

LEARNING OUTCOMES OF A NARRATIVE EXCHANGE PROGRAM FOR HIGH
SCHOOL STUDENTS: EMPATHY AND RELATED CONSTRUCTS

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ABSTRACT

LEARNING OUTCOMES OF A NARRATIVE EXCHANGE PROGRAM FOR HIGH SCHOOL STUDENTS: EMPATHY AND RELATED CONSTRUCTS

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Narrative 4 is an organization of writers, artists, teachers, and other community leaders, which is primarily focused on promoting empathy and prosocial behavior among high school students.

Narrative 4 uses a unique narrative exchange process and curriculum as their method for accomplishing this goal. To the author's knowledge, this is the first study to systematically investigate the effectiveness of this unique program in promoting participant empathy and prosocial behavior. Analysis was limited due to low participation (N=13) and incomplete data. Pretest and posttest measures of empathy and related constructs were taken before and after participation in the program. It was predicted that posttest measures of emotional contagion, cognitive empathy, empathic concern, perspective-taking, and prosocial behavior would be significantly higher than pretest measures. Paired-sample t-tests were used to examine the data for significant differences. Contrary to prediction, the only significant change was a decrease in cognitive empathy. However, this change was seen only after eliminating a participant's pair of outlier scores to meet normal distribution assumptions for analysis, and caution is recommended in interpreting the result. It was also hypothesized that changes in prosocial behavior would be mediated by changes in affective empathy (emotional contagion). Because no significant difference was found between pretest and posttest measures, mediation analysis was not

performed. Relationships of changes in empathy measures were also examined using Pearson's product-moment correlation values. It was hypothesized that changes in cognitive empathy and perspective-taking would negatively correlate with changes in emotional disconnection and personal distress. Results were unable to provide support for this hypothesis, as the stated relationships between difference scores were not found to be significant. Lastly, it was predicted that students' written reflections on the N4 program would reveal mostly positive views regarding the experience, as well as themes of community bonding. Only one participant for whom consent and assent was obtained provided a reflection. Therefore, this prediction was not evaluated. Discussion follows, including that of the challenges of conducting research within schools, limitations of the study, and suggested future directions for research.

CHAPTER ONE: INTRODUCTION

“Education leads to enlightenment. Enlightenment opens the way to empathy. Empathy foreshadows reform.”

— Derrick A. Bell, *Faces at the Bottom of the Well*

Every voice matters. We each have a unique story to tell, and each of those stories carries with it the power to illuminate, to tear down walls that divide, to bond together storyteller and listener in common humanity. It is this conviction that compelled executive director, Lisa Consiglio and National Book Award-winning author, Colum McCann to form and develop Narrative 4 (N4). N4 is a global organization comprised of world-renowned authors, artists, and community leaders who advocate the promotion of empathy through the exchange of personal stories (narrative4.com). N4 is taking a pathway to improving the world that closely mirrors Derrick Bell’s quote above. Working in partnership with schools, N4 launched its narrative exchange program, designed to foster empathy and promote altruism among high school students, in 2013. A year later, N4 had conducted exchanges involving nearly 1,000 participants throughout the world, in locations such as Newtown, CT, South Africa, North Bellimore, NY, Mexico, Ireland, and Chicago, IL.

The exchange program consists of five key components: 1) integration of high quality fictional literature into the classroom curriculum, 2) student composition of a short autobiographical narrative about an important time in their life that characterizes who they are, 3) exchange of narratives between paired partners, 4) student retelling of partner’s story to the class in first-person perspective, and 5) post exchange reflection. The intended goal of this program is to promote empathy and prosocial behavior. To date, however, researchers have not

systematically assessed how effectively N4's narrative exchange program accomplishes this goal. Accordingly, the purpose of the present study is to lay the groundwork for ongoing investigation of the degree to which high school students become more empathic and prosocial after participating in N4's narrative exchange program.

CHAPTER TWO: LITERATURE REVIEW

Empathy

Definitions of Empathy and Related Constructs

N4 seeks to promote empathy in its participants. Researchers have commonly defined empathy as consisting of two underlying dimensions: affective empathy (the tendency to rapidly experience the emotions observed in others) and cognitive empathy (the ability to accurately infer and understand the emotional states of others through a deliberate, conscious process) (Levenson, 1996; Rameson & Lieberman, 2009). Research has supported the idea that affective empathy and cognitive empathy are distinct subcomponents of empathic processing that overlap and serve jointly to inform observers of the internal states of others (Decety & Jackson, 2004). More recently, researchers have expanded the concept of empathy to include three dimensions: emotional contagion (affective empathy), cognitive empathy, and emotional disconnection which is regulatory self-protection against emotional distress (e.g., Decety & Michalska, 2010).

In this theory, affective empathy is described as a bottom-up process because it is considered to be an automatic response rather than a conscious one (thus the term “emotional contagion,” which describes emotions as being contagious, like a cold). Cognitive empathy is described as a top-down process because it is a conscious process of considering the states of others (Lamm, Batson, & Decety, 2007). Immediate affective awareness can be altered by the information added through the delayed cognitive process. Similarly, affective awareness can influence the extent to which one chooses to direct conscious consideration toward the observed person’s state, or the extent to which continued affective empathy is inhibited. This inhibition is called “emotional disconnection” because the observer disconnects from feeling the emotions of

the other to protect themselves from distress (Carré, Stefaniak, D'Ambrosio, Bensalah, & Besche-Richard, 2013).

Batson (2010) defined empathy as “other-oriented emotion elicited by and congruent with the perceived welfare of someone in need” (p. 11). This is more commonly known as “empathic concern” and “compassion” and will be referenced as those terms hereafter. It is important to note that empathy and empathic concern are not synonymous with total identification (a condition in which identity of self and identity of other are indistinguishable) because, while empathizing, one maintains discernment between self-originated states and those that are experienced through empathizing (Carré et al., 2013) with the possible exception of the emotional contagion subcomponent of empathy (Preston & de Waal, 2002).

Preston and de Waal (2002) favor a Perception-Action Model of empathy as a process and present a clear definition of empathy that broadly encompasses both cognitive and affective aspects. Empathy is “any process where the attended perception of the object’s state generates a state in the subject that is more applicable to the object’s state or situation than to the subject’s own prior state or situation” (Preston & de Waal, 2002, p. 4) with “subject” referring to the one who is empathizing and “object” referring to the person with whom the subject is empathizing. The model is based on the Perception-Action Hypothesis of motor behavior (Prinz, 1987; 1992; 1997). According to a perception-action model, evolutionary processes shaped nervous system organization to be response-oriented through encoding of objects and their related actions together in the same neural representations. This grouped representation facilitates efficient automatic and appropriate responses to the environment and provides the foundation for the development of empathic processes and helping behavior. According to the Perception-Action Model of empathy, “attended perception of the object’s state automatically activates the subject’s

representations of the state, situation, and object, and that activation of these representations automatically primes or generates the associated automatic and somatic responses, unless inhibited” (Preston & de Waal, 2002, p. 4). This means that when someone is focusing attention on perceiving another’s situation and emotional state, it automatically brings up the mental representations that the observer has of that person, situation-type, and emotional state; this, in turn, automatically generates the feelings in the body associated with those mental representations unless the distress of doing so causes the empathizer to close themselves off from the experience.

When one empathizes with someone else, the choice of how to respond follows. That response can be empathic or egoistic (Batson, 2010). In situations in which empathizers experience high levels of personal distress from empathizing, they may consciously or unconsciously disconnect from the person observed as a defensive measure to lessen their feelings of distress. Or, they may choose to help or comfort the person who is in distress if they perceive that they have the ability to do so. Having empathic concern for another better enables one to engage in an appropriate empathic response, a response that matches the needs of the other person or synergizes with him or her. This is because concern for the other activates memories, knowledge, and somatic responses relevant to acting upon that concern (Preston & de Waal, 2002).

An appropriate empathic response to an emotion is not necessarily to express the same emotion (Carré et al., 2013). Theory of mind, the recognition that others have different thoughts and perceptions from one’s own and that those other thoughts and perceptions are based on different experiences, is beneficial in choosing responses (Frith & Frith, 2010). For an appropriate empathic response to occur, the other’s emotional state must 1) be identified or

registered in awareness, 2) be understood on some level, and 3) connect with the empathic person's knowledge or experience of appropriate responses (Carré et al., 2013). This means that an empathic person's ability to respond appropriately is related to their life experiences and knowledge. For instance, someone who has been through a particular difficulty (e.g. divorce) may be able to help a person going through it better than someone who has not, though they may both empathize with the other person's feelings of grief.

Empathy differs from sympathy which is feeling an emotion *for* the other person. Sympathy can be an outcome of empathizing but it doesn't have to be. It can occur as a value judgment (i.e., I feel sorry for them) without having shared in the present feelings of the observed person (Carré et al., 2013). Sympathy and empathic concern are overlapping concepts in that they both involve having concern for another. The distinguishing characteristic of empathic concern is that the concern comes from empathizing with what the other person is feeling, but this distinction is sometimes lost by researchers. Jolliffe and Farrington (2006) have noted that the comingling of empathic concern and sympathy exists even in widely used measures of empathy such as the Interpersonal Reactivity Index (Davis, 1983).

Correlates of Empathy

Many studies have found gender and/or sex differences with respect to empathy. In a review of gender effects on empathy, Christov-Moore, Simpson, Coudé, Grigaityte, Iacoboni, & Ferrari (2014) found that the majority of studies show females as having the advantage of higher empathy levels than males on average. The studies reviewed included measures of emotion recognition (Thayer and Johnsen, 2000) and emotional contagion (Magen and Konasewich, 2011). One possible explanation (Christov-Moore et al., 2014; Krüger, Sokolov, Enck, Krägeloh-Mann, & Pavlova, 2013) for gender differences is an evolutionary one. Males, on

average, are only better than females at recognizing positive social cues from females, potentially because of its relationship to mating and reproduction. Females, however are better, on average, overall at reading emotions which may related to a focus on ascertaining partner qualities likely to contribute to high paternal care.

Research has also indicated a strong linear correlation between empathy and age. In one study (Sze, Gyurak, Goodkind, & Levenson, 2012), older adults (ages 60 to 80) reported higher levels of empathic concern in response to emotional films as measured by the empathic concern subscale of the Interpersonal Reactivity Index (Davis, 1983), than young adults (ages 20 to 30). The researchers theorize, in accordance with other research (Carstensen, Fung, & Charles, 2003), that such empathy differences in later life may be due to a shift in focus away from “self- and future-oriented goals to social and emotionally meaningful ones” (Sze et al., 2012, p. 1138), possibly influenced by increased awareness of mortality.

Empathy has also been shown to correlate with moral cognition, which can be thought of as awareness of an action’s potential or real violation of societal norms, especially as it pertains to harmful effects (Laible, Murphy, & Augustine, 2014). In a meta-analysis (Bzdok, Schilbach, Vogeley, Schneider, Laird, Langner, & Eickhoff, 2012) of functional magnetic resonance image (fMRI) data from 247 experiments, all of the active brain areas that were found to correlate with moral cognition were also found to correlate with empathy (dorsomedial prefrontal cortex), Theory of Mind (ventromedial prefrontal cortex, frontopolar cortex, dorsomedial prefrontal cortex, right and left temporo-parietal junctions, right middle temporal gyrus and right temporal pole) or both (dorso medial prefrontal cortex, right and left temporo-parietal junctions, and right middle temporal gyrus). This suggests that empathy may play an important role in recognizing

immoral behavior and in behaving prosocially because brain regions that are accessed while determining another's affective state are also accessed while assessing morality.

Neurology and Biochemistry of Empathy

Affective empathy has been hypothesized to originate from mirror neuron excitation in the brain that occurs while observing someone who is experiencing an emotional state (Decety & Jackson, 2004; Gallese & Goldman, 1998). Indirect evidence for the existence of mirror neurons comes from functional magnetic resonance imaging (fMRI) data that highlight congruency of brain excitation during actual tasks and observed tasks. The meta-analysis study by Bzdok et al. (2012) found that the brain regions most active during empathizing are the anterior medial cingulate cortex (aMCC) and the anterior insula (AI). The aMCC is active in emotional expression, focused attention, and decision-making involving uncertainty (Uppal, Wicinski, Buxbaum, Heinsen, Schmitz, & Hof, 2014). Anterior insula activity has been associated with risk-aversion in decision making. AI activity was found to positively correlate with avoidance of making a decision that would cause financial harm for another in an experimental decision making task (Greening, Norton, Virani, Ty, Mitchell, & Finger, 2014), which may indicate a neurological link between empathy and behaving in a manner that benefits others (prosocial behavior).

Oxytocin is a neuropeptide produced in the hypothalamus and is instrumental in pair bonding and empathy (Schneiderman, Kanat-Mayon, Ebstein & Feldman, 2013). In a study of the first stages of romantic love, Schneiderman et al. found that cumulative genetic risk factors impacting the oxytocin receptor gene (OXTR) significantly correlated with difficulties with empathic communication such as less empathic concern for partner distress, lower emotional

congruence, less support-giving behavior, and lower levels of persistence in maintaining focus on their partner's communications and needs.

Cortisol production is one process in the body's complex biochemistry that is related to levels of personal distress (Shirtcliff, Vitacco, Graf, Gostisha, Merz, & Zahn-Waxler, 2009). In a review of the extant literature, Shirtcliff et al. (2009) found that low levels of basal cortisol are associated with antisocial and psychopathic behavior due to providing a weakened feedback mechanism for aggressive acts. Eisenberg (2007) suggests that empathic concern is facilitated by optimal levels of biochemical stimulation (and therefore, cortisol production) by which an individual exhibits concern but is not overly distressed by hyper arousal. This suggests that balanced biochemistry supports the empathic process, while overactive or underactive basal cortisol production inhibits it. This also suggests that successful empathy training may have the physical effect of balancing cortisol production within the brain, potentially leading to lasting behavioral changes due to altered biochemistry.

Why Promote Empathy?

Many studies have shown a positive correlation between empathy and prosocial behaviors such as comforting (as in consoling someone who is distressed) (Tamborini, Salomonson, & Bahk, 1993), forgiving (McCullough, Worthington, & Rachal, 1997), and altruism (Sze et al., 2012; Burks, Youll, & Durtschi, 2012). According to the empathy-altruism hypothesis, altruistic behavior is thought to occur in part as a result of strong empathic concern (Batson, 2010). Batson defines altruism as "a motivational state with the ultimate goal of increasing another's welfare" (p.20). These concepts are contrasted with egoism, which Batson (2010) defines as "a motivational state with the ultimate goal of increasing one's own welfare," (p. 20) and personal distress, "feeling distressed *by* the state of the other" (p. 19).

Empathy is related to moral decision-making. In the aforementioned meta-analysis of functional magnetic resonance image (fMRI) data from 247 experiments, all of the active brain areas that were found to correlate with moral cognition were also found to correlate with measures of empathy or Theory of Mind or both (Bzdok et al., 2012). The authors of that study speculate that moral decision-making may rely upon both the ability to take on others' perspectives and to process their affective states.

Empathy promotes peaceful intentions and lessens bullying behavior. One study found that higher reported empathy levels for an out-group (a group to which the participant did not belong) correlated with lower levels of destructive conflict intentions such as aggression, exclusion, and non-accommodation toward that out-group (de Vos, van Zomeren, Gordijn, & Postmes, 2013). Interestingly, the explicit expression by the out-group of anger over injustice was the factor shown to increase empathy of participants for the out-group.

Empathy is thought to be an important component of healthy interpersonal communication and functioning because empathy enhances the ability of a person to communicate affection for the other by accurately reflecting the other's experience in communication and in expression of concern for the other's well-being (Floyd, 2014). Machiavellianism, narcissism, and psychopathy (collectively known as the "dark triad") are often characterized by a dysfunction of empathy. According to Giammarco and Vernon (2014), all three antisocial personality traits are characterized by superiority complexes and expectations of privilege; Machiavellianism is further characterized by a tendency to manipulate and deceive; narcissism is further characterized by an inflated view of self-importance; psychopathy is further characterized by selfish and impulsive acts of harm to others. Using self-reports of dark triad personality traits, they found that Machiavellianism and psychopathy strongly and negatively

correlated with empathic concern as measured by the Interpersonal Reactivity Index (Davis, 1983). Narcissism also is negatively correlated with empathic concern to a lesser extent (Giammarco & Vernon, 2014). Additionally, Machiavellianism and psychopathy, but not narcissism, negatively correlated with perspective-taking ability (the ability to look at a situation from another person's point of view). These correlations suggest that empathy inhibits antisocial behavior and/or promotes prosocial behavior.

Empathy Training

Do empathy scales measure an innate, unchangeable capacity or do they measure a skill set that can be learned? Traditionally, empathy has been conceived of as a trait. However, recent research has shown that empathy can develop over time. Empathy, as measured through empathic concern, has been shown to be strongly and positively correlated with age (Sze et al., 2012) when comparing young adults, ages 20 to 30, with older adults, ages 60 to 80.

Rameson, Morelli, and Lieberman (2011) also challenged the notion of empathy as a static trait measure. They tested this notion using self-reported empathic responses to sad images and fMRI neural activity measures across three test conditions: watching the sad images naturally without explicit directive to empathize, watching them in the same manner but while also having to memorize an 8 digit number (cognitive load condition), and watching them with the instruction to actively empathize. A significant difference in empathy levels between participants who were scored as having high-trait empathy and those who were scored as having low-trait empathy was seen only in the load condition. This suggests that trait empathy is not a strict measure of capacity but indicates a tendency or *habit* to maintain other-focused empathic awareness in situations that demand cognitive resources (Rameson et al., 2011).

Studies on the effects of empathy training provide further support that empathy can be promoted. In a study involving primary school children who exhibited bullying behaviors, an eleven-week empathy-training program significantly reduced bullying for the experimental group while the control group saw no improvement (Sahin, 2012). Furthermore, the reduction in bullying behavior persisted at follow-up 60 days later.

How N4's Narrative Exchange Program Promotes Empathy

High school students are faced with a critical decision as they approach graduation: what will they aspire to do with their adult lives? “Narrative 4 works with schools... by helping schools produce civic-minded, responsible, empathetic individuals with a keen global awareness—individuals that see a world filled with promise” (narrative4.com/mission-vision/curriculum). N4's narrative exchange process for promoting empathy in future community leaders consists of several key components. First, high quality fictional literature is integrated into the classroom curriculum to encourage students to consider and discuss important themes and character experiences. Discussion is intended to facilitate expression and empathy for the characters. In a study designed to measure the effects of imagery generation during story reading on empathy, Johnson, Cushman, Borden, and McCune (2013) found that higher levels of transportation (being imaginatively engaged with the characters and events of a story) led to higher levels of self-reported affective empathy on a five-point Likert scale that rated the experience of six empathic emotions. Furthermore, the increased affective empathy levels mediated increases in prosocial behavior. It should be noted that the characters in the study story engaged in prosocial behavior, which may explain the link in this case. However, affective empathy also has been positively correlated with prosocial behavior more generally (e.g. Sze et

al., 2012; Burks et al., 2012), sometimes as a mediating variable between other factors and prosocial behavior.

The second step in N4's process is for each student to write a short autobiographical narrative about an important time in their life that they will share later with a randomly paired partner. Students decide the type of story they wish to convey (i.e. funny, sad, adventurous, etc.). This component encourages students to reflect on their lives and promotes self-awareness. According to Decety and Jackson (2004), self-awareness and self-knowledge precede the ability to infer the states of others and are foundational for empathic processing. Also, self-affirmative writing (writing on topics or values important to oneself) has been shown to increase self-compassion and prosocial behavior (Lindsay, Creswell, Zelenski, & Frimer, 2014). It may be that attending to and affirming oneself lessens a need to be affirmed, and, therefore, frees the individual from egoistic focus to be able to direct attention toward others and act upon their needs.

After the narratives have been composed, each student is randomly partnered with another student to whom they will tell their story and from whom they will receive a story. The teachers explain that each student will be responsible for retelling their partner's story to the class after the exchange with their partner, and that they will want to listen intently to their partner to be able to tell it well. The instructions are presented with an emphasis on trust and respect for one another and for each other's story. Students are encouraged to make eye contact, take notes, and do whatever is necessary for them to make sure they understand each other's stories fully. Initial exchanges are experienced face-to-face, while subsequent exchanges with students from other geographic regions may utilize technology to make audio-video connections (narrative4.com/f-q). In face-to-face exchanges, paired partners find a semi-private setting to

exchange stories, which usually takes about 30 minutes. The story-telling aspect of this component reinforces self-awareness in the storyteller (Andenoro, Popa, Bletscher, & Albert, 2012) while active listening by the partner exercises placing their focus of attention on others. Each student experiences both of these aspects, in turn, at this stage of the process.

After the 30-minute period, students return to a common space in which the chairs are usually arranged in an oval or rectangular format with two chairs at the head of the room. A pair of students volunteers or is picked to go first in telling each other's stories, one at a time, to the class. Each student tells his or her partner's story in first-person perspective as though he or she were the partner. Deliberate perspective taking has been shown to cognitively connect self and other and increase positive trait attributions by the perspective-taker for the other (Davis, Conklin, Smith, & Luce, 1996). It may be that taking another person's perspective expands mental constructs of that person to include aspects of oneself. For the storyteller, this component goes a step beyond placing attention on another person to taking on their perspective and retelling it. Also, the partner hears his or her story being told by someone else, which is an uncommon experience. This aspect encourages a connection between self and other in a unique way by providing external validation of self. The story that was privately held within is told from outside oneself, offering the originator the ability to experience their story from an additional perspective. Clapping, finger snapping, and other forms of praise typically naturally follow each storytelling. This serves to reinforce the safety and positive nature of participation.

Written and/or verbal reflection of the experience usually follows the exchange. Reflective writing has been shown to be an effective way to reinforce student insights following participatory events such as service learning (Bleicher & Correia, 2011). Reflective writing is a process that causes the reflector to cognitively recreate the attended experience and process it on

a deeper level. The reflections also help N4 understand student experiences by providing insights into participant thoughts and feelings about the exchange and its impact.

Statement of the Problem

This study's purpose is to provide N4 with a beginning framework for ongoing program assessment by examining the process and learning outcomes of N4's narrative exchanges with respect to empathy and prosocial tendencies. Research was guided by the following questions: 1) Do students report significantly higher levels of empathy and prosocial behavioral tendencies after participating in N4's narrative exchange program than before participating? 2) Are changes in prosocial behavioral tendencies mediated by changes in empathy measures? 3) What do the themes and content of student reflections reveal about their experiences of participating in the exchange process? To the author's knowledge, this is the first attempt at systematic investigation of the relationships between this unique program and empathy, as well as prosocial behavior.

Hypothesis 1: Participants will report higher levels of empathy and empathic concern after participation in N4 exchanges than before as measured by the emotional contagion and cognitive empathy subscales of the BES (three-factor model) and the empathic concern, and perspective-taking subscales of the IRI. This hypothesis is based both on prior research that suggests that empathy levels in people are better conceived of as changeable than as a static trait (Rameson et al., 2011; Sahin, 2012; Sze et al., 2012), and on separate studies supporting theoretical connections between component processes similar to those used in the N4 narrative exchange program and empathy development (Andenoro et al., 2012; Davis et al., 1996; Decety and Jackson, 2004; Johnson et al., 2013; Lindsay et al., 2014).

Hypothesis 2: Changes in participants' scores on the cognitive empathy subscale of the BES and the perspective-taking subscale of the IRI will negatively correlate with their scores on the emotional disconnection subscale of the BES (three-factor model) and personal distress subscale of the IRI. This hypothesis is based on prior research (Eisenberg, 2007) that suggests that poor emotion regulation and heightened distress disrupt other-focused attentional effort that is fundamental to empathy.

Hypothesis 3: Participants will report higher levels of prosocial behavior after participating in N4 exchanges than before participation as measured by the global score of the PTM-R and those changes will be mediated by changes in affective empathy as measured by the emotional contagion subscale of the BES (three-factor model). This hypothesis is based on prior research (Sahin, 2012) that has shown that empathy training can increase prosocial behavior, and research (Johnson et al., 2013; Sze et al., 2012; Burks et al., 2012) that has shown a relationship between prosocial behavior and affective empathy.

Hypothesis 4: Participants' reflections on the N4 program will reveal mostly positive views regarding the experience, as well as themes of community bonding. This hypothesis is based on personal observations of other N4 exchanges and research (Schneiderman et al., 2013) that empathy and bonding are related.

CHAPTER THREE: METHOD

Participants and Procedure

In cooperation with N4, English teachers at a rural Southern Appalachian region high school integrated N4's exchange program into the curriculum of some of the senior English classes starting in the fall of 2014. The school solicited and obtained parent/legal guardian and student consent and assent to collect and analyze data in the form of self-report scales and student reflections prior to data collection. Additional consent and assent forms were distributed and collected by the teachers to grant the researcher access to that data and additional rounds of data collection. Thirteen students from one class and two from another returned the additional required forms. Demographics such as gender of participants was not provided by the school.

Students completed the Basic Empathy Scale (BES) (Jolliffe & Farrington, 2006), the Prosocial Tendencies Measure – Revised (PTM – R) (Carlo et al., 2003) and the Interpersonal Reactivity Index (IRI) (Davis, 1983) prior to and following each narrative exchange. See Appendix A for scales. Forms were coded by assigned student numbers, by letter for participating class, and by number for tracking exchange order. Teachers instructed students to complete all three scales according to the directions on the forms and to make sure to leave off their names to keep the responses confidential. Teachers were advised to allow at least a week in between exchanges and scale administrations to separate them temporally and reduce potential effects of cognitive association by students. A longer separation would have been preferable but this condition was constrained by classroom schedule needs. Following one of the exchanges, one of the two participating teachers assigned reflection questions for the students to answer about their experiences. The questions were chosen by the teacher as an assignment and are as

follows: 1) What surprised you about hearing and telling other people's stories? 2) Was there anything that moved you in ways that were unexpected? If so, what was it? 3) Was there anything in the telling or re-telling of stories that disturbed you? 4) Do you believe you learned something from this experience? 5) Is there any aspect of this experience that you find inspiring or that you think might inspire others?

Measures

Basic Empathy Scale

Jolliffe and Farrington's (2006) Basic Empathy Scale (BES) consists of 20 items designed to measure individual differences in empathy levels. Unlike other empathy scales that focus on only negative emotions, BES measures empathetic responses to a variety of emotions (anger, fear, happiness, sadness). Each item response is scored on a 5-point scale, which ranges from 1 (*strongly disagree*) to 5 (*strongly agree*). Negatively worded items are reverse-scored. Jolliffe and Farrington conceive of empathy as consisting of two subcomponents: affective empathy and cognitive empathy. The affective empathy subscale consists of eleven items (1, 2, 4, 5, 7, 8, 11, 13, 15, 17, 18, Cronbach's $\alpha = .85$) that measure a person's tendency to automatically match the emotional states of others (e.g., "After being with a friend who is sad about something, I usually feel sad."). The cognitive empathy subscale consists of nine items (3, 6, 9, 10, 12, 14, 16, 19, 20, Cronbach's $\alpha = .79$) that measure a person's level of awareness and understanding of other people's emotions (e.g., "I can usually work out when people are cheerful."). See Appendix A for a description of the whole scale.

The BES has also been validated for use in measuring empathy as a 3-factor process consisting of emotional contagion, emotional disconnection, and cognitive empathy (Carré et al., 2013). In this usage, the emotional contagion subscale, which measures affective empathy

consists of six items (2, 4, 5, 11, 15, 17, Cronbach's alpha = .72) (e.g., "I get caught up in other people's feelings easily."); the cognitive empathy subscale consists of eight items (3, 6, 9, 10, 12, 14, 16, 20, Cronbach's alpha = .69) (e.g., "I can understand my friend's happiness when she/he does well at something."); and the emotional disconnection subscale which measures regulatory self-protection against emotional personal distress consists of six items (1, 7, 8, 13, 18, 19, Cronbach's alpha = .82) (e.g., "My friends' emotions don't affect me much."). Carré et al. (2013) found that a three-factor model of the BES is statistically better than the two-factor model, though their analysis was based on unequal representation of genders.

The validity of the BES for measuring empathy has been well established (Jolliffe & Farrington, 2006). Construct validity has been demonstrated in finding the expected differences between participants reporting prosocial helping behavior in bullying scenarios and those who did not. Significant differences between males and females in this regard were also found as expected. Convergent validity has been shown by expected relationships between the BES and measures of agreeableness, alexithymia, conscientiousness, openness, parental supervision, SES and sympathy. Jolliffe and Farrington (2006) also found that scores on the BES did not significantly correlate with a measure of socially desirable responding.

Prosocial Tendencies Measure – Revised

Carlo et al.'s (2003) Prosocial Tendencies Measure – Revised (PTM-R) consists of 25 items designed to measure individual differences in prosocial behavioral tendencies. Each item response is scored on a 5-point scale, which ranges from 1 (*does not describe me at all*) to 5 (*describes me greatly*). The authors of the measure conceived of six types of prosocial behaviors: public, anonymous, direct, emotional, compliant, and altruism. The public subscale consists of four items that measure "behaviors intended to benefit others enacted in the presence

of others” (Carlo et al., 2003) (e.g., “I can help others best when people are watching me.”). The anonymous subscale consists of five items that measure “the tendency to help others without other people’s knowledge” (Carlo et al., 2003) (e.g., “I think that helping others without them knowing is the best type of situation.”). The dire subscale consists of three items that measure “helping others under emergency or crisis situations” (Carlo et al., 2003) (e.g., “I tend to help people who are in real crisis or need”). The emotional subscale consists of five items that measure “behaviors intended to benefit others enacted under emotionally evocative situations” (Carlo et al., 2003) (e.g., “I respond to helping others best when the situation is highly emotional”). The compliant subscale consists of two items that measure the behavior of “helping others when asked to” (Carlo et al., 2003) (e.g., “When people ask me to help them, I don’t hesitate.”). The altruism subscale consists of six items that measure “helping others when there is little or no perceived potential for a direct, explicit reward to the self” (Carlo et al., 2003) (e.g., “I often help even if I don’t think I will get anything out of helping”). See Appendix A for a description of the whole scale. Cronbach’s alpha coefficients for the subscales ranged from .75 to .86 for middle adolescents ($\bar{x} = 17.3$ years).

Interpersonal Reactivity Index

Davis’s (1983) Interpersonal Reactivity Index (IRI) consists of 28 items designed to measure individual differences in empathy levels. Each item response is scored on a 5-point Likert scale, which ranges from A (*describes me well*) to E (*does not describe me very well*). Negatively worded items are reverse-scored. Davis conceived of empathy as an interplay of four dimensions: emotional contagion, personal distress, perspective-taking, and fantasy. The emotional contagion subscale consists of seven items (2, 4, 9, 14, 18, 20, 22) that measure “‘other-oriented’ feelings of sympathy and concern for unfortunate others” (Davis, 1983) (e.g., “I

often have tender, concerned feelings for people less fortunate than me.”). The personal distress subscale consists of seven items (6, 10, 13, 17, 19, 24, 27) that measure “‘self-oriented’ feelings of personal anxiety and unease in tense interpersonal settings” (Davis, 1983) (e.g., “I tend to lose control during emergencies.”). The perspective-taking subscale consists of seven items (3, 8, 11, 15, 21, 25, 28) that measure “the tendency to spontaneously adopt the psychological point of view of others” (Davis, 1983) (e.g. “Before criticizing somebody, I try to imagine how I would feel if I were in their place.”). The fantasy subscale consists of seven items (1, 5, 7, 12, 16, 23, 26) that measure “respondents' tendencies to transpose themselves imaginatively into the feelings and actions of fictitious characters in books, movies, and plays” (Davis, 1983). See Appendix A for a description of the whole scale.

The IRI is the most widely used empathy scale to date (Pulos, Elison, & Lennon, 2004) and is included for ease of comparison to existing studies, as well as with future studies with other potential N4 research partners who may favor its established use. Also, the empathic concern subscale measures empathic concern and sympathy which are not included in the BES (Jolliffe & Farrington, 2006). Although the IRI has been widely used since its inception in 1983, Jolliffe and Farrington (2006) noted two concerns regarding its construct validity as a pure measure of empathy. First, some questions on the affective empathy scale measure sympathy rather than affective empathy. Sympathy is distinguished from empathy as a feeling for someone rather than a sharing of the same affective state (Carré et al., 2013). Second, the IRI cognitive empathy scale features questions that measure non-emotional perspective-taking ability as opposed to emotion-specific awareness and understanding. The IRI has also been criticized for its narrow focus on presenting intense negative scenarios when measuring affective empathy without also presenting scenarios that may elicit positive emotional responses (Carré et al.,

2013). Even so, the IRI provides additional insight and researchers have demonstrated adequate validity and reliability measures (Cronbach's alphas range from .75 to .82) (Davis, 1983; Pulos, Elison, & Lennon, 2004).

CHAPTER FOUR: RESULTS

Due to unforeseen obstacles and challenges that accompany applied research, the data collected for this study was more limited than desired. Specifically, only 15 students from two classes returned consent and assent forms for participation in the study (N = 13 for class 1, N = 2 for class 2). Furthermore, the two students from Class 2 were eliminated from analysis because of procedural inconsistencies between Class 1 and Class 2. Additionally, some pretest measures were missing corresponding posttest measures such that the number of participants that completed both measures for each scale was as follows: Basic Empathy Scale (N = 12), Interpersonal Reactivity Index (N = 11), and Prosocial Tendencies Measure—Revised (N=10). Consequently, the analyses presented in this section are not intended to be full tests of the stated hypotheses, but, rather, explorations of the obtained data.

Scores on all utilized subscales of the Basic Empathy Scale and the Interpersonal Reactivity Index, as well as the global score of the Prosocial Tendencies Measure—Revised were found to be normally distributed as determined by nonsignificant *W* values of the Shapiro-Wilk test of normality (Shapiro & Wilk, 1965). Applicable difference scores derived from these subscales were also found to be normally distributed using the same test of normality.

Hypothesis 1

According to Hypothesis 1, participants should show greater empathy after participating in the N4 exchanges. Therefore, the prediction was made that participants would report higher scores on the measures of a) emotional contagion, b) cognitive empathy, c) empathic concern and d) perspective taking after completing the N4 exchanges than before. This prediction was

tested by conducting a series of paired-sample t-tests on each measure with time of administration (pretest, posttest) serving as a repeated measures variable.

Contrary to the prediction, there was a statistically significant *decrease* in cognitive empathy from the Pretest ($M = 32.36, SD = 2.80$) to the Post-test ($M = 30.46, SD = 1.86$), $t(10) = 2.75, p < .02$ (one-tailed). However, this significant difference was only seen after removing a participant's outlier pair of scores to meet normal distribution assumptions for analysis. Accordingly, caution is recommended in interpreting the result. The mean decrease in cognitive empathy scores was 1.91 with a 95% confidence interval ranging from 0.36 to 3.45. Cohen's d statistic (0.80) indicated a large effect size. No other significant differences between Pre and Post scores were found on any of the other measures.

The evaluative results from the obtained dataset do not provide support for Hypothesis 1. Three of the four variables evaluated (emotional contagion, empathic concern, and perspective-taking) did not show significant differences between Pre and Post measure times. The fourth variable, cognitive empathy, showed a significant change in the opposite direction than expected. However, this relationship was only found after removing a participant's outlier pair of scores to meet normal distribution assumptions for analysis.

Hypothesis 2

Hypothesis 2 proposed that changes in participants' scores on the cognitive empathy subscale of the BES and the perspective-taking subscale of the IRI would negatively correlate with their scores on the emotional disconnection subscale of the BES (three-factor model) and personal distress subscale of the IRI. This hypothesis was tested by examining the relationships among changes (as measured by Post minus Pre scores on the corresponding BES and IRI

subscales) in cognitive empathy, perspective taking, emotional disconnection, and personal distress as described by Pearson product-moment correlation coefficients.

The results from the obtained dataset, however, do not support Hypothesis 2. Although a significant positive correlation was found between changes in perspective-taking and changes in cognitive empathy ($r = .59, n = 10, p < .05$), neither of those change score sets were found to significantly correlate negatively with changes in personal distress and emotional disconnection (see Table 1).

Table 1: Pearson product moment correlations between changes in measures (Post - Pre)

Subscale	1	2	3	4
1. Cognitive empathy	-	.59**	.06	-.03
2. Perspective-taking		-	-.42	.24
3. Emotional disconnection			-	-.46
4. Personal distress				-

** $p < .05$ (1-tailed)

Hypothesis 3

Hypothesis 3 proposed that participant scores on the Prosocial Tendencies Measure—Revised would be higher after participation in the exchange than before, and that the increase would be mediated by changes in affective empathy as measured by the emotional contagion subscale. The prediction of PTM-R score increase was tested by conducting a paired-sample t-test on the measures with time of administration (pretest, posttest) serving as a repeated measures variable. Due to a typographical error which changed the meaning of item 14 of the PTM-R, it was excluded for all participants from the analysis.

The evaluative results from the obtained dataset do not provide support for Hypothesis 3. Differences in Pre ($M = 79.40, SD = 7.63$) and Post ($M = 77.60, SD = 8.82$) measures of

prosocial behavior were not found to be significant, $t(9) = .61, p = .56$. Accordingly, mediation analysis was not performed.

Hypothesis 4

Only one student for whom consent and assent forms were obtained provided answers to the reflection questions posited by the classroom teacher. Accordingly, Hypothesis 4 was not evaluated.

CHAPTER FIVE: DISCUSSION

In the recent wake of rising school violence, psychologists are seeking to better understand the various factors that help curtail aggression, promote prosocial behavior, and form positive learning environments. For this reason, empathy has become a subject of increasing research interest. In the past, researchers have viewed empathy as being static and stable like a personality trait. However, more recently, researchers have presented empathy as being a process that can be encouraged and habitualized. In support of this view, some studies have successfully demonstrated higher levels of empathy in students who participated in empathy-focused curriculum and that the increases persisted after participation. This study was unable to provide empirical support for the effectiveness of N4's narrative exchange program. The extant literature supports the theoretical soundness of its program to foster empathy and prosocial behavior. It is hoped that N4 will be able to use the identified measures of empathy and prosocial behavior in its ongoing research efforts and demonstration of program effectiveness.

Conducting Research in Schools

Conducting research within schools poses a variety of challenges for researchers. Consideration must be given to the school's needs and primary function of educating students. General recommendations from the literature for working within schools are given below, including study design considerations.

School-Researcher Relations

A key component of successfully conducting research in schools is to foster positive relationships among researchers and school personnel. Regarding positive relations, Alibali and Nathan (2010) recommend that researchers: be patient, be flexible, follow up with results, and

give something back. Researchers are advised to allow more time than anticipated for collecting data because of the many competing demands for student and teacher time such as instructional time, standardized testing, and special events. Coordinating schedules with teachers is also essential, with the understanding that last minute changes may be necessary to accommodate teachers' primary focus of educating students. It is important to acknowledge and thank school administrators, teachers, parents, and students, and to send a copy of the published research to the participating school(s). Researchers should make sure that the research being conducted is relevant to school success and addresses a need of the participating school. Other gestures of appreciation for researchers to consider giving include providing an in-service workshop for teachers on a topic of importance and interest, making a small donation of books to the school library or classrooms, and offering to volunteer to offset the time teachers and staff invest in the research.

Study Design Considerations

Chosen design methodology or methodologies can impact the inferences that are derived by researchers from study data. Bender, Brisson, Jenson, Forrest-Bank, Lopez, and Yoder (2011) noted a variety of limitations accompanying differing designs that were implemented while conducting program-based research in after-school settings. The three designs discussed were single-group pretest-posttest, correlational, and focus-group feedback. The major limitation of single-group pretest-posttest designs is that a lack of comparison group reduces confidence that the effects were due to the program rather than some unknown factor(s). Correlational designs describe relationship between variables but do not prove causation or direction of relationship. Focus-group feedback does not prove causation but is a qualitative method for gathering potential insights. An additional limitation of this method is that data

quality can suffer from convenience sampling (those who volunteer to participate in focus groups may not be typical representatives of the participant group). From reflecting upon their own experiences, the researchers recommended using either experimental designs or quasi-experimental designs which are often easier to implement in schools than true experimental designs. It is often impractical to use random sampling when a program is being offered to an entire class, grade, school, or system. Quasi-experimental designs can be accomplished by using matched groups (groups similar in factors that are relevant to the variables being studied) for intervention and control groups. This provides greater confidence in making causal attributions without random sampling.

Conducting Causal Research in Schools

Causal research isn't perfect, however. Researchers must consider the tradeoffs among all design types. Taylor, Kowalski, Wilson, Getty, and Carlson (2013) noted a conflict between funding policies and school policies regarding study designs. Current funding policies favor supporting large-scale randomized interventional studies. School policies, however, such as a focus on testing as a result of No Child Left Behind (NCLB) legislation, discourage complex, time-consuming studies. The high-stakes nature of student achievement assessment means that teachers and administrators must justify any time not directly spent on established methodologies for maximizing student achievement. Another factor influencing the feasibility of causal research is that of scale. Students do not operate independently in school systems but, rather, belong to various clusters (classroom, team, school, etc.). Accounting for the effects of nested data commonly pushes researchers to include 25 to 50 schools in a single study. This can be very expensive and require extensive coordination and planning. Furthermore, this scale of implementation can make including rural schools challenging for researchers who must travel

between sites. That is not to say that all causal studies are implemented on such a grand scale. Accounting for the effects of nested data increases confidence in the generalizability of the study findings and a study which proposes to do so may be more competitive for funding. However, a lesser degree of confidence in generalizability of findings provided by smaller studies may still be acceptable to the researcher depending on research goals. Another challenge encountered when conducting causal research is that many school districts' curriculum adoption procedures churn slowly over the course of one to two years (Taylor et al., 2013). Researchers implementing changes to established curriculum must understand the school district's process and timeline for adopting new curriculum, and work patiently with realistic expectations of time commitment for study implementation.

Limitations and Future Directions

This study was designed and implemented under confines of available time and resources, bringing with it associated limitations. Future studies would benefit from having a greater number of participants for added statistical power. Low participation greatly limited the ability of this study to provide desired empirical support of program effectiveness. Expanding the number of participating classrooms would help to increase the participant base. This may be easiest in schools in which the N4 curriculum is already firmly established. Another potential reason that results of this study differed from expectations is that no incentive was provided to participants. Providing incentive(s) such as a raffle prize or prizes for completing scales may increase participant engagement and ensure high data quality. Future research would also benefit from collecting additional participant information. Demographics such as gender may be helpful for measuring impact of participant characteristics on program effects. Including a comparison group or groups and matching students by GPA data across classrooms and study conditions

would allow for greater confidence in causal attribution of effects without the need for random assignment of conditions. Additionally, although administering all three scales used in this study takes only about 15 minutes, eliminating overlapping measures or selecting certain subscales of interest may enhance the quality of data obtained in future studies by reducing potential response fatigue of participants. Another consideration for reducing potential response fatigue is to replace the PTM-R scale with a behavioral measure of prosocial action. Christov-Moore et al. (2014) identified two economic games that serve this purpose: the *Ultimatum Game*, and the *Dictator Game*. In these games, the amount of money the players obtain is influenced by prosocial behavior such as cooperation.

Much work is left to be done in fully understanding the empathy process. Notably, the factors that influence whether one is able to attend to the needs of another with empathic concern or, instead, emotionally disconnects to avoid feeling distressed, are not well understood. It may be that nonlinear relationships exist among affective empathy, empathic concern, and prosocial behavior such that a balance between self-focused and other-focused attention is more conducive to the empathic process (and prosocial behavior) than a focus that is too pronounced on either side of the spectrum. Self-affirmative writing has been shown to promote empathy (Lindsay, Creswell, Zelenski, & Frimer, 2014). It may be that affirming the self plays a role in facilitating balance of attention between self and other. The less-affirmed or neglected self may be more vulnerable to experiencing high levels of self-distress, leading to emotional disconnection instead of empathic concern for the other. This area of research may be productive if it finds that empathy is by-and-large a process that occurs naturally when uninhibited by personal distress, and training that focuses on breaking down this obstacle is a successful approach.

Conclusion

N4's narrative exchange program is a unique approach to fostering empathy in high school students. The program incorporates several component processes that are supported by prior research as effective in promoting empathy such as self-affirmative writing, other-focused attention, and perspective taking. Students in past exchanges have found the experience to be valuable, and some have become ambassadors for prosocial causes. This study was unable to provide empirical support. However, as a first attempt at systematic research into the program's effectiveness, it has been fruitful in gathering together extant research that provides theoretical support for the soundness of N4's exchange process. Also, scales that are appropriate for use with high school students as quick measures of levels of empathy and prosocial tendencies have been identified. It is hoped that these insights will be helpful to N4 in its ongoing programmatic research and expansion efforts.

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APPENDIX A: SCALES

Basic Empathy Scale (BES)

Below are a number of statements that may or may not describe you. Please indicate how much each statement describes you by using the scale below.

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	2	3	4	5

- ___ 1. My friend's emotions don't affect me much.
- ___ 2. After being with a friend who is sad about something, I usually feel sad.
- ___ 3. I can understand my friend's happiness when she/he does well at something.
- ___ 4. I get frightened when I watch characters in a good scary movie.
- ___ 5. I get caught up in other people's feelings easily.
- ___ 6. I find it hard to know when my friends are frightened.
- ___ 7. I don't become sad when I see other people crying.
- ___ 8. Other people's feelings don't bother me at all.
- ___ 9. When someone is feeling 'down' I can usually understand how they feel.
- ___ 10. I can usually work out when my friends are upset.
- ___ 11. I often become sad when watching sad things on TV or in films.
- ___ 12. I can often understand how people are feeling even before they tell me.
- ___ 13. Seeing a person who has been angered has no effect on my feelings.
- ___ 14. I can usually work out when people are cheerful.
- ___ 15. I tend to feel scared when I am with friends who are afraid.
- ___ 16. I can usually realize quickly when a friend is angry.
- ___ 17. I often get swept up in my friend's feelings.
- ___ 18. My friend's unhappiness doesn't make me feel anything.
- ___ 19. I am not usually aware of my friend's feelings.
- ___ 20. I have trouble figuring out when my friends are happy.

Prosocial Tendencies Measure Revised (PTM-R)

Below are a number of statements that may or may not describe you. Please indicate how much each statement describes you by using the scale below.

Does Not Describe Me At All 1	Describes Me A Little 2	Somewhat Describes Me 3	Describes Me Well 4	Describes Me Greatly 5
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- ___ 1. I can help others best when people are watching me.
- ___ 2. It makes me feel good when I can comfort someone who is very upset.
- ___ 3. When other people are around, it is easier for me to help others in need.
- ___ 4. I think that one of the best things about helping others is that it makes me look good.
- ___ 5. I get the most out of helping others when it is done in front of other people.
- ___ 6. I tend to help people who are in a real crisis or need.
- ___ 7. When people ask me to help them, I don't hesitate.
- ___ 8. I prefer to donate money without anyone knowing.
- ___ 9. I tend to help people who are hurt badly.
- ___ 10. I believe that donating goods or money works best when I get some benefit.
- ___ 11. I tend to help others in need when they do not know who helped them.
- ___ 12. I tend to help others especially when they are really emotional.
- ___ 13. Helping others when I am being watched is when I work best.
- ___ 14. It is easy for me to help others when they are in a bad situation.
- ___ 15. Most of the time, I help others when they do not know who helped them.
- ___ 16. I believe I should receive more rewards for the time and energy I spend on volunteer service.
- ___ 17. I respond to helping others best when the situation is highly emotional.
- ___ 18. I never wait to help others when they ask for it.
- ___ 19. I think that helping others without them knowing is the best type of situation.
- ___ 20. One of the best things about doing charity work is that it looks good on my resume.
- ___ 21. Emotional situations make me want to help others in need.
- ___ 22. I often make donations without anyone knowing because they make me feel good.
- ___ 23. I feel that if I help someone, they should help me in the future.
- ___ 24. I often help even if I don't think I will get anything out of helping.
- ___ 25. I usually help others when they are very upset.

Interpersonal Reactivity Index (IRI)

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, write the letter in the blank 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 DESCRIBE ME WELL				DESCRIBES ME VERY WELL

- ___ 1. I daydream and fantasize, with some regularity, about things that might happen to me.
- ___ 2. I often have tender, concerned feelings for people less fortunate than me.
- ___ 3. I sometimes find it difficult to see things from the "other guy's" point of view.
- ___ 4. Sometimes I don't feel very sorry for other people when they are having problems.
- ___ 5. I really get involved with the feelings of the characters in a novel.
- ___ 6. In emergency situations, I feel apprehensive and ill-at-ease.
- ___ 7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.
- ___ 8. I try to look at everybody's side of a disagreement before I make a decision.
- ___ 9. When I see someone being taken advantage of, I feel kind of protective towards them.
- ___ 10. I sometimes feel helpless when I am in the middle of a very emotional situation.
- ___ 11. I sometimes try to understand my friends better by imagining how things look from their perspective.
- ___ 12. Becoming extremely involved in a good book or movie is somewhat rare for me.
- ___ 13. When I see someone get hurt, I tend to remain calm.
- ___ 14. Other people's misfortunes do not usually disturb me a great deal.
- ___ 15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
- ___ 16. After seeing a play or movie, I have felt as though I were one of the characters.
- ___ 17. Being in a tense emotional situation scares me.
- ___ 18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
- ___ 19. I am usually pretty effective in dealing with emergencies.
- ___ 20. I am often quite touched by things that I see happen.
- ___ 21. I believe that there are two sides to every question and try to look at them both.
- ___ 22. I would describe myself as a pretty soft-hearted person.
- ___ 23. When I watch a good movie, I can very easily put myself in the place of a leading character.
- ___ 24. I tend to lose control during emergencies.
- ___ 25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.
- ___ 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.

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

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