

INVESTIGATING THE ROLE OF AGE AND EMPATHY IN PRESCHOOLERS
LIKELIHOOD TO HELP AN OLDER ADULT

by

Amory C. Cox

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Thesis Advisor: Dr. Jenessa Steele

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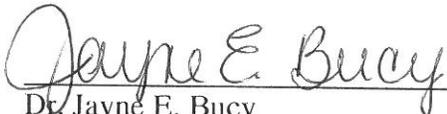
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Dr. Jenessa Steele
Thesis Advisor

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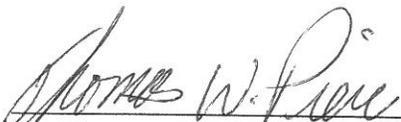
Date



Dr. Jayne E. Bucy
Committee Member

5/1/2013

Date



Dr. Thomas Pierce
Committee Member

5/1/2013

Date

ABSTRACT

The United States is a society where generations are divided both socially and recreationally (Gilbert & Ricketts, 2008). Due to negative stereotyping of older adults, researchers have suggested activities that are pleasing to both adults and children should be administered to reduce negative stereotypes (Weinberger, 1979; Harper & Huie, 1987). Behaving prosocially and empathizing with others can help in promoting positive interactions between generations and is often viewed as being compassionate and caring (Eisenberg, 2003). Helping behaviors, a category of prosocial behaviors, are often measured in preschoolers to see if helping increases with age (Bar-Tal, Raviv, & Goldberg, 1982). Empathy has also been examined as a predictor of prosocial behaviors. The current study examined empathy as a predictor for engaging in prosocial behaviors in preschoolers using the Child Rating Questionnaire (Strayer & Roberts, 2004). Specifically, researchers examined whether preschoolers high or low in empathy were more likely to help an older or younger adult in an emotion or action based task using 4 helping tasks (Svetlova, Nichols, & Brownell, 2010). Results concluded age and empathy did not have a significant effect on helping behaviors. There was a significant effect for task, thus each task was significantly different from one another. There was also no main effect for helping an older or younger adult. It was also found that sociability was positively significantly correlated with empathy. Implications for intergenerational integration within preschool education and future research are discussed.

Keywords: empathy, intergenerational, prosocial, stereotyping, helping behaviors

Amory C. Cox, M.A.
Department of Psychology, 2006
Radford University

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CHAPTER 1 - STATEMENT OF THE PROBLEM

According to the 2010 Census Bureau Report, older adults (65 and older) comprise 12.9 % of the United States population (Werner, 2011). The older population consists of 39.6 million people and will increase to 72.1 million people by 2030 (Department of Health and Human Services, 2010). By 2030, 19% of the population will consist of older adults (United States Department of Health and Human Services, 2010). Due to the older adult population increasing, younger children need to recognize and interpret older adult's needs in order to behave prosocially.

Younger age groups infrequently interact with non-familial older adults. Gilbert and Ricketts (2008) stated that the United States is a society that divides generations socially and recreationally. Divisions between generations go as far as senior-only housing. Generational divisions lead to negative stereotypes of older adults. For example, Baggett (1981) and Seefeldt (1987) found that interacting with older adults increased negative attitudes and stereotypes toward older adults compared to children who did not have contact with older adults. In contrast, Dellmann-Jenkins, Lambert, Fruit, and Dinero (1986) found that after classroom interactions with older adult volunteers, preschoolers had more positive and nonstereotypic views of older adults' physical and behavioral traits. Previous to the Dellmann-Jenkins and colleagues study, Weinberger (1979) assessed elementary school students' stereotypes of older adults and found that older adults were rated as ugly, sick most of the time, as having the fewest number of friends, and as less intelligent and happy compared to younger adults. In order to reduce the commonly held negative stereotypes children have of older adults, future research should investigate means to increase intergenerational interactions.

Harper and Huie (1987) suggested additional research should focus on creating intergenerational activities that appeal to preschool-aged children to reduce negative stereotypes

of older adults. Bryant (1982) argued that the more empathetic a child was, the more likely the child would be able to share feelings with a wide range of individuals. Therefore, an empathetic child would be more accepting of people in general, including individuals from groups that are typically given negative stereotypes. Thus, in aiming to reduce negative stereotypes of older adults in preschoolers, the current study engaged children in activities with an adult, predicting helping behaviors based on teacher-rated levels of child empathy. In previous studies, engaging in helping behaviors was found to be consistent over one's lifetime; therefore, examining empathy as a predictor of prosocial behaviors should provide older adults with hope that future generations will behave prosocially (Hoffman, 1981).

CHAPTER 2 - INTRODUCTION

Prosocial Behavior Defined

Prosocial behavior and the expression of empathy are considered positive traits which are highly valued in multiple societies (Eisenberg, 2003). According to Eisenberg (2003) behaving prosocially and empathizing with others promotes positive interactions between people, often in the expression of being caring or compassionate. Prosocial behavior is a voluntary action or behavior that is intended to benefit another person or thing (Eisenberg, 2003). Although prosocial behaviors are intended to benefit others, the behaviors can be selfishly performed to gain social approval or material compensation (Eisenberg, 2003). There are many different categories of prosocial behaviors; however, in the current study helping behaviors were measured to determine a child's likelihood to assist an older or younger adult.

Helping Behavior Defined

Bar-Tal, Raviv, and Goldberg (1982) described the various acts of helping behavior. Helping behavior is defined as “an act which benefits others, and not prior promise of a tangible reward has been given in return” (p.397). Helping behavior is just one category of prosocial behavior. Sharing, giving, aiding, and comforting are all acts of helping behavior. Sharing is defined as when an individual gives either part of or all of a possession to another person (Bar-Tal, et al.). Giving differs from sharing, so when an individual engages in giving, he/she donates an entire object without keeping any for him/her-self. Aiding is defined as relieving one's “nonemotional” needs verbally or physically (Bar-Tal, et al.). Relieving ones emotional needs is defined as comforting. Researchers predicted that kindergarten students would perform more real helping acts than would nursery school children (Bar-Tal, et al.). Real helping acts are performed in response to a real need of another, not an imaginative situation. Researchers found

that real helping acts increase with age (Bar-Tal, et al.). The current study examined real helping acts in an experimental setting.

Empathy Defined

Empathy was examined in the current study to determine if preschoolers high in empathy are more or less likely to engage in prosocial behaviors and whether helping behaviors were more likely to be performed toward an older or younger adult. Empathy is the comprehension of another's emotional state where the person feels the same, if not similar, to what the other person is expected to feel or is feeling (Eisenberg, 2003). Often research fails to distinguish the differences between empathy and sympathy. Sympathy is an affective response that often comes from empathy where one feels sorrow or concern for other distressed individuals (Eisenberg, 2003). Difficulties often surface when determining whether a behavior is motivated by sympathy or empathy. Empathetic helping is defined as “prosocial responding grounded in other oriented concern” (Eisenberg, 2003, p.254). The current study investigated whether initial levels of preschooler empathy would predict likelihood of engaging in helping an older or younger adult.

Prosocial Behavior Development

Prosocial behavior begins to develop before age 2 (Svetlova, Nichols, & Brownell, 2010). A young child’s social, prosocial behavior, understanding, and responding are shaped through social interactions with adults and peers (Svetlova, et al.). Communication with adults on a regular basis helps to organize a child’s interest, attention, and inferences around others' needs, characteristics, and internal states. Communication can be in the form of directly requesting, facial cues, body language, or emotions. Moll, Carpenter, and Tomasello (2007) believed that infants required the interaction of an adult in order for the infant to recognize what the adult was attending (joint attention). Therefore a child’s ability to understand and recognize what another

person needs or feels depends on their interactions with an adult figure and the scaffolding and communicative support provided (Carpendale & Lewis, 2004). Previous studies have shown early signs of instrumental helping in 12 month old children who displayed prosocial behaviors such as household chores and comforting others in distress (Svetlova, et al.). Instrumental helping develops around 12-14 months of age and is defined as helping or assisting another person in achieving a goal, usually an action-based goal (Svetlova, et al.). For example, a person drops something and a child retrieves the object because it is out of their reach. Children develop their objective self-awareness around 18-24 months during which they also develop the ability to respond prosocially to others' emotional distress (Svetlova, et al.). Researchers have contrasting evidence as to the primary motivator of a child's prosocial behaviors. Some researchers argue that empathy and sympathy as a motivator are innate. Hay and Cook (2007) believed that an infant's interest in other people and their ability to imitate are the root of a child developing prosocial behaviors. A child's motivation to engage in prosocial behaviors is often due to facial cues, direct questioning of a peer or adult, feeling empathetic or sympathetic, or to avoid punishment from an adult (Youniss, 1980). Whereas adults may engage in prosocial behaviors to gain social acceptance, for self-reward, or because of a feeling of concern for the person in need (Youniss, 1980). Understanding the motivators for helping and expressing empathy can help in predicting future behaviors and helping those in need. Thus, if empathy is a motivator of helping behavior then examining empathy can be used to determine helping behaviors.

Development of Empathy

According to Eisenberg and Fabes (1990), preschoolers are capable of expressing empathy and behaving prosocially. Preschoolers are also capable of using moral reasoning that is oriented to or focused on the needs of others (Eisenberg & Fabes, 1990). According to Hoffman (1981) children have a biological predisposition toward empathy. For example, crying when

another infant cries is one of the earliest hints of expression of empathy in an infant. Also, Zahn-Waxler, Radke-Yarrow, Wagner, and Chapman (1992) have researched the development of empathy over the second and third years of life. Researchers measured children's responses to distress of a stranger and of their parent between ages of 14 and 30 months. Zahn-Waxler and colleagues found that children's empathetic responding changed significantly during the second year of life with increases in empathic concern and prosocial behavior between the ages of 14 and 24 months. At 14 months of age the toddlers were only able to express empathy by responding using physical actions. However, around 19 months, the child engaged in multiple helping behaviors such as sharing and comforting the one in distress. By age 3 children engaged in multiple helping behaviors and expressed empathetic concern by using verbal and facial cues and paying particular interest to the distressed person (Zahn-Waxler, et al.). As children enter preschool there is a large gain in cognitive empathy. Between ages 4 to 5, children are able to understand another person's perspective which is a large indicator of theory of mind development. The ability to take another's perspective allows children to engage in effective helping behaviors and empathize because they can understand the situation more accurately and understand how the other person is feeling (Wellman, Cross, & Watson, 2001). The current study investigated levels of empathy as a predictor of helping behavior in preschoolers' ages 2 1/2 to 5 years.

Linking the Development of Prosocial and Empathy

Hoffman (1981) believed that prosocial behavior and empathy-related behaviors have a genetic basis. Due to differences in genetics there could easily be variation within humans as to how empathic one is and the rate in which one engages in prosocial behaviors. Twin studies have supported heritability of empathy-related behaviors and prosocial reasoning. Eisenberg, Guthrie, Murphy, Shepard, Cumberland and Carlo (1999) conducted a longitudinal study on 32

individuals, beginning at age 4 to age 24. The longitudinal cohort was interviewed nine times throughout the study. Measures of sharing, helping, and offering comfort were taken during the preschool years. During the next two interviews, donating and helping were recorded during which the individuals were 9-12 years old. At the remaining interviews participants filled out self-reports on empathy-related responding, mothers and friends also filled out prosocial behavior questionnaires. Researchers found that spontaneous sharing in preschoolers (a prosocial behavior viewed as involving other-oriented motivation) predicted prosocial behavior and empathy-related responding up to 17 years later into adulthood (Eisenberg et al.). If empathy is found to be a predictor of helping behaviors toward an adult, adults should be provided with a sense of security, considering that helping behaviors have been found to be consistent across the lifespan (Hoffman).

Key Research Studies

Engaging in prosocial behaviors not only produces long term effects. For instance, Dunn and Cutting (1999) found that children who engaged in prosocial acts frequently showed higher levels of cooperative play with friends in preschool, are popular among their peers, and tend to build sincere friendships after the transition into elementary school. If researchers can predict helping behavior based on a child's expression of empathy, then will those who are higher in empathy be more or less likely to help an older or younger adult? The current research focused on whether children with different levels of empathy differentially help an older or younger adult.

According to Parkhurst and Asher (1992) and Pakaslahti, Karjalainen, and Keltikangas-Jarvinen (2002) children are often rejected by their peers when they display low levels of prosocial behavior. The same association was found in young adolescents. Although longitudinal studies have not yet been conducted, Eisenberg et al., (1999) found that preschoolers

who spontaneously engaged in prosocial behaviors and sharing behaviors were related to the self-reported tendency to perspective take in adolescence and early adulthood, as well as social responsibility and suppression of aging. Therefore displaying prosocial behaviors can be beneficial years after preschool.

Eisenberg, Pasternack, Cameron, and Tryon (1984) investigated prosocial behaviors within a preschool classroom over a 12 week period. The researchers recorded helping, sharing, sociability, verbal or physical defense of objects, and impinging behaviors. When the researcher observed a certain behavior they asked the child why he/she had engaged in the particular prosocial behavior. The children's answers were divided into eight categories: authority/punishment orientation, hedonistic orientation, pragmatic orientation, needs-of-others orientation, affectional relationship orientation, approval and interpersonal orientation, and stereotyped good/bad orientation. When children were justifying their prosocial behaviors toward their peers, they explained their behaviors using pragmatic (practical reasons) and needs-oriented reasoning (the child justified the behavior because of his peer's psychological or physical needs). The next two justifications commonly reported were hedonistic (where the child expected gain for himself) and affectional relationship (child justified behavior because of the friendship/relationship to whom the prosocial behavior was directed) attributions. The 4 year old children did not use authority/punishment or references to demands when justifying prosocial behaviors (Eisenberg, et al.). Eisenberg-Berg and Hand (1979) also examined preschooler's moral reasoning and motivation in response to a moral reasoning story. Researchers found that sharing behavior was negatively related to hedonistic reasoning and positively related to needs-oriented reasoning. The preschoolers did not use authority/obedience reasoning when deciding on sharing or helping others. Preschoolers will engage in helping behaviors for multiple reasons

on their own. The current study aimed to see if empathy was a predictor for engaging in helping behaviors.

When assessing prosocial behaviors, there are many tasks that can be administered to measure prosocial behavior. Eisenberg and colleagues (1979) have posed moral dilemmas to children, in which they have to make a decision, either satisfying their own needs or helping another. For example, a child is walking to a party and comes up to another child who is hurt. Should the child continue walking to the party or get help to assist the hurt child? The child must decide whose need is more important. Preschool children are hedonistic; however, are those who are high in empathy more likely to engage in prosocial behaviors even at a young age? Prosocial tendencies are also measured in terms of donating, helping, sharing, or volunteering.

In a study conducted by Yarrow and Waxler (1976) researchers examined helping, sharing and comforting behaviors in 3-7 1/2 year olds in an experimental setting. For the sharing task, the experimenter and preschooler were given unequal amounts of cheerios in which the experimenter expressed his/her disappointment and unfairness about the unequal servings. In the helping task, the experimenter dropped some items but continued to play with the toys on the table, allowing the child time to gather the dropped items. Lastly for the comforting task, the researcher pinched his/her finger in the drawer and expressed distress by holding the finger and running it under cold water. Researchers found a significant task effect in which helping behaviors occurred more frequently than sharing or comforting. Fifty-two percent of the children responded prosocially to the helping task, 33% responded to the sharing task, and 37% responded to the comforting task. Each of the children responded prosocially to an unfamiliar adult (Yarrow & Waxler, 1976). Carlo, Knight, and Eisenberg (1991) also provided children with an opportunity to behave prosocially by studying the effects of perspective taking on helping behaviors. Children were exposed to a cognitive attribution and reasoning task, a

cognitive affective task, and to a helping task. Researchers found that children who made sad attributions in the attribution and reasoning task turned the crank more in the helping task (Carlo et al., 1991). Therefore activating a negative state in the reasoning task increased prosocial behaviors. The children who expressed empathy were more likely to help in the helping task and behave prosocially.

According to Miller, Eisenberg, Fabes, and Shell (1996), children who were high in needs oriented reasoning were more likely to exhibit peer directed prosocial responding. Zahn-Waxler, Iannotti, and Chapman (1982) found more direct (assisting the person in distress, one who needs help themselves) and indirect (getting others to help) help was provided to peers where just verbal sympathy was provided to adults. The current study measured direct helping behaviors. Adult-child and child-peer interactions have been examined previously; however, no studies have been conducted examining a preschooler's prosocial behavior toward an older or younger adult.

There has been contrasting evidence as to how to accurately measure empathy in regards to prosocial behaviors. When working with preschoolers researchers are automatically limited to the various ways of measuring empathy due to the cognitive level and stage of development of the preschooler. In a recent study conducted by Svetlova, Nichols, and Brownell (2010) researchers measured a child's empathy and prosocial behavior by engaging the children in either an action or emotion task. In the action task, the child was expected to interpret the experimenter's next action. For example, when the experimenter needed an object that was out of place or dropped an object, the child was expected to interpret that the experimenter needed the object and retrieve the object. In the emotion task, the experimenter would demonstrate a negative internal state such as being cold. The child was expected to recognize the experimenter's negative state (due to shivering) and retrieve a blanket to help the experimenter.

During the task the experimenter would progressively state more explicit cues as to what they needed if the child did not respond to prior cues. The children received a target helping score from 0-9 depending on which cue the children responded to. The cues started out as facial expressions and body language and progressed to explicit statements. The current study also engaged children in an action and emotion task; however, the tasks were administered to preschoolers, an older age group.

Within the Svetlova and colleagues (2010) study, researchers examined 18 month old and 30 month old children's prosocial behaviors. Researchers found that 44% of the 18 month olds helped in the action condition whereas only 13% helped in the emotion condition. Among the 30 month old children, 87% assisted the adult in the action condition while only 64% assisted in the emotion condition (Svetlova, et al.). The older the child the more likely they were to engage in the helping tasks.

The current study focused specifically on 30 to 60 month old children and assessed the preschooler's level of empathy prior to engaging in the emotion and action condition. Will the children who are high in empathy be more likely to assist in the emotion condition rather than in the action condition? The current study aimed to predict helping behavior in an action and emotion task toward an older or younger adult based on levels of empathy. The current method added to previous research by examining empathy as a predictor of helping behaviors in real helping acts and measured direct helping behavior toward an older or younger adult, rather than same-age peers.

Hypotheses:

- 1) It was expected that age of the preschooler would be significantly positively related to helping behaviors.

Rationale: According to Svetlova and colleagues (2010), older children engaged in more helping behaviors compared to younger children.

- 2) It was expected that children who were high in empathy would engage in significantly more helping behaviors in both the action and emotion conditions than children who were low in empathy.

Rationale: Empathy is described as feeling a state of apprehension toward one in distress (Eisenberg, 2003). Therefore those who are more capable of discerning others distress will be more likely to engage in behaviors to relieve the distress.

- 3) It was expected there would be a significant difference (unknown direction of effect) in helping an older versus a younger adult in both the emotion and action condition.

Rationale: Previous studies have only examined helping behaviors toward an adult and peer. No study, to my knowledge, has been conducted examining the differences in helping a younger or older adult.

- 4) It was expected that preschoolers would be significantly more likely to engage in helping behaviors in the action condition rather than in the emotion condition.

Rationale: Yarrow and Waxler (1976) found that 3-7 ½ year old children were more likely to engage in a helping task rather than in a comforting task in an experimental setting. Svetlova, Nichols, and Brownell (2010) found that a higher percent of children in both the 18 month olds and 30 month olds helped in the action condition more than in the emotion condition.

Study Design

A quasi-experimental study was conducted. A 2 (between) x 2 (between) x 4 (within) design was conducted. The independent variables were high/ low empathy and working with either an older or younger adult. The dependent variables were the four helping scores each child

received for both the emotion and action condition. Within each experimental group, all tasks (action or emotion) were randomized across participants and counterbalanced between conditions. The study design is outlined in Table 1 totaling 44 participants.

Table 1

Number of Participants within Each Condition (N=44)

		EMPATHY: High/Low		
AGE: Older/Young Adult	High Empathy Older Adult	Low Empathy Older Adult		21 Participants
	9 Participants	12 Participants		
	High Empathy Young Adult	Low Empathy Young Adult		23 Participants
	12 Participants	11 Participants		
		21 Participants	23 Participants	

CHAPTER 3 - METHOD

Participants

Forty-four preschoolers between the ages of 30-60 months ($M = 46.43$, $SD = 9.98$; 19 girls, 25 boys) participated in the study. There was a wide range of ethnicity among the preschoolers with 79.5 % Caucasian, 6.8 % African American, 2.3% Asian/Pacific Islander, 6.8 % Multiracial, and 4.5% selected the other option. All participants were recruited from two preschools in a small community in Southwest Virginia where there is a wide range of social economic statuses. One preschool was faith-based and the other was secular. A Caucasian 70 year old female volunteer was also recruited from Southwest Virginia and served as the older adult in the study and was part of the research team. The assistant researcher, a 22 year old Caucasian female served as the younger adult in the study. Six teachers also participated in the study, four from preschool 1 and two from preschool 2. The average class size per teacher ranged from 4 to 10 students ($M = 3.14$, $SD = .36$). Each individual on the research team was approved by the Institutional Review Board (IRB) for human research.

Measures

Demographics

Each teacher was asked to fill out a demographic questionnaire for each child within her class. The demographic questions assessed the preschooler's age in years and months, gender ethnicity, and sociability. The teachers were asked to rate the preschooler's sociability on a 10-point Likert scale (1 = “shy and avoidant in new situations” to 10 = “outgoing and approachable in new situations”).

Child Rating Questionnaire

Teachers rated each child's helping, empathetic, and social behaviors on the Child Rating Questionnaire (CRQ) prior to the study (Strayer, 1985). The CRQ is a 51-item questionnaire that

assesses helping behaviors, peer interactions, empathy and emotional expressiveness (Strayer & Roberts, 2004). Teachers were asked to fill out the questionnaire and to rate each behavior as independently of the others as possible. The CRQ was measured as a global scale. Teachers rated each item on a 5-point Likert scale (1 = “not at all characteristic of the child” to 5 = “extremely characteristic”). The items were derived from the Prosocial Behavior Questionnaire (Weir, Stevenson, & Graham, 1980) and from the Affect Expression Questionnaire (Buck, 1977). For each subscale (comforting, helping, sharing, cooperating, anger, and empathy) on the CRQ, Cronbach alpha ranged from .74 to .85 (Roberts & Strayer). Reliability statistics were calculated for the global scale for the CRQ with the omission of items 48, 49, 50, and 51. Cronbach's alpha for the CRQ was .90.

Helping Tasks

Action condition

Clipping task (adapted from Svetlova, et al., 2010). The experimenter placed three, 5 x 7 white index cards onto a white dry erase board via magnets in the classroom and the experimenter dropped the third magnet out of her reach. The child's target behavior was to hand the experimenter the magnet so she would be able to finish the clipping task. This task was adapted from Svetlva and colleagues where clips were used to hang papers rather than magnets which were used in the current study.

Wrapping Paper Task (adopted from Svetlova, et al., 2010). The experimenter wrapped 3 x 3 cardboard boxes in pieces of wrapping paper sitting on a table. The experimenter ran short one piece of wrapping paper, which was placed on the tray in reach of the child prior to the task. The child's target behavior was to give the experimenter the last piece of wrapping paper so all the boxes would be wrapped.

Emotion condition

Blanket Wrapping Task (adopted from Svetlova, et al., 2010). The experimenter had a blanket in her possession showing the child that it makes her warm. The experimenter then placed the blanket on the tray within reach of the child as the experimenter moves onto the floor playing with other toys in the room. The experimenter then began to show signs of distress by rubbing her arms and legs, shivering, and saying “Brrr.” The child’s target behavior was to retrieve the blanket and hand it to the experimenter to relieve her distress.

Toy Task (adopted from Svetlova, et al., 2010). The experimenter showed the child her favorite teddy bear and explained to the child that it is her favorite stuffed animal and makes her very happy. The researcher then placed the teddy bear on the tray in front of the child. The assistant experimenter then pulled the experimenter aside and whispered something which makes the experimenter very sad and she began to cry as she was seated at the table. The child’s target behavior was to give the experimenter the teddy bear to make her happy.

Overall the reliability of the measures was poor. Reliability for the action condition was reported with Cronbach's $\alpha = .41$. Cronbach's α for the emotion condition was $.66$. Reliability was calculated for the tasks overall and Cronbach's α is $.69$.

Communicative cues

For each trial within each condition the adult provided progressive cues as to what item she needed to relieve her state of distress or the item to complete the goal. The cues (adapted from Svetlova, et al., 2010) were presented in the same order in each trial and condition. Initially the experimenter expressed her need by using gestures such as rubbing her arms and legs to show that she was cold or looking around the room for the out of reach object. Next the experimenter vocally expressed her need by saying “brrr, I am cold” or “hmm, I cannot wrap anymore” as she looked around the room. The experimenter then vocally stated her need such as “I need something to make me warm” or “I need something to wrap with.” As the cues

progressed they became more specific as to what object was desired. For the final cue the researcher explicitly asked for the desired object. The helping scores and communicative cues are described in Appendix A (adopted from Svetlova, et al.).

General Procedure

Prior to the study, the researcher met with the director of each preschool and described the study with him/her. Once the director of the preschool agreed with the study and signed a letter of support, then the researchers personally distributed a letter and informed consent forms to each child's parent during pick up time. The parent had the option to sign the form immediately or take it home and return the following day if they allowed their child to participate in the study. Each preschooler also had to provide verbal assent. Each child was provided an equal opportunity to participate in the study and each child's information was confidential and only linked by numbers rather than their name. The letter of support, letter to the parents, the consent form, assent form, and adult (teacher) consent forms are provided in Appendix B, C, D, E, and F respectively.

Also prior to the study, the head researcher trained both the older adult (part of the research team) and the assistant researcher (young adult). The adult was provided with a written script of questions to ask prior to the interaction beginning in order to make the child feel comfortable and a script of the communicative cues. The head researcher went through each task and cue in order to train each of the adults. The adults had to be able to accurately complete each task and provide each communicative cue for each task prior to the study beginning (Appendix A).

The preschool teachers were given the CRQ in advance to fill out based on their students. Teachers were identified with a unique identifier in order to record which teachers rated each preschooler. Based on the CRQ responses, the preschoolers were divided into high and low

empathy groups based on a mean split of empathy for each teacher's empathy score. The preschoolers were then randomly assigned to interact with either the older or younger adult. Once the preschoolers were randomly assigned to the adult, they engaged in four helping tasks, two emotion and two action tasks.

The preschoolers were escorted out of their classroom by an assistant experimenter into another classroom based on the adult with whom they were randomly assigned to interact. For the first 5 minutes, the adult interacted with the child asking questions provided on a script (Appendix A). Thus, making sure the child is comfortable with the adult. After a duration of 5 minutes, the adult began a task in either the emotion or action condition.

Four helping tasks (2 emotion and 2 action) were administered, with each child engaging in all four tasks which were counterbalanced across participants. The adult either demonstrated a state of distress or difficulty in retrieving an object. Before each trial, the object that the experimenter needed to either relieve distress or the object that will be out of reach was placed close to the child on a tray; however, it was out of reach of the adult. Four objects were placed on the tray: the blanket, index card, wrapping paper and teddy bear. The objects not needed in one trial served as target items in the next trial.

Description of Conditions and Tasks

The preschoolers had to decide the adult's need, which was manipulated via two conditions (emotion and action) with two tasks per condition. For the action condition, the adult dropped a needed object in which the child was to “infer the [adult's] action related goal” (Svetlova, et al., 2010, p.1817). In the emotion condition, the preschooler had to “infer the [adult's] internal state or emotion” in order to relieve distress or a negative emotion (Svetlova et al., p.1817).

Specifically, in the action condition, the adult tried to complete a goal-oriented action; however, an object that was needed to complete the goal was out of reach of the adult because it was dropped, but it was in reach of the preschooler. The preschooler should help the adult by retrieving the necessary object to complete the goal-oriented action. This condition did not focus on the adult's internal state; however it focused on the goal that was interrupted. Within the action condition there was a clipping and a wrapping paper task. In the clipping task, a magnet was needed in order to attach items to a board. In the wrapping paper task, a piece of wrapping paper was needed to wrap an object.

Specifically for the emotion condition, the adult expressed either sadness or coldness, in which the child should help by bringing the necessary object to relieve the state of distress. In the emotion condition there was a blanket wrapping task and a toy task. For the blanket wrapping task, a blanket was needed for warmth. For the toy task, the adult's favorite toy was needed to make her happy and relieve sadness. The tasks were similar across each condition; however, the target item needed and the helping behavior required differed within tasks.

As soon as the child gave the adult the desired object, the adult stopped providing cues and moved onto the next task. Each cue was presented for 5 seconds. If the child brought the adult the wrong item initially, the adult took the item and laid it to the side and continued giving cues until the desired item was received. If the child failed to retrieve the desired object by the eighth cue, then the adult got up and retrieved the object herself and then moved onto the next task (adapted from Svetlova, et al., 2010).

In each emotion and action task the adult progressively provided up to eight explicit cues as to what item was needed to relieve distress or what item the adult needed help in retrieving. The children's responses to each task were recorded by the head experimenter, who was blind to whether the child was high or low in empathy, during each interaction (adapted from Svetlova, et

al., 2010). Each child received a target helping score which corresponded to the cue in which the adult received the desired object and the child met the target behavior desired. Appendix A also has the assigned helping scores. The higher the score the fewer cues it took for the child to reach the target behavior. Researchers also noted whether the child initially gave the adult the correct object or if it took multiple times (adapted from Svetlova, et al.). After the child completed both the action and emotion tasks, they were escorted out of the classroom and given the opportunity to pick a toy out of a treasure chest and then received a Certification of Completion (Appendix G).

CHAPTER 4 - RESULTS

Missing Data

If items were missing on the CRQ for a participant, the mean of the remaining items for that individual was imputed for the missing data. In the sample, 25% of participants (11 out of 44) had one missing data point on the CRQ. One additional child was tested; however, the data was unusable because of the child's nonparticipation in the tasks.

Descriptive Statistics

Descriptive information for all study measures can be found in Table 2. The CRQ ($M = 3.19$, $SD = 0.42$) was analyzed with scores ranging from a minimum of 2.40 to a maximum of 4.06 (Table 2). There was also a large amount of variability in how each teacher rated the preschoolers on levels of empathy. Teacher 1 rated the preschoolers in her class on empathy ranging from 2.68-3.96 ($M = 3.38$, $SD = 0.35$). Teacher 2 ratings ranged from 2.72-3.12 ($M = 2.78$, $SD = 0.17$). Teacher 3 rated her students with a minimum of 2.88 to a maximum of 3.60 ($M = 3.19$, $SD = 0.33$). Teacher 4 had 9 students in her class ranging from low levels of empathy with a minimum of 2.65 and a maximum of 3.90 ($M = 3.33$, $SD = 0.44$). Teacher 5 and 6 were from a second preschool, which was secular. Teacher 5 ratings of empathy ranged from 2.40-3.54 ($M = 2.89$, $SD = 0.39$) and lastly teacher 6 rated preschoolers on level of empathy ranging from 2.58 to 4.06 ($M = 3.19$, $SD = 0.38$) (Table 3). A mean split was conducted for each teacher on the CRQ, which was normally distributed (Table 3). The descriptive statistics were also calculated for each dependent variable (the four tasks). For task A, the clipping task ($M = 5.91$, $SD = 3.20$) ranged from 0-9 (Table 2). Task B, the wrapping task ($M = 4.09$, $SD = 2.70$) consisted of scores ranging from 0-8. Task C had a lower mean than task B ($M = 3.45$, $SD = 2.38$) with a range of 0-8. Lastly task D ($M = 3.75$, $SD = 2.95$) had a range of 0-9. Within the

study we also examined levels of sociability for each preschooler ($M = 6.61$, $SD = 2.63$) with some preschoolers being rated as shy, receiving the minimum score of zero, and others rated as highly sociable with a maximum score of ten (Table 2).

Table 2

Descriptive Statistics of Child Rating Questionnaire, Tasks, and Sociability (N=44)

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>R</i> (min-max)
CRQ	44	3.19	0.42	2.40 - 4.06
Task A (Clipping)	44	5.91	3.20	0 - 9
Task B (Wrapping)	44	4.09	2.70	0 - 8
Task C (Blanket Task)	44	3.45	2.38	0 - 8
Task D (Teddy Bear Task)	44	3.75	2.95	0 - 9
Sociability	44	6.61	2.63	0 - 10

Table 3

Descriptive Statistics of Preschool Teacher's Ratings of Empathy

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>R</i> (min-max)
Teacher 1	10	3.38	0.35	2.68 - 3.92
Teacher 2	6	2.87	0.17	2.72 - 3.12
Teacher 3	4	3.19	0.33	2.88 - 3.60
Teacher 4	9	3.33	0.44	2.65 - 3.90
Teacher 5	7	2.89	0.39	2.40 - 3.54
Teacher 6	8	3.19	0.48	2.58 - 4.06

Preliminary Analyses

A series of preliminary analyses were conducted to identify associations between demographic variables (age, ethnicity, and gender) and main variables of interest (levels of empathy and helping behaviors). No differences for age, ethnicity, or gender were found on any outcome variable. Also, no difference for task order was found, $F(1, 42) = 2.79, p = .10$, which is consistent with prior research (Svetlova, et al., 2010).

Primary Analysis

To examine age differences in the preschooler's willingness to help an adult stranger, researchers analyzed the helping score based on each individual task. In order to test the hypothesis that age of the preschooler would be significantly positively related to helping behaviors, a bivariate correlation was conducted. Contrary to the hypothesis, age did not have a significant, positive relationship on helping behaviors, $r(44) = .21, p = .19$. Although not significant, it was positively correlated. Since, hypothesis 1 was not positively significantly correlated a 2 (between) x 2 (between) x 4 (within) ANOVA was conducted with age of adult (young vs. old) and level of empathy (high vs. low) as the between subjects factor and condition of task (action or emotion) as the within subjects factor with the dependent variable being the helping score for each individual task. Please be advised that there was a violation of equal assumption of variance therefore all main effects were reported as Greenhouse Geiser values due to unequal sample sizes.

To analyze hypothesis 2, a paired samples t-test was conducted. Task A (the clipping task) was significantly different from the other three tasks. Results concluded preschoolers helped more in the clipping task ($M = 5.91, SD = 3.20$) than in the wrapping paper task ($M =$

4.09, $SD = 2.70$), both which were action-based tasks $t(43) = 3.34, p = .002$. Preschoolers also helped more in the clipping task ($M = 5.91, SD = 3.20$) when compared to the blanket task ($M = 3.45, SD = 2.38$) where the blanket task was emotion-based, $t(43) = 4.87, p = .000$. Lastly the clipping task ($M = 5.91, SD = 3.20$) was significantly different from the teddy bear task ($M = 3.75, SD = 2.95$) which was also emotion based $t(43) = 3.46, p = .001$ (Table 4).

Table 4

Results of Paired Samples t-test Representing Effect of Task

	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Pair 1					
Clipping Task	1.81	3.61	3.34	43	.002
Wrapping Task					
Pair 2					
Clipping Task	2.45	3.34	4.87	43	.000
Blanket Task					
Pair 3					
Clipping Task	2.16	4.14	3.46	43	.001
Teddy Bear Task					

Upon examining hypothesis 3, where researchers predicted there would be a significant difference (unknown direction of effect) in helping an older versus a younger adult in both the action and emotion condition, the hypothesis was not supported. Researchers conducted a 2 (between) x 2(between) x 4 (within) repeated measures ANOVA, $F(2.30, 91.95) = 0.96, p = .38, \eta^2 = .019$ (Table 5). Therefore there was no main effect in helping the older or younger adult by task, $F(2.30, 91.95) = 1.56, p = .24$ (Figure 1).

Table 5

ANOVA Table for Within Subjects

Effect	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	η^2	<i>p</i>
Task	51.80	2.29	51.80	10.24	.203	.003*
Task x Empathy	0.28	2.29	0.284	0.04	.001	.852
Task x Adult	17.58	2.29	17.58	1.56	.052	.240
Task x Empathy x Adult	6.24	2.29	6.24	0.96	.019	.383
Error	202.883	91.95	5.07			
Total	278.683	100.91				

Note. * = $p \leq .05$ indicates significance at the .05 alpha level.

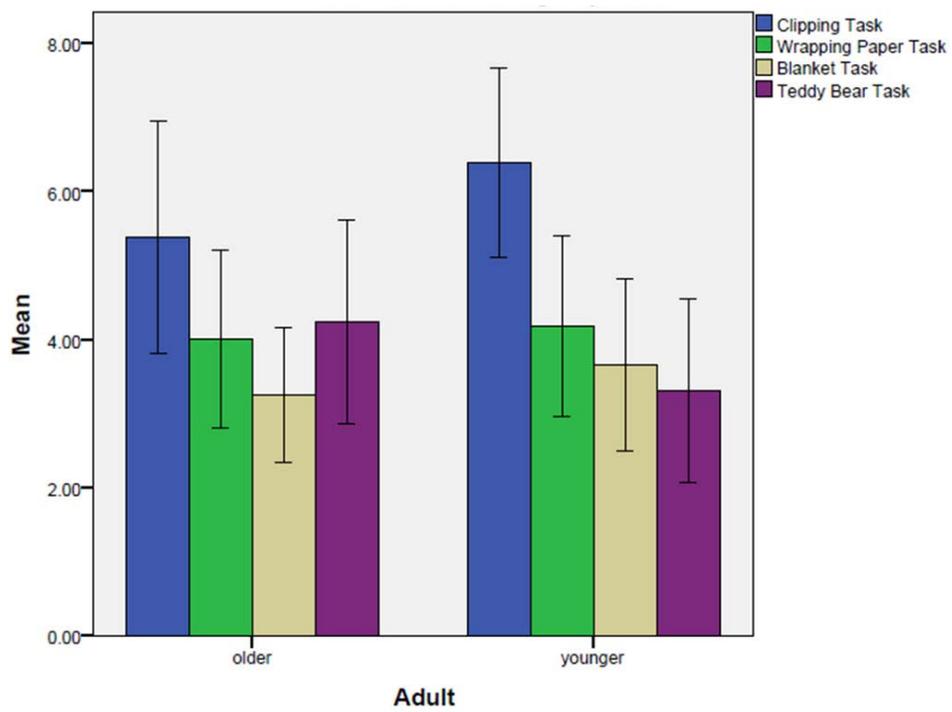


Figure 1. Main Effect of Age x Task

Hypothesis 4 predicted that the preschoolers higher in empathy would be more likely to engage in helping behaviors in both tasks compared to those who are low in empathy; however there were no statistically significant differences between those high ($M = 3.48, SD = .33$) in empathy and those low ($M = 2.93, SD = .31$) in empathy, $F(1,40) = 0.04, p = .85, \eta^2 = .001$ (Figure 2). Although there were no significant findings when examining individual tasks and levels of empathy (within) (Table 5), researchers also analyzed the data using a target helping score (sum of each helping score added together) and levels of empathy which was between subjects. When the data was analyzed between subjects, there was a significant difference in levels of empathy, $F(1,40) = 4.47, p = .04, \eta^2 = .106$ with the preschoolers rated high in empathy ($M = 19.95, SD = 6.24$) helping more than those rated low ($M = 14.70, SD = 8.82$) in empathy (Table 6).

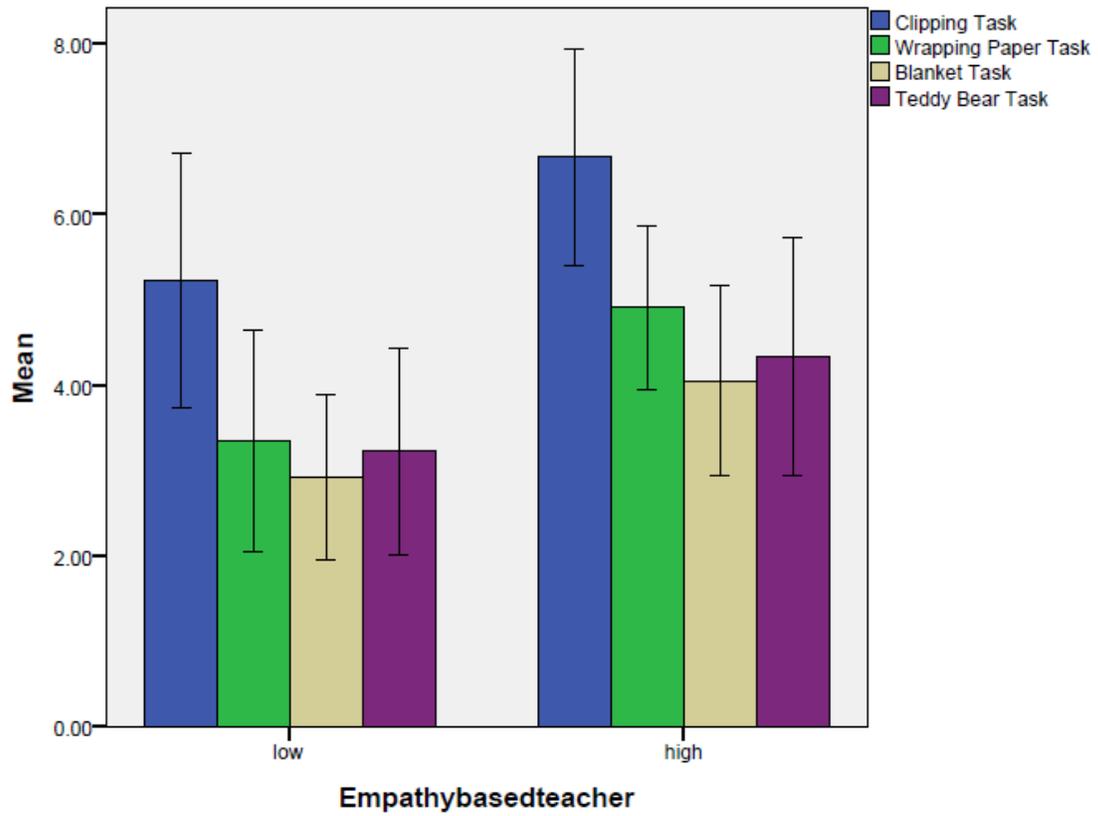


Figure 2. Main Effect of Empathy x Task

Table 6

ANOVA Table for Between Subjects

Effect	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>n</i> ²	<i>p</i>
Empathy	73.72	2.29	73.72	4.47	.106	.035*
Adult	0.112	2.29	0.112	0.007	.000	.933
Empathy x Adult	0.654	2.29	0.654	0.042	.001	.838
Error	621.717	91.95	15.543			
Total	696.203	100.91				

Note. * = $p \leq .05$ indicates significance at the .05 alpha level.

Exploratory Hypotheses

Researchers also investigated an exploratory hypothesis examining the relationship between sociability and empathy. It was found that empathy was positively significantly correlated with sociability $r(44) = .405, p < 0.01$. It was also found that sociability was positively significantly correlated with Task A (clipping task), $r(44) = .358, p < 0.05$.

Researchers also examined correlations of sociability and age of the preschooler by each task, however, sociability was only significantly correlated with Task A (clipping Task). Age of the child was not significantly correlated with any task (Table 7). However, when examining the same variables in a linear regression equation age and sociability are unique predictors for two tasks. When examining Task A, the regression equation was not significant, $R^2 = .13, F(2, 41) = 3.01, p = .06$; however sociability contributed a statistically significant amount of variance ($\beta = .357, t(41) = 2.42, p = .02$). For task D the regression equation was not significant, $R^2 = .04, F(2, 41) = .786, p = .46$ and neither age nor sociability were statistically significant unique contributors (Table 8).

For Task B, a significant proportion of variance was accounted for with the predictors' sociability and age in months in helping score on the wrapping task, $R^2 = .14, F(2, 41) = 3.45, p = .04$, however only age was a statistically significant unique contributor ($\beta = .309, t(41) = 2.12, p = .04$). Sociability was approaching significance however did not contribute a statistically significant unique amount of variance, ($\beta = .267, t(41) = 1.83, p = .07$) (Table 8).

For Task C, a significant proportion of variance was accounted for with the predictors' sociability and age in months in helping score on the blanket task, $R^2 = .15, F(2, 41) = 3.51, p =$

.04. Both age ($\beta = .290$, $t(41) = 1.99$, $p = .05$) and sociability ($\beta = .292$, $t(41) = 2.01$, $p = .05$) were statistically significant unique contributors (Table 8).

Table 7

Correlations of Sociability and Age of Child (months) by Task

	Sociability	Age	Task A	Task B	Task C	Task D
Sociability	1	-.138	.358*	.225	.252	.044
Age	-	1	-.056	.272	.249	.179
Task A	-	-	1	.262	.311*	.098
Task B	-	-	-	1	.653**	.403*
Task C	-	-	-	-	1	.507**
Task D	-	-	-	-	-	1

Note. * = $p \leq .05$, *** = $p \leq .001$.

Table 8

Regression Table for Wrapping and Blanket Task

Variable	<i>B</i>	<i>SE (B)</i>	β	R^2
Task B				.144
Sociability	.275	.250	.267	
Age	.084	.039	.309*	
Task C				.146
Sociability	.265	.132	.292*	
Age	.069	.035	.290*	

Note. Total $F(2,41)$ for Task B = 3.45, $p = .04$, Total $F(2,41)$ for Task C = 3.52, $p = .04$.

* $p \leq .005$.

CHAPTER 5 - DISCUSSION

The present study investigated the role of age and empathy in prosocial responding, specifically helping behaviors. In relation to the current study's hypothesis, previous research has predicted and found that older children engage in more helping behaviors compared to younger children (Svetlova, et al., 2010). This finding was not supported in the current study; however, the results were in the correct direction. The older preschoolers did help more; however, it was not statistically different than the helping scores of the younger children. This finding could be due to the small age gap between a 30 month old and a 60 month old; however, the older children, those between 48-60 months, did engage in more helping behaviors which could be due to their ability to take another person's perspective. Four and 5 year olds' ability to perspective take is an indicator of development of theory of mind; therefore, they can better assess situations and engage in helping behaviors (Wellman, Cross, & Watson, 2001).

The second hypothesis, that children would help more in the action condition than in the emotion condition was supported. This result is consistent with those of previous studies (Svetlova, et al., 2010; Yarrow & Waxler). Svetlova and colleagues (2010) stated that instrumental helping (usually toward an action-based goal) develops around 14-24 months; thus, all the preschoolers had developed instrumental helping contributing to the significant effect of task, helping more in the action based condition which is instrumental helping. Although there was a significant effect for condition, each task was significantly different from one another, which was not mentioned in previous studies. The preschoolers helped the most in the clipping task. Researchers believe this is not due to helping behaviors, but rather an instinct. It seemed as though it was a natural reaction for some of the children to retrieve the magnet as soon as the adult dropped it. During this task children received the helping score of 9 the most, retrieving the magnet before the first cue was presented. This task also required the child to stand next to the

researcher and watch her hang the index card where the other 3 tasks only required the child to sit across the table and interact with the adult. The clipping task was also significantly correlated with sociability which although not predicted, is indicative of the task itself. This is not surprising considering the children had to get up out of their seat and interact with the adult; thus, the more sociable the child the more likely he/she was to engage and interact with the adult, thus helping in Task A. The preschoolers responded the least amount in the blanket task where they were expected to relieve the negative state of being cold, thus aiding or comforting an older adult. The fact that this task had the lowest mean is supported from previous research where children responded less in sharing or comforting tasks (Yarrow & Waxler, 1976). Yarrow and Waxler, 1976 found that there were approximately 20% more helping behaviors in conditions where sharing and comforting was not part of the task. Thus, helping more in the emotion condition may require an additional attention capacity because they need to empathize rather than simply retrieve an object.

Furthermore, hypothesis 3, predicted differences in helping behaviors toward the older and younger adult, although in the correct direction the hypothesis was not supported. Previous studies have examined peer vs. adult helping behaviors where children who were high in needs oriented reasoning were more likely to exhibit prosocial behaviors directed toward their peers (Miller, Eisenberg, Fabes, & Shell, 1996). The current study did not examine peer prosocial responding but rather prosocial responding to either a young adult stranger or to an older adult stranger. Previous studies have also examined the differences in direct and indirect helping toward peers and adults (Zahn-Waxler, Iannotti, & Chapman, 1982). Zahn-Waxler and colleagues found that children only expressed verbal sympathy to adults and direct and indirect behaviors to their peers. This finding partially supports the fact that societies are divided generationally, thus children and older adults alike are not given the opportunity to interact with

one another, leading to a decrease in helping behaviors toward adults. This was also found in the current study, although not statistically significant, preschoolers were more likely to help the younger adult in task A, task B, and task C. The increase in the older population is prominent; however, preschoolers should be given the opportunity to engage in intergenerational activities with older adults to learn to express empathy, not only to their peers but those in older generations.

Lastly, for the primary analyses hypothesis 4 was not supported. There were no significant differences in helping behaviors in those who were high in empathy compared to those who were low in empathy. Bryant (1982) believed the more empathetic a child the more likely they were to empathize with a wide range of individuals, which could very well be the case up to a certain age group. In today's divided society preschoolers may not empathize with unfamiliar adults who are generations older. Empathy being defined “an affective response that stems from the apprehension or comprehension of another’s emotional state or condition, and which is identical or very similar to what the other person is feeling or would be expected to feel” is an accurate definition; however, a child cannot comprehend an older adult's emotional state or condition if they have not had previous encounters or engagements with the older population in general (Eisenberg, 2003, p.254). Carlo et al. (1991), in previous studies, examined indirect helping behaviors in which children who made sad attributions engaged in prosocial responding. The contrasting results in the current study could be due to the task themselves and the nature of the experiment. Perhaps the children did not respond because the item the adult needed was in the same room and they could possibly retrieve the item themselves. The null results could also be due to the cognitive level of the preschoolers. According to Wellman, Cross, & Watson (2001), as children enter preschool there is a large gain in cognition; however,

some of the participants just entered preschool; therefore, they may not have had the cognitive capacity to interpret others' feelings or the end goal of the task.

When investigating the exploratory hypotheses, there were no significant findings in the interaction between age, empathy, and task. The preschoolers who were high in empathy did seem to make a distinction between the older and younger adult in which they helped the younger adult more, perhaps perceiving the younger adult as a peer rather than someone who is much older than themselves. The preschoolers who were low in empathy did not make a distinction between the older and younger adult. The means for each task were very similar when comparing helping behaviors. Previous studies have not examined the differences in helping a younger adult vs. an older adult, the reason as to why this occurred should be examined in future research studies.

Strengths and Limitations

The current study aimed to improve the predictors of prosocial responding in preschoolers toward an adult. Predictors of prosocial behaviors have been studied previously along with prosocial responding to an adult or peer; however, the current study bridged the gap combining previous research and used empathy as a predictor of prosocial responding toward an older and younger adult. Previous research has investigated multiple age groups, direct vs. indirect helping, and types of moral dilemmas; however, no study had assessed the interaction of direct helping in preschoolers during the time they are developing a theory of mind and the ability to perspective take, leading to empathizing with others (Eisenberg & Hand, 1979; Carlo et al., 1991; Miller, et al., 1996; & Zahn-Waxler, et al., 1982). Thus, the findings of the current study contributed to the lack of research in using empathy as a predictor of helping behaviors and comparing prosocial responding toward two different older generations. The current study also

provided intergenerational activities that could possibly be integrated into preschools to contribute to bridging the current division of generations.

Although there were theoretical strengths of the study, there were also strengths included in the sample. The current sample was relatively small; however, participants were varied across age groups and levels of empathetic responding. Another strength was that the preschoolers came from a wide range of social economic backgrounds. In addition, when recording helping scores, the researcher was blind to the child's level of empathy which reduced bias. The study also provided preschool teachers with the opportunity to be cognitively aware of their students' prosocial responding.

There were some significant findings in the current study; however, no study is without limitations. A major limitation was statistical power. Multiple effects were in the hypothesized direction but were not significant. A larger sample size may have led to significant effects of age and levels of empathy on prosocial responding. Also demographically the majority of the participants were Caucasian. Another limitation was encountered in the recruiting of participants. Researchers went into each preschool and distributed letters to parents and guardians regarding the study and consent forms but the parents were questionable and the majority did not return the consent forms. More effective recruitment strategies such as a meeting with all parents where they could ask questions and hear about the study would have been ideal, however this could have lowered the validity of the study. Also, working with preschoolers is not a simple task and there were multiple distractions during the experiments, such as infants crying in the background, other children yelling, and people walking in and out of the preschool all which distracted the preschoolers during the task. The weather when the study was conducted could also be considered a limitation. During a day of data collection it was snowing outside, thus

leading to the children agreeing with the adult that it was cold and not necessarily responding in a prosocial manner.

The final limitations can be attributed to the measures used in the study. The CRQ is a measure which is divided into subscales of comforting, helping, sharing, cooperating, empathy, and anger which the current study did not examine specifically. However to increase the reliability of the measure, the CRQ was used as a global scale in the current study. The CRQ did not meet the assumption of normality; however due to the intended use of examining the subscales, the CRQ may not have been the best predictor of levels of empathy. In conducting literature reviews there are currently no measures or questionnaires where someone other than the participant can rate a preschoolers' level of empathy. There are measures where parents can rate their child's level of empathy; however this would introduce bias into the study. Again the CRQ might not have accurately assessed levels of empathy; however no other existing measures adequately measure a preschooler's level of empathy for purposes of this study. The last limitation is the four tasks themselves. Each task being significantly different from one another was problematic. The clipping task clearly measured something other than helping and was very different in nature from the other three tasks. Svetlova, et al. (2010) was the only previous study where direct helping was examined using tasks where the child actually engaged one-on-one with an adult. The context of each task was different, which could have led to the non-significant results for the hypotheses.

Future Research and Conclusions

Other than addressing the limitations of the current study, there are multiple ways to expand the research in examining preschooler's levels of prosocial behavior and empathy. The field of developmental psychology is lacking in its resources to measure a child's level of empathy in the classroom. New measures that specifically measure a preschooler's level of

empathy should be developed and validated to accurately measure empathy levels during the time a child is developing. Also, additional adults should be used in future research, which will increase external validity of the study. Furthermore, future research should assess more individual characteristics of the child, such as IQ, amount of time spent with familiar and unfamiliar adults, and number of siblings. Each of these could be correlated with or have an effect on a child's ability to empathize toward an older or younger adult. Lastly manipulation checks can be administered examining whether the preschoolers were actually responding to the age of the adult or if they were responding to an individual characteristic of the adult such as smile, laugh, or personality. Also, a manipulation check should be performed to test if the preschoolers were responding to the need of the adult or if they perceived the tasks as a fun game. Information from the current study can add to the foundation of intergenerational research.

The need for research in Gerontology and intergenerational programming would be applicable to all levels of education. Intergenerational programming and interactions with the older population are rare in today's divided society. Due to the longitudinal effects of prosocial responding, preschools and elementary schools should integrate empathy-building exercises into their curriculum. This could be established by incorporating intergenerational programming being incorporated into the education system. It is important for children of all ages to be able to evaluate older generations in a positive manner and not the current negative stereotypic view older adults are given. As stated previously, Dellmann-Jenkins and colleagues (1986) found that after classroom interactions with older adult volunteers, preschoolers had more positive views and nonstereotypic views of older adults' physical and behavioral traits. Therefore, it is of key importance that younger children are exposed to intergenerational programming at a young age. It is during the preschool years in which there is a large gain in cognitive empathy and children are developing empathy; thus interactions with the older population are a necessity in the

education system today. Intergenerational programming can close the generational division in society today and can provide both young and old alike with a positive vision of one another.

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APPENDIX A

COMMUNICATIVE CUES AND CORRESPONDING HELPING SCORES

Communicative Cues and Corresponding Helping Scores

Order of Presentation	Description	Helping Score assigned
1	Child responded with correct object prior to first cue being presented	9
2	Facial/bodily/vocal expression of general need (e.g., hands up, looking around, “hmmm”) or internal state (e.g., shivering with cold, rubbing and hugging oneself to get warm, “brrrr”)	8
2	Naming the interrupted action (e.g., “I can’t clip!”) or internal state (e.g., “I am sad”)	7
3	Verbal expression of a general need for an object (e.g., “I need something to clip with” or “I need something to make me feel warm”)	6
4	Naming the specific object that would meet the need (e.g., “A magnet!” or “A blanket!”)	5
5	Alternating gaze between the object and the child, as a nonverbal request to get the object	4
6	Reach and gesture toward the object, as a more explicit request to get the object	3
7	General verbal request for help (“Can you help me?”)	2
8	Specific verbal request (e.g., “Can you bring me the blanket?”)	1
9	Child never responded to any communicative cues	0

Questions Prior to Interaction

1) What is your name?
2) How old are you?
3) What is your favorite color?
4) Do you have brothers or sisters?
5) Do you have a favorite toy/ What is your favorite toy?
6) My favorite toy is this Teddy Bear (point to it). It makes me happy!
7) Now we are going to do some activities, are you ready?

APPENDIX B

SUPPORT LETTER FROM PRESCHOOL

September 14, 2012

Dear Radford University Institutional Review Board,

Central United Methodist Preschool would like to lend our support for the study entitled “Preschooler’s Interactions with Adults” to be conducted by Dr. Jenessa Steele and Ms. Amory Cox in the Department of Psychology at Radford University. Dr. Steele and Ms. Cox met with me on September 14, 2012 to discuss the study and what role the school and teachers would have in the study.

I understand and agree to the following:

___ I understand that in order for a child to participate the (a) parents must give consent for their child to participate, (b) teachers must give consent to evaluate child behavior on the attached survey, and (c) the child must give verbal assent to participate in the study.

___ I understand that if at any point the child chooses not to participate, the child may still be rewarded by choosing a toy from the treasure chest.

___ I understand that the observational study of preschools would be conducted on the grounds of Central United Methodist Preschool.

___ I understand that the study only requests an open room in which preschool-aged children may play and interact for approximately 15 minutes with either a young or older female research assistant in common, everyday activities.

___ I understand that all research staff have been approved to conducted research with humans.

___ I understand that no videotaping or audiorecording will be used.

___ I understand that all information collected will be coded and kept confidential. That is, once child participant information has been collected, information will only be entered and analyzed using research number and no names will be included or attached to the data for the analysis and presentation of study results.

___ I understand that my school may not directly benefit from this study, however this study may be a benefit to others.

___ I understand that if I choose, I may request Dr. Steele or Ms. Cox to return to the school and present overall findings to parents and staff.

___ I understand that the name of the school will not be mentioned in any study materials or publications without prior approval of the appropriate authorities at the school.

Sincerely,

Traci Brockway
Director
Central United Methodist Preschool
803 Wadsworth Street
Radford, VA 24141
540-639-3529

APPENDIX C

STUDY INTRODUCTION LETTER TO PARENTS AND GUARDIANS

Permission Form Parental Consent for Participation

Research Project Title: Investigating Preschoolers' Interactions with Adults

Dear Parents and Guardians,

I am writing to request your permission to work with your child on an intergenerational study. The intergenerational interaction will be part of a research study and will take place directly at your child's preschool with preschool-aged children between 2 ½ and 5 years old. The faculty and staff of the preschool are excited about the project and fully support Radford University for this study. The purpose of our research project is to examine children's behaviors while interacting in everyday activities with either a younger or older adult. Intergenerational activities are important and have been linked to promote positive interactions between generations in the divided society that we live in today.

In order to observe your child's behaviors, we would like to work with your child for approximately 15 minutes. We will only observe your child's behavior for one session. In working with your child we would briefly assess how your child interacts with an adult in everyday tasks, such as wrapping boxes, hanging up objects, and retrieving various toys within the classroom. Your child's teacher will also be asked to fill out a Child Behavior Questionnaire prior to the study which will assess your child's general behaviors within the classroom. Your child's participation in the study would most likely occur on a day in October or November during the regularly scheduled school day. The observations will be performed by a faculty member, graduate student and research team from the Psychology Department at Radford University. The graduate students and research team will be supervised by a Radford University Associate Professor of Psychology, Dr. Jenessa Steele. Dr. Steele is trained as a developmental psychologist with interests in intergenerational relationships. Upon completion of the adult-child interaction, each child participant will be able to choose a toy from a treasure chest and will receive a Certificate of Completion as a thank you for his or her participation.

Participation in this study is completely voluntary. You may choose not to have your child participate. If you choose to allow your child to participate, you may choose at any time to withdraw him/her from participation. The intergenerational activities that your child will engage in will pose no more risk to your child's physical, emotional, or educational well-being than what would be encountered on a typical school day. Finally, participation in this study may be beneficial for your child since he/she will gain experience in interacting with either an older or younger adult.

If you do allow your child to participate, results regarding your child's performance may be included in research reports however your child's name would not be included in the report. In fact, no information that would result in your child being personally identified such as the school he/she attends or the state or town where he/she lives will be revealed. Every effort will

be made to maintain the confidentiality of the data obtained from this study. After the teacher fills out the Child Behavior Questionnaire, each child's information will be confidential and will only be linked by number. Your child will be assigned a number that only the head researcher will link with the name at the beginning of the experiment, then your child will be identified by a number for the duration of the study and in all analyses associated with the recorded information. The coded data will be housed at Radford University, to which only the Principal Investigator and research team working on the project will have access. Please understand that your child's name will not be kept with your child's data, thus the data will remain anonymous.

Attached is the Informed Consent form, where you will indicate whether you agree or do not agree to allow your child to participate in the study. If you have any questions with regard to your child's possible involvement within this study please contact me at your earliest convenience. For any information regarding the protection of human subjects and/or the approval of this project you can contact Dennis Grady, PhD, Dean of Professional and Graduate Studies at (540) 831-5431.

Sincerely,

Amory Cox, B.S.

Graduate Research Assistant

Master's Candidate

Graduate Program in Experimental Psychology

Radford University

Radford, VA 24142

Jenessa C. Steele, Ph.D.

Principal Investigator

Associate Professor of Psychology

Experimental Psychology Graduate Faculty

Principal Investigator

407 Russell Hall

Radford, VA 24142

540-831-5256

jcsteele@radford.edu

APPENDIX D

PARENT CONSENT FORM

Investigating Preschoolers Interactions with Adults

You are being asked to allow your child to participate in a research study. This form provides you with information about the study. The person in charge of this research will also describe this study to you and answer all of your questions. Please read the information below and ask any questions you might have before deciding whether or not to take part. Your child's participation is entirely voluntary. Your child can refuse to participate without penalty or loss of benefits to which they are otherwise entitled. You can stop your child's participation at any time and your refusal will not impact current or future relationships with Radford University or participating sites. To do so simply tell the researcher you wish to stop participation. The researcher will provide you with a copy of this consent for your records.

The purpose of this study is to examine preschooler's behaviors while interacting and participating in everyday activities with either an older or younger adult.

If you agree to be in this study, we will ask your child to do the following things:

- Assist in everyday activities such as retrieving, hanging, and playing with items within the classroom while interacting with an adult.

Total estimated time to participate in study is 15 minutes.

Risks of being in the study: There are no foreseeable risks.

- This experimental study may involve risks that are currently unforeseeable. If you wish to discuss the information above or any other risks your child may experience, you may ask questions now or call the Principal Investigator listed on the front page of this form.

Benefits: Your child will gain experience in interacting with an unfamiliar adult and helping activities.

Compensation:

- Each child will be given the opportunity to pick a toy out of a treasure chest and receive a Certificate of Study Completion at the end of the interaction.

Confidentiality and Privacy Protections:

After the teacher fills out the Child Behavior Questionnaire, each child's information will be confidential and will only be linked by number. No child's name or identifying information will be used when analyzing data or the results. Your child will be assigned a number that only the head researcher will link with the name at the beginning of the experiment, then your child will be identified by a number for the duration of the study.

The records of this study will be stored securely and kept confidential. Authorized persons from Radford University, members of the Institutional Review Board, have the legal right to review your child's research records and will protect the confidentiality of those records to the extent permitted by law. All publications will exclude any information that will make it possible to identify you as a subject. Throughout the study, the researchers will notify you of

new information that may become available and that might affect your decision to remain in the study.

Contacts and Questions:

If you have any questions about the study please ask now. If you have questions later, want additional information, or wish to withdraw your child’s participation call Jenessa Steele conducting the study at (540) 831-5256. If you have questions about your child’s rights as a research participant, complaints, concerns, or questions about the research please contact Dr. Dennis Grady, Dean, College of Graduate and Professional Studies, Radford University, dgrady4@radford.edu, 1-540-831-7163.

You will be provided a copy of this consent form.

You are making a decision about allowing your child to participate in this study. Your signature below indicates that you have read the information provided above and have decided to allow him or her to participate in the study. If you later decide that you wish to withdraw your permission for your child to participate in the study, simply tell me. You may discontinue his or her participation at any time.

Printed Name of child

Printed Name of Parent(s) or Legal Guardian

Signature of Parent(s) or Legal Guardian

Date

Signature of Investigator

Date

APPENDIX E

ASSENT FORM

Investigating Preschoolers Interactions with Adults

I agree to be in a study about participating in activities with an adult who is older than me. This study was explained to my parent or guardian and they said that I could be in it. The only people who will know about what I say and do in the study will be the people in charge of the study.

“In this study I will work with an adult and do different activities in my classroom. We will wrap a present, hang up papers, and pick up toys around the room. After I finish talking and working with her, I will get to pick a toy out of the treasure chest!”

Did the child agree to be in the study? Check YES or NO.

YES

NO

If NO, the child will still be given the opportunity to pick a toy out of the treasure chest.

By checking YES or NO it means that this page was read to me and I agree to be in the study. I know what will happen to me. If I decide I do not want to be in the study, all I have to do is tell the person in charge.

Researcher Printed Name and Signature

Date

Witness's Printed Name and Signature

Date

APPENDIX F

ADULT INFORMED CONSENT

Title of Research: Investigating Preschoolers' Interactions with Adults

Researcher(s): Jenessa Steele, Ph.D.
Amory Cox, B.S.
Kayla Smith

We ask you to be in a research study that will examine preschooler's behaviors while interacting and participating in everyday activities with either an older or younger adult. If you choose to be in the study, you will be asked to fill out a 51-item Child Rating Questionnaire (Strayer, 1985). This questionnaire will assess your student's interactions, helping behaviors, and empathy within your classroom. You will be asked to fill out the questionnaire for each individual child who is given consent to participate within the study prior to the day observations will take place. Your participation will take approximately 2 hours.

This study has no more risk than you may find in daily life. There are no foreseeable risks.

If you decide to be in this study you may benefit from being a part of it. Some benefits to you may be: observing your students' behaviors and interactions more on a daily basis which will allow you to become more familiar with each student. This study will also provide teachers with the opportunity to examine empathetic behaviors of each child.

You can choose not to be in this study, if so, then you simply will not fill out the questionnaire for each child. If you decide to be in this study, you may choose not to answer certain questions or not to be involved in parts of this study. You may also choose to stop being in this study at any time without any penalty to you.

This research study is funded by Radford University. There are no costs to you for being in this study. There is no payment for you taking part in this study. However, each participating teacher will have the opportunity to randomly pick a 20 dollar gift card to various locations in Radford, Christiansburg, and/or Blacksburg.

If you decide to be in this study, what you tell us will be kept private unless required by law to tell. We will present the results of this study, but your name will not be linked in any way to what we present.

You should not be in the study if you have any health problems that would increase your risk of harm by taking part in this study.

If at any time you want to stop being in this study, you may leave the study without penalty or loss of benefits by contacting Dr. Jenessa Steele, Ph.D., Associate Professor of Psychology, a faculty member at Radford University.

If you have questions now about this study, ask before you sign this form.

If you have any questions later, you may talk with the Principal Investigator, Dr. Jenessa Steele, Ph.D., or the Graduate Research Assistant, Ms. Amory Cox, B.S.

If you have any injury related to being in this study, you should call: Dr. Jenessa Steele, Ph.D., Radford University, (540) 831-5361.

This study was approved by the Radford University Committee for the Review of Human Subjects Research. If you have questions or concerns about your rights as a research subject or have complaints about this study, you should contact Dr. Dennis Grady, Dean, College of Graduate and Professional Studies, Radford University, dgrady4@radford.edu, 1-540-831-7163.

Being in this study is your choice and choosing whether or not to take part in this study will not affect any current or future relationship with *Radford University*.

If all of your questions have been answered and you would like to take part in this study, then please sign below.

Date

Signature

I/We have explained the study to the person signing above, have allowed an opportunity for questions, and have answered all of his/her questions. I/We believe that the subject understands this information.

Signature of Researcher(s)

Date

Note: A signed copy of this form will be given to the subject for the subject's records.

APPENDIX G

CERTIFICATE OF STUDY COMPLETION

Certificate of Completion

This award is presented to

For Participation In:

Radford's University's Research Study: Investigating
Preschoolers' Interactions with Adults

Presented By:

On the _____ Day of _____ In the Year _____.