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THE MODERATING IMPACT OF NEUROTICISM ON THE RELATIONSHIP
BETWEEN MORAL PERSONALITY CHARACTERISTICS AND PROSOCIAL
BEHAVIORS

by

Trisha Marie Nash

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

Major: Counseling Psychology

The University of Memphis

August, 2013

Acknowledgements

I would like to thank my mother for her love and support, as well as for her unwavering belief in my abilities throughout my years of education. Also, thanks to Sara (Dr. B) for her guidance, feedback, and constant assistance, throughout my doctoral career. Additionally, I'd like to thank my father for his help throughout my education. I would also like to thank my committee for taking the time to work with me on this venture, and lastly, I would also like to thank everyone who took time out of their busy schedules to complete the surveys. Without their efforts this area of research could not continue to develop.

Abstract

Nash, Trisha Marie. Ph.D. The University of Memphis. August 2013. The moderating impact of neuroticism on the relationship between moral characteristics and prosocial behaviors. Major Professor: Sara K. Bridges

Prosocial behaviors are considered to be beneficial, not only to the person who receives them, but also to the person acting as the benefactor, and are shown to increase positive outcomes such as vitality, self-esteem and subjective well-being (Weinstein & Ryan, 2010). While various researchers have questioned why people do or do not act prosocially (e.g., Batson, Harris, McCaul, Davis, & Schmidt, 1979; Eisenberg et al., 1999, etc.), the understanding about the factors that lead to or inhibit prosocial behaviors remains lacking. It is known that positive moral characteristics such as empathy (e.g., Batson, 1984, 1991), perspective taking (e.g., Batson, 1987) and gratitude (e.g., Bartlett & DeSteno, 2006) are related to prosocial behaviors; however, the relationship is not perfect and may be influenced by outside factors such as high emotionality and lack of emotional regulation (Caprara & Steca, 2005; Gibbons & Wickland, 1982). The purpose of this study is to look at the impact of neuroticism (which includes a lack of emotional regulation, high emotionality, and an element of self-focus) on the relationship between moral characteristics and prosocial behaviors. This study collected and analyzed data from 214 respondents, using hierarchical regression procedures. Results indicated that a person's level of neuroticism did not impact the relationship between empathy and prosocial behaviors nor the relationship between perspective taking and prosocial behaviors. When looking at the relationship between gratitude and prosocial behaviors, a mid-level of neuroticism was predictive of acting prosocially. Additionally, post-hoc hierarchical regression analyses examining the relationship between moral characteristics and prosocial behaviors indicated that empathy was the only significant predictor of

acting prosocially. The implications of how these results may impact researchers and counseling psychologists, as well as limitations and future directions, are provided.

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Chapter 1

Introduction

The topic of people helping others, or participating in prosocial behaviors, has been an area of discussion and research in psychology since the early 1900s (McDougall, 1912, 2005). Throughout the years, various researchers have questioned why people do or do not act prosocially (e.g., Batson, Harris, McCaul, Davis & Schmidt, 1979; Eisenberg et al., 1999; Latané & Darley, 1970, etc.); however, an understanding the factors that lead to or inhibit prosocial behaviors remains lacking. What is known about acting prosocially is that, when looking at personality characteristics, those people who are high in the moral characteristics of empathy (e.g., Batson, 1987, 1991, 1994), perspective taking (Abbate, Isgro, Wicklund, & Boca, 2006; Carlo, Allen, & Buhman, 1999, etc.) and gratitude (e.g., McCullough, Kilpatrick, Emmons, & Larson, 2001, Tsang, 2006) seem to be more likely to act in a prosocial manner, meaning, they are more likely to help others. Alternatively, when looking at personality factors that impede the ability to act prosocially, those who are overly self-conscious, self-concerned and are high in emotional reactivity (as indicated by a lack of emotional regulation), qualities of those people who are high in neuroticism, are found to have difficulty participating in prosocial behaviors (Caprara & Steca, 2005; Gibbons & Wickland, 1982).

While it is known that empathy, perspective taking, and gratitude are related to increased prosocial actions, not everyone who is high in these moral personality characteristics will act prosocially (Penner, Dovidio, Piliavin, & Schroeder, 2005); this suggests that some other factor (or factors) hinders the likelihood that a given person will

partake in a prosocial behavior when the need arises. Specifically, as high levels of internal focus and self-consciousness and low levels of emotional regulation (characteristics of neuroticism) have been found to impede the ability to act prosocially (Caprara & Steca, 2005; Gibbons & Wickland, 1982), it would seem that being high in neuroticism could also impede the ability to act prosocially, even in those who have positive moral characteristics.

Prosocial behaviors (ex. volunteering, donating time, helping, etc.) are important to fully understand, as they appear to have various positive social outcomes that go beyond the obvious outcomes associated with being the recipient of aid. For example, acting prosocially often serves as a form of social cohesion that works to bring people closer together. Additionally, both those who act and receive prosocial acts report increased life satisfaction (Caprara & Steca, 2005), well-being, positive affect (Gebauer, Riketta, Broemer, & Maio, 2007; Weinstein & Ryan, 2010), and overall positive mental health (Schwartz, Meisenhelder, Ma, & Reed, 2003). Furthermore, the positive moral characteristics (empathy, perspective taking, and gratitude) that lead to prosocial behaviors also appear to produce positive benefits. For instance, empathy has been found to be a factor that increases connectedness among people (Bandura, 2004), in addition to increasing positive emotions (Fredrickson & Joiner, 2001) and well being (Neff, 2004). Perspective taking, much like empathy, increases positive emotions (Fredrickson & Joiner, 2001), well being, and connectedness (Galinsky, Ku, & Wang, 2005), and additionally acts to increase social competence (Eisenberg & Harris, 1984). As for gratitude, those who experience gratitude (either by giving or receiving gratitude) are more empathetic, forgiving, helpful and supportive than their non-grateful counterparts

(McCullough, Emmons, & Tsang, 2002). Moreover, in addition to being related to positive emotions, those with a more grateful disposition score lower on negative emotions, such as anxiety and depression, as well as on materialism (McCullough et al., 2002).

As mentioned previously, while the relationships between empathy, perspective taking, gratitude and actual prosocial behaviors are often found in research, the relationships are not perfect and may be influenced by outside factors or personal factors. For example, the relationship between empathy and prosocial behaviors can be influenced by worry and affective arousal (or emotional arousal), meaning that when a person is worried or experiencing other emotional arousal, their ability to act prosocially is impacted negatively. Specifically, if the worry and arousal are focused on the person in need, prosocial behaviors are more likely to happen (Batson, 1987), whereas, if the worry and arousal are highly reactional and self focused, prosocial behaviors are likely to be blocked (Gibbons & Wickland, 1982).

In looking at personality characteristics that exemplify emotional reactivity with a self-focus, the concept of neuroticism arises. Neuroticism is a personality characteristic that is defined by high emotionality; specifically, self focused reactive emotions. Unlike empathy, perspective taking and gratitude, neuroticism tends to be related to more negative outcomes, such as worry (Watson, 2000) and negative affect (Ng, 2009). While neuroticism has been related to one specific positive outcome (i.e., higher empathy; Richendoller & Weaver, 1994), it is negatively correlated with perspective taking (Richendoller & Weaver, 1994), meaning that those who are high in neuroticism may be able to be empathetic; however, they are limited in their ability to take the perspective of

the other person, potentially affecting their ability to partake in prosocial behaviors. While studies have shown that the moral personality characteristics of empathy, perspective taking and gratitude are related to prosocial behaviors, the impact of the relationship with neuroticism has not been explored. As neuroticism is often expressed through high emotionality, which can potentially impact the ability to partake in prosocial behaviors (Gibbons & Wickland, 1982), it is hypothesized that high neuroticism will moderate the positive relationships between empathy, perspective taking, gratitude and prosocial behaviors, resulting in fewer prosocial behaviors.

Prosocial Behaviors

While the positive impact of prosocial behaviors is clear, defining prosocial behaviors can be difficult. Prosocial behaviors are a broad category of actions covering behaviors meant to benefit others; for example helping, volunteering, and sharing (e.g., Batson, 1998; Schroeder, Penner, Dovidio, & Piliavin, 1995). Further, prosocial behaviors are interpersonal acts that involve a benefactor and a recipient, who may be a single person or a group, or even a vague entity such as an organization (Eisenberg & Mussen, 1989). The term prosocial behaviors is often used synonymously with other terms, for example, helping behaviors, which have been measured in experimental studies (e.g. Batson, Harris, McCaul, Davis, & Schmidt, 1979; Coke, Batson, & McDavis, 1978). Additionally, altruism and helping have been used as synonymous terms for prosocial behaviors; however, these terms can actually be classified as different types of prosocial behaviors (Batson, 1998). Furthermore, providing more description for prosocial behaviors, Batson and his colleagues (1981, 1987, 1991) argued that there are actually two different types of prosocial behaviors. In his work, Batson (1981, 1987, 1991)

contrasts “altruistic” helping - or helping for the sake of the person in need, and “egoistic” helping - helping in order to gain a personal or outside benefit, or to decrease personal negative emotions. In fact, both types of helping behaviors (egoistic and altruistic) fall under the definition of prosocial behaviors (Eisenberg & Mussen, 1989) as they are helping another person, whether the intent is for personal gain (egoistic helping) or for the pure gain of another (altruistic helping). For the purposes of the current study, prosocial behavior (in the broadest sense) includes both the terms helping behaviors and altruistic behaviors, and also the corresponding actions that are included within these. More specifically, examples of prosocial behaviors that are addressed in the current study include such things as helping a person (e.g., with homework), volunteering, donating money or time, aiding a stranger in need, or providing a small kind act - such as holding an elevator door for someone (Rushton, Chrisjohn, & Fekken, 1981).

Prosocial behaviors span across all cultures and religions (Schroeder et al., 1995) and act to connect people (Hirschberger, 2010). As mentioned previously, research has found that prosocial behaviors act in various positive ways. Beyond acting to humanize others, acting prosocially is associated with increased satisfaction with life. Additionally, Caprara and Stech (2005) found that prosocial behaviors were positively related to life satisfaction. When looking at further outcomes of providing prosocial behaviors, research indicates that acting prosocially increases well being in the person who does the behavior as well as in the person receiving the prosocial act (Gebauer et al., 2007; Weinstein & Ryan, 2010), specifically when the actions are self motivated (as opposed to being socially motivated). Prosocial behaviors are also positively related to higher positive affect (Gebauer et al. , 2007), and those who act in prosocial ways often report greater

levels of subjective well being, vitality, needs satisfaction and self esteem (Weinstein & Ryan, 2010). Further, prosocial behaviors have been found to be a predictor of better mental health, both in the person receiving the act, and more so in the person giving the act (Schwartz et al., 2003). Moreover, Koenig (2006) believes that prosocial actions and acts of kindness help to connect people, in addition to acting to increase kindness within oneself. Not only do prosocial behaviors lead to positive outcomes, they can also decrease negative outcomes, specifically, those who act prosocially have been found to be less likely to partake in future acts of aggression (Kokkonen & Pulkkinen, 2001).

In addition to having positive outcomes proven by research, prosocial behaviors have shown up in the popular media. In the recent past, prosocial behaviors (in addition to gratitude, discussed later) have been discussed as leading to such phenomena as the “pay it forward” effect – where someone does an act for another and that person passes it on, and random acts of kindness, which have spawned foundations and movements (e.g. Pay It Forward Foundation, www.payitforwardfoundation.org; the Random Acts of Kindness Foundation, <http://www.actsofkindness.org/>), organ donation chains (e.g. Harding, 2009; Tamura, 2010), and various books (e.g., Practice Random Acts of Kindness, 2007; Random Acts of Kindness, 2002). Clearly, the positive benefits of prosocial behavior are numerous; however the factors that impact these behaviors are not fully understood.

Empathy

Empathy is a personality factor that has been continually linked with prosocial behaviors (e.g., Batson, 1981, 1987, 1991; Batson & Shaw, 1991; Dovidio, Allen, & Schroeder, 1990); however, the research on how it impacts prosocial behaviors has been

mixed. Batson and his colleagues (1981, 1987, 1991) have argued that empathy increases prosocial behaviors, but it is hard to determine if empathy actually leads to “altruistic” behaviors - or helping purely for the sake of the person in need - or to “egoistic” behaviors - helping in order to gain a personal or outside benefit, or to decrease personal negative emotions. Some research has suggested that both egoistic and altruistic patterns of empathy and prosocial behaviors can exist; however, the empathy and prosocial behaviors relationship may be influenced by outside factors, for example, worry (Batson, 1987), social norms or affective arousal (Batson, 1987; Pancer, 1982). In addition, it has been argued that the connection between empathy and prosocial behavior only occurs to decrease the benefactors negative emotions (egoistic prosocial behavior), excluding the possibility that acting prosocially occurs for any other reason (i.e. “altruistic” helping, to increase positive feelings, to make another feel better, etc) (Cialdini et al., 1987).

While the relationship between empathy and prosocial behaviors has been shown, it is hypothesized that there are factors within a person that do not allow them to consistently act on their experiences of empathy. As mentioned, Batson (1987) looked at worry and affective arousal and found that both influence prosocial behaviors. Specifically, when the benefactor is worried about the person in need and has emotional arousal towards that person, they are more likely to provide prosocial behaviors to that person. Negative personality characteristics and reactions, however, are limited in study. It has been hypothesized that, if a person feels negative personal emotions (i.e. guilt, fear) they will help in order to relieve that emotion - unless they can escape the situation; however, this is difficult to show as true (Batson, 1987). One such negative personality characteristic that has not been studied in the relationship between empathy and prosocial

behaviors is neuroticism which, as mentioned, is associated with negative emotional reactions. It is hypothesized that when neuroticism is included in the relationship between empathy and prosocial behaviors, the person high in neuroticism will partake in fewer prosocial behaviors.

Perspective Taking

In addition to empathy, its cognitive counterpart, perspective taking, has been shown to lead to involvement in prosocial behaviors (e.g., Batson, 1987, 1991). It has been argued that being able to see things from another person's point of view acts as an antecedent to being empathetic to the person, which leads to prosocial behaviors (Batson, 1987, 1991; Skoe, 2010; Stocks, Lishner, & Decker, 2009). It has also been argued that being able to see another point of view, in itself, leads to prosocial actions (Abbate et al., 2006). For example, when looking at the act of volunteering, a specific type of prosocial action, Carlo et al. (1999) found that those people who were higher in perspective taking were more likely to act to help another person, suggesting that those who are able to see the perspective of the person in need are more likely to help that person.

When looking at perspective taking as an antecedent to prosocial actions, the research is rather limited. Much of the extant research focuses on children, as the ability to take another's point of view is thought to develop in childhood (e.g. Eisenberg et al., 1999; Siu, Cheng, & Leung, 2006; Wentzel, Filisetti, & Looney, 2007); however, the development of perspective taking and its impact on prosocial behaviors is seen beyond childhood. Specifically, the link between perspective taking and prosocial behaviors not only shows increased prosocial behaviors in childhood, but when this link is seen, it is linked to increased prosocial behaviors in young adults (Eisenberg & Mussen, 1989).

Despite the connections between perspective taking and prosocial behaviors, how the relationship is impacted by other factors is relatively unknown. Batson (1987) argues that, much like with empathy, a person's affective state can impact the relationship between their ability to see another's point of view and their ability to act prosocially. Stiff, Dillard, Somera, and Kim (1988), on the other hand, argue that the person's emotional state has no influence, and that perspective taking alone allows a person to act "altruistically." These inconsistencies and lack of information on the actual impact of personality factors on the relationship between perspective taking and prosocial behaviors leaves an open field in the body of research. As mentioned, it is theorized that though neuroticism and empathy are positively correlated, neuroticism impacts a person's empathy, making it more difficult to act prosocially. Additionally, neuroticism increases a person's inability to see the perspective of others, which also impedes the ability to act prosocially (Batson, 1987); however, this theory has not been tested. For the current study, it is hypothesized that a person's high level of neuroticism, much like with empathy, inhibits their ability to transfer their perceptions of the other's needs into actual helping behavior.

Gratitude

The moral characteristic of gratitude, often associated with the immediate reaction to receiving a reward or benefit and seeking to help in return, is also related to prosocial behaviors as well as to the factors of empathy and perspective taking (McCullough et al., 2001; Tsang, 2006). Gratitude acts to elicit actions in others, but goes beyond the social norm of reciprocity; it is not simply acting because you are "supposed to" but is acting out of kindness and wanting to benefit another (McCullough et al., 2001). Both giving

and receiving an act of gratitude (a prosocial act) can lead to a person being more likely to act prosocially in the future (Tsang, 2006). Additionally, it has been shown that an act of gratitude (a prosocial act) promotes positive feelings (McCullough et al., 2001); however, the empirical research examining the relationship between gratitude and prosocial behaviors is limited. While research in the area of gratitude and prosocial behaviors has become more common in the past decade (e.g., Bartlett & DeSteno, 2006; McCullough et al., 2001; Tsang, 2006), much of the discussion on the connection between gratitude and prosocial behaviors is theoretical (McCullough et al., 2001; McCullough et al., 2002). One empirical study (Bartlett & DeSteno, 2006) showed that high levels of gratitude facilitated more prosocial behaviors; however, within the body of research, the impact of personality factors has been limited. While it is known that people who are higher in gratitude are more extraverted and agreeable (McCullough et al., 2001; Tsang, 2006), the impact of the personality factor of neuroticism on the relationship between gratitude and prosocial behaviors is unknown.

Neuroticism

Neuroticism is a personality characteristic which is defined as those who are high in emotionality, which is often internally focused (John & Srivastava, 1999). While it would seem that most people have some level of neuroticism and are never completely void of some instances of neurotic tendencies, people with high levels of neuroticism are drastically different from those with low levels of neuroticism (John & Srivastava, 1999). The high emotionality associated with neuroticism is often negative emotionality, including anxiety, sadness, and stress. The internal focus of the personality factor of neuroticism tends to be related with more negative personality characteristics, for

example, people who are high in neuroticism are thought to be more reactive, self-concerned, and internalizing. Additionally, people who score high on neuroticism are thought to react more quickly and emotionally and they tend to be unable to regulate their emotions (Elliott, Harrick, MacNair, & Harkin, 1994; Kokkonen & Pulkkinen, 2001). As neuroticism has many negative implications, its relationship to negative outcomes is often studied. For example, numerous studies have shown neuroticism as a strong predictor of depression (Chioqueta & Stiles, 2005, Hutchinson & Williams, 2007; Lee, 2009) and neuroticism has also been shown to be related to higher levels of worry and negative affect (Watson, 2000). Studies looking at the relationship and impact of low neuroticism on positive outcomes, however, are limited (e.g., Gunthert, Cohen, & Armeli, 1999; Vollrath & Torgersen, 2000).

The study of the impact of neuroticism on prosocial behaviors is extremely limited; however, it is known that people who score higher on neuroticism appear to have more difficulty with taking the perspective of others, despite being able to empathize with others (Richendoller & Weaver, 1994). In their research, Richendoller and Weaver (1994), note that people who are high in neuroticism have difficulty with managing their high levels of empathy, which they hypothesize is due both to their inability to manage their emotions and also to their inability to take the perspective of the other person, as they are internally focused. Thus, as neuroticism impacts both empathy and perspective taking, it will likely influence these factors and their relationship to prosocial behaviors. Additionally, since gratitude is closely related to empathy and perspective taking (McCullough et al., 2001), it is hypothesized that neuroticism will also impact gratitude and its relationship to prosocial behaviors.

Summary

As noted, prosocial behaviors are positive actions that act to benefit humanity, whether the action is directed towards one individual, a group, or society as a whole (Schroeder et al., 1995). As these behaviors are beneficial to society, by providing small acts such as volunteering, helping others, etc. (Rushton et al., 1981), it becomes increasingly relevant to understand what impacts these behaviors. Empathy, perspective taking and gratitude all positively relate to increased prosocial behaviors, however, their relationships with acting prosocially are not perfect and have provided mixed results in research. These mixed results indicate that not every individual who is high in empathy, perspective taking, and gratitude will act prosocially (i.e., Batson, 1987, 1991; McCullough et al., 2001). As the relationships are imperfect, it is helpful to understand what factors influence the relationship and impact the actual acts of prosocial behavior. Knowing that personality factors, such as agreeableness and extraversion, and emotionality (Batson, 1987; McCullough et al., 2001; Tsang, 2006) impact the relationships between empathy, perspective taking, gratitude and prosocial behaviors, it seems that the personality factor of neuroticism could also impact the relationships. Additionally, as the relationships between empathy, perspective taking, gratitude and prosocial behaviors are imperfect, it is important to control for variables that may have a larger impact. For example, empathy (e.g., George, Frieze & Li, 2010; Markstrom, Huey, Stiles, & Krause, 2009), perspective taking (e.g., Giesbrecht, 1998; Markstrom et al., 2009), and prosocial behaviors (George, Carroll, Kersnick, & Calderon, 1998; Frieze & Li, 2010) have all been shown to be influenced by gender, and additionally, can be considered socially desirable behaviors (e.g., McCullough et al., 2001; Schroeder et al.,

1995), therefore, it will be important to control for both gender and social desirability so as to remove their influence. Also, some bodies of research have suggested that acting prosocially may be influenced by the socioeconomic class (as a measure of power) of an individual (e.g., Keltner, Gruenfeld, & Anderson, 2003; Piff, Kraus, Cote, Cheng, & Keltner, 2010), therefore, socioeconomic status, both at present and growing up, will be controlled for. Thus, the present study explored the impact of the personality characteristic of neuroticism on the relationships between the moral personality characteristics of empathy, perspective taking and gratitude and the outcome of prosocial behaviors, after controlling for gender, social desirability and socioeconomic status (both at present and growing up). It was hypothesized that, in a subclinical population neuroticism would moderate these relationships. More specifically, it was hypothesized that, when looking at the three relationships of empathy-prosocial behaviors, perspective taking-prosocial behaviors, and gratitude-prosocial behaviors, a high level of neuroticism would impact the relationship, leading to fewer prosocial behaviors, whereas a low level of neuroticism would allow for more prosocial behaviors.

Definition of Terms

Empathy: Emotional reaction to another person; feelings of warmth, compassion, and caring, specifically for those in need (Davis, 1983).

Perspective Taking: The ability to adopt the perspective, or point of view, of another person (Davis, 1983).

Gratitude: The emotional response to receiving a benefit (may be from an external source or internal benefit) (McCullough et al., 2001)

Prosocial Behaviors: Interpersonal acts which involve a benefactor and a recipient, and include such actions as volunteering, aiding someone in need, and donating goods (Batson, 1998; Schroeder et al. , 1995).

Neuroticism: A personality characteristic defined by high emotional reactivity and an internal focus. Those who are high in neuroticism are often seen as high in anxiety, they react quickly and emotionally and are often self-conscious(John & Srivastava, 1999).

Chapter 2

Literature Review

The focus of the current study is on the impact of neuroticism on the relationship between moral personality factors (empathy, perspective taking and gratitude) and prosocial behaviors. “Prosocial behavior” is a broad category of behaviors that are characterized by actions that are socially accepted as beneficial to other people and society (Schroeder et al., 1995). These behaviors may or may not be costly (either emotionally or physically) to the active person and include many specific behaviors, for example, donating blood, volunteering, and helping others (Einolf, 2007; Hoffmann, 1994). Participation in prosocial behaviors is influenced by the moral personality characteristics of empathy (e.g., Batson, 1987, 1991, 1994; Batson & Shaw, 1991; Dovidio et al., 1990), perspective taking (Batson, 1987; Shaw, 1991) and gratitude (McCullough et al., 2001 & Tsang, 2006), however, the relationship between these moral characteristics and prosocial behaviors is not perfect (Batson, 1987; Einolf, 2007). Other personality characteristics, specifically, the characteristic of neuroticism, can influence a person’s behaviors and actions in multiple areas, and could potentially affect a person’s ability to partake in prosocial behaviors. This chapter will describe the literature on prosocial behaviors, as well as the literature on empathy, perspective taking, gratitude and neuroticism, and how the latter four are related to prosocial behaviors.

Prosocial Behaviors

Prosocial behavior is a broad term that covers actions that are meant to benefit others (Batson, 1998; Eisenberg & Mussen, 1989; Schroeder et al., 1995); acts which include a benefactor (the person doing the act) and a recipient (the one receiving the act).

Further broadening the definition, when looking at the parties involved, the benefactor is often an individual (though they may be working in association with a group, ex. a volunteer organization) while the recipient of a prosocial act can be less clear. Often times, the recipient is a single person, but the identified recipient may also be a group, or even an entity such as an organization (Eisenberg & Mussen, 1989).

Additionally, in studying prosocial behaviors, difficulty comes in separating out the terms that are used in other research. Many terms are used for actions meant to benefit others; for example helping, volunteering, and sharing (e.g. Batson, 1998; Schroeder et al., 1995). The term of prosocial behaviors is often used synonymously with other terms, for example, helping behaviors, which have been measured in experimental studies (e.g., Batson., 1979; Coke, Batson, & McDavis, 1978). In addition to helping, altruism has been used as a synonymous terms for prosocial behaviors; however, these terms can actually be classified as specific types of prosocial behaviors (Batson, 1998). Batson and his colleagues (1981, 1987, 1991) provided even more depth to the definition of prosocial behaviors, arguing that there are two different types of prosocial behaviors, altruistic” helping - or helping for the sake of the person in need - or to “egoistic” helping - helping in order to gain a personal or outside benefit, or to decrease personal negative emotions. In fact, both types of helping behaviors (egoistic and altruistic) fall under the definition of prosocial behaviors (Eisenberg & Mussen, 1989) as they are helping another person.

For the purpose of this study, though we are using a scale termed the “Self-Report Altruism Scale” (SRA; Rushton et al., 1981) it is believed to actually be measuring prosocial behaviors. As the measure is a self-report survey instrument, it does not allow

for distinguishing self-oriented motives from other oriented motives; however, it taps into the actual number of prosocial behaviors that the respondent participates in (Einolf, 2008). Additionally, various other studies have also used the SRA as a measure of prosocial behaviors, as it is a validated scale that adequately addresses specific behaviors (Barr & Higgins-D'Alessandro, 2009; Cadenhead & Richman, 1996; Yablo & Field, 2007). Within the SRA, numerous prosocial behaviors are measured. These behaviors include actions that have been studied specifically in past work, such as helping and volunteering, and additional behaviors such as donating time and aiding a person in need, as all these actions fall under the umbrella term of prosocial behaviors (Rushton et al., 1981).

Past bodies of research on prosocial behaviors began by looking at *when* people will help others and followed up with some studies on *why* certain people are willing to help others. Studies found that various different factors influenced when a person would help another. For example, Latané and Darley (1970) found that, prior to helping, people work through a decision process which includes recognizing that help is needed (including perspective taking and empathy), taking personal responsibility, and providing aid. Piliavin, Dovidio, Gaertner, and Clark (1981) provided a more economic view of why people help, using a cost-benefit type system – maximizing rewards and minimizing costs, to explain when a person will help. This economic theory postulates that, prior to helping, a person weighs the alternative actions, the costs and rewards, and ultimately decides whether to help, based on which action will result in the best personal outcome. Batson (1987, 1991) discussed the economic theory of helping by hypothesizing that some people are influenced by their learning history and begin to anticipate rewards or

punishments. He claimed that this group of people perceives the others need for help (via empathy and perspective taking); however, they are driven by their ego to gain reward or avoid punishment by helping the person in need. While this group may opt to help, they may be ineffective at helping, and alternately, they may avoid helping given that the personal cost may be too high. A second subset of people appear to experience a similar path toward helping others, similarly, this group appears to actually participate in prosocial behaviors as a means to decrease their negative emotional reaction to the situation. As with the first group, the decision to act prosocially will be made based on the costs and rewards, but also based on the person's level of need, the importance associated with the issue, and the personal relevance of the problem (Piliavin et al, 1981). These two groups of reactions are often termed as egoistic motivations for helping – the motive for helping is more for personal gains or relief. While it is known that the potential benefactor's personality characteristics (i.e., worry, self-focus, etc.) may be influential on their decision to act prosocially, for example, if they chose to act or not in order to reduce guilt (Batson, 1987, 1991; Gibbons & Wickland, 1982), little is known about the influence of the person's neuroticism on their ability to help. With the aforementioned groups of people, those who act prosocially only to relieve personal feelings, it would seem that even those who are likely to act prosocially (due to high moral personality traits) may still be impeded by internal factors. As mentioned, there may be a personal cost to acting prosocially (Batson, 1987, 1991; Piliavin et al., 1981), which may deter the actions. In a person who is high in neuroticism, including such factors as being self focused and internalizing, this can prevent acting prosocially (Gibbons & Wickland, 1982). This begs the question that, if a person is high in moral

personality traits (empathy, perspective taking, and gratitude) and also high in neuroticism, which has been shown plausible in research (Bridges, Shult & Nash, 2009; Richendoller & Weaver, 1994) will their neuroticism block their ability to act prosocially?

In contrast to the aforementioned groups of people, Batson (1987, 1991) discussed an additional group of individuals, those who are able to adopt the perspective of the others (perspective taking), in addition to perceiving their need for help (empathy). Where the other two aforementioned groups (who help for egoistic reasons) opt to help or not based on their internal reaction or the benefits of helping (i.e., to reduce negative emotions or to gain the reward for helping), this third group is more likely to act prosocially because the need is present and they feel empathetic towards the person in need. While these action have been termed as “altruistic,” they seem to fall more under the guise of prosocial behaviors, as it is difficult to determine if intrinsic rewards or motivations are present (Shroeder et al., 1995). It seems that this group of individuals will likely be low in neuroticism, as their main focus is on helping the other, and not on their self; therefore, it is hypothesized that they will have the impeding factor of neuroticism and will show higher prosocial behaviors.

Why should we study prosocial behaviors?

Prosocial behaviors are considered to be beneficial, not only beneficial to the person who receives them, but also to the person acting as the benefactor. As mentioned above, the person acting as a benefactor may do so to gain the reward or praise that is associated with helping, or may even be rewarded intrinsically (via decreasing negative emotions or increasing positive emotions; Batson, 1987, 1991). Weinstein and Ryan

(2010) found that providing prosocial behaviors, specifically those that were self-motivated, leads to greater subjective well being, vitality, needs satisfaction and self esteem; meaning that those who actively help others and *chose* to do so, feel more positively about themselves. Additionally, prosocial behaviors can be seen as facilitating a better society. For example, by increasing connectedness among people (Bandura, 2004) individuals are less likely to act harshly towards each other and are more likely to see commonalities rather than differences (Hirshberger, 2010; Omoto & Snyder, 2010). Additionally, those who score higher on prosocial behaviors (as measured by the SRA) are intrinsically more likely to actually perform acts that help others (Rushton et al., 1981).

As an additional way to aid society, there has been a push for the private sector to increase prosocial actions, which has spawned many of the movements in popular media. Such phenomena as the “pay it forward” effect – where someone does an act for another and that person passes it on, and random acts of kindness, which have spawned foundations and movements (e.g., Pay It Forward Foundation, www.payitforwardfoundation.org; the Random Acts of Kindness Foundation, <http://www.actsofkindness.org/>), organ donation chains (e.g., Harding, 2009; Tamura, 2010), and various books (e.g., Random Acts of Kindness, 2002; Practice Random Acts of Kindness, 2007). Additionally, news channels sponsor programming to recognize those who make a difference throughout the world (http://www.msnbc.msn.com/id/10397946/ns/nightly_news-making_a_difference/), so that these positive prosocial behaviors are recognized. Clearly, the positive benefits of

prosocial behavior are numerous; however the factors that impact these behaviors are not completely understood.

When looking at the factors that impact prosocial behaviors, various areas have been studied. It appears that some people consistently act in a prosocial way, where others do not (Schroeder et al., 1995). Three such moral personality characteristics, which influence prosocial behaviors, are empathy, perspective taking and gratitude, which will each be discussed individually. However, while these characteristics do account for part of what leads a person to act prosocially, it seems they are not perfect predictors, leading to the logic that some other factor is impacting the relationship – potentially neuroticism is that factor (Einolf, 2007).

Empathy

Empathy is a term that comes with variations in definition. According to Davis (1980, 1983, 1994), “empathy” is a multidimensional factor with two pertinent parts: the emotional portion - the ability to experience the feelings of warmth, compassion and concern for others, termed empathy or empathetic concern; and perspective taking - the cognitive portion, which involves the ability to take the psychological perspective of another, or to see another’s point of view. The emotional portion, empathetic concern, is the more common definition provided for “empathy”.

Empathy is thought of as a positive ability. Those who report higher empathy score higher on agreeableness, or the ability to be pleasant and accommodating (Graziano & Eisenberg, 1997; Paterson, Reniers, & Völlm, 2009). Empathy has been found to be associated with prosocial behaviors in various different studies, but the outcomes and their meanings have been varied. Batson and his colleagues (1991, 2002) have done

various studies looking at the empathy – helping behavior relationship. Batson’s arguments in the area of empathy and prosocial behaviors surround the concept that there are two motives for the relationship; “egoism” (doing an act in order to ease personal distress) or “altruism” or helping without the guise of personal benefit. In their study, Cialdini and his associates (Cialdini et al., 1987) proposed that both empathy induced patterns provided by Batson (1987, 1991a, 1991b, 1994) are mediated (influenced) by another factor: sadness. Cialdini et al (1987) reported that those who were higher in empathy were not only more likely to help, but were higher on sadness scales and more likely to help when they thought it would improve their mood – providing support for an egoist reason for prosocial behaviors. Alternately, Schroeder, Dovidio, and Sibicky, Matthews (1988) ran a similar study to Cialdini et al. (1987) but found that higher rates of empathy were related to helping, even if the person did not think helping would influence their mood – showing no support for the egoistic reason for helping. Dovidio et al. (1990) also ran studies to check the relationship between empathy and prosocial behaviors and found some support for Schroeder et al’s (1988) results – showing that the empathy-helping connection was more altruistic than egoistic. However, the study also notes that egoistic reasons for helping can not be completely discounted. Stocks et al. (2009) also suggest support for a more altruistic relationship between empathy and helping, noting that people who are higher in empathy were more likely to help, even if psychological escape was easy. In contrast to the majority of research, Einolf (2008) suggested that empathy may play less of a roll in helping than previously thought, noting that it was only a significant predictor of helping when the behaviors were spontaneous, informal, and the need was actively present. While these studies have suggested the

importance of feeling compassion and empathy for the person in need as a factor in order to help, it has also been suggested that the more cognitive form of empathy – the ability to see the other’s perspective, is an additional important factor related to prosocial behaviors (Batson, 1987, 1991; Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007).

Perspective Taking

Perspective taking is often looked at as the cognitive form of empathy to the more emotional form of empathy discussed above. Being able to take the perspective of another person involves the ability to adopt the psychological view point of that person – to see things from their point of view (Davis, 1983, 1983). The ability to take another’s perspective is highly correlated with the ability to empathize with other’s (e.g. Davis, 1983, 1983; Stocks et al., 2009) and it has even been suggested that, in order to empathize with another, a person must first be able to take their perspective (e.g. Batson, 1987; Skoe, 2010; Stocks et al., 2009). In his research on prosocial behaviors, Batson (1981, 1987) and his associates (1991, 1994) discuss the idea that the first step in either egoistic or altruistic prosocial behaviors is recognizing that the person is in need – conceptually taking their perspective in order to realize that they are in need, and then feeling compassion (empathy) for the person. Following this recognition, a person’s empathy is increased and the person then steps to their method of determining whether or not to help, by determining what rewards or punishment they will gain, literally or personally (egoistic) or by determining that the person is in need (“altruistic”) (Batson et al., 2007).

Perspective taking in itself, has been related to prosocial behaviors, however, a majority of the past research has focused on children and adolescents, as this is when

perspective taking develops (Siu et al., 2006; Wentzel et al., 2007). Eisenberg and her group (Eisenberg et al., 1999) found that, not only is there a perspective taking-prosocial behaviors connection, but prosocial behaviors at a young age are related to perspective taking and prosocial behaviors in early adulthood. In their study, Abbate et al. (2006) presented a field experiment looking at perspective taking and prosocial behaviors. While the study indicated that they could not actually say perspective taking led to helping, there was a distinct relationship in that those people who were high in actual helping and planning to help, were higher in perspective taking. When looking at volunteering as a prosocial behavior, Carlo et al. (1999) found that those people who were higher in perspective taking, as well as low in personal distress, were more likely to do volunteer activities. This contradicts Batson's (1987) "altruistic" hypothesis of prosocial behaviors, indicating that a person may not aid another if they are too distressed (either emotionally or physically). Alternatively, Stiff et al. (1988) puts up the argument that perspective taking leads to prosocial behaviors simply to benefit the other, supporting Batson's "altruistic" hypothesis, and discrediting the egoistic hypothesis.

When looking at the relationship between empathy, perspective taking and prosocial behaviors, another factor has been found to come into play - the role of gratitude. While less studied as a separate entity in relation to prosocial behaviors, gratitude is related to empathy and perspective taking; these three factors appear to be very closely tied, particularly when looking at prosocial behaviors (McCullough et al., 2001).

Gratitude

Looking at gratitude in relation to prosocial behaviors is a relatively new body of research. As mentioned, gratitude is related to empathy and perspective taking in that it is a positive emotion, usually felt towards others. The conceptualization of gratitude has been around for an extensive time; one of the first psychological approaches to gratitude was discussed by Adam Smith (1790/1976), who noted that gratitude is necessary and beneficial in the human spirit in order to maintain a helping society. Gratitude has been defined as a moral affect, as it acts to lead to behavior that is motivated by the concern for other's well-being, such as prosocial behaviors (McCullough et al., 2001). Additionally, gratitude acts within social relationships to increase the kindness that occurs between a benefactor and the recipient of gratitude, as well as increasing the chance that the benefactor will act prosocially again.

Gratitude also seems to act to promote prosocial behaviors – people who benefit from a gracious act seem to be more likely to repay the act (either to the initial person, or to someone else, i.e., pay it forward). Unlike other potential explanations for this reciprocity (i.e., indebtedness, guilt), gratitude is seen as a positive and not necessarily requiring a response, but eliciting one because of the associated positive feelings (i.e., feeling good about helping someone else) (Tsang, 2006). McCullough et al. (2001) also conclude that the expression of gratitude, be it saying “thank you” or paying it forward, may not result purely from the positive feeling associated, but from social norms of politeness and self-interest. Expression of gratitude may also be affected by the recipient's perception of the act, as well as by who is doing the act. If the recipient believes the act creates more of an imposition on the giver, they seem to be more likely to

show gratitude (Okamoto & Robinson, 1997). In addition to simply promoting prosocial behaviors, Bartlett and Steno (2006) found that, gratitude promoted prosocial behavior, even in the face of a costly (i.e., mentally or physically costly to the benefactor) act, however, this finding was in one study, which has not been replicated.

While gratitude, in combination with empathy and perspective taking, has been found to influence prosocial behaviors, the relationship is imperfect. As noted above, the relationships between empathy, perspective taking and prosocial behaviors have been mixed. While the findings on gratitude and prosocial behaviors have been consistent, they are not nearly as replicated, and the results indicate that there is still the potential for the influence of other factors. One potential influence on the relationship between the three factors of empathy, perspective taking, and gratitude and prosocial behaviors is the personality factor of neuroticism.

Neuroticism

As mentioned previously, while it is unlikely that a person is completely lacking neuroticism or its traits (as there is no such thing as a score of 0 on the scale), when discussing neuroticism at higher levels, it is often seen as a negative trait (John & Srivastava, 1999). Studies have reported that those who are higher in neuroticism tend to present with characteristics that are often considered negative, such as the inability to regulate, or control, their emotions (Kokkonen & Pulkkinen, 2001) including in situations that involve problem solving (Elliott et al., 1994), meaning that those people who are high in neuroticism are more likely to be reactive. Additionally, their reactions to a situation tend to be negative and internalizing (focusing on themselves) as well, resulting in increased stress, depression, and somatic symptoms (i.e., stomach issues) (Watson,

2000). Those people who report higher rates of neuroticism also report higher rates of worry (Watson, 2000) and negative affect (Ng, 2009), both at present and in the future (Costa & McCrae, 1980). While many studies report the negative outcomes related with neuroticism, it should be noted that the negative outcomes, for example depression, may be mediated by other factors, such as rumination, including brooding and reflecting (Roelofs, Huibers, Peeters, Arntz, & Os, 2008), decreased physical activity (Gallant & Connell, 2003) and daily hassles (Hutchinson & Williams, 2007). While the negative impacts of neuroticism are often studied, the positive correlates or impacts of neuroticism are rarely examined. However, one study (Ng, 2009) showed that there is not necessarily a lack of positive feelings by those high in neuroticism, but that in negative situations, those high in neuroticism have fewer positive reactions than those low in neuroticism, and in slightly positive situations, there was no relationship between positive reactions and neuroticism.

The study of the impact of neuroticism on prosocial behaviors is extremely limited, however, it is known that people who score higher on neuroticism appear to have more difficulty with taking the perspective of others, however, are able to empathize with others (Richendoller & Weaver, 1994). In their research, Richendoller & Weaver (1994), also note that people who are high in neuroticism still have difficulty with managing this high empathy, most likely due to their inability to manage their emotions and to fully take the perspective of the other person. If this is, in fact, true, the influence of neuroticism could impact the ability to participate in prosocial actions, leading to a decreased number of prosocial behaviors.

Summary

As noted, prosocial behaviors aid society by benefiting others - individually, in groups, and in society as a whole (Schroeder et al., 1995); however, what leads to and impedes prosocial behaviors is an area that is not fully understood. While it is known that moral personality characteristics (empathy, e.g., Batson, 1987, 1991, 1994; perspective taking, e.g., Abbate et al., 2006; Carlo et al., 1999; and gratitude, e.g., McCullough et al., 2001, Tsang, 2006) are related to prosocial behaviors, it is also known that not everyone who is found to be highly moral consistently acts in a prosocial manner (Batson, 1987; Einolf, 2006). It is also known that factors such as worry and emotional arousal can impact a person's ability to act prosocially (Batson, 1987, 1991; Watson, 2000) and additionally, being internally focused and emotionally reactive can particularly decrease a person's ability to perform prosocial acts (Caprara & Steca, 2005; Gibbons & Wickland, 1982). Knowing that certain factors can impede prosocial behaviors, specifically emotional reactivity and an internal focus, it seems important to look at neuroticism - a personality characteristic that is defined by high emotional reactivity and an internal focus (John & Srivastava, 1999) and how the personality characteristic impacts the relationship between moral personality characteristics and prosocial behavior outcomes. Additionally, as the relationship between empathy, perspective taking, gratitude and prosocial behaviors is imperfect, it is important to control for variables that may have a larger impact. For example, empathy (e.g., Frieze & Li, 2010; Markstrom, Huey, Stiles, & Krause, 2009), perspective taking (e.g., Giesbrecht, 1998; Markstrom et al., 2009), and prosocial behaviors (George et al., 1998; Frieze & Li, 2010) have all been shown to be influenced by gender, and additionally, can be considered socially desirable

behaviors (e.g., McCullough et al., 2001; Schroeder et al., 1995), therefore, it will be important to control for both gender and social desirability so as to remove their influence. Also, some bodies of research have also suggested that acting prosocially may be influenced by the socioeconomic class (as a measure of power) of an individual (e.g., Keltner et al., 2003; Piff et al., 2010), therefore, socioeconomic status, both at present and growing up, will be controlled for. Based on the aforementioned research, it is hypothesized that, after controlling for gender, social desirability, and socioeconomic status (both at present and growing up) neuroticism will moderate the relationship between moral personality characteristics (empathy, perspective taking, and gratitude) and prosocial behaviors, leading those who are higher in neuroticism to have fewer prosocial behaviors (see Appendix A for model).

Chapter 3

Methods

This study looked at the impact that neuroticism had on the relationships between the moral characteristics of empathy, perspective taking, gratitude and the outcome - prosocial behaviors. The study utilized validated questionnaires to assess the dependent and independent variables (empathy, perspective taking, gratitude, neuroticism, prosocial behaviors) and social desirability. A demographic questionnaire was used to look at the characteristics of the population.

Participants

Participants for this study were a non-random sample of volunteers who indicated that they were willing to participate and complete the set of online questionnaires without compensation from the researchers. Participants were gathered using snowball sampling using an online social networking site, through email listservs who indicated they were willing to send out the survey, and through professors at two mid-size urban universities, who indicated they would disperse the link and information on the survey.

Demographic Measure and Assessments

Demographics. In looking at the demographics of the sample, the population was rather varied. The average age of the population was 30.144 ($SD = 9.981$), with a range from 18 to 72. In looking at the racial make-up of the sample, the population predominantly identified as Caucasian (80.9%, $n = 174$), followed by African American (5.6%, $n = 12$), Latino/Hispanic (4.2%, $n = 9$), Asian/Pacific Islander (3.3%, $n = 7$), Multiracial (1.9 %, $n = 4$), Biracial (1.0%, $n = 2$) and Native American/Alaskan Native (1.0%, $n = 2$). Additionally, 5 participants identified as “Other”. In terms of gender, the

population was predominantly female ($n = 168$, 78.1%). For this study, gender was included as a control variable in the analyses, which allowed for us to see if it was an influence on the analyses. In looking at the other provided demographic information, participants responded from over half of the states in the United States (29 of 50), including each region in the contiguous United States. In terms of relationship status, 31.2% identified as being married ($n = 67$), 27% as single ($n = 58$), 22.8% as in a relationship ($n = 49$), and 12.1% as living with a partner ($n = 26$). At lesser number, 11 people identified a divorced (5.1%), 2 as remarried (0.9%) and 2 as widowed (0.9%). In terms of income, a control factor, the population was varied. While the highest percentage reported making under \$10,000 a year (26%, $n = 56$), the next highest percentage indicated earning \$50,000 to \$99,999 a year (18.1%, $n = 39$). Looking between the two extreme wage brackets, 32 participants indicated they made between \$10,000 and \$19,999 (14.9%), 29 earned \$20,000 to \$29,999 (13.5%), 23 indicated an income of between \$30,000 and \$39,999 (10.7%), 14 between \$40,000 and \$49,999 (6.5%). Beyond the income of \$99,999, 7 participants indicated they earned between \$100,000 and \$149,999 (3.3%), and 3 indicated making over \$150,000 (1.4%). Additionally, 12 people refused to answer (5.6%). These participants were coded as missing values and were included. The final control variable studied by the demographics questionnaire was the participant's parent's income (i.e., the income bracket they grew up in). Of the sample, 12 participants indicated they believed they grew up in the lower class (5.6%), 60 indicated growing up low to middle class (27.9%), 93 in the middle class (43.3%), 47 in the middle to upper class (21.9%), and 3 in a high socioeconomic status

household (1.4%). For the purposes of controlling for SES in this study, it was run as a continuous variable.

Interpersonal Reactivity Index (IRI; Davis, 1983). The Interpersonal Reactivity Index is a self-report assessment that consists of 28 questions rated on 5 point Likert type scale, with responses ranging from 1 (does not describe me well) to 5 (does describe me well). The scale was developed beginning with 50 questions that were written based on what the questionnaire was trying to tap (empathy and other emotional responses) and some questions that were based on previous questionnaires (e.g. Mehrabian & Epstein, 1972, emotional empathy scale). Questions were administered to 201 males and 251 females and a factor analysis was run. The factor analysis yielded 4 factors (fantasy, perspective taking, empathetic concern and personal distress). Questions that did not load on these factors were dropped and a second analysis was run on 45 questions that were 1) original questions, 2) adapted from the 50 question administration, or 3) written to conform to the four factors. The second administration was given to 221 males and 206 females. A factor analysis was again run and yielded the same four factors. Questions that did not load heavily on the factors for both males and females, or that loaded on more than one factor were dropped. Additionally, the questions were found to load similarly in both males and females, leading to a cohesive scale. The final scale consists of 28 questions, with 7 items in each of the four scales of fantasy, empathetic concern, perspective taking and personal distress. For the current study the empathetic concern and perspective taking scales were utilized.

Empathy (empathetic concern subscale, IRI; Davis 1980). Empathy was assessed using the empathetic concern subscale of the Interpersonal Reactivity Index. Items on the

empathetic concern subscale are both regularly scored and reverse-coded and include such items as “I often have tender, concerned feelings for people less fortunate than me” and “Sometimes I don't feel very sorry for other people when they are having problems (reverse scored)”. For male respondents, internal consistency reliability is $r = .75$. For female respondents, the internal consistency reliability is $r = .71$ (Davis, 1983). Test-retest reliability over a 60 to 75 day period for male respondents was $r = .61$ and $r = .62$ for female respondents. Additional studies have found the internal reliability consistency for a mixed gender sample to be consistently reliable with such alphas as .74 (Grynberg, Luminet, Corneille, Grezes, & Berthoz, 2010) and .78 (Hill et al., 2008). For the current study, the Cronbach's alpha was $r = .80$ for all participants.

Perspective Taking (perspective taking subscale, IRI; Davis, 1983). In order to assess perspective taking, the perspective taking subscale of the Interpersonal Reactivity Index was used. Items on the scale are both regularly scored and reverse scored and include such items as "I sometimes try to understand my friends better by imagining how things look from their perspective," and "I believe that there are two sides to every question and try to look at them both.". For male respondents, internal consistency reliability is $r = .75$. For female respondents, the internal consistency reliability is $r = .71$ (Davis, 1983). Test-retest reliability over a 60 to 75 day period for male respondents was $r = .61$ and $r = .62$ for female respondents. Additional studies have found the internal consistency reliability for a mixed gender sample to be anywhere from .70 (Grynberg et al., 2010) to .82 (Hill et al., 2008), but appeared to be consistently above the .70 level. In looking at the reliability of the measure on the current study, the alpha was .84.

The Gratitude Questionnaire-Six Item Form (GQ-6) (McCullough et al., 2002). The GQ-6 is a self report measure that consists of six items on a 7-point Likert scale, with high scores indicating high levels of experiences and expressions of gratefulness and appreciation in daily life. Items in the scale reflect gratitude intensity (e.g., "I feel thankful for what I have received in life"), the gratitude frequency facet (e.g., "Long amounts of time can go by before I feel grateful to something or someone"), the gratitude span facet (e.g., "I sometimes feel grateful for the smallest things"), and the gratitude density factor (e.g., "I am grateful to a wide variety of people"). Confirmatory factor analyses yielded goodness-of-fit indexes found within the acceptable ranges (i.e., .90 to .95). Internal consistency for the six items ranges from .76 to .84 (McCullough et al., 2002; McCullough et al., 2002). Results indicate that the GQ-6 correlates with self-report measures of gratitude ($r = .65$), peers' ratings of targets' amounts of dispositional gratitude ($r = .33$), typical amounts of gratitude experience in daily life measured via 21-day and 14-day diary reports ($r = .37$, $r = .49$), levels of gratitude people report in response to events that cause them to feel grateful ($r = .25$) (McCullough et al., 2002; McCullough et al., 2002). The GQ-6 has also been found to have a one-month test-retest reliability of $r = 0.59$, which was a significant relationship (Wood, Maltby, Gillett, Linley, & Joseph, 2008). The GQ-6 also correlates with affective traits (positive emotions, vitality, optimism), prosocial traits (empathetic affect, perspective taking), spiritual and religious traits (attendance of religious services, prayer, reading of religious materials), and the Big Five (Extraversion, Neuroticism, Agreeableness). In looking at the reliability of the GQ-6 for the current study, the Cronbach's alpha was .79.

The Big Five Inventory (BFI; John, Donahue, & Kentle, 1991). The BFI is a self-report measure of the broad personality traits of the five factor taxonomy (openness, conscientiousness, extraversion, agreeableness and neuroticism). The BFI measures the five factor taxonomy using a shorter measure than previously used (i.e., the NEO-FFI, 60 questions; the NEO-PI-R, 240 questions) and utilizing short phrases that are indicative of the prototypical markers of the Big Five personality factors (John, 1989, 1990). The questions in the BFI are based on Costa and McCrae's (1992) NEO questionnaires and tap the majority of the facets that are provided as descriptive of the Big Five factors. The measure consists of 44 items on a 5-point Likert type scale, with a higher score indicating a stronger agreement that the statement is "like" the respondent. Examples of an items, given the stem "I am someone who", are "likes to reflect, play with ideas" (openness), "likes to cooperate with others" (agreeableness), "does things efficiently," (conscientiousness), "gets nervous easily" (neuroticism), and "is full of energy," (extraversion). Due to the differences in the subscales, no total reliability for the scale is given. In a US and Canadian sample, internal consistency reliability was adequate for the subscales with Openness having the lowest ($\alpha = 0.70$), followed by Agreeableness ($\alpha = 0.79$), Conscientiousness ($\alpha = 0.82$), Neuroticism ($\alpha = 0.85$), and finally Extraversion ($\alpha = 0.88$). Additionally, the Neuroticism subscale, which was used in this study, has been found to have a four week test-rest reliability of $r = 0.83$ (Graham et al., 2010). In comparing the BFI to another highly validated measure of the Big Five personality factors, the NEO-FFI, correlations were found to be high, showing that the two instruments are likely tapping into the same facets (extraversion, $r = 0.78$; agreeableness, $r = 0.78$; conscientiousness, $r = 0.83$; neuroticism, $r = 0.85$; openness, $r = 0.70$). For the

present study, the Neuroticism scale of the BFI was utilized, and showed a high internal reliability ($\alpha = .82$).

Self - Report Altruism Scale (SRA; Rushton et al., 1981). In order to assess prosocial behaviors, the Self-Report Altruism Scale was utilized. The Self-Report Altruism Scale (SRA) is a 20-item, self report measure which looks at the frequency in which participants participate in various prosocial behaviors. The SRA was validated using three methods 1) peer ratings, 2) predicting altruistic responses (on alternate measures) and 3) convergent validity. Peer ratings reliability found significant inter-rater reliability ($r(78) = 0.51, p < 0.01$) and relatively high correlations with the scores of the respondents to which they were matched ($r(78) = 0.56$). In predicting altruistic responses, scores on the SRA were found to be positively and significantly correlated to four measures of altruism (filling out a donor card, the ETS measure of “sensitive attitude,” the Personality Research Form (PRF) nurturance scale and responses to altruism simulations), and SRA scores were also found to predict a linear combination of 8 measures of altruism ($r = 0.59, p < 0.01$). To measure convergent validity, the SRA was correlated with various different measures of related topics (such as social responsibility and empathy). The SRA was significantly positively correlated to measures of social responsibility (the Social Responsibility Scale; Berkowitz & Daniels, 1964; $r = 0.15, p < 0.01$), empathy (the Emotional Empathy Scale, Mehrabian & Epstein, 1972; $r = 0.17, p < 0.01$), the Fantasy Empathy Scale (Stotland, Mathews, Sherman, Hannson, & Richardstone, 1978; $r = 0.20, p < 0.01$), and the Nurturance scale of the PRF (Jackson, 1974; $r = 0.28, p < 0.01$). The Machiavellianism scale (Christie & Geis, 1968) was used for divergent validity and was significantly negatively correlated to the SRA ($r = - 0.13, p$

< 0.05). Additionally, the SRA was found to be minimally related to a measure of social desirability ($\alpha = 0.05$), suggesting that the scale is not measuring socially desirable answering. When looking at the internal validity of the scale, 5 separate studies showed Cronbach's alphas ranging from 0.78 to 0.87. For the present study, the same measure of internal reliability was used, and was found to be 0.85, consistent with previous research. On the SRA, subjects respond to questions such as "I have given money to charity," and "I have helped an acquaintance to move households," by selecting from the scale of "never", "once", "more than once", "often", or "very often." Scores on the scale range from 20 to 100, with a higher score indicating more frequent participation in prosocial behaviors.

Marlowe-Crowne Social Desirability Scale - Short Form C (M-C SDS Form C; Reynolds, 1982). The M-CSDS is 13 questions, shortened form of the 33 question Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). Items are dichotomously scored with respondents answering "True" or "False" for such statements as "I sometimes feel resentful when I don't get my way" and "I'm always willing to admit it when I make a mistake". Principle components factor analysis was used to examine the structure of the M-C SDS and results yielded a clear single factor structure for the M-C SDS. In constructing the M-C SDS Form C, items were taken directly from the M-C SDS. Only M-C SDS items with a factor loading of .40 or higher were included in the M-C SDS Form C (Reynolds, 1982).

The 13-item M-C SDS Form C demonstrated acceptable internal consistency reliability using the Kuder Richardson 20 formula ($r_{KR-20} = .76$). Concurrent validity was demonstrated with significant correlations between the M-C SDS Form C and the

original M-C SDS ($r = .93$, $r^2 = .86$) (Reynolds, 1982). Reynolds (1982) concludes that the M-C SDS Form C is a reliable and valid alternative measure of social desirability to the longer M-C SDS. For the present study, the internal reliability was not extremely high ($\alpha = .69$), however it was deemed adequate for the present study.

Procedure

Following approval by the university's Institutional Review Board (IRB), the survey questionnaires were entered into an online survey database (surveymonkey.com) and a survey link was created. A non-random sample of participants was recruited using various different methods: the created survey link was dispersed via advertising on an online social media site (facebook.com), through contact with list-servs (e.g. Commuter student services, etc.) who indicated their willingness to disperse the survey link, and additionally, upon permission from the professors at two universities, the professors dispersed the link and information to the students via email. Professors may have provided extra credit for participation at their own discretion, however proof of participation was not provided to any professors to maintain the participant anonymity.

Upon clicking the link, participants were provided with the informed consent for participation. In order to continue with participation, respondents were required to agree to the terms of the informed consent. Following agreement, participants answered the demographic portion of the survey, followed by the BFI, the GQ-6, the IRI, the SRA and finally the M-C SDS-Short Form – C (see Appendix B).

Chapter 4

Results

This chapter summarizes and describes the statistical analyses used to evaluate the research questions and hypotheses outlined in the previous chapter. SPSS 19.0 (PASW) was used to examine all variables of interest for accuracy in data entry, missing values, the normality of distributions, appropriate ranges and frequencies, and univariate outliers.

Preliminary Analyses

In order to assure that the variables were suitable for running further analyses, the variables were examined to assure that the assumptions of for multiple regression were met. To assess for curvilinearity and the assumption of homoscedastisity, regressions were run on the dependent variables of gratitude, perspective taking, empathy and neuroticism. Review of the scatterplots suggested that curvilinearity was not present in the data and no pattern in the plot suggested a violation of the assumption of homoscedastisity. The histograms for empathy, perspective taking and neuroticism showed no violations of normality due to the relatively normal distribution of the participants. There does appear to be a minor violation of normality in the gratitude histogram, which shows a minor level of skewness; however, gratitude, was changed to a centered value (Z-score) in order to correct for this and to run analyses. Subsequent review of the normal P-P plot of regression standardized residual suggested the assumption of normality was met. In addition to centering the scores for gratitude, the score for neuroticism, empathy, and perspective taking were also centered, in order to decrease the risk of multicollinearity among the variables when running a moderation analysis.

To determine if outliers were influencing the data, a multiple regression was run on the dependent variable of prosocial behaviors and the results were examined to determine if any data points had a Mahalanobis distance of greater than 23.72, a Cook D value greater than 1, and a leverage (LEVER) value ($n = 215, k = 4$) greater than 0.17 was used (Stevens, 2002). Five cases were found to have a Mahalanobis distance greater than 23.72. Additional multiple regressions were run on the dependent variables to determine if these cases were substantively influential data points. Regression results indicated that one participant (Mahal D = 30.005) was found to have an influence on the significance of the analyses, and was therefore removed from the data set leaving 214 retained participants. In looking at the independent variables of empathy, perspective taking, gratitude, and neuroticism, no univariate outliers were present.

Overall Research Question

After controlling for social desirability, gender, and socioeconomic status (at present and growing up), does the variable of neuroticism act as a moderator on the relationships between empathy, perspective taking, gratitude (generally moral characteristics) and prosocial behaviors?

Individual Analysis Question 1

After controlling for social desirability, gender, and socioeconomic status (at present and growing up), does the variable of neuroticism act as a moderator on the relationship between empathy, and prosocial behaviors?

For question 1, hierarchical multiple regression analysis was performed to test whether the variable of neuroticism moderated the relationship between empathy and prosocial behaviors, after controlling for the factors of social desirability, gender and

socioeconomic status (both at present and growing up). The scores for empathy and neuroticism were centralized (transformed into z-scores) in order to decrease the risk of multicollinearity, as well as to correct any possible biases within the scales. Additionally, an interaction variable of empathy x neuroticism was created within SPSS, in order to test for interaction effects (a sign of moderation). An alpha level of $\alpha = .05$ was used to assess statistical significance.

Preliminary exploratory analyses indicated there were no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.233. The control variables of social desirability, gender, and socioeconomic status did not account for a significant amount of variance within the model. Had the control variable of gender been a significant predictor of variance, the groups would have been separated by gender, and the multiple regression would have been rerun with the separate groups to remove the gender influence; however, this was not necessary. When looking at the addition of empathy, neuroticism, and the interaction of empathy X neuroticism, it was found that a significant amount of unique variance was accounted for ($\Delta R^2 = .142$, $F(3,210) = 5.871$, $p < .001$) by the set, with empathy accounting for a unique amount of variance ($\beta = .382$) on the outcome of prosocial behaviors. Interestingly, neither neuroticism, nor the interaction of empathy X neuroticism, accounted for a significant amount of variance in prosocial behaviors (see Tables 1 & 2).

Table 1
Hierarchical Regression Correlations, Means, and Standard Deviations for Prosocial Behaviors

	1	2	3	4	5
1) Prosocial Behaviors	--				
2) Empathy	.35**	--			
3) Perspective Taking	.28**	.43**	--		
4) Gratitude	.17*	.36**	.21**	--	
5) Neuroticism	-.05	.13	-.15*	-.27**	--
Mean	38.00	3.97	3.77	36.95	2.94
SD	10.88	0.65	0.69	4.84	0.72

Table 2
Summary of Hierarchical Regression Analysis for Empathy – Prosocial Behaviors

	B	Beta	T
Step 1			
1. Social Desirability	.453	.119	1.72
2. Income	.330	.072	1.04
3. Parent's Income	.178	.014	.20
4. Gender	1.343	.051	.75
Step 2			
1. Social Desirability	.298	.078	1.117
2. Income	.332	.073	1.117
3. Parent's Income	-.133	-.011	-.164
4. Gender	-1.418	-.054	-.754
5. Empathy (z-score)	4.432	.404**	5.776
6. Neuroticism (z-score)	-.933	-.086	-1.183
7. Empathy/Neuroticism Interaction	1.517	.137	1.988

Note. $R^2 = .024$ for Step 1 ($p = .270$); $\Delta R^2 = .142$ for Step 2 ($p < .001$). ** = $p < .001$

Individual Analysis Question 2

After controlling for social desirability, gender, and socioeconomic status (at present and growing up), does the variable of neuroticism act as a moderator on the relationship between perspective taking and prosocial behaviors?

Similar to question 1, for question 2, a hierarchical multiple regression analysis was performed to test whether the variable of neuroticism moderated the relationship between perspective taking and prosocial behaviors, after controlling for the factors of social desirability, gender and socioeconomic status (both at present and growing up). The scores for perspective taking and neuroticism were centralized (transformed into z-scores) in order to limit multicollinearity and to correct possible scale biases.

Additionally, an interaction variable of perspective taking x neuroticism was created within SPSS, in order to test for interaction effects (a sign of moderation). An alpha level of $\alpha = .05$ was used to assess statistical significance.

Preliminary exploratory analyses indicated there were no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.196. The control variables of social desirability, gender, and socioeconomic status did not account for a significant amount of variance within the model. As mentioned before, if the control variable of gender had been a significant predictor of variance, the groups would have been separated by gender, and the multiple regression would have been rerun with the separate groups to remove the gender influence; however, this was not necessary. When looking at the addition of perspective taking, neuroticism, and the interaction of perspective taking X neuroticism, it was found that a significant amount of unique variance was accounted for ($\Delta R^2 = .075$,

$F(3,210) = 3.248, p < .001$) by the set, with perspective taking accounting for a unique amount of variance ($\beta = .264$) on the outcome of prosocial behaviors. As with empathy, neither neuroticism, nor the interaction of perspective taking X neuroticism, accounted for a significant amount of variance in prosocial behaviors (see Table 3).

Table 3
Summary of Hierarchical Regression Analysis for Perspective Taking – Prosocial Behaviors

	B	Beta	T
Step 1			
1. Social Desirability	.453	.264	1.715
2. Income	.330	.317	1.042
3. Parent's Income	.178	.869	.204
4. Gender	1.343	1.800	.746
Step 2			
1. Social Desirability	.392	.273	1.435
2. Income	.239	.308	.778
3. Parent's Income	-.023	.843	-.027
4. Gender	.697	1.807	.386
5. Perspective Taking (PT) (z-score)	2.910	.740	3.930**
6. Neuroticism (z-score)	.152	.813	.187
7. PT/Neuroticism Interaction	.862	.696	1.239

Note: Note. $R^2 = .024$ for Step 1 ($p = .270$); $\Delta R^2 = .075$ for Step 2 ($p < .001$). ** = $p < .001$

Individual Analysis Question 3

After controlling for social desirability, gender, and socioeconomic status (at present and growing up), does the variable of neuroticism act as a moderator on the relationship between gratitude and prosocial behaviors?

For this analyses, a hierarchical multiple regression analysis was again preformed to test whether the variable of neuroticism moderated the relationship between gratitude and prosocial behaviors, after controlling for the factors of social desirability, gender and socioeconomic status (both at present and growing up). As previously done, the scores for gratitude and neuroticism were centralized (transformed into z-scores) in order to limit the risk of multicollinearity and to adjust for scale issues. Additionally, an interaction variable of gratitude x neuroticism was created within SPSS, in order to test for interaction effects (a sign of moderation). An alpha level of $\alpha = .05$ was used to assess statistical significance.

Preliminary exploratory analyses indicated there were no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.240. The control variables of social desirability, gender, and socioeconomic status did not account for a significant amount of variance within the model. Had gender shown a significant influence on the variance, the population would have been separated by gender, and the multiple regressions rerun in order to further analyze the influence of gender; however, this was not necessary. When looking at the addition of gratitude, neuroticism, and the interaction of gratitude X neuroticism, it was found that a significant amount of unique variance was accounted for ($\Delta R^2 = .067$, $F(3,210) = 2.951$, $p < .01$) by the set, with gratitude accounting for a unique

amount of variance ($\beta = .162, p < .05$) on the outcome of prosocial behaviors.

Additionally, the interaction of gratitude X neuroticism also accounted for a unique amount of variance ($\beta = -.144, p < .05$) suggesting that there is an interaction occurring between neuroticism and gratitude on the outcome variable of prosocial behaviors, and that further investigation was required.

In order to do the analyses, the sample was split into three groups based on Aiken and West's (1991) suggestion of +/- 1SD, using their standardized score on neuroticism (low, medium, and high), and were dummy coded (0, 1, 2) to reflect their level of neuroticism. Initially, the low neuroticism group was selected for analysis (n = 33). A hierarchical multiple regression was again run to determine if there was a relationship between gratitude and prosocial behaviors at low levels of neuroticism, when controlling for gender, SES (present and in past) and social desirability. Preliminary exploratory analyses indicated there were no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.806. The control variables of social desirability, gender, and socioeconomic status did not account for a significant amount of variance within the model. Additionally, at low levels of neuroticism, gratitude did not account for a significant amount of variance in prosocial behaviors.

Following testing the low neuroticism group, the high neuroticism group (n =32) was looked at. Again, a hierarchical multiple regression was again run to determine if there was a relationship between gratitude and prosocial behaviors,, when controlling for gender, SES (present and in past) and social desirability. Preliminary exploratory analyses indicated there were no multicollinearity problems in the data as evidenced by

variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.342. The control variables of social desirability, gender, and socioeconomic status did not account for a significant amount of variance within the model. Additionally, at high levels of neuroticism, gratitude did not account for a significant amount of variance in prosocial behaviors

Next, the medium level of neuroticism (between -1 and +1 SD) was looked at ($n = 149$). Another hierarchical multiple regression was run to determine if a relationship was present between gratitude and prosocial behaviors, when controlling for gender, SES (present and in past) and social desirability (run as continuous variables). Preliminary exploratory analyses indicated there were no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.185. The control variables of social desirability, gender, and socioeconomic status did not account for a significant amount of variance within the model. However, at medium levels of neuroticism, gratitude accounted for a significant amount of variance in prosocial behaviors ($\Delta R^2 = .021$, $F(1, 148) = 2.312$, $p < .05$) (see Table 4), suggesting that when a person is able to give and receive gratitude, some level of neuroticism leads to more prosocial behaviors.

Table 4
Summary of Hierarchical Regression Analysis for Gratitude – Prosocial Behaviors

	B	Beta	T
Step 1			
1. Social Desirability	.453	.119	1.715
2. Income	.330	.072	1.042
3. Parent's Income	.178	.014	.204
4. Gender	1.343	.051	.746
Step 2			
1. Social Desirability	.277	.073	.998
2. Income	.483	.106	1.556
3. Parent's Income	-.231	-.018	-.264
4. Gender	-2.196	-.084	-1.084
5. Gratitude (z-score)	2.975	.267	3.282**
6. Neuroticism (z-score)	1.174	.108	1.355
7. Gratitude/Neuroticism Interaction	-2.698	-.233	-3.124*

Note. $R^2 = .024$ for Step 1 ($p = .270$); $\Delta R^2 = .075$ for Step 2 ($p < .001$). ** = $p < .001$, * = $p < .01$

Post-hoc Analysis

As empathy, perspective taking, gratitude and neuroticism are correlated (McCullough et al., 2001), it suggests that levels of each characteristic are most likely present in one person. Additionally, each has been shown to be positively related to prosocial behaviors (e.g. Abbate et al., 2006; Batson, 1984, 1991; McCullough et al., 2001). In order to determine the unique amount of variance in prosocial behaviors that each variable accounted for when considered collectively, a post hoc analysis was run.

A hierarchical multiple regression analysis was used to test whether the variables of empathy, perspective taking, and gratitude continued to account for a significant amount of variance in prosocial behaviors. First, the factors of social desirability, gender and socioeconomic status (both at present and growing up) were controlled for. As in previous analyses, the scores for empathy, perspective taking, and gratitude were

centralized (transformed into z-scores) in order to limit the risk of multicollinearity and to adjust for scale issues. The transformed z-scores were then input in to the second block of the multiple regression in order to determine their individual impact on prosocial behaviors.

Preliminary exploratory analyses indicated there were no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.635. The control variables of social desirability, gender, and socioeconomic status did not account for a significant amount of variance within the model. Had gender shown a significant influence on the variance, the population would have been separated by gender, and the multiple regressions rerun in order to further analyze the influence of gender; however, this was not necessary. When looking at the impact of empathy, perspective taking, and gratitude, on prosocial behaviors, it was found that, as a whole, the variables accounted for a significant amount of variance in prosocial behaviors ($\Delta R^2 = .141$, $F(4, 209) = 5.822$, $p < .001$). Looking at the measures individually, empathy ($\beta = .307$; $p < .001$) was found to account for a significant amount of variance in prosocial behaviors; however, perspective taking ($\beta = .133$) and gratitude ($\beta = .045$) were not found to have a significant influence (see Table 5). Possible interpretations, limitations, and future research are suggested in Chapter 5.

Table 5
Summary of Hierarchical Regression Analysis Prosocial Behaviors

	B	Beta	T
Step 1			
1. Social Desirability	.453	.119	1.715
2. Income	.330	.072	1.042
3. Parent's Income	.178	.014	.204
4. Gender	1.343	.051	.746
Step 2			
1. Social Desirability	.249	.066	.989
2. Income	.358	.078	1.202
3. Parent's Income	-.199	-.016	-.238
4. Gender	-2.341	-.089	-1.272
5. Empathy (z-score)	3.372	.307	3.920**
6. Gratitude (z-score)	.570	.051	.711
7. Perspective Taking (z-score)	1.456	.133	1.865

Note. $R^2 = .024$ for Step 1 ($p = .270$); $\Delta R^2 = .141$ for Step 2 ($p < .001$). ** = $p < .001$. * = $p < .01$

Chapter 5

Discussion

While there have been numerous studies exploring surrounding the reasons of why a person acts prosocially or not (e.g., Batson et al., 1979; Eisenberg et al., 1999; Latané & Darley, 1970, etc.), the field still lacks clear knowledge about many factors that may impact a person's participation in prosocial actions. In the studies that have been done, it has been shown that people who are generally considered to have positive traits, such as being able to empathize (e.g. Batson, 1987, 1991, 1994) and take the perspective of others (Abbate et al., 2006; Carlo et al., 1999, etc.), as well as be able to feel gratitude towards a person for an action (e.g. McCullough et al., 2001, Tsang, 2006), help others more often. While these relationships are seen to be present, they are imperfect relationships that may be influenced by outside factors or internal personal factors. For example, worry and affective arousal (or emotional arousal), have been shown to impact the relationship between empathy and perspective taking, in particular, when a person is worried or experiencing other emotional arousal, their ability to act prosocially is impacted negatively. The current study aimed to look at an alternate factor as an influence on the relationship between moral characteristics (empathy, perspective taking, and gratitude) and prosocial behaviors, the variable of neuroticism.

In conducting the current study, the hypothesis that a relationship between moral characteristics (empathy, perspective taking and gratitude) and prosocial behaviors would be impacted by higher levels of neuroticism, leading to fewer prosocial behaviors, was split into three individual analyses. Each analysis looked at the moderating impact of neuroticism on the relationship between the moral characteristic of interest (i.e. empathy

or perspective taking or gratitude) and actual past participation in prosocial behaviors to determine if the hypothesis that high level of neuroticism led to fewer prosocial behaviors was validated.

Empathy

The hypothesis that a high level of (subclinical) neuroticism would impede a person's actual participation in prosocial behaviors, when the person is high in empathy, was not supported. In other words, being highly reactive and internally focused was not found to impact the relationship between being able understand and share feelings with another and actually helping another in any way.

The findings did support previous research; however, indicating that there is a relationship between empathy and actual participation in prosocial behaviors (e.g., Batson, 1987, 1991, 1994). Not only did the results show that empathy and previous prosocial behaviors are positively correlated ($r = .351, p < .001$), meaning those who are better able to understand and share feelings with another are more likely to have helped others, it was also shown that empathy accounted for a significant amount of variance in prosocial behaviors, meaning that being able to share another's feelings predicts participation in prosocial acts.

While the results of this study do not indicate that neuroticism moderated the relationship between empathy and prosocial behaviors, they did result in demonstrating an interesting positive relationship between neuroticism and empathy ($r = .137, p < .05$), which was found in another study by the researchers (Bridges et al., 2009). This indicates that people who are higher in empathy are also higher in neuroticism, and, as previously reported, also more likely to have participated in prosocial behaviors (despite the lack of

relationship between neuroticism and prosocial behaviors). This suggests that while a person may be more aware of and able to understand the emotions of another, they may also be internally focused and highly emotionally reactive; however, this internal focus and reactivity does not seem to impede their prosocial actions. Additionally, as acting prosocially in the past has been shown to be associated with positive prosocial actions in the future (Schroeder et al., 1995) it is likely that a person who is able to empathize continue to be more likely and able to continue to act in a prosocial manner. Further research in this area could be beneficial, especially by going more in depth into the different factors that are part of neuroticism, such as emotional reactivity versus internal focus, to see if certain factors are more influential on the relationship between empathy and prosocial behaviors. This research could provide insight into the determination of whether prosocial behaviors are more done for egoistic purposes (e.g., affected by self focus) versus for altruistic purposes (ex. due to reactivity and not self focus), to help further clarify the research done in the past by Batson and his associates (1984, 1991).

Perspective Taking

The hypothesis that a high level of neuroticism would impede the ability to partake in prosocial behaviors in a person who is high in the ability to see the perspective of others was also not supported. Specifically, a person's level of neuroticism did not impact their participation in prosocial behaviors when the person was able to take the perspective of others. As with empathy, there was a positive relationship between perspective taking and prosocial behaviors ($r = .128, p < .001$), meaning that those people who are better able see things from another person's point of view are more likely to have helped others. The positive relationship between perspective taking and prosocial

behaviors supports previous research that suggested the same relationship (Abbate, Isgro, Wicklund & Boca, 2006; Carlo, Allen, & Buhman, 1999, etc.).

The similar relationship between empathy and perspective taking and prosocial behaviors in this research is not surprising, as they are considered to be related and are positively correlated ($r = .429, p < .001$). Perspective taking is thought to be the more cognitive form of empathy, where empathy is more emotional (Davis, 1983), which potentially influenced the interesting relationship between perspective taking and neuroticism. However, unlike the positive relationship between empathy and neuroticism, the relationship between perspective taking and neuroticism is found to be a negative relationship ($r = -.152, p < .05$). This means that, for those people who are better able to take the perspective of others, they are less likely to be internally focused and emotionally reactive. While the interaction between the relationship of perspective taking and neuroticism does not appear to affect if a person helps others, it is interesting when compared to the relationship between the emotional side of empathy. One possible explanation is that the emotional reactivity that is associated with neuroticism (John & Srivastava, 1999) is also associated with the emotionality that is involved in empathy, where as perspective taking does not appear to involve the same emotionality – it is more of a cognitive trait. This correlation also fits with the idea that neuroticism is a trait that involves an internal focus (John & Srivastava, 1999), whereas perspective taking requires an external focus (Davis, 1983). Meaning, a person high in neuroticism may be able to empathize, using their emotionality, with someone in need; however, they may not be able to see the situation from the other person's perspective (and rather see it from their own perspective). While this relationship does not support a person's ability to help

others, it does support Davis' (1983) research that empathy and perspective taking are separate entities and act differently. As with empathy, further research in this area could be beneficial, specifically examining the different factors that are included in the characteristic of neuroticism to determine if specific traits (such as self-focus or emotional reactivity) are more likely to impede or aide in a person's participation in prosocial behaviors. Additionally, it would be beneficial to examine other factors that have been related to neuroticism, such as anxiety, anger, guilt or stress (John & Srivastava, 1999) in order to see how these factors influence whether a person helps others. It could potentially be that feelings of guilt and anger about the situation at hand could lead a person to help more, where as anxiety may lead the person to be less likely to help.

Gratitude

The hypothesis that a high level of neuroticism would impede prosocial behaviors in a person who is high in gratitude required more investigation than the previous variables. While the hypothesis was not generally supported, the results were interesting. Like the previous variables, gratitude was also shown to have a positive relationship with prosocial behaviors ($r = .169, p < .05$), meaning that those who are better at receiving and providing thankfulness, appreciation and kindness, are also better at acting prosocially. This finding supports the previous research done by such researchers as McCullough, Kilpatrick, Emmons, and Larson (2001) and Tsang, (2006).

When investigating the effects of neuroticism on the relationship between gratitude and prosocial behaviors, the results showed that neuroticism did have an impact on the relationship. Further investigation, looking at both high levels of neuroticism and

low levels of neuroticism (based on ± 1 SD) resulted in no significant results, suggesting that whether a person is highly self focused and emotionally reactive or lacks self focus and is emotionally stable, their participation in prosocial behaviors is not affected. While these results seem counterintuitive to the initial analysis showing that neuroticism was influential, this could be attributed to the nature of neuroticism to lay on a normal curve along with the size of the population. As our sample size was only 214 for the analyses, the normal nature of neuroticism left only a small population at the high and low levels of neuroticism ($n = 33$ and $n = 32$, respectively). Future studies would benefit from using a larger sample size in order to provide more people who are in the extreme levels of subclinical neuroticism.

As a vast majority of the population appeared to be in the medium level ($- 1$ to $+ 1$ SD, $n = 149$) of neuroticism, a level of not often looked at or defined, the effects of mid-levels of neuroticism on the relationship between gratitude and prosocial behaviors were checked. When looking at the mid-levels of neuroticism, gratitude accounted for a significant amount of variance in prosocial behaviors, meaning that, when a person scores in middle of the normal curve on neuroticism, they were more likely to have helped others. A difficulty arises on defining exactly what qualifies in the medium level of neuroticism. Based on the Big Five Inventory definitions of neuroticism, while a low level of neuroticism may suggest calmness, emotional stability and lack of persistent negative feeling, those with a medium level of neuroticism may have some characteristics associated with neuroticism, such as being easily upset or disturbed (John & Srivastava, 1999), which could possibly lead a person to help others, especially in the presence of empathy for the person (in addition to empathy and neuroticism being positively

correlated, empathy and gratitude are also correlated, $r = .357, p < .001$). It may also suggest that in order to help others, some level of anxiety, reactivity, self - focus, etc. may be helpful in creating the personality of a person that will help others. While this is one step in understanding the impact of neuroticism on the relationship between gratitude and helping behaviors, further research would be beneficial, particularly research with a larger population in order to allow more people in each level of neuroticism, which may further clarify the real effects related to high and low levels of neuroticism. Additionally, looking at the specific traits that make up neuroticism may help to clarify if certain traits are inhibitory versus functional.

Post hoc Analysis

Following the analyses of the moderating impact of neuroticism, an analysis was run to examine the relationship of moral characteristics (empathy, perspective taking, and gratitude) on predicting prosocial behaviors, as all characteristics are likely to be present in one person. The results of the analysis showed that empathy, perspective taking and prosocial behaviors as a group, accounted for a significant amount of variance in actual prosocial behaviors ($\Delta R^2 = .141, F(4, 209) = 5.070, p < .001$); however, individually, only empathy acted as significant predictor ($\beta = .309, p < .001$). This means that if a person is able to see, feel and understand the emotions of another, they are likely to have preformed prosocial acts, and are likely to do so in the future (Schroeder et al, 1995). Interestingly, when neuroticism was removed as a moderator, perspective taking and gratitude are no longer predictive of prosocial behaviors. This finding suggests that having an emotional reaction to the plight of another significantly predicts the likelihood of having performed prosocial behaviors in the past and as past helping predicts helping

in the future (Schroeder et al., 1995), it can be inferred that the personal emotional reactions a person experiences leads to prosocial behaviors, where as a cognitive awareness of another's experience (i.e., perspective taking) or appreciation of another's activities (i.e., gratitude) does not. As removing neuroticism as a moderator removes the predictive relationship between perspective taking and gratitude and prosocial behaviors, it is possible that some level of emotional reactivity is beneficial in leading to prosocial behaviors if a person is only able to see the point of view of the other, or is only able to be thankful for their previous actions. Further research in the area, particularly with larger sample sizes, would be beneficial in clarifying how this relationship works.

While this does not provide further insight into the role of neuroticism, it does show that the moral characteristic of empathy is both positively related to and predictive of helping others, therefore, it may be beneficial to teach empathy to others in order to increase their likelihood of partaking in prosocial behaviors. Additionally, there seem to be some further factors that act on the moral characteristics of perspective taking and gratitude, as they are positively related to helping behaviors, though not predictive of helping on their own. Further research in the area would be beneficial, particularly looking at other factors that could be influential on the relationships between moral characteristics and prosocial behaviors.

Limitations

Although the present study provides new insight into the understanding of factors that influence participation in prosocial behaviors, specifically in generally moral people, there are limitations that must be considered. First, despite the fact that using all self-report measures (as was done in this study) is part of the process of survey research, and

though participants were guaranteed confidentiality, the potential for biased results is still possible. Further, the cross-sectional nature of the data limits the degree to which causal inferences can be made. In addition, the generalizability of the sample is limited, as it lacked diversity with regard to race. While the study attempted to recruit a diverse sample population, future research with a population more diverse in race and gender would serve to increase the generalizability and multicultural understanding of the aspects of neuroticism and prosocial behaviors. Also, despite the evidence that the Self-Report Altruism Scale (Rushton et al., 1981) is a valid and accurate measure of actual prosocial behaviors (i.e., actions), it may be beneficial to use an additional measure of prosocial behaviors in order to bolster against some outdated or location limiting questions on the scale (e.g., I have helped push a stranger's car out of the snow; I have given a stranger a lift in my car). Furthermore, while a limited number of surveys were given in order to increase the likelihood of completion, it may be beneficial to use secondary measures of the additional independent variables (empathy, perspective taking, gratitude and neuroticism) to assure that all aspects of each variable are being studied.

Implications for Counseling Psychology

While the present research was limited in validating the hypotheses presented, it does provide implications for the field of counseling psychology. As a field, counseling psychology is traditionally based on prevention with a focus on positive traits within a person (Howard, 1992). The present study shows the continued importance of having the ability to be empathetic, being able to see the perspective of others, and being able to receive and give gratitude. The present study validated previous research findings (e.g., Abbate et al., 2006; Batson, 1987, 1991, 1994; Carlo et al., 1999, McCullough et al.,

2001, Tsang, 2006) which indicated that higher levels of empathy, perspective taking, and gratitude are related to partaking in more prosocial behaviors. Not only are empathy (e.g., Bandura, 2004; Fredrickson & Joiner, 2001, etc.), perspective taking (e.g., Fredrickson & Joiner, 2001; Galinsky et al., 2005, etc.) and gratitude (McCullough et al., 2002) related to positive outcomes such as increased positive emotions and well being, but prosocial behaviors (both given and received) are also related to such positive outcomes (e.g., Caprara & Steca, 2005; Gebauer et al., 2007; Weinstein & Ryan, 2010). Therefore, by being able to foster these characteristics and behaviors within a person, there is potential for a new way to help clients to increase their positive emotions (Fredrickson & Joiner, 2001), connectedness with others (Galinsky et al., 2005), social competence (Eisenberg & Harris, 1984), in addition to various other potential positive outcomes. While the finding that moderate amounts of neuroticism actually aid in partaking in prosocial behaviors for those who experience gratitude provides some insight into the potential usefulness of traits associated with neuroticism, it also suggests a need for further investigation into the relationship in order to determine what qualifies as moderate levels of neuroticism (where as low and high have relatively clear definitions) and additionally, if certain traits of neuroticism are more present than others (e.g., anger and anxiety versus self focus) in those who are more able to help others.

Future Research

While the results of this study provided backing for previous research on the relationships between moral characteristics and prosocial behaviors, further research is indicated in order to further clarify the function of neuroticism, particularly on the relationship between gratitude and prosocial behaviors. As the sample population for the

study was relatively small, particularly in those that qualified as low and high in neuroticism, it would be beneficial to run a study looking at the impact of neuroticism on the gratitude – prosocial behavior relationship on a larger sample in order to see if true results exist in those who are either high or low in neuroticism, in hopes of seeing if the patterns of interaction change or lead to significant results. Additionally, it would be beneficial to study what traits of neuroticism are present in those who are more able to help, for example, are those who are high in self-focus still able to help others, or how does the level of anxiety associated with neuroticism impact the ability to help others. It may also be beneficial to incorporate different variables that may influence a person in partaking in prosocial behaviors, such as the context of the situation, the gravity of the situation, and so on. A study that incorporates vignettes, as well as measures of possible peaked emotions (ex. empathy, anxiety, anger, etc.) could clarify what is being peaked in those people to opt to help another, and in particular, someone that they do not know.

Also, the interesting relationships that were found between empathy and neuroticism and perspective taking and neuroticism garner further investigation. Particularly, as empathy and perspective taking are both considered positive traits, where as neuroticism is considered negative, the inverse relationships (a positive correlation between empathy and neuroticism, and a negative relationship between perspective taking and neuroticism) could potentially lead to interesting studies into the characteristic of neuroticism. It could be possible that, despite its negative connotations, there are actually some positive traits that are part of neuroticism.

Conclusions

Overall, the results of this study were rather limited. The results indicated that the studied moral characteristics of empathy, perspective taking and gratitude are, as previously found, related to increased participation in prosocial behaviors. Additionally, the results indicated that at a moderate level of neuroticism, those who were able to give and receive gratitude are better able to help others, which suggests that either some level of neuroticism, or particular traits within neuroticism, may actually be beneficial in being able to help others. The study also uncovered some interesting relationships within the variables, particularly, that those who are better able to empathize with others are also higher in neuroticism, whereas those who are better able to see the perspective of others are lower in neuroticism. The results provide continued support for the importance of empathy, perspective taking and gratitude in increasing the odds of increasing prosocial behaviors. Additionally, the results provide a wealth of areas to continue research, particularly into the benefit of some level of subclinical neuroticism within a person.

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Appendix A

Model

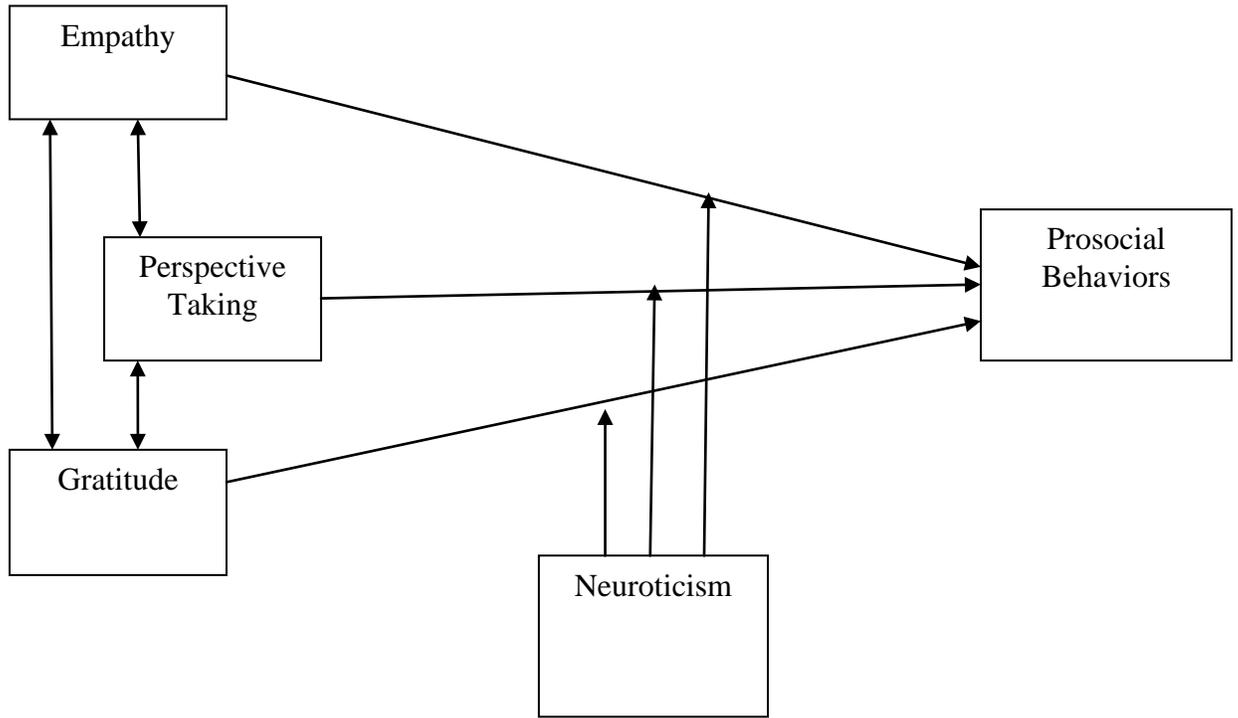


Figure 1 Proposed full model for mediation of neuroticism on the relationship between moral characteristics and prosocial behaviors.

Appendix B Informed Consent

Principal Investigators
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A. DESCRIPTION OF RESEARCH

You are invited to participate in an on-line survey aiding research investigating prosocial behaviors, attitudes, and general personality characteristics

1. To qualify for the study you must be at least 18 years of age able to complete an on-line survey.
2. The entirety of your participation in the study consists of filling out one multi-sectional survey that should take approximately 20 minutes .
3. All information collected from participants will be anonymous and information collected will not be connected with the respondents in any way

B. RISKS

The procedures in this study have no foreseeable associated risks.

C. BENEFITS

Participants may benefit from the satisfaction of knowing they are contributing to research aimed at gaining knowledge about personality characteristics and prosocial behaviors. Findings will be used as the basis for further research aimed at increasing the humanizing side of society.

D. CONFIDENTIALITY

All information provided by the participant will be handled in a confidential manner to the extent permitted by law. Although the anonymity of the participant is assured, all data may be reported in journals or other professional, scientific communications.

E. COMPENSATION

There is no compensation for participating in this study. The University of Memphis does not have funds budgeted for medical treatment, reimbursement for medical treatment, property damages, or reimbursement for lost wages. These policies are not meant to restrict whatever rights to which you are legally entitled.

F. ANSWERS TO QUESTIONS

If you have any questions or concerns at any point in this study, whether they are about the study or your rights as a research participant, please feel free to direct your questions and comments to the principal investigator, Dr. Sara K. Bridges at (901) 678-2081.

Questions about your rights as a research participant may also be directed to the Chair of the Committee for the Protection of Human Research Participants of the University of Memphis at (901) 678-2533.

G. TERMINATING

Participation in this study is voluntary. You may refuse to participate or withdraw from this study at any time.

By completing the survey acknowledge that I am at least 18 years of age, have read and understood the above statements, and have decided to take part in the study.

Appendix C

Demographics

- 1.) What is your age:
- 2.) Date of Birth
- 3.) What is your gender: 1) Male, 2) Female, 3) Transgendered
- 4.) What is your ethnicity: 1) African American/Black; 2) Asian/Pacific Islander; 3) Latino/Hispanic; 4) Native American/Alaskan Native; 5) Caucasian/White; 6) Biracial; 7) Multiracial; 8) Other
- 5.) What is your relationship status: 1) Single; 2) In a relationship; 3) Living with partner; 4) Married; 5) Divorced; 6) Remarried; 7) Widowed
- 6.) What is the highest level of education you've completed: 1) High School Degree; 2) Some college (no degree); 3) 2-year Degree; 4) 4-year Degree; 5) Master's Degree; 6) Professional Degree (J.D., M.D., Ph.D, etc.); 7) Other
- 7.) If you are in school, what is your GPA? 1) 0-1.0, 2) 1.1-2.0 3) 2.1-3.0 4) 3.1-4.0
- 8.) What is your current employment status: 1) Employed full-time; 2) Employed part-time; 3) Retired; 4) Full-time student only; 5) Full-time student & full-time employment; 6) Full-time student & part-time employment; 7) Part-time student only;) Part-time student & full-time employment; 9) Part-time student & part-time employment 10) Unemployed
- 9.) What is your annual income: 1) Under \$10,000; 2) \$10,000 - \$19,999; 3) \$20,000 - \$29,999; 4) \$30,000 - \$39,999; 5) \$40,000 - \$49,999; 6) \$50,000 - \$99,999; 7) \$100,000 - \$149,999; 8) \$150,000 +; 9) Prefer not to Answer
- 10.) How would you classify your socioeconomic status while growing up? (i.e. based on your parents income and lifestyle)? 1) lower SES 2) low to middle SES 3) middle SES 4) middle to higher SES 5) High SES.
- 11.) Where do you live: List State, Country (if not U.S.)
- 12.) What is the population of the area you live in: 1) Rural (Under 10,000); 2) Suburban (10,001 - 100,000); 3) Urban (100,001 +)

Appendix D

The Gratitude Questionnaire-Six Item Form (GQ-6)

McCullough, Emmons, & Tsang, 2001

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

**1 = strongly disagree 2 = disagree 3 = slightly disagree 4 = neutral 5 = slightly agree
6 = agree 7 = strongly agree**

- ___ 1. I have so much in life to be thankful for.
- ___ 2. If I had to list everything that I felt grateful for, it would be a very long list.
- ___ 3. When I look at the world, I don't see much to be grateful for.
- ___ 4. I am grateful to a wide variety of people.
- ___ 5. As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.
- ___ 6. Long amounts of time can go by before I feel grateful to something or someone.

Appendix E

Interpersonal Reactivity Index

Davis, 1983

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.
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.

Appendix F

Big Five Inventory

John & Srivastava, 1999

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1	2	3	4	5
Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly

I am someone who...

1. ____ Is talkative
2. ____ Tends to find fault with others
3. ____ Does a thorough job
4. ____ Is depressed, blue
5. ____ Is original, comes up with new ideas
6. ____ Is reserved
7. ____ Is helpful and unselfish with others
8. ____ Can be somewhat careless
9. ____ Is relaxed, handles stress well.
10. ____ Is curious about many different things
11. ____ Is full of energy
12. ____ Starts quarrels with others
13. ____ Is a reliable worker
14. ____ Can be tense
15. ____ Is ingenious, a deep thinker
16. ____ Generates a lot of enthusiasm
17. ____ Has a forgiving nature
18. ____ Tends to be disorganized

19. _____ Worries a lot
20. _____ Has an active imagination
21. _____ Tends to be quiet
22. _____ Is generally trusting
23. _____ Tends to be lazy
24. _____ Is emotionally stable, not easily upset
25. _____ Is inventive
26. _____ Has an assertive personality
27. _____ Can be cold and aloof
28. _____ Perseveres until the task is finished
29. _____ Can be moody
30. _____ Values artistic, aesthetic experiences
31. _____ Is sometimes shy, inhibited
32. _____ Is considerate and kind to almost everyone
33. _____ Does things efficiently
34. _____ Remains calm in tense situations
35. _____ Prefers work that is routine
36. _____ Is outgoing, sociable
37. _____ Is sometimes rude to others
38. _____ Makes plans and follows through with them
39. _____ Gets nervous easily
40. _____ Likes to reflect, play with ideas
41. _____ Has few artistic interests
42. _____ Likes to cooperate with others
43. _____ Is easily distracted
44. _____ Is sophisticated in art, music, or literature

Appendix G

The Self Report Altruism Scale

[Rushton, J. P., Chrisjohn, R. D., & Fekken, G. C. (1981).

Instructions: Check the category on the right that conforms to the frequency with which you have carried out the following acts.

	Never	Once	More than once	Often	Very often
1. I have helped push a stranger's car out of the snow.					
2. I have given directions to a stranger.					
3. I have made change for a stranger.					
4. I have given money to a charity.					
5. I have given money to a stranger who needed it (or asked me for it).					
6. I have donated goods or clothes to a charity.					
7. I have done volunteer work for a charity.					
8. I have donated blood.					
9. I have helped carry a stranger's belongings (books, parcels, etc.).					
10. I have delayed an elevator and held the door open for a stranger.					
11. I have allowed someone to go ahead of me in a lineup (at photocopy machine, in the supermarket).					

12. I have given a stranger a lift in my car.					
13. I have pointed out a clerk's error (in a bank, at the supermarket) in undercharging me for an item.					
14. I have let a neighbor whom I didn't know too well borrow an item of some value to me (e.g., a dish, tools, etc.)					
15. I have bought 'charity' Christmas cards deliberately because I knew it was a good cause.					
16. I have helped a classmate who I did not know that well with a homework assignment when my knowledge was greater than his or hers.					
17. I have before being asked, voluntarily looked after a neighbor's pets or children without being paid for it.					
18. I have offered to help a handicapped or elderly stranger across a street.					
19. I have offered my seat on a bus or train to a stranger who was standing.					
20. I have helped an acquaintance to move households.					

Appendix H

M-C SDS Short Form C

(Crowne & Marlowe, 1960; Reynolds, 1982)

Directions: Please mark the answer to every question in the way that fits you best.

T = True

F = False

1. It is sometimes hard for me to go on with my work if I am not encouraged.
2. I sometimes feel resentful when I don't get my way.
3. On a few occasions, I have given up doing something because I thought too little of my ability.
4. There have been times when I felt like rebelling against people in authority even though I knew they were right.
5. No matter who I'm talking to, I'm always a good listener.
6. There have been occasions when I took advantage of someone.
7. I'm always willing to admit it when I make a mistake.
8. I sometimes try to get even rather than forgive and forget.
9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different from my own.
11. There have been times when I was quite jealous of the good fortune of other
12. I am sometimes irritated by people who ask favors of me.

13. I have never deliberately said something that hurt someone's feelings.