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**EMPATHIC DEVELOPMENT AND SOCIAL RELATIONSHIPS**

**Lisa Marlowe Covington**

**A Thesis Submitted In Partial Fulfillment For The Degree Of**

**Master of Science In Sociology**

**Longwood University**

**Department of Sociology Program**

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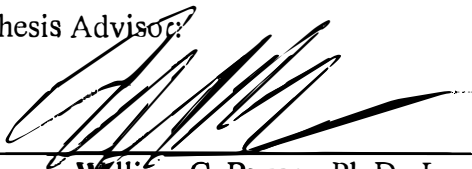
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# EMPATHIC DEVELOPMENT AND SOCIAL RELATIONSHIPS

## Approval Page

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Date of Acceptance by Committee

October 8, 2010

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## Chapter I

### INTRODUCTION

The Merriam-Webster online dictionary defines empathy as “the action of or the capacity for understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of another of either the past or present without having the thoughts, feelings, and experience fully communicated in an objectively explicit manner.” Davis, having studied empathy extensively, theorizes that the development of an empathic response capability is a product of both cognitive and affective processes. This multi-dimensional approach to empathy offers opportunities for multi-disciplinary study, including applications for: developmental psychology, socialization, the symbolic interactionist sociological perspective, and the theoretical derivations of deviant behavior. Such multi-disciplinary study forms the basis for the consideration of the individual’s early social experiences, prior to identity achievement, to ascertain the impact of relationship experiences upon empathic development and behavior. In short, this thesis asserts empathy is a product of both nature and nurture.

Diane Swanbrow’s article (2010), “Empathy: College students don’t have as much as they used to,” summarizes her interview with Konrath, O’Brien, and Hsing related to their meta-analysis of past empathy research conducted with college student subjects. The findings from their research analyzing empathy data on approximately 14,000 college students over the last 30 years was presented in Boston at the annual meeting of the Association for Psychological Science. In Swanbrow’s article, Konrath explains, “College kids today are about 40 percent lower in empathy than their counterparts of 20

or 30 years ago, as measured by standard tests of this personality trait" (n.p.). From her conclusions from earlier research, Konrath also explains in Swanbrow's article, "Many people see the current group of college students - sometimes called 'Generation Me' - as one of the most self-centered, narcissistic, competitive, confident and individualistic in recent history" (2010, n.p.). In the article, O'Brien speculates, "The ease of having 'friends' online might make people more likely to just tune out when they don't feel like responding to others' problems, a behavior that could carry over offline" (Swanbrow, 2010, n.p.).

The findings and observations from the above-referenced meta-analysis raise interesting questions related to both developmental processes and socialization experiences occurring in the context of identity formation. Do individuals become empathic through developmental processes? Do they develop the ability to "walk a mile" in the proverbial "other person's shoes" throughout the life span? Does the capacity for empathy impact behavioral choices? These questions present a three-fold, contextual basis for this research thesis. First, it will explore literature relevant to human development and socialization in the context of empathy. Second, it will provide a literature review examining social relationships integral to identity formation. Finally, the research will establish the existence or absence of a correlation between empathy and social relationships. These conclusions could form the basis for future research in order to provide a potential explanation for deviant behavior.

The relevance of research combining empathy and relationships could impact various disciplines, which include: psychology, sociology, criminology, and social policy. A positive relationship between the individual's development of empathy and the



self-perceived strength of his significant, social relationships could be utilized in the future study of criminal behavior and/or recidivism rates. A positive relationship between individuals' empathic response and the strength of their social relationships could lead to additional research on the introduction of socialization opportunities in order to impact empathic development through social policy. For example, to reduce the recidivism rate of violent offenders having empathic deficiencies, a program could be developed to establish social relationships through a controlled, program environment. Such a program might increase offenders' empathy while reducing their chance of recidivism. In summary, the study of empathy could offer future research opportunities related to intervention and re-socialization with individuals whose empathy measurement is low and whose early social relationships were weak or absent. In theory, this could serve the purpose of changing deviant, behavioral patterns.

### **Statement of the Problem**

The problem of this study was to determine the relationship between community college students' empathy scores and the strength of their self-reported social relationships with parents/parental figures, peers, animals, and/or grandparents.

## **Research Goals**

To answer this problem, the following hypothesis was established:

H<sub>0</sub>: There will be no statistically significant relationship between community college students' empathy scores and the strength of their self-reported social relationships.

## **Background and Significance**

Previous research (Covington, 2009) discovered the evolving definitions of empathy demonstrated the complexity of the empathic response, which has affective, cognitive, and social components. This thesis offers a review of relevant sociological literature presented to incorporate theoretical perspectives related to individual development and social interaction, both of which are impactful to the individual's empathic progression. Further, the symbolic interactionist sociological perspective is offered as a foundation for the possibility that in an individual's life, fundamental relationships exist that may be related to the individual's development of empathy. The premise is presented that the development of the empathic response could result from the mere presence of the relationship, the subjective quality of the relationship, and the symbolism that results from the relationship. Finally, sociological and psychological research was presented as a foundation for the identification of specific, life relationships holding potential relevance to the individual's development of empathy. Consequently, the justification is presented for the further examination of individual relationships to identify their contextual importance related to the development of the multi-faceted, empathic response. This thesis addresses these topics.

Psychological and sociological theory presented in Chapter 2 explains individual development and human behavior are inter-connected. Sociological literature suggests the development of the empathic response is twofold. Empathy seems to be both socially constructed through the process of socialization and experienced as a result of innate, emotional responses. Consequently, the basis for conducting this study is to link human development, symbolic interactionist sociological theory, and the development of the empathic response all in the context of potential correlations with the strength or weakness of social relationships. Such research has implications for the future study of criminal behavior and/or recidivism rates. Because violent crime is so often perpetrated in a micro-sociological context, the presence or absence of an offender's empathic response could be an important consideration related to criminal behavior. Additionally, the presence or absence of certain significant, social relationships in a violent offender's past could be related to his development of empathy and, therefore, with his conduct of criminal behavior. Conclusions from this thesis could provide justifications for such expanded research.

This thesis builds upon prior research (Covington, 2009) to include the following topics: human development theory, theoretical perspectives on empathy, and sociological theory in a cohesive presentation. First, the study will offer research utilizing Mark Davis' Interpersonal Reactivity Index (1980) as a measurement of empathy. Secondly, a self-report, social relationships questionnaire, developed for this research thesis, is used to examine research participants' past relationships and demographic data for potential correlations with their empathy measurements. The likert-style questionnaire attempts to derive the respondents' subjective views of the following: the presence or absence of

significant social relationships and the perceived strength of the relationships. For example, the presence of a strong maternal figure could be correlated with a higher level of individual empathic response. This thesis seeks to identify correlations between relationships and empathic development. This is relevant to this current research and to future study because empathy, a developmental process, could be positively impacted in an individual's ongoing developmental progression. For example, might it be possible to intervene in the empathic development of violent, criminal offenders? Could society create programs to introduce significant, social relationships into the prison system in an effort to increase the offenders' empathic measurement, while decreasing recidivism rates and improving societal safety? The answers to these questions constitute the basis and significance for this research, which could be further expanded to include all of these ideas.

### **Overview of Chapters**

Chapter I introduces the study to determine if a relationship exists between an individual's empathy measurement and the presence or strength of his/her significant, social relationships. Chapter II provides a review of literature pertinent to the study. Chapter III describes the methods and procedures guiding the collection and tabulation of relevant data. The findings from the data collection and tabulation are reported in Chapter IV. Finally, the presentation of the summary, conclusions, and recommendations based on the findings of the study is offered in Chapter V.

## Chapter II

### REVIEW OF LITERATURE

#### Introduction

In order to create a better understanding regarding the relevance of significant, social relationships on the development of the human empathic response, it is helpful to become familiar, first, with the multi-dimensionality of human development. According to various theorists including Brofenbrenner (2000), Engle (1977), Havighurst (1972, 1973), and Vygotsky (1926), development occurs throughout the life span in inter-related physical, cognitive, and socio-emotional domains. Physical development involves structural growth and decline of the body. Cognitive development includes psychological progression including information processing and logical reasoning. Finally, socio-emotional development involves the development of social relationships and emotional progression.

On the inter-relatedness of the three domains of development, Havighurst (1972) explains, "A developmental task is a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to ... happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulties with later tasks" (p. 2) (Havighurst, 1972, p. 331). In addition, Havighurst's theory (1972) explains that individual development occurs in the context of both individual needs and societal demands. Engle, a physician in the field of psychiatry, disputes the medicalization (exclusive physical focus) of disease, an aspect of individual development, in the following summary from his 1977 article:

The dominant model of disease today is biomedical, and it leaves no room within its framework for the social, psychological, and behavioral dimensions of illness. A biopsychosocial model is proposed that provides a blueprint for research, a framework for teaching, and a design for action in the real world of health care (p. 135).

To expand upon life span developmental theory, this thesis presents a review of literature including relevant developmental theorists' perspectives within each domain, physical, cognitive, and socio-emotional. A second major component to this literature review involves an examination of the empathic response, including various perspectives related to the development of the human's capacity for empathy. A third component relates to the examination of the literature relevant to social relationships in order to support the identification of specific relationships significant to this study. A fourth literature component relates to the examination of sociological theory, with particular emphasis on individual, symbolic interactionist theorists' sociological perspectives on social interaction and human behavior. A final aspect of the literature review involves the examination of various social relationships and their impact on the socio-emotional dimension of human development.

### **Life-Span Developmental Theory**

Through the study of life span development, it is clear that contemporary experts including Brofenbrenner (2000), Engle (1977), Havighurst (1972, 1973), and Vygotsky (1926) agree that development is multi-dimensional, occurring in physical, cognitive, and socio-emotional dimensions. In addition, contemporary life span developmental theorists (Erikson, 1979) embrace the idea that development continues from conception through death, with earlier experiences in life affecting the individual's developmental

progression. This contemporary view differs from the older, traditional perspective on development, which embraced the idea that developmental maturation occurred at the end of adolescence, rather than throughout the life span. Consequently, this thesis presents contextual, multi-dimensional, life-span developmental information relevant to the problem of this study. An explanation of the three dimensions, physical, cognitive, and socio-emotional will follow. This is relevant to current and future research, because it could be theoretically possible to intervene in an individual's developmental processes to correct an empathic deficit from earlier life stages.

### **Cognitive Development**

In human development over the life span, cognitive development can be summarized in the following manner:

. . . cognitive development, seeking to understand how growth and change in intellectual capabilities influence a person's behavior. Cognitive developmentalists examine learning, memory, problem solving, and intelligence. For example, specialists in cognitive development might want to see how problem-solving skills change over the course of life, if cultural differences exist in the way people explain their academic successes and failures, or how traumatic events experienced early in life are remembered later in life (Feldman, 2009, p. 5).

Therefore, this thesis argues the cognitive dimension of development is integral to both the formation of the individual's empathic response and to the behavioral choices to which he commits. To further expand upon this premise, ideas from Piaget and Havighurst, cognitive theorists in reasoning development and cognitive maturation through experience, respectively, are presented to support the population represented in this study.

## **Cognitive Theorists – Piaget and Havighurst**

Jean Piaget's work (1952) forms one basis for the population of this study for the purpose of eliminating the extraneous variable that would result from not having participants from the same levels of cognitive development. In order to insure the appropriate consideration of individuals from similar levels of development, this thesis offers a broader review of literature relevant to additional theories of human growth and development. The purpose is to better support the selection of the population from which the participants of the study would be selected. Consequently, the literature review includes principles from Piaget, Havighurst, and the ideology common to other theories.

Learning theory, a component of cognitive development recognizes that the ability of an individual to progress psychologically and to successfully learn is based upon many factors. According to Ornstein and Hunkins, cognitive development, in general, is age-related, sequential, based upon past growth, and dependent upon the capacities of the student (1998). Various cognitive development theorists apply these factors differently in their explanation of individual psychological progression.

Piaget is credited with a comprehensive cognitive development theory that progresses in four stages with increasing complexity from birth to maturity (Ornstein & Hunkins, 1998). These stages are characterized as sensorimotor (from birth to age two) in which object permanence and object relations are developed, preoperational (age two to seven) where symbolism and complex concepts from experience are developed, concrete operations (age seven to eleven) in which logical and concrete relationships are understood, and formal operations (age 11 onward) in which abstract concepts are



understood logically (Piaget, 1952). “Piaget’s cognitive stages presuppose a maturation process in the sense that development is a continuation and is based on previous growth” (Ornstein & Hunkins, 1998, p. 109). This idea of hierarchical, progressive, cognitive development supports this thesis’ examination of individuals in only one stage, formal operations, for the purpose of narrowing the population for the study.

In Robert Havighurst’s theory of cognitive development, he identified tasks adolescents must perform in their progression to maturation (1972). Havighurst explained these tasks in a multi-dimensional context which included physical maturation, cultural pressure (including societal expectations), and individual aspirations or values. Baumgartner wrote about these tasks as “teachable moments” in reference to learning theory (2001). She explained that instructors have to identify moments in which individuals are open to learning as a result of their current life situation. These ideas support the inter-relatedness of the physical, cognitive, and socio-emotional dimensions of development. Furthermore, the ideas support the concept of progressions in development, in which life experiences in one stage of development can impact an individual’s overall developmental progression. This theory represents another progressive, hierarchical, developmental pattern that supports the need for the identification of a population sharing the same stage of cognitive development for the purpose of ensuring that valid data comparisons are made.

Cognitive theory is used to narrow the population for this research. Piaget’s principles are applied for the identification of the population. Piaget’s description of defining characteristics shared by individuals in each stage of cognitive development make it possible to identify appropriate subjects for participation in the research.

Consequently, a population consisting of college students assumed to be sharing formal operational cognitive characteristics is utilized. Havighurst's theory (1972) related to cognitive maturation and Baumgartner's ideas related to "teachable moments" (2001) both support the premise that the developmental process is progressive and malleable. These theories support the inclusion of subjects in the population.

### **Physical Development**

According to research by Thompson & Nelson (2001), and Toga & Thompson (2003), the growth and maturation of the brain and the development of cognitive functioning are related. Their research studies, as described by Feldman (2009), assert the following premise: "As the number of neurons (the cells of the nervous system) continues to grow, and their interconnections become richer and more complex, adolescent thinking becomes more sophisticated" (p. 267). A further description of brain growth offers the following support for the inter-relatedness of brain development and cognitive functioning:

The prefrontal cortex of the brain, which is not fully developed until the early 20s, undergoes considerable development during adolescence. The prefrontal cortex allows people to think, evaluate, and make complex judgments in a uniquely human way. It underlies the increasingly complex intellectual achievements that are possible during adolescence (Feldman, 2009, p. 267).

Research from Weinberger, 2001, and Steinberg & Scott, 2003, relates to cognitive aspects of impulse control:

The prefrontal cortex also provides impulse control. An individual with a fully developed prefrontal cortex is able to inhibit the desire to act on such emotions as anger and rage. In adolescence, however, the prefrontal cortex is biologically immature; the ability to inhibit impulses is not fully developed. This brain immaturity may lead to risky and impulsive

behaviors that characterize adolescence – and some behaviors that are even more extreme (Feldman, 2009, p. 267).

Because cognitive development occurs throughout the life span, this thesis considers the cognitive aspect of empathic development as potentially malleable and impacted by social experiences. Consequently, it could be theoretically possible, with future research, to examine whether an individual with low empathy measurements, who acts impulsively and without regard to others, could benefit from social programs (mentoring, etc.) that could impact his physical brain development, resulting in improved cognitive functioning. Theoretically, this could impact his empathy and improve his relationships with others. This possibility is relevant to the current research, because the population includes college aged adults whose brains have matured, according to cognitive theory. Should the current research find a positive relationship between empathy and social relationships, future, similar research with adolescents could be justified for the purpose of altering their social experiences to impact empathic development.

### **Socio-Emotional Development**

Socio-emotional development, which includes personality formation, is a third component of life span development. This is an integral aspect of both the individual's empathic response and his significant, social relationships. Individual socio-emotional characteristics and personality traits are important, in that such characteristics distinguish people, one from another, illustrating individualism. According to Feldman, socio-emotional development is:

The way in which individuals' interactions and relationships with others grow, change and remain stable over the course of life. A developmentalist interested in personality development might ask whether

there are stable, enduring personality traits throughout the lifespan, while a specialist in social development might examine the effects of racism or poverty or divorce on development (Feldman, 2009, p. 6).

Consequently, this thesis offers ideas from socio-emotional theorists, Erikson and Kohlberg, for the purpose of providing a contextual examination of empathy, social relationships, and developmental theory. This is relevant to the current research, because this thesis asserts, empathic development could be related to social relationship experiences.

### **Erikson's Psychosocial Development**

Erik Erikson is credited with one of the earlier theories of psychosocial development, which was distinct from his predecessors, including Freud. He defines psychosocial development as an ongoing process occurring throughout the life span. He summarizes his theory as follows:

I shall present human growth from the point of view of the conflicts, inner and outer, which the healthy personality weathers, emerging and re-emerging with an increased sense of inner unity, with an increase of good judgment, and an increase in the capacity to do well, according to the standards of those who are significant to him (Erikson, 1979, p. 53).

Within the framework of his theoretical perspective, Erikson (1979) also supports a progressive, stage-oriented view of psychosocial development, which includes personality formation:

Personality can be said to develop according to steps predetermined in the human organism's readiness to be driven toward, to be aware of, and to interact with, a widening social radius, beginning with the dim image of a mother and ending with mankind, or at any rate, that segment of mankind which "counts" in the particular individual's life (Erikson, 1979, p. 54).

These stages, according to Erikson, are crises to be mastered. These stages are: Basic Trust Vs. Mistrust (infancy), Autonomy Vs. Shame and Doubt, Initiative Vs. Guilt, Industry vs. Inferiority (all childhood stages), Identity Vs. Identity Diffusion (adolescence), Intimacy Vs. Isolation, Generativity Vs. Stagnation, and Integrity Vs. Despair (all adulthood stages). The stages occur throughout the life span. An individual confronts each stage, or crisis, and either masters or fails to master each stage (1979).

Progressive development is implied by Erikson's theory, because the mastery or lack of mastery of each stage affects the individual's subsequent mastery or lack of mastery of the stages that follow. The multi-dimensionality of development is implied in Eriksonian theory, because the individual confronts each stage in the context of his environment and his personal perception. Erikson summarizes support for these ideas in the following passage:

A baby's presence exerts a consistent and persistent domination over the outer and inner lives of every member of a household. Because these members must reorient themselves to accommodate his presence, they must also grow as individuals and as a group. It is as true to say that babies control and bring up their families as it is to say the converse. A family can bring up a baby only by being brought up by him. His growth consists of a series of challenges to them to serve his newly developing potentialities for social interaction. Each successive step, then, is a potential crisis because of a radical change in perspective (Erikson, 1979, pp. 56-57).

Erikson's stages of Trust Versus Mistrust in infancy through Identity Versus Identity Diffusion in adolescence form one foundational aspect for the current research. Erikson concludes that the individual's experiences, perceptions, and relationships affect the mastery or lack of mastery of each stage, therefore affecting the formation of individual identity by early adulthood. This is relevant, because the formation of the

empathic response, this thesis argues, is a component of a healthy, personal identity.

Erikson summarizes the importance of Identity Versus Identity Diffusion is as follows:

The emerging ego identity, then, bridges the early childhood stages, when the body and the parent images were given their specific meanings, and the latter stages, when a variety of social roles becomes available and increasingly coercive. A lasting ego identity cannot begin to exist without the trust of the first oral stage; it cannot be completed without a promise of fulfillment which from the dominant image of adulthood reaches down into the baby's beginnings and which creates at every step an accruing sense of ego strength (Erikson, pp. 96-97, 1979).

This summarizes the interrelatedness of personal relationships, subjective experiences, developmental processes, and the formation of empathy.

### **Kohlberg's Moral Development**

Kohlberg's theory of moral development (1969) consists of three stages. In his pre-conventional stage (stage 1) he argues children will act in a way that depends on physical punishment (i.e., what are they punished or rewarded for). In the conventional level (stage 2), he emphasizes the individual conforms for the purpose of supporting social order (i.e., behaving in a certain way because the law says one should). In stage 3, the post-conventional level, an individual behaves without autonomy and according to personally held beliefs, rather than conformity with social expectations (Kohlberg, 1969).

According to psychological research, moral development certainly relates to the cognitive domain of life span development. This thesis uses Kohlberg's theory of moral development to form the foundation for the study of the inter-relatedness of social and psychological dimensions of life span development. Morality, more commonly known as a sense of right and wrong, indicates a behavioral application, implying an individual's

action or reaction within the context of a social relationship or situation. This inter-relatedness of behavior and situationism supports the multi-dimensional characteristic of life span development. One's sense of morality seems to be rooted in how he processes information in the cognitive dimension, how he has learned how to treat others in the socio-emotional dimension, and how he experiences emotion in the biological dimension. According to Kohlberg, correlations among different developmental domains certainly exist in the context of moral development, and he describes this as follows:

Is moral development correlated with cognitive development? From various studies, correlations from .30 to .50 have been found for 12-year-olds between group IQ scores and moral judgment level, showing that there is a cognitive base to moral maturity. The relation of moral judgment to intellectual development is suggested by the fact that our stage definitions assume that Piagetian concrete operations are necessary for conventional morality and that formal operations are necessary for principled morality. . . The Piagetian rationale just advanced as well as other considerations, suggests that cognitive maturity is a necessary, but not a sufficient condition for moral judgment authority (Manaster, 1989, pp. 62-63).

It appears that it is not the cognitive stage, once formal operations are attained, that determines whether a person makes moral judgments from a perspective of social contract and high law or a perspective of universal ethical principles individually held. Rather, it must be personal differences in motivation, background, and experience that allow formally operational persons to reach the highest stages of morality (Manaster, 1989, pp. 62-63).

Kohlberg's positions support this thesis' assertion that a person's experiences and relationships profoundly impact the manner in which the individual chooses to behave, either empathetically or not. His choices, therefore, either conform to societal norms or deviate from them, largely based on the strength of his moral compass and the degree to which he experiences empathy in his interactions with others. This forms one foundational aspect of the current research which considers the existence of a relationship

between social interactions and empathy. Future research could build upon a correlational finding to study the relationship between empathy and behavior.

## Empathy

Empathy is often informally characterized as the ability to “put oneself in the place of another” or to “walk in another’s shoes.” Contemporary psychological and sociological theorists characterize empathy through differing fundamental viewpoints, some of which are affective (Stotland, 1969), some cognitive (Kohler, 1929), and some combining the two in the context of social interaction (Davis, 1994).

An affective definition offered by Stotland (1969) is “an observer’s reacting emotionally because he perceives that another is experiencing or is about to perceive an emotion” (p. 272). Davis, in his book Empathy A Social Psychological Approach, identifies Kohler’s work (1929) as one of the first to move from the affective orientation to a cognitive one. On Kohler, Davis (1994) writes, “Rather than continuing to focus on ‘feeling into’ the experiences of another, Kohler held that empathy was more the understanding of others’ feelings than a sharing of them” (p. 6). Davis’ empathy research explores the theoretical progression from the solely affective and cognitive derivations of empathy to include the combination of the two in an integrated social experience. Davis (1994) argues that Piaget (1932) and Mead (1934) both “emphasize a primarily cognitive process in which the individual suppresses his or her usual egocentric outlook and imagines how the world appears to others” (p. 6). Davis (1994) further explains, “In both cases this process is said to underlie later cognitive development, and in both cases it is thought to make possible more effective, less contentious social interactions” (p. 6). Hoffman’s updated approach to the concept of empathy (1977) encompasses the three,



previously-described domains and states and describes empathy as “an affective response more appropriate to someone else’s situation than to one’s own” (Davis, 1994, p. 8).

This research is based in the context of the modern view, requiring the collective consideration of the emotional feeling, judgment and decision-making, and social interaction that the psychological and sociological literature supports. This facilitates a full exploration of empathy as a multi-faceted phenomenon, having developmental, relational, cognitive, and affective components.

Bartol and Bartol argue that “an innate predisposition to empathy (Hoffman, 1977)” suggests evidence of an affective component. This is inferred from research findings describing the increased tendency of female newborns, over males, to cry in response to the sound of another infant’s cries, thus suggesting a “constitutional precursor to empathy” (Bartol & Bartol, 1986, p. 239). Additionally, Bartol and Bartol (1986) suggest “females might be biologically programmed to react empathetically to the plight of others” and that “this predisposition is attenuated or accentuated by the social environment during childhood development” (p. 239). This idea forms the foundation for the examination of gender in the current research.

Bartol and Bartol reference Morash’s work (1983) regarding the developmental and social nature of empathy:

The family is especially important in developing concern, empathy, and an other-oriented perspective in its young members. While it also develops morality, fairness, and justice, outside institutions such as the school or the church appear to be highly influential as well.

Disorganized, unstable families with parents whose own sense of fairness and empathy are not highly developed are more likely to

produce future generations with similar orientations toward others (Bartol and Bartol, 1986, p. 120).

This thesis is built upon a foundation described in the following passage, taken from Hoffman's work (1977) and described by Davis. This summarizes the premise that the formation of the empathic response occurs as a result of biological, cognitive, developmental, and social processes.

Within his larger theoretical framework, Hoffman also addresses a number of other important constructs related to empathy. In brief, children are said to move developmentally from a stage in which they have no sense of a self-other distinction, reacting to the distress of others with a personal distress of their own, to a more advanced state in which the growing cognitive sense of self allows the child to experience both a self-oriented distress and a more advanced distress experienced for other people. As role-taking skills develop, this other-oriented distress increasingly becomes a form of true compassion for others. Thus, Hoffman's theoretical framework encompasses cognitive role-taking, personal feelings of distress created by others' distress, and feelings of sympathy/concern for the other, all of which qualify as empathy on one or more theoretical schemes (Davis, 1994, p. 9).

Additional research focuses on the relationships among empathy, moral reasoning, and social behaviors. This illustrates the premise that emotion, cognition, and social interaction are relevant factors to individual, empathic development. Eisenberg, Lennon, and Roth (1983) described a five-stage developmental process in this integrated context, which was detailed in Eysenck's work. Children up to seven-years-old are self-centered and mainly concerned for themselves. Children between seven and eleven are needs-oriented, considering others' needs, but fail to experience guilt if help is not given to those in need. Eleven to fourteen-year-olds seek approval and are willing to help for a reward of praise or approval. Children twelve and above become empathic and are

concerned with what is right, sympathize with those in need, and experience guilt if help is not given. Finally, the researchers describe individuals sixteen and above as exhibiting helping behaviors based upon internalized values and beliefs (Eysenck, 2000, p. 586). Although children have an innate, biological tendency toward emotional expression, this theory underscores the integration of all components in order to fully appreciate the empathic response.

Eckman and Friesen (1971) assert that there is an innate aspect of basic, emotional expression that is inborn. However, it would seem more logical that the developmental, cognitive, and social aspects of the empathic response are, in fact, malleable. Experiencing positive social interactions in childhood could impact the depth of the child's feeling and/or expression of empathy toward others. Fundamentally, a child could benefit from either experiencing another person's empathic response toward him or from watching significant others in his life who practice interacting with others from an empathetic perspective. One foundational premise of this thesis is that social relationships and experiences could be impactful to the formation of empathy. Should the relationship between empathy and social experiences be found in the current research, future research could examine whether social intervention programs throughout life stages could impact empathic responsiveness.

It seems logical to link empathy and social behavior, and research has dealt with the narrower relationship between empathic response and criminal behavior. Lauterbach and Hosser (2007) conducted research to explore empathy, aggression, and offending, and the following is an excerpt from their "Empathy in Prisoners" research:

Empathy is seen as a precursor to prosocial behavior and motivation (Eisenberg & Miller, 1987) whereas lack of empathy is regarded as a cause of antisocial and delinquent behavior and appears to be related to aggression, impulsiveness, geocentricism, and acts of violence. Deficits in empathy are frequently assumed to allow the perpetrator to dissociate from the victim, suppress his awareness of the victim's distress, and divorce himself of feelings of guilt and shame (Abel et al., 1989). Conversely, high empathy skills are regarded as a protective factor and inconsistent with the commitment of violent acts. For this reason, many in- and out-patient treatment programs for offenders contain modules that aim at enhancing empathy skills (p. 6).

Their research further explains empathic deficiencies:

Generally, people with deficits in empathic capacity have difficulty comprehending other people's thoughts and feelings, are more egocentric and less willing or able to suppress their aggressive incentives or to anticipate the consequences of their actions toward others (Farrington, 1998; Zahn-Waxler, Cole, Welsh, & Fox, 1995). An extreme example is the concept of psychopathy, in which lacking empathy is regarded as a cause for unscrupulousness, a strong disposition towards violence, and high recidivism rates (Jolliffe & Farrington, 2004). Davis (1996) assumes that cognitive and affective forms of empathy, namely perspective taking and empathic concern, have an inhibitory effect on aggression. When provoked, a person might find alternative, less hostile interpretations of the other person's behavior via perspective taking, and sharing a victim's distress or experiencing concern for the victim should lead to a reduction in aggressive actions in order to reduce the perpetrator's own distress and concern. However, the victim's distress cues can sometimes reinforce aggressive behavior. For example, if the aggression is hostile rather than instrumental (Baron & Richardson, 1994), harming the victim is the desired outcome of the violent act, and the victim's distress cues may therefore work as an indicator of success. Additionally, shared distress may lead to the continuation of violent behavior because people with negative affect tend to show higher levels of aggression (Davis, 1996) (Lauterbach & Hosser, 2007, p. 66).

This consideration of empathy and offending is important in the context of the current research, because this thesis is concerned with the relationship between empathy and social interactions. Criminal behavior seems to be a natural extension of human development, empathic response, and social interaction, all of which could guide future research.

## Sociological Theory

### Mead's Learning To Take the Role of the Other

Mead argued that individuals learn how to participate in society through the process of socialization (1934). Kendall explains Mead's theory on role-taking as "the process by which a person mentally assumes the role of another person or group in order to understand the world from that person's or group's point of view" (2008, p. 117). This theory seems to be aligned with the social aspect of the development of the empathic response through the process of socialization. Kendall summarizes, "Socialization is a two-way process between society and the individual. Just as the society in which we live helps determine what kind of individuals we will become, we have the ability to shape certain aspects of our social environment and perhaps even this larger society" (2008, p. 119). Mead's theory of socialization through role-taking as described in his Mind, Self and Society occurs in different stages of development. These are as follows: the infant associates with significant others who, through nurturing, impact self-concept development, the individual then develops a sense of self differentiated from significant others, the self-concept forms, the individual's sense of self divides into subjective and objective aspects where he recognizes the impact of actions he takes and of those taken against him, and finally, he develops the concept of the generalized other, which is described by Kendall as "the child's awareness of the demands and expectations of the society as a whole or of the child's subculture" (2008, pp. 117-119). Mead further explains, in his book, that these stages occur throughout childhood as the child imitates others, then plays the role of specific people, and, through cooperative and social play,

finally learns the roles and expectations for himself and for others in generalized social situations (1934). Mead's theory states that individual behavior toward others in micro-sociological interactions is shaped by the individual's view of others and the presence or absence of his understanding and/or care related to the impact of his actions on others.

### **Symbolic Interactionist Sociological Perspective**

The symbolic interactionist perspective analyzes how people create and use symbols to develop and share views of the world (Henslin, 2007, pp. 21-23). This perspective is a microsociological approach, considering ways in which individuals and small groups create, disseminate, and/or interpret "reality" through everyday interactions.

Symbolic interactionism focuses on small, face-to-face, intimate interactions among people. Henslin provides a practical example for the symbolic interactionist perspective in the context of divorce (2007). He argues husbands and wives have redefined the terms marriage, divorce, family, and work, and these redefinitions have contributed to increasing divorce rates. Therefore, intimate relationships between husbands and wives have changed as a result of the following changing symbols: wife (cooking/cleaning/mothering or partner/co-provider for the family), divorce (wrong to do/stay for children or better to be happy than married for the sake of children or religion) (Henslin, 2007, pp. 21-23).

It is a central assumption of this thesis that changing symbols, which result from intimate relationships, are vital to an individual's development of empathy. If a child's immediate world is one which teaches him that it feels good to be cared about and to care for others, he could be more likely to internalize those ideas. Therefore, through his

socialization, his concept of self could grow to include positive ideas about his role and manner related to the treatment of others. Conversely, if a child's immediate world is one in which he learns that he and his feelings are meaningless to others, he could grow to internalize a lack of feeling, therefore creating a lack of concern for others or his treatment of them. These potential outcomes are relevant to the child's eventual development into an autonomous individual who relates to others on the combined basis of both nature and nurture. The nature component results from innate emotional responses. Nurture includes social expectations and cognitive processes, both of which are socially constructed. The potential ramifications of these ideas could be relevant to future research considerations related to individuals' normative and deviant behavioral choices in the context of their empathic response level.

The symbolic interactionist perspective could be used to guide future research related to empathy and social relationships. The symbolic interactionist approach, which relates to this thesis' examination of social relationships, could be extended to the future study of criminal behavior and empathy. Crime often occurs as the result of small group, face-to-face interactions between or among people in intimate relationships. In studying these intimate interactions, it could be revealing to consider the symbols perpetrators create, as a result of past, intimate, social experiences, and apply to others in the "relationships" that exist in the context of the perpetrator's criminal behavior. Mead's ideas could guide the future study of the impact of small-scale, micro-sociological relationships in a perpetrator's history to determine whether or not such interactions are related to measurements of perpetrators' empathy. Specifically, it could be useful to consider not only the presence or absence of significant, childhood relationships, but also

the individual's subjective characterization of the relationship. Such application of these theories could be quite compelling to the sociological examination of crime and the individual who becomes the criminal.

## **Social Relationships**

### **Parental or Quasi-Parental Relationships**

Because of the sociological and psychological literature's support for the social requisites related to empathic development, this paper asserts that the most significant social relationship is the one between mother and child. Additionally, it is a reasonable premise that, in the absence of the biological mother in a child's life, a significant female can assume a maternal role, therefore providing relevant social guidance to the child. As described in Eysenck's Psychology, research by Zahn-Waxler, Radke-Yarrow, and King (1979) established an influential relationship between empathy and pro-social behavior in early childhood. Eysenck (2000) summarizes the research in the following passage:

Many children aged between 18 and 30 months showed obvious concern when they saw other children in distress. The infants experienced some aspects of empathy because their mothers had a particular way of dealing with them when they harmed another child. Their mothers emphasized the distress that their behavior had caused to the other child. The mothers said things such as, "Don't hit Mary – you've made her cry" or "Put that bat down – you've hurt John" (p. 587).

This research conclusion, supports this thesis' exploration of a potential correlation between empathic measurement and a childhood maternal influence. Additionally, it is the premise of this thesis that the parental relationship, in general – maternal or paternal, is relevant for consideration because the family is likely the most influential agent of socialization. The purpose would be to determine if, in fact, the presence or absence of a



parent or parent-figure relates, quantifiably, to the individual's empathic response measurement.

### **Observational Learning Through Childhood Peer Relationships**

The media has often been characterized as a significant, developmental influence. O'Connor's (1980) research, as described by Eysenck (2000), provides evidence that observational learning through visual media has the potential to produce beneficial, social changes in behavior.

Children who avoided playing with other children were shown a film of children playing happily together. Every child who saw the film played more with other children afterwards, and this effect seemed to last for a long time (p. 591).

Other research providing evidence of increased pro-social or helping behavior in children has been summarized by Eysenck (2000):

Friedrich and Stein (1973) studied American preschool children, who watched episodes of a pro-social television program called *Mister Rogers' Neighborhood*. These children remembered much of the pro-social information contained in the programs, and they behaved in a more helpful and cooperative way than did children who watched other television programs with neutral or aggressive content. They became even more helpful if they role-played pro-social events from the programs (p. 591).

This thesis argues that this research supports the exploration of several types of social interactions in childhood as having potential relationships with empathic measurement. Even though the research above relates to observational learning through media sources, this thesis explores observational experiences which could simulate social interaction experiences. Consequently, it would seem reasonable to conclude that real, interactive social experiences have even greater relevance to the development of empathy

through social relationships. Such relationships could include both peer and sibling relationships. Therefore, this thesis argues both peers and siblings provide relational opportunities for childhood observation, interaction and, subsequently, the development of empathy.

### **Animal Relationships**

It is commonly thought that people have unique, special relationships with their pets, powerless and dependent on humans for care. Eysenck cites relevant research by Sprafkin, Liebert, and Poulos (1975) in which six-year-olds were studied:

Some of the children watched an episode of *Lassie*, in which a boy was seen to risk his life in order to rescue a puppy from a mine shaft. Other groups of children saw a different episode of *Lassie*, in which no helping was involved, or they saw an episode of a situation comedy called *The Brady Bunch*. After watching the program, all of the children had the chance to help some distressed puppies. However, to do so they had to stop playing a game on which they might have won a big prize. The children who had watched the rescue from the mine shaft spent an average of over 90 seconds helping the puppies, compared to under 50 seconds by the children watching the other programs (Eysenck, 2000, p. 591).

Although this research relates to observational learning through television media, this thesis asserts the relevance of the research extends beyond childhood observation and can be extrapolated to the family-pet dynamic. Because domesticated pets are completely dependent on people to provide for their basic needs and nurturing, this thesis offers the premise that the child/pet and family/pet relationships also provide a unique opportunity for a person's development to be influenced, emotionally and cognitively, as it relates to his empathic response. Therefore, a potential correlation between empathic measurement

and the presence or absence of a child/family/pet relationships could be meaningful to the consideration of individual development.

### **Grandparent Relationships**

According to Eysenck (2000), “Altruistic behavior may involve many years of commitment rather than a brief impulse” (p. 588). This statement nicely creates the foundational support for the importance of the grandparent/child relationship or the quasi-grandparent/child relationship. Baston’s work (1987) states:

According to his empathy-altruism hypothesis, altruistic or unselfish behavior is motivated mainly by empathy. He claimed that there are two main emotional reactions that occur when we observe someone in distress (adjectives describing each reaction are in brackets): Empathic concern: a sympathetic focus on the other person’s distress, plus motivation to reduce it (compassionate, soft-hearted, tender) and personal distress: concern with one’s own discomfort, plus the motivation to reduce it (worried, disturbed, alarmed) (Eysenck, 2000, p. 587).

This perspective aligns nicely with the consideration of aging adults who could, as a result of declining health or mobility, be more likely to need assistance. Therefore, the grandparent relationship is a natural progression for examination, this thesis asserts, because there is great potential, in the grandparent-grandchild relationship, for an individual to have the opportunity to participate in or to witness ongoing care for someone distressed due to declining ability or health. Eysenck’s statement (2000), which follows, offers support for this examination:

The experimental evidence relating to the empathy-altruism hypothesis is rather limited in some ways. The focus has been on short-term altruistic behavior that has only a modest effect of the participants’ lives. This can be contrasted with real life, in which altruistic behavior can involve providing almost non-stop care for an aging relative for several or many years (p. 588).

This thesis asserts that the presence of this unique relationship dynamic offers the opportunity for an individual's empathic development to be impacted. Furthermore, this grandparent/grandchild relationship should be examined for possible correlations with quantifiable measurements of empathy.

## **LITERATURE REVIEW CONCLUSIONS**

In offering this extensive review of literature, this thesis seeks to provide support for the current study, and to offer suggestions for the future utilization of this research. First, this literature review focuses on the multi-dimensionality of life span development, which occurs in physical, cognitive, and socio-emotional domains. This biopsychosocial approach is relevant to the problem of this study, because this thesis asserts a relationship could exist between social interaction experiences and empathy, which has affective and cognitive derivations. This thesis accepts the scientific literature, which supports the inter-relatedness of the three developmental domains and asserts that both empathic responses and social interactions with others are affected by physical, cognitive, and socio-emotional forces unique to each individual's development. Additionally, this literature review makes it evident that since development is lifelong, it could be possible to intervene in an individual's development with socially constructed experiences designed to improve empathic responses and social interactions.

Secondly, this literature review examines empathy in order to: provide the relevant background supporting the foundational premise of this study, to justify the utilization of the current research to support the future study of the empathic response as a process that could be positively impacted during the life span developmental process,

and to illustrate the premise that empathy is derived from physical, cognitive, and socio-emotional forces in human development.

Thirdly, the sociological literature review is presented to examine social interaction through the filter of symbolic interactionist theory, which focuses on micro-level interactions impacted by the individual's social construction of reality throughout the developmental process. The literature suggests physical, cognitive, and socio-emotional forces impact the symbols individuals use to guide their interactions with others. These interactions, which could be examined in future research, could include empathic responses toward others or a lack of empathy for others, which could result, at the most extreme, in violent, criminal behavioral responses.

Finally, the literature suggests that specific social relationships affect the individual's life span development and, consequently, the individual's capacity for empathic response toward others. This component of the literature review forms the foundation for the current research premise. To establish a direction for future research, social relationship literature was also included for the identification of potential opportunities for interventions in an individual's life span developmental process, which could have the potential to impact an individual's level of empathy. Should relationships be found to correlate with empathy, it could be theoretically possible to introduce violent criminals to relationship-oriented programs having the potential to increase the offender's capacity for empathy toward others.

## **CHAPTER III**

### **METHODS AND PROCEDURES**

#### **Introduction**

The problem of this study was to determine whether or not a relationship exists between community college students' empathy scores and the strength of their self-reported social relationships with parents/parental figures, peers, animals, and/or grandparents. This chapter provides a description of the research methods and procedures employed to collect and analyze the data gathered from community college students in university transfer psychology and sociology classes.

#### **Sample**

The sample for this study consisted of 126 volunteer, student participants from psychology and sociology classes at a North Carolina community college. All respondents were promised confidentiality, and no identifying information was collected. The students were actively enrolled in various psychology and sociology classes during the 2010 Spring semester. The participants were limited to individuals over the age of 16, the required age for enrollment. All college psychology and sociology students who volunteered to participate and were over the age of 16, as determined by admission requirements for the college, were allowed to do so.

## **Research Variables**

The respondents were instructed in social science classes from the same college. Questionnaires were administered with the instructor providing instructions to the voluntary participants. The participants were all 18 or over the age of 18.

The determination of the students' empathic score was measured by Davis' Interpersonal Reactivity Index (1980), a validated instrument of empathy measurement. The determination of the students' personal relationship strength was measured using the Personal Relationships Questionnaire, developed for this study. The results from both instruments were then used to determine whether or not an empathy measurement would correlate with the self-reported strength of an individual's personal relationships.

### **Instrument Use – Interpersonal Reactivity Index**

The Interpersonal Reactivity Index (IRI) (Davis, 1980), was the scientifically reliable and validated instrument utilized by the researcher to collect a measurement of individual participants' empathy. The Interpersonal Reactivity Index is:

...a 28-item questionnaire consisting of four discrete, seven-item subscales. The fantasy scale (FS), which includes the three items from Stotland's (Stotland, Matthews, Sherman, Hansson, & Richardson, 1978) Fantasy-empathy scale, appears to tap the tendency to imaginatively transpose oneself into fictional situations (e.g., books, movies, daydreams). The second subscale, the perspective-taking scale (PT), on its face seems to reflect an ability or proclivity to shift perspectives – to step “outside the self” – when dealing with other people. The items comprising this scale refer not to fictitious situations and characters, but to “real life” instances of perspective taking. The other two subscales explicitly deal with individual differences in emotional responses to observed emotionality in others. The first of these, the empathic concern scale (EC), consists of items assessing the degree to which the respondent experiences feelings of warmth, compassion, and concern for the observed

individual. The personal distress scale (PD), on the other hand, measures the individual's own feelings of fear, apprehension, and discomfort at witnessing the negative experiences of others.

Items from the four subscales were randomly ordered to produce the final, 28-item version of the empathy measure. Respondents indicated for each question how well the item described them on a five-point scale anchored by 0 (does not describe me well) and 4 (describes me very well) (Davis, 1980, p. 12).

Davis (1980) reported information regarding the psychometric properties, reliability and validity, of the Interpersonal Reactivity Index as follows:

All four scales have satisfactory internal and test-retest reliabilities (internal reliabilities range from .71 to .77; test-retest reliabilities range from .62 to .71). As with virtually all other empathy measures, significant sex differences exist for each scale, with females scoring higher than males on each of the four scales (p. 117).

A copy of the Interpersonal Reactivity Index can be found in Appendix B.

### **Instrument Use – Personal Relationships Questionnaire**

The Personal Relationships Questionnaire was developed for this research. The psychometric properties for the Personal Relationships Questionnaire have not been validated. The subjective, self-report instrument was developed by the researcher based upon a literature review of relevant information from the field of developmental psychology or life span development. From the literature, social relationships impacting the individual's physical, cognitive, and/or socio-emotional development were identified. The result was an 18-item instrument, seeking a subjective view of the individual's relationships with parental figures, peers, pets, siblings, and grandparents. For each question, the respondent was asked to rate how well each item related to him, with A (having a score of 0) not describing him well and E (having a score of 4) describing him



very well. This was consistent with the rating method for the Interpersonal Reactivity Index. A copy of the Personal Relationships Questionnaire can be found in Appendix C.

### **Instrument Use – Demographic Data**

Finally, various demographic data were gathered and included: occupation, gender, age (in categories, e.g., 18 to 25), frequency of church attendance, preference for face to face or technological communication, and the number of children. Occupation, church attendance, and communication preference were selected, because each is a behavioral choice that seems be related to empathy. Gender and age were selected, because the literature indicated such demographics could be linked to empathy level. Finally, the individual's number of children was selected, because it seems plausible that becoming a parent could be related to empathy. This information was collected for the potential purpose of future correlational research, studying individual demographic factors for a potential correlation with empathy measurement. A copy of this instrument can be found in Appendix D.

### **Field Procedures and Methods of Data Collection**

Because the data collected for this study were generated from the IRI and the Personal Relationships Questionnaire, both self-report instruments, the procedures for data collection were not complicated. First, permission was sought and obtained from Mark Davis, the creator of the IRI (1980), to utilize the instrument in the current research. Secondly, permission was sought and obtained from community college administration to conduct the research by offering members of psychology and sociology classes the opportunity to voluntarily participate. The permission to proceed was granted from the

Vice President of Instruction and from the Dean of General Education and Developmental Studies.

After permissions were obtained, the instrument was then distributed to the members of the classes who elected to participate or not, voluntarily. Verbal instructions were given explaining the likert scales for the two instruments, pointing out that a response of A would indicate the item does not describe one well and E would indicate the item describes one very well. The volunteers were instructed that they should not put names on the questionnaires and that there should be no identifying information on the instruments. Participants were asked to carefully consider each item and to provide their best responses to each item, taking the questionnaire seriously and answering each item to facilitate better research results. Time was given in each class for respondents to complete the questionnaires. All participants were promised anonymity and confidentiality. The instruments were collected by the instructor for tabulation and analysis.

### **Statistical Analysis**

This research was conducted utilizing the individual results from the Interpersonal Reactivity Index (Davis, 1980), the researcher's Personal Relationships Questionnaire, and the non-identifying demographic data questionnaire. For each instrument, individual responses were scored, based on the likert scale responses, and tabulated. After all individual instruments were scored, the results were collectively summarized in a spreadsheet. Results were reported in the form of scores for individual instruments, derived from the scoring and summarization of actual, item responses. Spearman's Rho, a correlational analysis, was then performed to indicate the presence or absence of

relationships, not causal factors, between empathy scores and the collective strength of significant, personal relationships.

### **Summary**

Chapter III outlined the methods and procedures utilized by the researcher to conduct this study. The results and statistical analyses generated from these research methods and procedures was detailed in Chapter IV of this study.

## **CHAPTER IV**

### **FINDINGS**

#### **Introduction**

The purpose of this study was to determine the relationship between measures of empathy and the strength of significant, personal relationships of community college students enrolled in psychology and sociology courses. Chapter IV presents instrument results derived from both empathy and personal relationships questionnaires and concludes with a summarization of the correlational research analyses.

#### **Response to the Interpersonal Reactivity Index Instrument**

The original research sample consisted of 131 community college students in psychology and sociology classes. Of the 131 student sample, 125 completed Mark Davis' Interpersonal Reactivity Index (1980) questionnaires for an overall 95.4% response rate. Two instruments were deemed unusable by the researcher due to the students' failure to complete one of the two included instruments needed to fulfill the consideration of the problem of this research. Therefore, the final sample size was 123, and the final response rate was 123 out of 131 questionnaires, or 93.9%.

#### **Interpersonal Reactivity Index Instrument Response Results**

The Interpersonal Reactivity Index (Appendix 2) consisted of 28 forced choice, likert-style survey items, and the instrument was completed through the self-reporting of respondents. Each item required the respondent to consider his/her tendencies regarding

a specific statement (i.e., I often have tender, concerned feelings for people less fortunate than me.) and to select a response (A – does not describe me well through E – describes me very well) based upon how well the statement related to his/her tendencies. Values were assigned to each letter in the likert scale (i.e., A = 0, B = 1, C = 2, D = 3, E = 4). Questions were scored either in the above described fashion or in the reverse fashion (i.e., where A = 4, etc.). Scoring for each item was governed by the instrument directions. Collectively, the responses offered an overall empathy score, as well as, four separate sub-scale scores which included: the fantasy scale, the perspective taking scale, the empathic concern scale, and the personal distress scale. Summarized questionnaire responses are provided in Appendix A.

### **Response to the Personal Relationships Questionnaire Instrument**

The original sample consisted of 131 community college students enrolled in psychology and sociology courses. 125 students out of the original 131 student sample submitted questionnaires, for an overall 95.4% response rate. The results from two out of the 125 instruments were deemed unusable by the researcher due to the students' failure to complete one of the two instruments needed to fulfill the consideration of the problem of this research. Therefore, the final sample size was 123 out of the original 131, for a response rate of 93.9%.

### **Personal Relationships Questionnaire Instrument Response Results**

The Personal Relationships Questionnaire (Appendix C), created by the author of this research study, consisted of 18 forced choice, likert-style survey items, and the instrument was completed through the self-reporting of respondents. Each item required

the respondent to consider his/her personal experience regarding a specific statement (i.e., Prior to age 14, I had a strong relationship with a maternal – mother or mother-like – figure.) and to select a response (A – does not describe me well through E – describes me very well) based upon how well the statement related to his/her tendencies. Values were assigned to each letter in the likert scale (i.e., A = 0, B = 1, C = 2, D = 3, E = 4). Questions were scored in the above described fashion. Scoring for each item was governed by the instrument directions. Collectively, the responses offered an overall personal relationships score. Summarized questionnaire responses are provided in Appendix A.

## Central Tendency and Standard Deviation

### Interpersonal Reactivity Index – Results by Question

Table 1

<b>IRI</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>SD of</b>
<b>Question #</b>	<b>Response</b>	<b>Response</b>	<b>Response</b>	<b>Response</b>
<b>E1 (FS)</b>	<b>2.50</b>	<b>3.00</b>	<b>4.00</b>	<b>1.257</b>
<b>E2 (EC)</b>	<b>3.17</b>	<b>3.00</b>	<b>4.00</b>	<b>1.046</b>
<b>E3 (PT)</b>	<b>2.73</b>	<b>3.00</b>	<b>4.00</b>	<b>1.150</b>
<b>E4 (EC)</b>	<b>2.73</b>	<b>3.00</b>	<b>4.00</b>	<b>1.248</b>
<b>E5 (FS)</b>	<b>2.27</b>	<b>2.00</b>	<b>2.00</b>	<b>1.319</b>
<b>E6 (PD)</b>	<b>1.70</b>	<b>2.00</b>	<b>2.00</b>	<b>1.293</b>
<b>E7 (FS)</b>	<b>2.57</b>	<b>3.00</b>	<b>2.00</b>	<b>1.167</b>
<b>E8 (PT)</b>	<b>2.93</b>	<b>3.00</b>	<b>4.00</b>	<b>1.107</b>
<b>E9 (EC)</b>	<b>3.28</b>	<b>4.00</b>	<b>4.00</b>	<b>0.901</b>
<b>E10 (PD)</b>	<b>2.49</b>	<b>3.00</b>	<b>4.00</b>	<b>1.330</b>
<b>E11 (PT)</b>	<b>2.92</b>	<b>3.00</b>	<b>3.00</b>	<b>1.045</b>
<b>E12 (FS)</b>	<b>2.68</b>	<b>3.00</b>	<b>4.00</b>	<b>1.369</b>
<b>E13 (PD)</b>	<b>1.82</b>	<b>2.00</b>	<b>2.00</b>	<b>1.300</b>
<b>E14 (EC)</b>	<b>2.71</b>	<b>3.00</b>	<b>4.00</b>	<b>1.140</b>
<b>E15 (PT)</b>	<b>2.03</b>	<b>2.00</b>	<b>2.00</b>	<b>1.234</b>
<b>E16 (FS)</b>	<b>2.02</b>	<b>2.00</b>	<b>2.00</b>	<b>1.352</b>
<b>E17 (PD)</b>	<b>1.92</b>	<b>2.00</b>	<b>0</b>	<b>1.423</b>
<b>E18 (EC)</b>	<b>3.13</b>	<b>4.00</b>	<b>4.00</b>	<b>1.187</b>
<b>E19 (PD)</b>	<b>1.12</b>	<b>1.00</b>	<b>1.00</b>	<b>1.005</b>
<b>E20 (EC)</b>	<b>2.83</b>	<b>3.00</b>	<b>4.00</b>	<b>1.130</b>
<b>E21 (PT)</b>	<b>3.00</b>	<b>3.00</b>	<b>4.00</b>	<b>1.056</b>
<b>E22 (EC)</b>	<b>3.02</b>	<b>3.00</b>	<b>4.00</b>	<b>1.228</b>
<b>E23 (FS)</b>	<b>2.48</b>	<b>3.00</b>	<b>2.00</b>	<b>1.210</b>
<b>E24 (PD)</b>	<b>0.89</b>	<b>1.00</b>	<b>0</b>	<b>1.132</b>
<b>E25 (PT)</b>	<b>2.02</b>	<b>2.00</b>	<b>2.00</b>	<b>1.094</b>
<b>E26 (FS)</b>	<b>2.42</b>	<b>2.00</b>	<b>2.00</b>	<b>1.200</b>
<b>E27 (PD)</b>	<b>1.08</b>	<b>1.00</b>	<b>0</b>	<b>1.171</b>
<b>E28 (PT)</b>	<b>2.59</b>	<b>3.00</b>	<b>3.00</b>	<b>1.152</b>

Note: FS, PD, EC, and PT following the individual questions represent the four sub-scales of Davis' Interpersonal Reactivity Index described in Ch. III.

Table 1 provides an overall examination of the data generated from Davis' Interpersonal Reactivity Index (IRI) (1980, p. 12). For each of the 28 questions (E1 – E28), the results for the sample were presented using the mean, median, mode, and standard deviation for each question. Any individual omitted response (originally coded in SPSS with a value of 300) was removed prior to central tendency and standard deviation calculations. The summarization of means for the IRI indicate the highest average scores on the questions which comprise the empathic concern (EC) subscale, which Davis indicates measures the individuals' ability to experience warmth, compassion, and concern for others. The second highest average scores were attributed to the perspective taking subscale (PT), which Davis indicates measures the ability of the individual to shift perspectives in realistic situations. The third highest average scores were generated from the fantasy scale (FS), while the lowest average scores were indicated for the personal distress (PD) subscale, which Davis indicates measures individuals' feelings as they relate to others' negative experiences. The median responses tended to fall within the middle likert scores, indicating the widest range of responses. The modes for the IRI indicated a greater number of responses scored at highest likert level.



## Measures of Central Tendency and Standard Deviation

### Personal Relationships Questionnaire – Results by Question

Table 2

<b>Question #</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>SD of</b>
	<b>Response</b>	<b>Response</b>	<b>Response</b>	<b>Response</b>
<b>PR1</b>	<b>3.04</b>	<b>4.00</b>	<b>4.00</b>	<b>1.314</b>
<b>PR2</b>	<b>2.31</b>	<b>2.00</b>	<b>4.00</b>	<b>1.542</b>
<b>PR3</b>	<b>2.93</b>	<b>3.00</b>	<b>4.00</b>	<b>1.368</b>
<b>PR4</b>	<b>2.37</b>	<b>3.00</b>	<b>4.00</b>	<b>1.544</b>
<b>PR5</b>	<b>2.52</b>	<b>3.00</b>	<b>4.00</b>	<b>1.345</b>
<b>PR6</b>	<b>2.28</b>	<b>2.00</b>	<b>2.00</b>	<b>1.300</b>
<b>PR7</b>	<b>3.49</b>	<b>4.00</b>	<b>4.00</b>	<b>1.170</b>
<b>PR8</b>	<b>3.24</b>	<b>4.00</b>	<b>4.00</b>	<b>1.283</b>
<b>PR9</b>	<b>2.37</b>	<b>3.00</b>	<b>4.00</b>	<b>1.511</b>
<b>PR10</b>	<b>3.36</b>	<b>4.00</b>	<b>4.00</b>	<b>1.410</b>
<b>PR11</b>	<b>2.99</b>	<b>4.00</b>	<b>4.00</b>	<b>1.380</b>
<b>PR12</b>	<b>2.49</b>	<b>3.00</b>	<b>4.00</b>	<b>1.460</b>
<b>PR13</b>	<b>2.70</b>	<b>3.00</b>	<b>4.00</b>	<b>1.340</b>
<b>PR14</b>	<b>3.61</b>	<b>4.00</b>	<b>4.00</b>	<b>1.084</b>
<b>PR15</b>	<b>2.91</b>	<b>4.00</b>	<b>4.00</b>	<b>1.443</b>
<b>PR16</b>	<b>2.35</b>	<b>3.00</b>	<b>4.00</b>	<b>1.650</b>
<b>PR17</b>	<b>2.83</b>	<b>4.00</b>	<b>4.00</b>	<b>1.453</b>
<b>PR18</b>	<b>2.24</b>	<b>2.00</b>	<b>4.00</b>	<b>1.621</b>

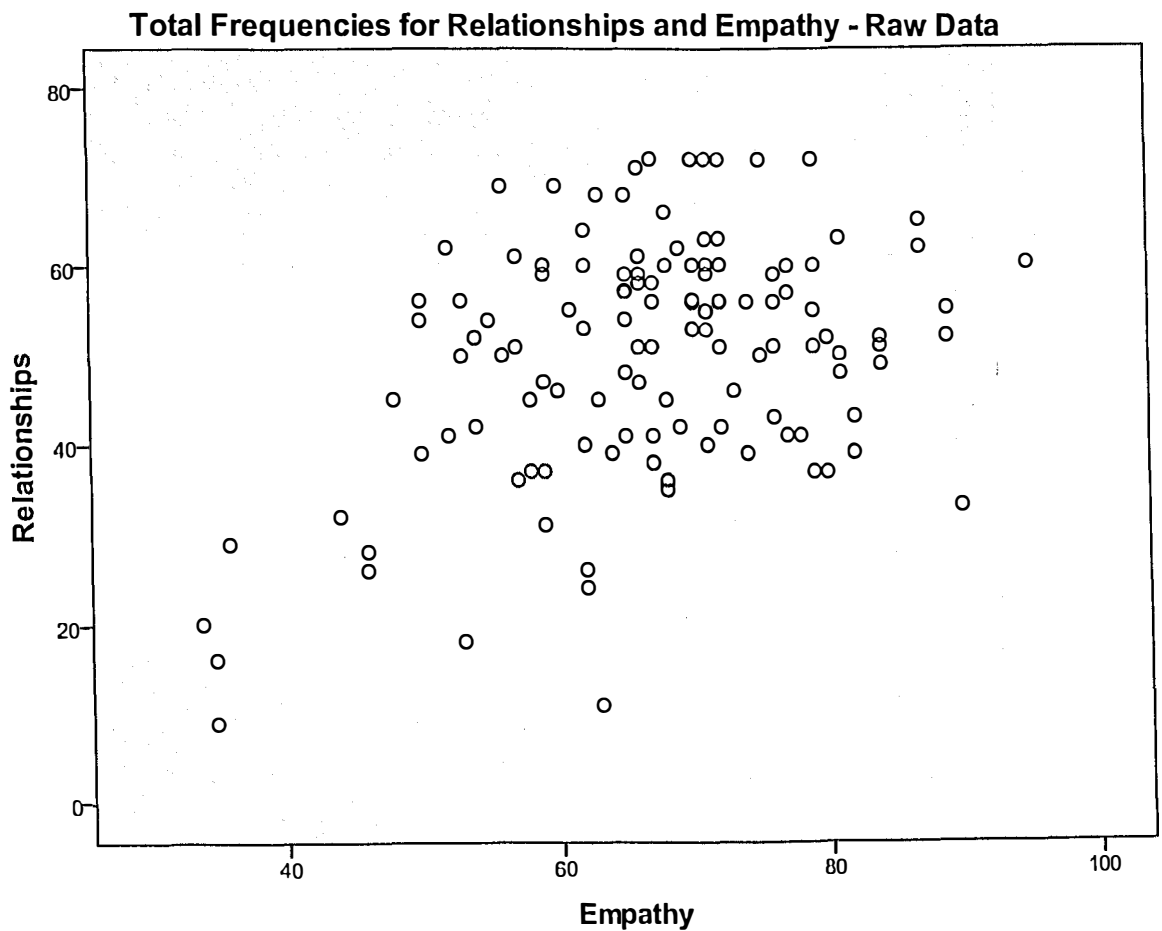
Table 2 provides an overall examination of the data generated from the researcher's Personal Relationships Questionnaire. For each of the 18 questions (P1 – P18), the compiled results for the 123 submitted questionnaires were presented using the mean, median, mode, and standard deviation for each question. Any individual omitted response (originally coded in SPSS with a value of 300) was removed prior to central tendency and standard deviation calculations. Examination of the means for individual questions provided insight into specific relationships. The highest average scores were

generated from responses to questions related to maternal, sibling (no gender specified), grandmother, and pet relationships. Although average scores for paternal relationships were not overwhelmingly lower than scores on maternal questions, the means clearly indicated higher average scores for mother or mother-like relationships. With the lowest average score being 2.24 (out of a possible score of 4.00) related to a grandfather relationship, the overall sample consisted of participants having benefited (according to self-reported perception) from significant, social relationships, in general. The medians for this questionnaire were higher, with the significant majority (15) of the questions having median responses of three or four. The most frequently occurring responses on the Personal Relationships Questionnaire were scores of four, another indicator that this sample reported enjoying significant, social relationships prior to age 14 and that those relationships were subjectively strong.

## Frequencies – Actual Raw Data Totaled and Scored

The following scatter diagram graphically represents respondents' actual, total scores on both the Personal Relationships Questionnaire and on the Interpersonal Reactivity Index. Visual interpretation of the frequency distribution reveals an apparent positively oriented trend between total empathy and personal relationship scores.

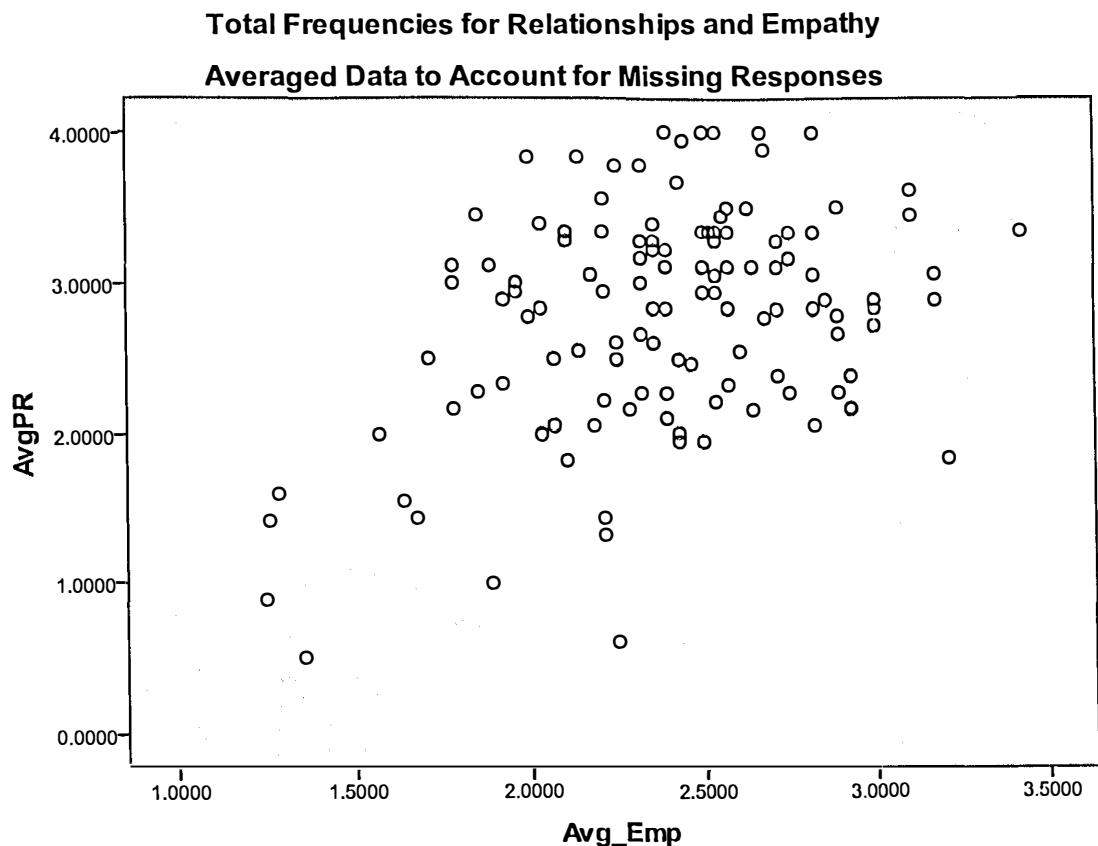
**Table 3**



## Frequencies – Averaged Data

Because there were instances of missing responses on the questionnaires, the raw data was averaged to consider the impact of omissions. The IRI included 28 questions, but a given respondent may have answered 27. The following table was generated from the respondent's average score on 27 rather than 28 questions to avoid the assumption of a score of zero on any individual, omitted question. The frequency distributions for both totaled raw data and averaged data were similar.

**Table 4**



## Correlational Analysis

Because the problem of this study dealt with a possible relationship between measures of both empathy scores and personal relationships scores, correlational analysis was utilized. The data from the Personal Relationships Questionnaire and the Interpersonal Reactivity Index (Davis, 1980) were both rank-ordered data based upon the respondents' subjective responses. Therefore, the appropriate linear correlation measurement for the research data was Spearman's Rho. Rho was calculated for both the actual data (totaled, actual responses) and the averaged data (to account for omitted individual responses).

**Table 5**

### Spearman's Rho on Actual Data

Correlations			Relationships	Empathy
Spearman's rho	Relationships	Correlation Coefficient	1.000	.262**
		Sig. (2-tailed)	.	.003
		N	123	123
	Empathy	Correlation Coefficient	.262**	1.000
		Sig. (2-tailed)	.003	.
		N	123	123

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 6 - Spearman's Rho on Averaged Data**

Correlations			AvgPR	Avg_Emp
Spearman's rho	AvgPR	Correlation Coefficient	1.000	.261 **
		Sig. (2-tailed)	.	.004
		N	123	123
	Avg_Emp	Correlation Coefficient	.261 **	1.000
		Sig. (2-tailed)	.004	.
		N	123	123

\*\* . Correlation is significant at the 0.01 level (2-tailed).

With regard to the relationship between subjective measurements of empathy and personal relationships, the cumulative results analyzed with the correlational method, Spearman's Rho, provided insight into the experiences of community college students participating in this study. The tabulated results indicated a positive correlation between overall measurements of empathy and personal relationships, and consequently, as participants scored higher on the empathy questionnaire their personal relationships scores similarly increased. Positive correlations at the significance level of .01 were identified through the Spearman's Rho calculations using the data sets for both the actual results and the averaged results (which accounted for all missing responses to individual questions). The  $p < .01$  significance level indicates that the positive correlation found to exist in these data sets can be generalized to the overall population. In the analysis of the actual summarized data, the correlation coefficient was found to be .262, and the averaged results generated a correlation coefficient of .261. These coefficients indicated

a moderate, positive correlation between the variables. These results accounted for all 123 respondents studied.

### Demographic Findings

Demographic data were requested from the respondents during their participation, and these included: occupation, age, race, gender, church attendance, communication preferences, and the number of children. The following tables will provide the results of correlational analyses comparing total empathy and relationships scores while controlling for gender, frequency of church attendance, whether or not respondents have children, and communication preferences.

**Table 7**

#### Spearman's Rho on Empathy and Relationships by Gender – Male

Correlations			Relationships	Empathy
Spearman's rho	Relationships	Correlation Coefficient	1.000	.142
		Sig. (2-tailed)	.	.395
		N	38	38
		Empathy	.142	1.000
		Correlation Coefficient	.395	.
		Sig. (2-tailed)	.395	.
		N	38	38

**Table 8**

**Empathy and Relationships by Gender – Female**

**Correlations**

			Relationships	Empathy
Spearman's rho	Relationships	Correlation	1.000	.248*
		Coefficient		
		Sig. (2-tailed)	.	.022
		N	85	85
	Empathy	Correlation	.248*	1.000
		Coefficient		
		Sig. (2-tailed)	.022	.
		N	85	85

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 9**

**Empathy and Relationships Church Attendance (1, 2, 3 x per wk)**

**Correlations**

			Relationships	Empathy
Spearman's rho	Relationships	Correlation	1.000	.209
		Coefficient		
		Sig. (2-tailed)	.	.207
		N	38	38
	Empathy	Correlation	.209	1.000
		Coefficient		
		Sig. (2-tailed)	.207	.
		N	38	38



**Table 10**

**Empathy and Relationships by No Church Attendance**

			Correlations	
			Relationships	Empathy
Spearman's rho	Relationships	Correlation Coefficient	1.000	.570*
		Sig. (2-tailed)	.	.017
		N	17	17
		Empathy		.570*
	Empathy	Correlation Coefficient	.570*	1.000
		Sig. (2-tailed)	.017	.
		N	17	17

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 11 - Empathy and Relationships by Children**

**(Respondent Has Children)**

			Correlations		
			Empathy	Children	Relationships
Spearman's rho	Empathy	Correlation Coefficient	1.000	.	.192
		Sig. (2-tailed)	.	.	.177
		N	51	51	51
		Children		.	.
	Children	Correlation Coefficient	.	.	.
		Sig. (2-tailed)	.	.	.
		N	51	51	51
		Relationships		.192	.
	Relationships	Correlation Coefficient	.192	.	1.000
		Sig. (2-tailed)	.177	.	.
		N	51	51	51

**Table 12 - Empathy and Relationships by Children**  
**(Respondent Does Not Have Children)**

			Correlations		
			Relationships	Empathy	Children
Spearman's rho	Relationships	Correlation	1.000	.324**	.
		Coefficient			
		Sig. (2-tailed)	.	.006	.
		N	72	72	72
	Empathy	Correlation	.324**	1.000	.
		Coefficient			
		Sig. (2-tailed)	.006	.	.
		N	72	72	72
	Children	Correlation	.	.	.
Coefficient					
Sig. (2-tailed)		.	.	.	
	N	72	72	72	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 13 - Empathy and Relationships by Comm. Preference**  
**Respondent Prefers Face to Face Communication**

			Correlations		
			Relationships	Empathy	Comm
Spearman's rho	Relationships	Correlation	1.000	.190	.
		Coefficient			
		Sig. (2-tailed)	.	.099	.
		N	77	77	77
	Empathy	Correlation	.190	1.000	.
		Coefficient			
		Sig. (2-tailed)	.099	.	.
		N	77	77	77
	Communication	Correlation	.	.	.
Coefficient					
Sig. (2-tailed)		.	.	.	
	N	77	77	77	

**Table 14 - Empathy and Relationships by Comm. Preference**  
**Respondent Prefers Technological Communication**

			Correlations		
			Relationships	Empathy	Comm
Spearman's rho	Relationships	Correlation	1.000	.282	.
		Coefficient			
		Sig. (2-tailed)	.	.192	.
		N	23	23	23
	Empathy	Correlation	.282	1.000	.
		Coefficient			
		Sig. (2-tailed)	.192	.	.
		N	23	23	23
	Communication	Correlation	.	.	.
Coefficient					
Sig. (2-tailed)		.	.	.	
	N	23	23	23	

**Table 15 - Empathy and Relationships by Comm. Preference**  
**Respondent Prefers Both F2F and Technological Communication**

			Correlations		
			Relationships	Empathy	Comm
Spearman's rho	Relationships	Correlation	1.000	.497*	.
		Coefficient			
		Sig. (2-tailed)	.	.026	.
		N	20	20	20
	Empathy	Correlation	.497*	1.000	.
		Coefficient			
		Sig. (2-tailed)	.026	.	.
		N	20	20	20
	Communication	Correlation	.	.	.
Coefficient					
Sig. (2-tailed)		.	.	.	
	N	20	20	20	

\*. Correlation is significant at the 0.05 level (2-tailed).

The correlational analyses controlling for various demographic data while comparing total scores of empathy and personal relationships were revealing. The analysis of gender found no statistically significant correlation between the male gender and the empathy and personal relationships scores. However, the analysis revealed a statistically significant correlation between the scores and the female gender, with a correlation coefficient of .248 at the  $p < .05$  level. With regard to church attendance, the correlational analyses also produced a result with no statistically significant correlation for church attendance (with a frequency of 1, 2, or 3 times per week), but a statistically significant correlation was found with no church attendance having a .570 correlation coefficient at the  $p < .05$  level. The respondent's achieved parental status offered another demographic examination that produced a mixed result. There was no statistically significant correlation in respondents' scores if they were parents, while those not having children produced a correlation coefficient of .324 at the  $p < .01$  level of significance. Communication preference (face-to-face, technological, or either/both) offered another demographic comparison, which also indicated mixed results. There were no statistically significant correlations found with respondent's preferring solely face-to-face or technological communication. However, a mixed preference, indicating acceptance of either form of communication provided a statistically significant correlation coefficient of .497 at the  $p < .05$  level of significance.

### **t-Tests Results**

The t-Test was used to analyze individual, social relationships included in the Personal Relationships Questionnaire as compared to average empathy responses from the Interpersonal Reactivity Index (Davis, 1980). Analyzed relationships included:

maternal, paternal, peer, pets, sibling, grandmother, and grandfather. The two-tailed t-Test values were calculated for the maternal relationship, for example, by averaging the responses on questions one and three (which pertained to mother/mother-like relationships) on the Personal Relationships Questionnaire, averaging the participant's responses on the Interpersonal Reactivity Index, and calculating the t-values based upon the averaged data sets. Degrees of freedom were 244 for all categories. The results are indicated in the following table (Table 16).

**Table 16 t-Test Results**

<u>Relationship</u>	<u>t-Value</u>	<u>t-Value</u> <u>Significance</u>
Maternal (Mother/Mother-like)	4.756	> 3.291 @ .001 level for 2-tailed test
Paternal (Father/Father-like)	-0.435	Does not exceed critical t at statistically significant level
Peer Relationships	-0.086	Does not exceed critical t at statistically significant level
Family Pet Relationships	5.771	> 3.291 @.001 level for 2-tailed test
Sibling Relationships	4.421	> 3.291 @.001 level for 2-tailed test
Grandmother Relationship	3.576	> 3.291 @.001 level for 2-tailed test
Grandfather Relationship	-0.673	Does not exceed critical t at statistically significant level

Table 16 illustrates the statistical significance of various groupings of social relationship questions as compared to empathy responses. The comparison of the mean for the maternal(like) relationship with mean empathy scores yielded a statistically significant t-value of 4.756, which exceeded the critical t-value for a two-tailed test at the

.001 level of significance. Similarly, another female relationship, grandmother, yielded a statistically significant result with a t-value of 3.576, exceeding the critical t-value for a two-tailed test at the .001 level. These results indicate that significant familial, female relationships (mother, grandmother, and pseudo figures for both) and empathy measurements are related. Conversely, Table 16 does not imply a similar result for the male familial relationships. Neither the paternal nor grandfather (or pseudo relationship) question groupings returned a statistically significant t-value when compared with empathy scores. Sibling and pet relationship question groupings yielded statistically significant t-values when compared with empathy responses. Means for sibling relationships and empathy generated a 4.421 t-value, which exceeded the critical t-value 3.291 at the .001 level for a two-tailed test. Questions related to the means for family pet relationships and empathy produced a 5.771 t-value, exceeding the critical t-value of 3.291 at the .001 level of significance for a two-tailed test. These results infer a relationship between individuals' social interaction with pets and siblings and their empathic measurement. Finally, the means for questions related to peer relationships, as compared to empathy, yielded no statistically significant t-value. These results support the inference that the following social relationships: mother, grandmother, pet, and siblings are related to an individual's empathy measurement. These findings could have implications for further research related to the relationship between social interaction and empathic response.

## Summary

This chapter provided a synopsis of the survey results from the Personal Relationships Questionnaire and the Interpersonal Reactivity Index (Davis, 1980). Additionally, correlational analyses were performed on the data generated from the instruments. Additional correlational analyses were presented to establish the presence or absence of statistically significant relationships between various demographic data categories and the empathy and personal relationships scores. Data were reported in the forms of survey item summarization tables, frequency distributions, and correlational tables. Chapter V presented a summarization of this research, conclusions, and recommendations derived from these results.



## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Chapter V presents a summarization of this study. This chapter presents an analysis of the research findings and presents conclusions derived from the presentation and description of the data collected. Additionally, recommendations for future research on this subject are offered.

#### Summary

The problem of this study was to determine the relationship between community college students' empathy scores and the strength of their self-reported social relationships with parents/parental figures, peers, animals, and/or grandparents. The primary objective of this study was to test the following hypothesis:

H<sub>0</sub>: There will be no statistically significant relationship between community college students' empathy scores and the strength of their self-reported social relationships.

This research was limited to 131 community college students, with 125 completing and submitting questionnaires. 123 were usable for a response rate of 93.9%. A qualitative study was conducted to determine the participants' empathic measurements and the subjective experience and quality of their significant, social relationships. Additionally, these qualitative measurements were analyzed to establish both response patterns with individual questions and the existence or absence of correlational relationships between the questionnaires. The instrument utilized to determine the sample's empathic measurements was Davis' Interpersonal Reactivity Index (1980), a

self-report instrument consisting of 28 five-option, forced choice, likert-style items. The Personal Relationships Questionnaire, developed by Covington for this research, was used to determine the subjective presence and quality of participants' social relationships. The survey consisted of 18 five-option, forced choice, likert-style items. 125 subjects completed the survey instruments. Two questionnaires were omitted for lack of completion of one entire survey, and the final sample size was 123. The data from the 123 usable survey instruments were collected, scored, and statistically analyzed. The conclusions based on the analyses were presented.

### **Conclusions**

Based upon the data collected and analyzed, the null hypothesis that there is no statistically significant correlation between empathy and personal relationships was rejected. Initially, the frequency distribution for the raw data indicated a positive linear relationship between the two measures. This visual trend was statistically substantiated through the utilization of Spearman's Rho calculations, which indicated that 99% of the population would demonstrate positive relationships between their empathy scores and personal relationship scores. This indicated that as respondents' empathy scores would increase, their personal relationships questionnaires would increase similarly. This suggested empathic scores are related to both the social relationships and the respondents' subjective perceptions regarding the quality of the relationships represented by the Personal Relationships Questionnaire.

Additional correlational calculations were performed to examine potential relationships among empathy and various demographic characteristics. Based upon the

findings, it can be concluded that the female gender, not attending church, not having children, and having no preference for types of communication with others (face-to-face or electronic) are demographic characteristics related to an individual's empathy level. For example, members of the female gender are expected to score higher on the Interpersonal Reactivity Index as a measure of empathy scores 95% of the time.

Measures of central tendency provided insight into the subscales of the Davis' Interpersonal Reactivity Index (1980). The finding that the highest average scores were generated on questions comprising the empathic concern subscale was logical, because the EC subscale measures the individual's ability to experience warmth, compassion, and concern for others (Davis, 1980), which are all fundamental aspects of the empathic response. The fact that the median scores on the IRI tended to fall within the middle of the likert scale indicates that there were wide ranges of response, and therefore, the sample did not seem to trend toward mindless responses.

Measures of central tendency also provided insight into the Personal Relationships Questionnaire. Because the highest average scores were indicated on questions relating to the maternal, sibling, grandmother, and pet relationships, it can be concluded that this sample had stronger, personal relationships in these areas. The higher mean scores for relationships with female figures (maternal, relevance for the impact of the samples' relationships with matriarchic figures). The sample tended to enjoy strong relationships overall, as evidenced by the mode response of 4.0 on the likert scale.

The analysis of t-Tests, comparing sample means for empathy and the various relationships included in the Personal Relationships Questionnaire, provided the

opportunity for inferences about the sample. The results from the t-Tests indicated that the strength of interaction most impactful to empathy scores was based upon maternal, grandmother, pet, and sibling relationships. Therefore, it would be logical to conclude that these relationships are more impactful to empathy scores than grandfather, father, and peer relationships.

Although some extraneous research variables were considered and controlled, the researcher recognizes that other factors could influence the sample results. Because the Personal Relationships Questionnaire was an instrument developed for utilization in the current research, it remains an untested measure of the subjective strength of significant, social relationships. Additionally, the respondents' understanding, reading ability, etc. could have impacted responses on either of the two instruments. Age was another extraneous variable that could skew the responses on the instruments. After considering the research limitations and conclusions, recommendations were made for future research.

### **Recommendations**

Based upon the findings and conclusions of the study, the following recommendations were offered for future research.

1. Additional, expanded research should be conducted with larger sample sizes and different populations to compare the current results to the results from a larger and/or more diverse population.
2. Further investigation is needed to study and improve the Personal Relationships Questionnaire for utilization in correlational research with measures of empathy.

3. Further investigation is needed to improve the demographic questionnaire, therefore making the responses more objective and more easily classified.
4. The positive correlation between empathy and social relationships should be further researched in order to gain greater insight into the impact of early relationship experiences on the individual's development of empathy for others.
5. The current research could be utilized to justify expanded study of empathy, violent/criminal/deviant behavior, and social relationships to consider whether social programs (pets in prisons, for example) could improve empathy measurements and decrease rates of recidivism.

## APPENDICES

**Appendix A:**

**Summarization of Subject Response Results**

## Summarization of Subject Response Results

Protocol	Relationships	FS	EC	PT	PD	Empathy	Occupation	Age	Race	Gender	Church	Communication	Children
1	48	17	16	13	19	65	200	210	216	220	225	231	234
2	26	16	20	15	11	62	204	214	217	221	224	230	233
3	60	26	21	21	9	77	204	210	216	221	250	230	234
4	60	24	28	28	15	95	250	213	216	221	228	230	234
5	37	7	26	25	0	58	250	210	217	220	223	232	233
6	62	21	23	21	4	69	200	213	217	220	250	230	233
7	45	11	16	12	9	48	205	210	250	220	250	230	234
8	37	26	20	15	19	80	200	210	216	220	250	231	234
9	56	10	16	20	4	50	200	210	216	220	227	230	234
10	51	18	28	15	11	72	204	210	216	220	250	230	233
11	18	11	13	15	14	53	204	210	216	221	250	230	234
12	59	14	20	16	15	65	250	213	217	221	250	232	234
13	72	19	15	19	17	70	250	210	216	221	224	231	234
14	52	11	19	7	17	54	250	210	217	221	224	230	234
15	72	22	23	22	12	79	200	210	217	221	228	250	233
16	56	20	18	21	11	70	200	210	216	221	224	232	234
17	53	17	28	24	2	71	200	210	235	221	250	232	234
18	72	15	26	22	12	75	206	210	217	221	224	232	234
19	41	20	24	20	3	67	250	210	216	220	223	230	234
20	36	10	23	20	4	57	204	210	217	221	250	250	234
21	60	18	28	19	14	79	250	210	216	220	223	230	234
22	63	22	25	25	9	81	203	213	217	221	250	230	233
23	54	13	23	22	7	65	201	214	217	221	250	232	233
24	20	7	14	9	4	34	202	210	216	220	224	230	234
25	69	21	17	12	10	60	200	210	216	221	227	230	234



Protocol	Relationships	FS	EC	PT	PD	Empathy	Occupation	Age	Race	Gender	Church	Communication	Children
26	42	11	12	18	13	54	250	210	250	220	223	231	234
27	69	14	15	13	14	56	250	210	216	221	250	231	234
28	9	8	15	10	2	35	203	210	217	221	224	232	234
29	60	24	28	23	4	79	203	210	217	221	250	232	234
30	41	17	28	14	19	78	200	213	216	221	223	230	233
31	37	14	14	18	13	59	200	213	216	221	223	230	233
32	38	16	14	19	18	67	200	210	217	221	250	231	234
33	31	14	17	16	12	59	250	214	217	220	250	230	233
34	32	24	12	8	0	44	200	213	217	221	250	230	234
35	52	16	28	20	16	80	200	212	217	220	224	230	234
36	26	17	10	4	15	46	200	210	217	220	250	230	234
37	72	18	20	20	13	71	200	210	216	221	250	230	234
38	72	21	21	23	2	67	200	210	216	221	225	230	234
39	41	7	27	24	7	65	200	211	216	221	223	232	233
40	60	16	23	16	13	68	204	210	217	221	224	231	234
41	50	18	23	17	17	75	204	210	236	221	250	230	234
42	56	20	23	22	11	76	201	212	216	221	228	230	233
43	46	18	19	13	10	60	203	210	216	221	229	230	233
44	65	26	26	17	18	87	204	211	216	221	229	231	233
45	58	18	22	21	5	66	200	214	216	221	226	230	233
46	42	21	22	23	3	69	203	215	216	220	250	230	233
47	62	27	27	21	12	87	201	211	216	221	250	231	233
48	64	17	19	19	7	62	200	213	216	221	224	230	233
49	58	14	25	18	10	67	200	210	216	221	250	230	234
50	35	13	25	15	15	68	204	210	216	221	229	230	233
51	63	18	22	18	13	71	204	210	216	221	250	232	234
52	47	15	23	20	8	66	200	212	217	221	250	232	233
53	45	14	18	23	3	58	204	214	217	220	223	230	234
54	51	24	24	15	13	76	200	210	216	221	225	231	234
55	60	20	23	15	14	72	250	211	217	221	223	231	234
56	60	19	25	21	5	70	202	212	217	220	224	230	233
57	45	24	18	21	5	68	204	210	216	220	250	232	234
58	63	17	16	22	17	72	206	210	216	221	227	232	234
59	60	10	23	16	10	59	200	210	216	220	225	230	234
60	51	14	25	16	12	67	200	210	217	221	250	232	233
61	57	14	24	23	4	65	200	211	216	220	250	230	234
62	59	16	18	20	12	66	204	214	217	221	225	232	233

Protocol	Relationships	FS	EC	PT	PD	Empathy	Occupation	Age	Race	Gender	Church	Communication	Children
63	40	16	27	19	9	71	200	211	216	221	223	231	234
64	Omit												
65	53	14	24	21	11	70	204	213	216	221	224	230	233
66	71	19	21	15	11	66	200	210	216	221	225	232	234
67	46	23	18	17	15	73	200	210	219	220	225	230	234
68	52	20	26	21	17	84	204	211	216	221	250	230	233
69	51	18	28	17	16	79	201	210	216	221	224	232	233
70	68	11	23	23	8	65	207	213	216	221	227	231	233
71	50	26	26	20	9	81	204	212	216	221	250	230	233
72	51	15	24	15	12	66	201	211	216	221	228	230	233
73	49	15	27	27	15	84	200	214	216	221	224	231	234
74	66	8	25	21	14	68	200	210	216	221	250	230	234
75	52	24	28	21	16	89	204	211	217	221	224	230	234
76	28	13	14	9	10	46	250	211	218	221	224	231	234
77	50	15	15	17	6	53	202	211	216	220	224	230	233
78	24	9	23	14	16	62	204	212	217	221	224	231	233
79	61	13	17	14	13	57	204	210	216	221	250	231	234
80	55	20	26	11	4	61	201	210	216	221	225	230	233
81	61	22	23	13	8	66	203	211	216	221	224	231	233
82	40	19	16	13	14	62	200	210	216	220	229	230	234
83	39	26	23	21	12	82	200	210	217	220	228	230	234
84	51	13	17	11	16	57	200	210	216	221	224	250	234
85	16	6	7	13	9	35	200	210	216	221	250	230	234
86	55	23	25	20	11	79	200	210	216	221	250	230	233
87	68	15	20	15	13	63	204	210	216	221	226	230	234
88	41	22	18	20	5	65	202	211	216	220	227	230	234
89	59	25	19	27	5	76	207	210	217	221	228	230	234
90	56	7	18	10	18	53	201	215	216	221	227	230	233
91	56	14	21	22	10	67	203	213	250	221	226	232	233
92	39	23	25	25	1	74	200	210	216	221	227	230	234
93	11	17	15	13	18	63	200	210	236	221	224	230	234
94	53	14	18	17	13	62	202	210	216	220	250	230	234
95	54	18	9	19	4	50	204	210	216	220	228	230	234
96	47	5	16	18	20	59	202	210	216	220	250	231	234
97	33	26	27	25	12	90	205	215	216	220	228	230	233
98	36	16	22	25	5	68	200	210	218	221	250	230	234
99	41	18	11	23	0	52	202	210	216	220	223	230	234

Protocol	Relationships	FS	EC	PT	PD	Empathy	Occupation	Age	Race	Gender	Church	Communication	Children
100	59	13	15	18	13	59	204	210	216	220	250	230	234
101	54	12	18	18	7	55	203	214	216	220	228	230	233
102	72	13	24	27	8	72	203	214	216	221	250	230	233
103	43	20	23	18	15	76	200	213	217	221	250	230	234
104	62	13	16	17	6	52	250	211	217	220	228	230	233
105	39	15	18	16	15	64	204	210	217	221	228	230	233
106	41	17	21	22	17	77	201	213	217	221	250	230	233
107	35	18	16	22	12	68	200	210	216	221	224	232	234
108	57	16	23	16	22	77	204	210	216	221	225	230	234
109	42	20	27	15	10	72	250	213	216	220	227	230	234
110	55	23	27	22	17	89	200	210	216	221	223	230	233
111	48	20	27	22	12	81	250	212	216	221	225	230	233
112	56	22	22	15	13	72	203	211	216	221	228	231	233
113	50	12	14	19	11	56	200	210	216	221	223	231	233
114	59	18	26	19	8	71	203	212	216	220	229	230	233
115	29	4	10	22	0	36	250	212	216	220	223	230	234
116	55	15	19	18	19	71	204	210	216	220	228	230	234
117	56	24	22	18	10	74	200	213	216	221	223	230	233
118	60	15	25	21	10	71	204	210	216	221	250	232	234
119	43	26	28	23	5	82	200	212	216	221	223	230	233
120	Omit												
121	39	12	10	11	17	50	201	211	216	221	223	231	233
122	60	12	17	18	15	62	200	210	216	221	224	230	234
123	51	22	20	21	21	84	200	211	217	220	224	231	234
124	45	13	23	14	13	63	200	210	216	221	224	230	234
125	37	20	25	19	15	79	200	212	217	221	227	230	233

Note: Table 1 summarizes the raw data in the following manner: relationships = total score Personal Relationships Questionnaire; FS, EC, PT, and PD are total scores for subscales of the IRI; empathy = total score for IRI; occupation, age, race, gender, church attendance, communication preferences, and children = coded responses for demographic information as reported by the participant.

**Appendix B:**

**Davis' Interpersonal Reactivity Index**

## Interpersonal Reactivity Index

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, fill in the letter on the answer sheet next to the item number. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

### ANSWER SCALE:

A	B	C	D	E
DOES NOT				DESCRIBES ME
DESCRIBE ME				VERY
WELL				WELL

1. I daydream and fantasize, with some regularity, about things that might happen to me. (FS)
2. I often have tender, concerned feelings for people less fortunate than me. (EC)
3. I sometimes find it difficult to see things from the "other guy's" point of view. (PT) (-)
4. Sometimes I don't feel very sorry for other people when they are having problems. (EC) (-)
5. I really get involved with the feelings of the characters in a novel. (FS)
6. In emergency situations, I feel apprehensive and ill-at-ease. (PD)
7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it. (FS) (-)
8. I try to look at everybody's side of a disagreement before I make a decision. (PT)
9. When I see someone being taken advantage of, I feel kind of protective towards them. (EC)

10. I sometimes feel helpless when I am in the middle of a very emotional situation. (PD)
11. I sometimes try to understand my friends better by imagining how things look from their perspective. (PT)
12. Becoming extremely involved in a good book or movie is somewhat rare for me. (FS) (-)
13. When I see someone get hurt, I tend to remain calm. (PD) (-)
14. Other people's misfortunes do not usually disturb me a great deal. (EC) (-)
15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments. (PT) (-)
16. After seeing a play or movie, I have felt as though I were one of the characters. (FS)
17. Being in a tense emotional situation scares me. (PD)
18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. (EC) (-)
19. I am usually pretty effective in dealing with emergencies. (PD) (-)
20. I am often quite touched by things that I see happen. (EC)
21. I believe that there are two sides to every question and try to look at them both. (PT)
22. I would describe myself as a pretty soft-hearted person. (EC)
23. When I watch a good movie, I can very easily put myself in the place of a leading character. (FS)
24. I tend to lose control during emergencies. (PD)
25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while. (PT)
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. (FS)
27. When I see someone who badly needs help in an emergency, I go to pieces. (PD)

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

NOTE:(-) denotes item to be scored in reverse fashion

PT = perspective-taking scale

FS = fantasy scale

EC = empathic concern scale

PD = personal distress scale

A = 0

B = 1

C = 2

D = 3

E = 4

Except for reversed-scored items, which are scored:

A = 4

B = 3

C = 2

D = 1

E = 0

**Appendix C:**

**Covington – Personal Relationships Questionnaire**



## Covington – Personal Relationships Questionnaire

DO NOT PLACE YOUR NAME ON THIS QUESTIONNAIRE.

The following statements inquire about your prior relationships. For each item, indicate how well it describes you by choosing the appropriate letter (A through E) on the scale at the top of the page. When you have decided on your answer, fill in the letter on the answer sheet next to the item number. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can.

Answer Scale:

A	B	C	D	E
DOES NOT				DESCRIBES ME
DESCRIBE ME WELL				VERY WELL

1. Prior to age 14, I had a strong relationship with a maternal (mother or mother-like) figure.
2. Prior to age 14, I had a strong relationship with a paternal (father or father-like) figure.
3. Prior to age 14, I was strongly influenced, in a positive way, by my maternal (mother or mother-like figure).
4. Prior to age 14, I was strongly influenced, in a positive way, by my paternal (father or father-like figure).
5. Prior to age 14, I had strong peer friendships.
6. Prior to age 14, I was strongly influenced, in a positive way, by my peers.
7. Prior to age 14, my family owned at least one pet.
8. Prior to age 14, I cared for at least one animal (family pet).
9. Prior to age 14, I was strongly influenced, in a positive way, by the relationship with a family pet.
10. Prior to age 14, I had at least one brother or sister.
11. Prior to age 14, I had a relationship with a person who was like a sibling to me.
12. Prior to age 14, I was strongly influenced, in a positive way, by my sibling(s).

13. Prior to age 14, I was strongly influenced, in a positive way, by a person who was like a sibling to me.
14. Prior to age 14, I had at least one grandparent.
15. Prior to age 14, I had a strong relationship with a grandmother or a grandmother-like person.
16. Prior to age 14, I had a strong relationship with a grandfather or a grandfather-like person.
17. Prior to age 14, I was strongly influenced, in a positive way, by a grandmother or grandmother-like figure.
18. Prior to age 14, I was strongly influenced, in a positive way, by a grandfather or grandfather-like figure.

**Appendix D:**

**Covington – Demographic Questionnaire**

## Covington's Demographic Questionnaire

Demographic Information:

Occupation: \_\_\_\_\_

Age (choose one):            18 – 25 \_\_\_\_\_

   26 – 32 \_\_\_\_\_

   33 – 40 \_\_\_\_\_

   41 – 48 \_\_\_\_\_

   49 – 55 \_\_\_\_\_

   55 + \_\_\_\_\_

Race: \_\_\_\_\_

Gender: Male \_\_\_\_\_                      Female \_\_\_\_\_

How often do you attend church? \_\_\_\_\_

Do you prefer face to face or technological (text message, email, etc.) communication?

\_\_\_\_\_

Do you have child(ren)? \_\_\_\_\_

**APPENDIX E:**

**Signature Page**

# **EMPATHIC DEVELOPMENT AND SOCIAL RELATIONSHIPS**

**Lisa Marlowe Covington**

**A Thesis Submitted In Partial Fulfillment For The Degree Of  
Master of Science In Sociology**

**Longwood University  
Department of Sociology and Anthropology Program**

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William C. Burger, Ph.D.  
Chair, Thesis Committee

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Kenneth B. Perkins, Ph.D.  
Thesis Committee First Reader  
Interim Vice President for  
Academic Affairs

---

Dean L. Christensen, Ph.D.  
Thesis Committee Second Reader

**APPENDIX F:**  
**Completion Letters**

October 8, 2010

The Registrar Longwood University

TO WHOM IT MAY CONCERN:

Lisa Marlowe Covington has successfully defended her M.S. In Sociology thesis, *Empathic Development and Social Relationships* on Friday, October 8, 2010.

Sincerely,

Dr. William C. Burger, Professor of Sociology  
Chair, Thesis Committee

---

October 8, 2010

To: Registrar, Longwood University

From: Dr. William C. Burger, Professor of Sociology

On this date, October 8, 2010, Lisa Marlowe Covington successfully defended her thesis, *Empathic Development and Social Relationships*.

I served as chair of the thesis committee; Dr. Ken Perkins was the First Reader; and Dr. Dean Christensen was the Second Reader.



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