis
(MOTHERS) MFantasy	.05	.01	.06	-.14
MPertak	-.06	.04	.11	.01
MEmpcon	.17	.02	.20*	.04
MPerdis	.12	.14	.05	.07

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, two-tailed

Correlation Coefficients for Mothers' and Sons' Empathy Scores on all
Subscales (N = 50)

	(SONS)			
	SFantasy	SPertak	SEmpcon	SPerdis
(MOTHERS) MFantasy	.26*	.22	.19	.07
MPertak	.07	.17	.25	.17
MEmpcon	.17	.07	.26*	.32*
MPerdis	.01	.13	-.05	-.01

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, two-tailed

Correlation Coefficients for Fathers' and Daughters' Empathy Scores on all Subscales (N = 92)

| | (DAUGHTERS) | | | |
	DFantasy	DPertak	DEmpcon	DPerdis
(FATHERS) FFantasy	.10	.09	-.01	.11
FPertak	.21	.00	.03	.12
FEmpcon	.22	-.01	.08	.26
FPerdis	-.00	-.01	-.06	.08

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Correlation Coefficients for Fathers' and Sons' Empathy Scores on all Subscales (N = 41)

| | (SONS) | | | |
	SFantasy	SPertak	SEmpcon	SPerdis
(FATHERS) FFantasy	.07	.13	.19	.24
FPertak	-.03	.20	.08	-.01
FEmpcon	.01	.12	.51***	.22
FPerdis	-.12	-.10	-.17	-.02

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Appendix K

Correlation Coefficients for Mothers' and Daughters' Relational Self Inventory, all Subscales (N = 106)

| | (DAUGHTERS) | | | |
	DSepobj	DConrel	DPoc	DSoccf
(MOTHERS) MSepobj	.16	-.09	.01	.00
MConrel	-.07	-.06	.08	-.18
MPoc	-.13	-.10	.13	-.30 **
MSoccf	-.01	-.13	-.09	-.05

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Correlation Coefficients for Mothers' and Sons' Relational Self Inventory, all Subscales (N = 50)

| | (SONS) | | | |
	SSepobj	SConrel	SPoc	SSoccf
(MOTHERS) MSepobj	.05	-.07	.01	.07
MConrel	.10	.09	.30*	.04
MPoc	.04	-.05	.12	-.09
MSoccf	-.10	-.03	.07	-.02

* p ≤ .05, ** p ≤ .01, *** p ≤ .001, two-tailed

Correlation Coefficients for Fathers' and Daughters' Relational Self Inventory, all Subscales (N = 92)

| | (DAUGHTERS) | | | |
	DSepobj	DConrel	DPoc	DSoccf
(FATHERS) FSepobj	.23*	.06	-.11	.26**
FConrel	-.06	.09	.25*	-.13
FPoc	-.18	.00	.30**	-.10
FSoccf	.04	.07	-.12	.17

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, two-tailed

Correlation Coefficients for Fathers and Sons Relational Self Inventory, all Subscales (N = 41)

| | (SONS) | | | |
	SSepobj	SConrel	SPoc	SSoccf
(FATHERS) FSepobj	.27	.09	.10	.26
FConrel	.09	.17	.14	-.13
FPoc	.01	.10	.20	-.21
FSoccf	.40**	.02	.00	.30

* $p < .05$, ** $p < .01$, *** $p < .001$, two-tailed

APPENDIX L

ANOVAS FOR SIGNIFICANT DIFFERENCES BETWEEN WAVES

Daughters Personal Distress by Wave (N = 288)

Variable	Sum of Squares	DF	Mean Square	F	Sig of F
Between Groups	108.2827	1	108.2827	5.1131	.0245
Within Groups	6056.7138	286	21.1773		
Total	6164.9965	287			

Mother's Personal Distress by Wave (N = 162)

Variable	Sum of Squares	DF	Mean Square	F	Sig of F
Between Groups	320.0039	1	320.0039	9.8606	.0020
Within Groups	5192.4406	160	32.4528		
Total	5512.4444	161			

Son's Personal Distress by Wave (N = 135)

Variable	Sum of Squares	DF	Mean Square	F	Sig of F
Between Groups	110.1708	1	110.1708	5.482	.0169
Within Groups	2505.4884	133	18.8383		
Total	2615.6593	134			

Father's Primacy of Other Care by Wave (N = 141)

Variable	Sum of Squares	DF	Mean Square	F	Sig of F
Between Groups	1.6028	1	1.6028	6.7220	.0105
Within Groups	33.1443	139	.2384		
Total	34.7471	140			

Son's Connected Self by Wave (N = 135)

Variable	Sum of Squares	DF	Mean Square	F	Sig of F
Between Groups	.89888	1	.8988	5.2147	.0240
Within Groups	22.9235	133	.1724		
Total	23.8223	134			

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