

EMPATHY AND ITS IMPLICATIONS FOR
PROSOCIAL BEHAVIOR AND ENGAGEMENT WITH THE ARTS

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Dedication

To my parents

and

My husband

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Xiaonan Kou

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This dissertation contains three essays examining empathy and its implications for prosocial behavior and arts engagement. Empathy here refers to both compassion and concern for others (emotional empathy) and the understanding of the feelings and needs of others (cognitive empathy). Empathy is fundamental to our social life, and this dissertation explores its implications for two essential components of social life: prosocial behavior and arts engagement.

Chapter 2 examines how three dimensions of the Interpersonal Reactivity Index (IRI; Davis, 1983)—empathic concern, perspective taking, and personal distress—are associated with charitable giving, and whether these associations vary across charitable causes. Using data from a nationally representative sample of American adults, the study confirms that the three IRI dimensions are associated with charitable giving in different ways.

Chapter 3 focuses on the interplay of trait empathy and people's tendencies to diversify (spread out) their prosocial behavior. By analyzing data from two samples of American adults, this study reveals that people with higher empathic concern (emotional empathy) versus higher perspective taking (cognitive empathy) have distinct patterns in how they spread out their monetary gifts, but trait empathy is not associated with the distribution of time spent in helping others.

Chapter 4 investigates the relationship between arts engagement, prosocial traits (including empathy and principle of care), and prosocial behaviors (as measured by charitable donations, volunteering, and informal helping). The study further examines this relationship by level of art participation (i.e. arts creation versus arts consumption) and by genre of art (i.e. visual arts, performing arts, and literature). Using data from four large samples of American adults, the study confirms positive correlations between arts engagement, prosocial traits, and prosocial behaviors.

Based on data from several representative samples of American adults, this dissertation broadens the scholarly literature and theoretical discussions on empathy and civic engagement. It further offers practical implications for nonprofit professionals in engaging and communicating with donors and volunteers.

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Chapter 1 Introduction

Why Study Empathy (and Prosocial Behavior)?

The question that I was asked most often during the dissertation process is “Why study empathy?” To me, empathy is the backbone of human life, playing a central role in shaping social behavior and facilitating interpersonal relationships. Empathy is “the spark of human concern for others, the glue that makes social life possible. It may be fragile but it has, arguably, endured throughout evolutionary times and may continue as long as humans exist” (Hoffman, 2000, p. 3). The concept of empathy, which may be described by different terms in different countries and religions, is the underlying component upon which moral principles and values across cultures are based. Early theorists further suggest that “the ability and willingness to step outside one’s own egocentric perspective underlies much of human social capability” (Davis, 1994, p. 177).

Empathy has positive implications in interpersonal relationships (Konrath & Grynberg, 2013). For example, empathic parenting is found to be associated with beneficial outcomes for children, such as less child physical abuse (Rodriguez, 2013; Rosenstein, 1995), better emotion regulation of children (Manczak, DeLongis, & Chen, 2016), and positive psychological development of children (Simonič, 2015). Similarly, empathy in professional settings, such as teaching and medical care, is shown to have positive correlations with better learning outcomes and better health outcomes, respectively (Konrath & Grynberg, 2013).

Empathy also has a close connection to prosocial behavior. Prosocial behavior, defined broadly, is a voluntary action for the benefit of others (Penner, Dovidio, Piliavin, & Schroeder, 2005). It includes behaviors such as sharing, cooperating, supporting friends, volunteering, and making charitable donations. Research has proposed a wide variety of theories that help to explain why people voluntarily offer help to others in need, for example, normative beliefs in the principle of social responsibility or reciprocity, norms of distributive justice, or social learning through modelling (Crisp & Turner, 2010; Gummerum, 2005). Many individual and contextual characteristics are strong predictors of prosocial behavior. Among others, empathy is one of the key individual factors that drive prosocial behavior (Batson, 2011; Eisenberg & Miller, 1987; Ding & Lu, 2016).

Despite the importance and powerful capacity of empathy in society, research using cross-temporal meta-analysis has revealed a decline in trait empathy among American college students between 1979 and 2009 (Konrath, O'Brien, & Hsing, 2011). This result remained significant even when controlling for gender composition across samples or the overall economic health over time. Konrath, O'Brien, and Hsing (2011) speculate that this decline in empathy may be attributed to many factors, such as an increase in narcissism (often defined as an inflated sense of self) among American college students over time, the rising popularity of online communication, an increasing exposure to media, reduced family size, and changes in parenting styles. Meanwhile, another line of research has also found that empathy is teachable and can be cultivated (Batt-Rawden et al., 2013; Butters, 2010; Kirby, Tellegen, & Steindl, 2017; Teding van Berkhout & Malouff, 2016). For example, behavioral skills training (such as instruction,

modeling, practice, and feedback) (Teding van Berkhout & Malouff, 2016) and communication skills training (Stepien & Baernstein, 2006) were both found to be effective approaches to increase empathy. More recently, new technology provides a promising channel to cultivate empathy via mobile app-based exercises and games (Fry & Runyan, 2018; Konrath, *in progress*).

Empathy is fundamental to our social life. In three chapters, this dissertation explores trait empathy and its implications for two essential components of social life: prosocial behavior and arts engagement. Although research has offered abundant evidence for the positive relationship between empathy and prosocial behavior, more work is still needed to explore the antecedents and outcomes of this relationship, and the underlying mechanisms that come into play. Moreover, the intrinsic link of empathy to the arts has attracted much scholarly attention. However, our review of prior research shows that a more comprehensive approach is needed in order to better understand the relationship between prosociality and arts engagement. Research along these lines has important implications for today's society as well as future generations. The rest of this chapter offers an overview of the definitions and measures of empathy and prosocial behavior, followed by a review of interdisciplinary research on: 1) the relationship between empathy and prosocial behavior, and 2) the relationship between arts engagement, empathy, and prosocial behavior. Finally, it will end by providing a brief overview of the research conducted in the dissertation.

What Is Empathy?

The term empathy actually originated from the German word “*Einführung*,” first mentioned in a theoretical statement in 1873 by the philosopher Robert Vischer to describe “the viewer’s active perceptual engagement with a work of art” (Koss, 2006, p. 139). This aesthetic meaning of empathy later evolved from its original field of philosophical aesthetics to other fields, such as psychology, optics, and art and architectural history, and bears a broader meaning of human feelings that is used today (Calloway-Thomas, 2010; Koss, 2006).

Empathy as a Multidimensional Concept

Empathy is a multidimensional concept, which “consists of a set of separate but related constructs” (Davis, 1994, p. 55). Psychologists have defined empathy in two ways, broadly speaking, addressing affective and cognitive aspects of the concept, respectively (Davis, 2006). In this dissertation, I follow this conceptualization of empathy, and explore two core dimensions of empathy (empathic concern and perspective taking), and one more self-oriented response to others’ needs (personal distress).

Empathic concern, or affective empathy, refers to the tendency to experience feelings of compassion and concern for unfortunate others (Davis, 1980, 1994). This affective dimension of empathy tends to motivate altruistic, “other-oriented” feelings and behaviors (Batson, 2011; Davis, 2006). Individuals with a higher level of empathic concern tend to offer help to others in need in order to reduce the distress and discomfort

of others (Batson, Fultz, & Schoenrade, 1987; Batson, Sanger, et al., 1997; Fultz, Batson, Fortenbach, McCarthy, & Varney, 1986; Hoffman, 2000).

Perspective taking, or cognitive empathy, refers to the tendency to grasp another person's perspective, imagine how s/he feels, and understand his/her feelings (Davis, 1994). It focuses on identifying and understanding the thoughts, feelings, and needs of the other person. This cognitive dimension of empathy similarly tends to evoke an altruistic, "other-oriented" motive for helping. It produces less intense, but more stable empathic response than self-focused perspective taking, which refers to the role-taking generated from within by imagining how one, instead of the other person, would feel and think in the same situation (Batson, 2009; Batson, Early, & Salvarani, 1997; Hoffman, 2000). It is because the emotional response tends to be stronger when it is internally generated, especially when it resonates with one's own experience. This more intense, self-focused emotional response, however, is more vulnerable than other-focused perspective taking to "egoistic drift"—a shift of the focus from the other's needs to one's own needs (Batson, 2009; Hoffman, 2000).

Personal distress refers to the tendency to feel discomfort and distress in response to others' suffering (Davis, 1994). It is sometimes called "empathic over-arousal," defined by Hoffman (1978, 2000) as the process that occurs when the empathy for unfortunate others becomes so intense and intolerable that it becomes a strong personal feeling of distress. It can motivate helping behavior, but distinct from empathic concern and perspective taking, personal distress is self-oriented, evoking an egoistic motive for helping (Davis, 2006). Individuals with a higher level of personal distress help others in

order to reduce their own discomfort, rather than to improve the welfare of unfortunate others (Batson, Fultz, & Schoenrade, 1987; Davis, 1994; Hoffman, 1981).

Trait Empathy versus Situational Empathy

Individual internal factors (such as personalities, mood, attitudes, or other personal attributions) and external factors (such as situation, social pressure, or other entities outside the individual) all play a role in explaining our behavior (Crisp & Turner, 2010; Reis & Holmes, 2012). As Lewin (1936, p. 12) proposed, “Every psychological event depends upon the state of the person and at the same time on the environment, although their relative importance is different in different cases.” We can group the prior psychological literature that studies empathy into two broad categories: situational empathy and dispositional empathy (for example, Batson, Fultz, & Schoenrade, 1987; Davis, 1994; Eisenberg et al., 2010; Eveland & Crutchfield, 2004; Stueber, 2014), although this dichotomous categorization may oversimplify the complex nature of human behavior. Situational empathy captures empathic experience occurred in response to a specific context, such as witnessing an emergency, or reading news stories about victims after a disaster. By contrast, dispositional empathy assesses a stable character trait of an individual—the tendency to experience empathy under many circumstances. Although recognizing the “power of the situation,” I focus on empathy as a personality trait in understanding prosocial behavior in this dissertation.

Measures of Empathy

Prior research has used various ways to measure empathy, for example, self-report instruments, physiological indices, reports of others, observer-rated measures, and empathic induction procedures (Eisenberg & Miller, 1987; Duan & Hill, 1996).

Developed by Davis (1980, 1983), the Interpersonal Reactivity Index (IRI) is one of the most frequently used self-report scales measuring empathy as a multidimensional concept. It assesses four dimensions: empathic concern, perspective taking, personal distress, and fantasy, each of which contains a set of seven statements. For each statement, respondents are asked to indicate how well it describes them on a scale of 0 to 4, with 0 being “does not describe me well” and 4 being “describes me very well.” Then, the sum of the responses to one set of the seven statements represents the score of one dimension. The IRI has been widely used in prior studies and has good internal and external validity (Davis, 1980, 1983, 1994). The full 28-item IRI scale is included in Appendix A. All datasets analyzed in the dissertation, except for two, include items measuring at least one dimension of trait empathy, using subscales of the IRI.

There are several other self-report scales measuring empathy, but most of them include one dimension of empathy only. For example, the Questionnaire Measure of Emotional Empathy (QMEE), a 33-item scale, was developed to measure affective empathy, defined as “a vicarious emotional response to the perceived emotional experiences of others” (Mehrabian & Epstein, 1972, p. 523). The Hogan Empathy Scale (HES) contains 64 items and was designed to measure cognitive empathy, defined as “the intellectual or imaginative apprehension of another’s condition or state of mind without actually experiencing that person’s feelings” (Hogan, 1969, p. 307). The Empathy

Quotient (EQ) includes 60 questions, 40 of which assess empathy and 20 serve as filler questions (Baron-Cohen & Wheelwright, 2004). It captures both affective and cognitive dimensions of empathy, but does not separate them into subscales. The Basic Empathy Scale (BES) was a relatively new scale, developed to measure affective and cognitive dimensions of empathy, which follows Cohen and Strayer (1996) in defining empathy as “the understanding and sharing in another’s emotional state or context” (Jolliffe & Farrington, 2006). Recent studies have used this new scale widely in measuring empathy among adolescents in particular.

What Is Prosocial Behavior?

Prosocial behavior is generally defined as voluntary actions that intentionally benefit others, regardless of whether oneself is also benefited from such actions (Eisenberg & Miller, 1987; Batson & Powell, 2003). Prosocial behavior can be motivated by altruistic or egoistic reasons, or both. Because prosocial behavior contains a wide variety of actions, prior research has proposed several taxonomies to organize different actions along several common dimensions. For example, Dunfield (2014) categorized prosocial actions into three groups—helping, sharing, and comforting, corresponding to the nature of the problem—instrumental needs, material needs, and emotional needs, respectively. McGuire (1994) categorized helping into four types based on the benefits, frequency, and costs of helping, and they are casual, substantial personal, emotional, and emergency helping. Pearce and Amato (1980) and Smithson and Amato (1982) proposed a four-dimensional typology: planned versus spontaneous helping; serious versus not

serious helping; direct (doing) versus indirect (giving) helping; and personal versus anonymous helping.

This dissertation mainly focuses on prosocial actions towards strangers. Following prior studies, prosocial actions here can be broadly grouped into three categories along two dimensions—spontaneous, informal versus planned, formal helping; and giving time versus giving money (see Table 1.1). The next section reviews existing literature on empathy and each of these three types of prosocial behavior.

[Table 1.1 Taxonomy of prosocial behavior in the dissertation]

Trait Empathy and Prosocial Behavior

The organizational model proposed by Davis (1994, 2006; reprinted in Figure 1.1) offers a comprehensive conceptual framework demonstrating the theoretical connections between empathy and prosocial behavior. This model defines empathy broadly as “a set of constructs that connects the responses of one individual to the experiences of another” (Davis, 2006, p. 443). The model contains four related constructs: 1) *antecedents*—individual and situational characteristics of the observer; 2) *processes*—the mechanisms producing empathic outcomes in the observer; 3) *intrapersonal outcomes*—emotional and cognitive outcomes experienced by the observer; and 4) *interpersonal outcomes*—behavior towards the target. As suggested in this model, the observer’s trait empathy and other individual characteristics as well as situational factors (i.e. the antecedents) generate prosocial behavior towards the target in need of help (i.e. interpersonal outcomes) through a certain process that requires a varying level of cognitive efforts.

[Figure 1.1 Organizational model of empathy-related constructs (Davis, 2006)]

A large body of research has examined the relationship between empathy and prosocial behavior, especially helping behavior in general, and most studies find a positive correlation between the two (see Davis, 1984, 2006, 2015 for detailed reviews). Two meta-analyses of previous research have confirmed this positive relationship, which was also found to persist regardless of cultural backgrounds (i.e. Eastern versus Western cultures) (Eisenberg & Miller, 1987; Ding & Lu, 2016). However, both studies revealed that the strength of this relationship varied considerably depending upon how empathy was measured. Self-report indices of empathy showed an especially consistent positive relationship. One of the most frequently cited theoretical explanations for this positive relationship is the *empathy-altruism hypothesis* proposed by Batson (2011), which states that empathic concern triggers an altruistic motivation to benefit others. Batson (2011) provides a comprehensive review of prior literature that tested this hypothesis, and finds largely consistent support.

Trait Empathy and Informal Helping towards Strangers

When looking at different dimensions of empathy and spontaneous helping towards strangers, empathic concern has been consistently found to have a positive correlation with helping; perspective taking is similarly often shown to be positively, significantly related to helping; whereas, personal distress has a somewhat weaker, positive association with helping (Davis, 2015). However, most studies in this line of research have measured empathy as an emotional state or process in laboratory settings

(Davis, 2015), and limited studies have examined empathy as a personality trait (for example, Einolf, 2008).

Furthermore, research that examines empathy at the intergroup level offers valuable insights into the role of empathy in improving intergroup relations (Batson & Ahmad, 2009). These studies largely focus on the effect of empathy on intergroup attitudes and relations and the psychological processes involved. Relatively fewer studies have directly examined the empathy-helping relationship among in-group versus out-group members—people who share similar, or different, values and cultures, or people from the same, or different, racial/ethnic groups. Some studies have found that the empathic concern-helping relationship is stronger when people in need are in-group members compared to when they are out-group members (Cikara, Bruneau, & Saxe, 2011; Davis & Maitner, 2010; Stürmer, Snyder, & Omoto, 2005; Stürmer et al., 2006). Very few studies have examined the link between perspective taking and helping out-group members, but they offer some evidence that perspective taking may actually help to reduce such out-group biases, and lead to no significant difference in helping towards in-group versus out-group members (Davis & Maitner, 2010). Lastly, only two studies have directly tested the role of personal distress on helping out-group members, and they found inconclusive results, with one study showing a negative relationship (Stürmer et al., 2005) and another showing no relationship (Stürmer et al., 2006).

Trait Empathy and Volunteering

Previous studies that explored empathy and volunteering mostly measured empathy as a personality trait, as volunteering is a more sustained effort than spontaneous

helping (Davis, 2015). Empathic concern is again found to be a rather consistent predictor of volunteering (Bekkers, 2005; Davis et al., 1999; Davis, 2015). Even at the state level, empathic concern (i.e. average score among residents living in each state) is positively associated with volunteering rate and hours (Bach, Defever, Chopik, & Konrath, 2017). The findings on perspective taking and volunteering are less consistent. For example, perspective taking and volunteering were found not significantly related when controlling for empathic concern (Bekkers, 2005); while they were positively related when personal distress was relatively low (Carlo, Allen, & Buhman, 1999). Personal distress itself was found to be negatively linked to the likelihood of volunteering (Davis et al., 1999). Another study that included all of these three dimensions found they were all positively related to volunteering; however, this study did not control for any individual socio-demographic variables that may also affect volunteering (Unger & Thummuluri, 1997).

Trait Empathy and Charitable Giving

Among these three dimensions, empathic concern has been studied the most as a motivating factor for charitable donations made to nonprofit organizations. Research has examined the relationship between empathic concern and charitable donations extensively, by analyzing self-report survey data or by conducting experiments. These studies consistently find a positive relationship between them, with data from the U.S. and several other countries (Barraza & Zak, 2009; Bekkers, 2006; Bennett, 2003; Dickert, Sagara, & Slovic, 2011; Kim & Kou, 2014; Mesch et al., 2011; Piferi, Jobe, & Jones, 2006; Verhaert & Van den Poel, 2011; Wilhelm & Bekkers, 2010). Most previous studies

do not include other dimensions of trait empathy in addition to empathic concern, and thus they are not able to take into account the interactions between different dimensions of trait empathy that may correlate with charitable giving behavior.

Very few studies have explored the relationship between the other two dimensions—perspective taking and personal distress—and charitable giving. Three studies analyzed the role that empathic concern and perspective taking played in charitable giving, and revealed inconsistent findings. For example, an experiment examining the relationship between trait empathy and helping of disaster victims revealed that the perspective taking-helping relationship was found only when people attributed the disaster to human responsibility, rather than a natural phenomenon (Marjanovic, Struthers, & Greenglass, 2011). An analysis of data from a large national sample of Dutch adults found no significant relationship between perspective taking and charitable giving (both the probability and amount of giving), when empathic concern was also included in the analysis (Bekkers, 2006). A more recent study examined data from a representative sample of U.S. adults, and similarly found that perspective taking had no significant correlation with the amount of donations, when empathic concern was controlled (Kim & Kou, 2014). However, in this study, perspective taking was actually *negatively* correlated with the likelihood of charitable donations when empathic concern was included in the analysis (See Chapter 2 in this dissertation).

Very little research has investigated the relationship between personal distress and charitable giving. Feelings of distress were reported as a strong motivation for giving immediately after a disaster (Piferi, Jobe, & Jones, 2006), but these feelings were found to have no significant correlation with intentions to donate in a laboratory setting (Griffin,

Babin, Attaway, & Darden, 1993). Two studies have examined personal distress as a personality trait and its relationship with charitable donations, and both found that personal distress was *negatively* related to *amount* donated (Verhaert & Van den Poel, 2011; Kim & Kou, 2014). Moreover, using a representative sample of U.S. adults, one of these two studies also discovered a *positive* relationship between personal distress and the *likelihood* of donating (Kim & Kou, 2014). Taken together, these findings suggest that personal distress may motivate charitable giving as a way to reduce the feeling of distress for the donor; however, donating a small amount of money may help relieve the distress and satisfy the emotional need of the donor, and thus this self-oriented motive leads to lower donations.

Adding Principle of Care to the Equation

Another important factor that deserves some discussion here is the *principle of care*, given its close connection to empathy and prosocial behavior. The principle of care is “a cognitive process that involves a deliberate evaluation of a situation from the perspective of a moral standard” (Wilhelm & Bekkers, 2010, p. 12). It is the moral principle of considering the well-being of others and helping others in need: one should always help those in need (Hoffman, 2000). People who believe in this moral principle therefore may feel obligated to offer help because it is the right thing to do, and not necessarily because of imagining others’ perspectives or feeling compassion for them.

Hoffman (2000) theorizes that the principle of care and empathy both motivate prosocial behavior. They are “independent, mutually supportive, hence congruent dispositions to help others” (Hoffman, 2000, p. 225). Three empirical studies confirmed

the positive correlation between the principle of care and prosocial behavior (measured as helping, volunteering, and charitable giving) (Bekkers & Ottoni-Wilhelm, 2016; Mesch et al., 2011; Wilhelm & Bekkers, 2010). These studies further found that the reason there was a link between empathic concern and prosocial behavior was that both were correlated with principle of care (i.e. principle of care mediated this relationship). This mediating effect was stronger for planned helping behaviors—charitable donations, volunteering, and blood donation.

Trait Empathy, Prosocial Behavior, and Arts Participation

The link between empathy and arts engagement can be traced back to the origin of the term “empathy,” which was translated from the German word “*Einfühlung*.” The original meaning of *Einfühlung* was aesthetic, referring to the experience of “feeling into” a work of art (Koss, 2006). Although the modern definition of empathy no longer contains this aesthetic meaning, existing research suggests a positive link between empathy and arts engagement, either measured as an overall score (Mangione et al., 2018), or examined in specific arts genres, such as music (Rabinowitch et al., 2013), drama (Goldstein & Winner, 2012), literature (Maslej, Oatley, & Mar, 2017), or art museum visits (Greene, Kisida, & Bowen, 2014) (see Chapter 4 for a comprehensive review).

Research has also offered limited evidence for a positive correlation between prosocial behavior and arts participation. For example, helping was found to be positively associated with involvement in music (Kirshner & Tomasello, 2010) and reading fictional

stories (Johnson, 2012); and donating to a charity was found to be positively correlated with reading a life narrative text (Koopman, 2015). Arts creation and consumption, in general, were found to have a positive association with helping behavior towards strangers (Leroux & Bernadska, 2014), volunteering (National Endowment for the Arts, 2007, 2009; Polzella & Forbis, 2017; Van de Vyver & Abrams, 2017), and charitable donations (Van de Vyver & Abrams, 2017).

Despite this emerging body of research examining the relationship between empathy, prosocial behavior, and arts engagement, our review suggests a clear gap in this field of investigation. Existing research cannot provide a complete picture of how prosocial traits and behaviors are associated with arts participation by level of art participation and by genre of art. For example, very limited research has studied whether watching theater or dance performances is related to empathy. Very few studies have explored whether and how the engagement in theater, creative writing, and visual arts is linked to prosocial behavior. Our review calls for a more comprehensive approach to study arts engagement and prosociality, especially among adults.

Overview of the Current Studies

This dissertation contains three essays examining empathy and its implications for prosocial behavior and arts engagement. Chapter 2 examines how three dimensions of the Interpersonal Reactivity Index (IRI; Davis, 1983)—empathic concern, perspective taking, and personal distress—are associated with charitable giving, and whether these associations vary across different types of nonprofit organizations. Using data from a

nationally representative sample of American adults, this chapter confirms that the three IRI dimensions are associated with charitable giving in different ways.

Chapter 3 focuses on the interplay of trait empathy and people's tendencies to diversify (spread out) their prosocial behaviors. By analyzing data from two samples of American adults, this chapter reveals that people with higher empathic concern (emotional empathy) versus higher perspective taking (cognitive empathy) have distinct patterns in how they spread out their gifts of money and time.

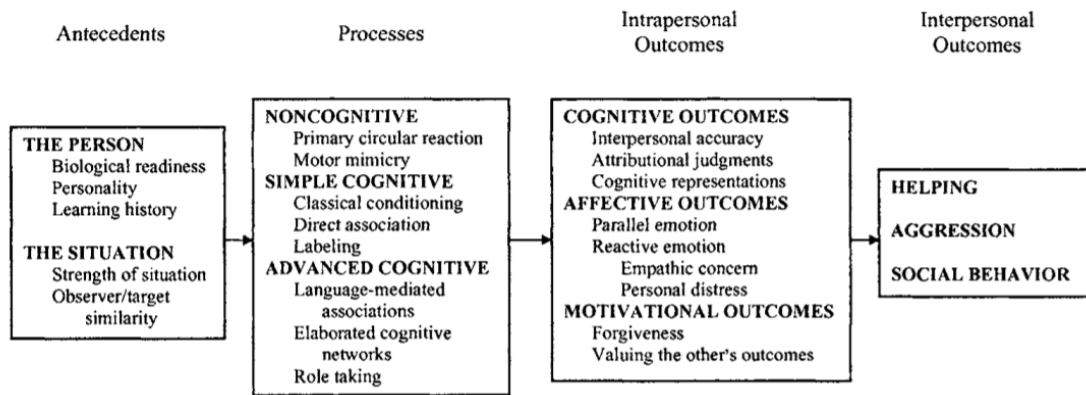
Chapter 4 investigates the relationship between arts engagement, and prosocial traits (including empathy and principle of care), and behaviors (as measured by charitable donations, volunteering, and helping activities towards strangers). This chapter further examines this relationship by artistic genre (i.e. visual arts, performing arts, and literature) and by level of art participation (i.e. arts creation versus arts consumption). Using data from four samples of American adults, this chapter confirms positive associations between arts engagement, prosocial traits, and prosocial behavior.

Based on data from several representative samples of American adults, this dissertation broadens the scholarly literature and theoretical discussions on empathy and civic engagement. It further offers practical implications for nonprofit professionals in engaging and communicating with donors and volunteers (see Chapter 5).

Table 1.1 Taxonomy of prosocial behavior in the dissertation

	Spontaneous, Informal Helping	Planned, Formal Helping
Giving Time	Informally helping strangers or known others	Volunteering with a nonprofit organization
Giving Money	Giving money directly to friends, family, or strangers	Charitable donations to a nonprofit organization

Figure 1.1 Organizational model of empathy-related constructs (Davis, 2006)



Appendix A Interpersonal Reactivity Index

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

ANSWER SCALE:

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

1. I often have tender, concerned feelings for people less fortunate than me. (EC)
2. Sometimes I don't feel very sorry for other people when they are having problems. (EC) (-)
3. When I see someone being taken advantage of, I feel kind of protective towards them. (EC)
4. Other people's misfortunes do not usually disturb me a great deal. (EC) (-)
5. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. (EC) (-)
6. I am often quite touched by things that I see happen. (EC)

7. I would describe myself as a pretty soft-hearted person. (EC)
8. I sometimes find it difficult to see things from the "other guy's" point of view.
(PT) (-)
9. I try to look at everybody's side of a disagreement before I make a decision. (PT)
10. I sometimes try to understand my friends better by imagining how things look
from their perspective. (PT)
11. If I'm sure I'm right about something, I don't waste much time listening to other
people's arguments. (PT) (-)
12. I believe that there are two sides to every question and try to look at them both.
(PT)
13. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.
(PT)
14. Before criticizing somebody, I try to imagine how I would feel if I were in their
place. (PT)
15. In emergency situations, I feel apprehensive and ill-at-ease. (PD)
16. I sometimes feel helpless when I am in the middle of a very emotional situation.
(PD)
17. When I see someone get hurt, I tend to remain calm. (PD) (-)
18. Being in a tense emotional situation scares me. (PD)
19. I am usually pretty effective in dealing with emergencies. (PD) (-)
20. I tend to lose control during emergencies. (PD)

21. When I see someone who badly needs help in an emergency, I go to pieces. (PD)
22. I daydream and fantasize, with some regularity, about things that might happen to me. (FS)
23. I really get involved with the feelings of the characters in a novel. (FS)
24. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it. (FS) (-)
25. Becoming extremely involved in a good book or movie is somewhat rare for me. (FS) (-)
26. After seeing a play or movie, I have felt as though I were one of the characters. (FS)
27. When I watch a good movie, I can very easily put myself in the place of a leading character. (FS)
28. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me. (FS)

NOTE: (-) denotes item to be scored in reverse fashion
PT = perspective-taking scale
FS = fantasy scale
EC = empathic concern scale
PD = personal distress scale

A = 0
B = 1
C = 2
D = 3
E = 4

Except for reversed-scored items, which are scored:

$$A = 4$$

$$B = 3$$

$$C = 2$$

$$D = 1$$

$$E = 0$$

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Chapter 2 Not All Empathy Is Equal:
How Dispositional Empathy Affects Charitable Giving

Introduction

Have you ever helped a stranger to change his flat tire on a cold snowy day? Have you ever made a gift to help a child who lost both parents in an earthquake or a hurricane? Have you ever volunteered to help the homeless at a local food bank? Why are you willing to help others by giving time, money, or talent? This question has received much scholarly attention over the years. Building upon the foundational work for examining motivation by Burnett and Wood (1988), extensive research has examined a wide variety of factors influencing charitable giving.

According to Shang (2008), studies on giving motivation have employed multiple methods, including personal reflections, historical analysis, structured interviews and focus groups, laboratory experiments, empirical data analysis, and field experiments. The studies reveal various motivating factors, for example, altruism (Ackerman, 1996; Burnett & Wood, 1988; Shang, 2008), empathy (Batson et al., 1997b; Einolf, 2008; Einsenberg, Eggum, & Di Giunta, 2010; Mesch, Brown, Moore, & Hayat, 2011; Wilhelm & Bekkers, 2010), social norms (Hogg & Abrams, 1988), self-esteem (I. Piliavin, J. Piliavin, & Rodin, 1975), reciprocity (Sugden, 1984), loyalty (Ostrower, 1995; Sargeant & Woodliffe, 2007), and personal experiences (Bennett, 2012).

Among the identified motives for giving, empathy is an important factor encompassing emotional and rational aspects for prosocial behavior. The concept of

empathy is multidimensional, which contains “a set of separate but related constructs” (Davis, 1994, p. 55). Psychologists have defined empathy in diverse ways, but these definitions can be broadly divided into two groups, addressing affective and cognitive dimensions, respectively. Empathy is the “affective reaction to another person’s emotional experience” (Unger & Thumhuri, 1997, p. 785) or “the cognitive awareness of another person’s internal states, that is, his thoughts, feelings, perceptions, and intentions” (Hoffman, 2000, p. 29). Some psychologists make a clear distinction between situational empathy—empathy responding to a specific context—and dispositional empathy—a stable character trait of an individual (Batson, Fultz, & Schoenrade, 1987; Eveland & Crutchfield, 2004; Davis, 1994; Eisenberg, Eggum, & Giunta, 2010; Stueber, 2014). Unlike situational empathy that assesses empathic experience elicited in specific circumstances, dispositional empathy measures the stable trait tendency to experience empathy under any circumstances. In this study, we focus on distinct components of dispositional empathy based on conceptualization of multidimensional empathy by Davis (1980, 1983). Developed by Davis (1980, 1983), Interpersonal Reactivity Index (IRI) is a reliable and widely used scale measuring empathy. It assesses four facets of dispositional empathy: empathic concern, perspective taking, personal distress, and fantasy. Empathic concern manifests the tendency to share the emotion of unfortunate others. Perspective taking measures the tendency to adopt others’ point of view. Personal distress explains the tendency to experience distress in response to others’ suffering. Fantasy taps the tendency to get deeply involved in fictional situations.

Building on previous research, the purpose of this study is to investigate the three facets of empathy—empathic concern, perspective taking, and personal distress—and

their roles in shaping prosocial behavior, as measured by charitable giving. The study further examines the association between the three dimensions of dispositional empathy and charitable giving for different causes. The study analyzes the 22nd wave of 2008-2009 American National Election Studies (ANES) panel data, a nationally representative sample of over 2,000 American adults. Findings from the study provide practical implications for nonprofit fundraising.

Dispositional Empathy and Prosocial Behavior

Prosocial behavior is a voluntary, intentional action that benefits another and can be motivated by altruism or egoistic concerns (Eisenberg & Miller, 1987). A substantial theoretical and empirical literature discusses the relationship between empathy and prosocial behavior (Batson et al., 1997b; Burnett & Wood, 1988; Einolf, 2008; Eisenberg et al., 2010; Mesch et al., 2011; Sargeant & Jay, 2004; Wilhelm & Bekkers, 2010). Most studies report that empathy is an essential factor stimulating prosocial behavior.

Among others, Davis's organizational model provides a conceptual framework illustrating the connections among antecedents of empathy, processes generating empathy, intrapersonal outcomes experienced by the observer, and interpersonal outcomes directed toward the target (Davis, 1994). As suggested in this model, the observer may offer help to the needy target through several ways: direct influence of personal traits (like dispositional empathy) and situational empathy evoked in a particular

context, results of simple mimicry or advanced cognitive activities, and behavior driven by emotional reactions or non-affective judgments.

Similarly, Batson (1987) proposes that three paths may lead the observer to offer help to another person in need. Through the first path, the observer offers help with the expectation of receiving awards for helping or punishments for not helping. Through the second path, the observer offers help to reduce his own aversive feelings of distress or anxiety evoked by perceiving someone in need. Through the third path, the observer offers help as a result of empathic emotion, which can be induced by the adoption of the needy other's perspective and strengthened by a feeling of emotional attachment. The motivation for helping evoked in the first two paths—reinforcement path and arousal reduction path—is largely egoistic because the ultimate goal of helping is for self-benefits, while the motivation for helping in the last path—empathy-altruism path—is primarily altruistic because the ultimate goal is to alleviate the other's distress or needs (Batson, 1987; Batson et al., 1987; Davis, 1994). Although these three paths have different conceptual frameworks, they may exist simultaneously, as prosocial behavior is often the result of mixed motives in many cases.

Numerous empirical studies have examined the relationship between empathy and prosocial behavior, and many report a positive association between the two. For example, Eisenberg et al. (2010) finds a positive role of empathy in motivating prosocial behavior, Batson et al. (1997b) states empathy induces altruism, and Bekkers (2006) reveals that empathic concern boosts generosity. However, the degree of the association varies considerably depending on the methods used to measure empathy, measures of prosocial behavior, and the context in which empathy and prosocial behavior are assessed

(Eisenberg & Miller, 1987). In particular, when studies are conducted in “experimentally simulated distress situations,” the relationship between empathy and prosocial behavior is hard to be generalizable to other situations, and moreover, situational forces may even overshadow the role of personality traits in such special situations (Eisenberg & Miller, 1987; Davis, 1994). In addition, many studies only examine a one-time decision to participate in prosocial behavior, and much less attention has been paid to regular, planned prosocial behavior or an aggregate measure of prosocial behavior (Unger & Thummuluri, 1997; Eisenberg & Miller, 1987).

Furthermore, much of previous research looks at empathy as a one-dimensional concept or focuses solely on one particular dimension of empathy. There is only one study that we identified examining the relationship between prosocial behavior and all four dimensions of dispositional empathy as defined by the IRI. That study surveyed a convenience sample of 405 adults in eight U.S. Midwestern cities, and found that empathic concern, perspective taking, and personal distress all increase regular volunteering, while fantasy does not (Unger & Thummuluri, 1997). However, the study did not control for the potential effects of other factors on volunteering, such as individual socio-demographics and past behavior, and its sample may not be representative of the U.S. population.

Three Dimensions of Dispositional Empathy

Social science research has also examined the association between different components of empathy and prosocial behavior by using different instruments. Among

others, the IRI developed by Davis (1983, 1994) is the most widely used instrument (Pulos, Elison, & Lennon, 2004). In this section, we discuss three components of dispositional empathy in depth respectively, and review prior research on their relationships with prosocial behavior.

Empathic Concern

Empathic concern (also called affective empathy) is the tendency to experience feelings of warmth and concern for others who are having negative experiences (Davis, 1980). This component stresses the affective facet of empathy, focusing on the feelings of sympathy for unfortunate others. Empathic concern tends to stimulate altruistically motivated behavior, because individuals who feel empathic concern share the feelings of the people in need, and tend to offer help in order to reduce the distress of others (Batson et al., 1987; Batson et al., 1997b; Fultz, Batson, Fortenbach, McCarthy, & Varney, 1986; Hoffman, 2000). Therefore, empathic concern measures “other-oriented” feelings and tends to motivate prosocial moral actions.

Empathic concern is the most studied dimension of empathy as related to volunteering or charitable giving. Early studies revealed a positive relationship between empathic concern and one-time volunteering in a particular situation (Fultz et al., 1986). This finding is partially supported by recent research testing the correlation between dispositional empathic concern and 14 different types of helping behavior (Einolf, 2008). According to Einolf (2008), although dispositional empathic concern is statistically significantly linked to 10 different forms of behavior, its correlations with spontaneous, informal helping behavior are much stronger, suggesting that dispositional empathic

concern may not be an important predictor for planned helping activities, such as giving to charity.

However, other research found a positive role that empathic concern plays on charitable giving either in experiment settings (Barraza & Zak, 2009; Dickert, Sagara, & Slovic, 2011) or with self-reported giving data (Piferi, Jobe, & Jones, 2006; Wilhelm & Bekkers, 2010; Mesch et al., 2011). Empirical studies from Belgium, UK, and the Netherlands also found support for the positive effect of dispositional empathic inclination on charitable giving (Verhaert & Van den Poel, 2011; Bennett, 2003; Bekkers, 2006). Yet, none of these studies included multiple components of dispositional empathy in the analysis.

Based on this theoretical and empirical literature, we hypothesize that there is a positive relationship between dispositional empathic concern and charitable giving, even when controlling for perspective taking and personal distress.

Hypothesis 1: Higher dispositional empathic concern increases both the likelihood and the amount of charitable giving.

Perspective Taking

In contrast to empathic concern, perspective taking (also called cognitive empathy) captures the cognitive dimension of empathy. It is defined as the tendency to spontaneously consider the situation from the perspective of others (Davis, 1994). As stated in the early theoretical work, for instance Piaget (1932) and Mead (1934), this capability is important for non-egocentric behavior, which subordinates the self's perspective to the larger society, and thus is positively related to other-oriented sensitivity

measures. That is, people with higher perspective taking abilities tend to concern themselves more about the feelings and reactions of others, rather than how they themselves are perceived by others. Hence, in the face of people in need, these individuals may be more likely to recognize the need of potential recipients, which may motivate them to donate their time and money (Hung & Wyer, 2009). This other-focused perspective taking produces more stable, yet perhaps less intense, empathic response than the self-focused perspective taking (Hoffman, 2000).

A positive relationship between perspective taking and helping is found in early studies, suggesting that cognitive empathy often triggers altruistic behavior (for instance, Eisenberg & Miller, 1987; Strayer, 1987). Studies also suggest a mediating effect of empathic concern on perspective taking–helping relationship. Coke, Batson, and McDavis (1978) proposed a two-stage model of helping. In this model, perspective taking increases empathic concern, which, in turn, motivates helping behavior. Batson, Early, and Salvarani (1997a) revealed a similar finding that imagining how another person feels generates empathic concern, which evokes altruistic motivation. Several other studies found that the significant influence of perspective taking on helping disappeared after controlling for the effect of empathic concern (Davis, 1994). Additionally, another study found a significant, positive relationship between perspective taking and volunteering when the level of personal distress is relatively low (Carlo, Allen, & Buhman, 1999).

Very few studies have examined the impact of perspective taking on charitable giving, and no consistent conclusions can be drawn from these studies. A recent study investigated both empathic concern and perspective taking, as well as their relationships with helping disaster victims (Marjanovic, Struthers, & Greenglass, 2011). The study

revealed a more important role of perspective taking than empathic concern in making giving decisions. Empathic concern was positively predictive of willingness to help, but not donations of potential raffle winnings to victims. By contrast, perspective taking was a strong predictor to donations among people who attributed the disaster to full human responsibility, not natural phenomena. However, by analyzing survey data from the Netherland, Bekkers (2005, 2006) found no relations between perspective taking and charitable giving or volunteering when dispositional empathic concern is controlled.

We therefore propose the following hypothesis:

Hypothesis 2: Perspective taking is positively related to both the likelihood and the amount of charitable giving.

Personal Distress

Personal distress is another affective aspect of empathy, but it stresses the experience of distress and discomfort in response to unfortunate others (Davis, 1994). Researchers described personal distress as a self-focused motivation process (Batson et al., 1987; Davis, 1983; Carlo et al., 1999). As Hoffman (2000) explains, this “empathic over-arousal” often occurs when the empathy for others becomes so painful and intense that it brings a strong feeling of self-oriented distress and may eventually move the person out of the empathic mode. Therefore, unlike empathic concern, personal distress tends to evoke an egoistic helping motive, because people high on personal distress help others in order to relieve their own distress, rather than for others’ welfare (Batson et al., 1987; Hoffman, 1981). This motivation may be especially strong when people perceive the potential recipient as being similar to them (N. Bendapudi, Singh, & V. Bendapudi,

1996). Yet, it can also be a powerful prosocial moral motive for individuals who are deeply committed to those in need (Hoffman, 2000).

Little empirical research has investigated the relationship between personal distress and prosocial behavior. Piferi et al. (2006) found that personal distress was the most frequently reported motive for giving immediately after the events of September 11, while giving to relieve others' suffering was most frequently cited motive one year after the event. Two studies examined the role of both empathic concern and personal distress in predicting charitable giving and found no significant relationship between personal distress and the likelihood of giving. In the study of Griffin and colleagues (1993), participants were first presented with a charitable appeal and then asked to answer a survey assessing their emotional responses to the appeal and their intentions to donate. Their study supported that empathic concern is a significant predictor of intentions to give, but no significant relationship was found between personal distress and giving intentions. These results on situational empathy are similar to the findings from another study of dispositional empathy, in which Verhaert and Van den Poel (2011) found that personal distress does not affect the decision to give, but negatively influences the amount given. According to the authors, one possible explanation for this finding is that because personal distress is a self-oriented feeling, individuals with high personal distress tend to offer help in order to reduce their own distress. In this sense, any donation, even a small amount, may satisfy this egoistic motivation and relieve the distress, so a generous contribution is not essential. However, both surveys used convenience samples, and thus the findings should be generalized with caution.

Building upon these theoretical and empirical discussions, we therefore propose that personal distress motivates charitable giving but decreases the amount donated.

Hypothesis 3: Personal distress is positively related to the likelihood of charitable giving, but negatively associated with the amount donated to charities.

In our analysis, we also consider the potential impact of another important factor—principle of care—on the correlations between dispositional empathy and giving. The principle of care is the moral principle of considering the well-being of others and helping those in need (Hoffman, 2000). It is “an internalized value orientation,” representing a cognitive process of decision-making “from the perspective of a moral standard” (Wilhelm & Bekkers, 2010, p. 17, 12). The principle of care and empathy are “independent, mutually supportive, hence congruent dispositions to help others” (Hoffman, 2000, p. 225). Two recent studies revealed a positive relationship between principle of care and helping or giving, and found that the principle of care mediates the empathy-helping relationship (Wilhelm & Bekkers, 2010; Mesch et al., 2011). Therefore, we attempt to separate the potential effect of the principle of care in our analysis of dispositional empathy and giving by controlling this factor in some of our models.

Lastly, another purpose of the study is to examine how the three dimensions of dispositional empathy affect donations made to support different charitable causes. We all receive multiple requests asking for donations to various charitable causes, such as hunger, health, education, or environment. If we think about our past donations to different causes, we may have very different rationales for giving to a local food bank or a community school. Rich literature has explored motivations for giving, but little research has investigated why people decide to give to particular causes. Socio-

demographic characteristics, psychological feelings, and personal experience and values are found in prior studies to be linked to giving to particular causes (Bennett, 2003; Bennett, 2012). Then, when people decide which causes to support, do the three dimensions of empathy influence decision-making in giving in the same way? Thus, we further explore this question in the present study. Charitable donations in support of four charitable causes are examined here, including basic needs (i.e. helping people in need of food, shelter, or other basic necessities), education, environment, and health.

Methods

Data

This study uses data from the 22nd wave of the 2008-2009 American National Election Studies (ANES) Panel Study. The ANES Panel Study is designed to represent the population of American citizens aged 18 and older as of November 4, 2008 (Election Day). The wave 22 is the only survey in the ANES focusing on charitable donations. It asked respondents about the amount they and their partner donated to 11 different types of charitable purposes in 2008: Religious, Combined purposes, Basic necessities, Health, Education, Youth, Arts/Culture, Neighborhoods improvement, Environment, International aid, and “Other.” It also contained questions about empathy, religion, immigration, and political knowledge. A total of 2,270 respondents completed the survey, and the completion rate was 64.4 percent. In our analysis, the demographic information of respondents is derived from the core ANES data file. Four respondents were removed

from the sample due to missing data on demographics. The final sample size in the study is 2,266 respondents.

Measures

Charitable giving. The wave 22 ANES survey first asked respondents whether they or their partners made a combined value of more than \$25 in charitable donations during the year 2008. Only respondents who answered affirmatively were further asked about their contributions to each charitable cause. Two measures of charitable giving are computed based on responses from the survey: probability of total giving, and amount donated to all types of charities. Probability of giving is defined as a dummy variable, indicating whether or not the respondents and their partners donated for any charitable purpose in 2008. Amount donated, measured in dollars, is the sum of contributions for all charitable causes made in 2008. Similarly, the incidence and amount of donations made to each of the four causes are also calculated.

Empathic concern. The wave 22 ANES survey contains a set of 21 items asking respondents about their thoughts and feelings in different situations. These items are composed of three seven-item subscales from the IRI, measuring three facets of empathy: empathic concern, perspective taking, and personal distress. For each item, respondents were asked to indicate how well it describes them on a five-point scale (from 1 = does not describe me very well to 5 = does describe me very well). These scales have been widely used as measures of empathy in prior research, and have good internal and external validity (Davis, 1980, 1983, 1994).

The empathic concern subscale measures “the tendency to experience feelings of sympathy and compassion for unfortunate others” (Davis, 1994, p. 57). For instance, one statement in this subscale is “I often have tender, concerned feelings for people less fortunate than me.” In our sample, a factor analysis on the scale reveals one factor with an Eigenvalue of 2.87. The factor loadings range from .47 to .80, and the Cronbach’s alpha value is .82. The overall value of the empathic concern scale is standardized before inclusion in the regressions.

Perspective taking. The perspective taking subscale assesses “the reported tendency to spontaneously adopt the psychological point of view of others in everyday life” (Davis, 1994, p. 55). For example, one statement in this subscale is “I sometimes find it difficult to see things from the ‘other person’s’ point of view.” In our sample, factor analysis on the scale reveals one factor with an Eigenvalue of 2.49. The factor loadings range from .39 to .76, and the Cronbach’s alpha is .76. The standardized value of the scale is used in the regressions.

Personal distress. The personal distress subscale assesses “the tendency to experience distress and discomfort in response to extreme distress in others” (Davis, 1994, p. 57). For instance, one statement in this subscale is “When I see someone who badly needs help in an emergency, I go to pieces.” In our sample, a factor analysis on the scale reveals one factor with an Eigenvalue of 2.93. The factor loadings range from .50 to .87, and the Cronbach’s alpha is .80. Again, the standardized value of the scale is used in the regressions.

Principle of care. We use eight statements included in the ANES survey for the principle of care, which measure the endorsement of the moral position that one should

help others in need. In the ANES survey, respondents were given a set of eight statements about their opinions, and were asked to report whether they agree, or disagree, with each statement on a five-point scale (from 1 = strongly disagree to 5 = strongly agree). One example of these statements is “People should be willing to help others who are less fortunate”. In our sample, a factor analysis on the scale reveals one factor with an Eigenvalue of 4.21. The factor loadings range from .48 to .87, and the Cronbach’s alpha is .88. The standardized value of the scale is used in the regressions.

Control variables. Several socio-demographic variables that may influence the likelihood and the amount of charitable giving are included in the analysis, as suggested by prior literature (see Bekkers & Wiepking, 2007 for an extensive review). These variables, obtained from the derived items offered in the core ANES data file, include gender, age (on Election Day of 2008), ethnicity, religious affiliation and attendance, educational attainment, marital status, household income, and home ownership.

Analytic Approach

We use multivariate Probit and Tobit models to investigate how three components of empathy are associated with the probability of charitable giving, and the amount donated, respectively. Probit and Tobit models are utilized in this study based on the following considerations. First, the dependent measures include a large number of observed zeroes, because approximately 13 percent of respondents (and their partners) in our sample did not make any charitable contributions in 2008. Second, amounts donated to charitable causes, as dependent measures, are continuous, but truncated at zero, since the amounts of giving cannot be less than \$0. In this case, ordinary least squares (OLS)

regression is biased and inconsistent (Guo & Peck, 2009; Rooney, Steinberg, & Schervish, 2004). Although Tobits are not robust to nonnormality or heteroskedasticity, some previous studies provide support for using Tobits with charitable giving data (Brooks, 2004; McClelland & Kokoski, 1994). Last, some control variables in the study are dichotomous in nature. Hence, marginal effects are estimated for regression models. Further, 85 outliers,¹ generated based on three standard deviations, were excluded in the analysis of giving amounts in the study.

Results

In this section, we first report descriptive results, and then discuss the results from our regression analyses. Table 2.1 presents charitable giving by survey respondents and summarizes their socio-demographic characteristics. In the survey, 87 percent of all respondents (n = 1,970) made charitable donations to at least one type of charitable causes in 2008. The average amount donated was \$1,449 (median = \$500). Among the total of 2,266 respondents, over half are female (59 percent), married (54 percent), or have college or above educational background (55 percent). The average age of all respondents is 53 years old. A majority of respondents are White (86 percent). About 49 percent of respondents are Protestant, nearly 25 percent are Catholic, and 17 percent have no religious denomination. All respondents reported an average of 34 times attending

¹ A total of 85 outliers as measured by extremely high or low amounts of charitable donations are excluded from our analysis. The average amount of these donations is \$16,095 (median= \$15,935). These outliers are generated based on three standard deviations of average total giving.

church services every year. When looking at household income, about half (53 percent) reported an annual income between \$50,000 and \$99,999.

[Table 2.1 Descriptive statistics of survey respondents]

Dispositional Empathy and Probability of Charitable Giving

We first examine how the three components of dispositional empathy affect the incidence of charitable giving. Table 2.2 reports the results from Probit regressions with the probability of total giving. The baseline model (Model 1) includes only socio-demographic characteristics. In Model 2, the three components of dispositional empathy are added. Model 3 is the full model in which principle of care is added. As shown in Table 2.2, empathic concern is significantly positively associated with the probability of giving ($p < 0.01$ in Model 2). By contrast, perspective taking is significantly negatively correlated with the probability of giving ($p < 0.01$ in Models 2). That is, respondents with high empathic concern are significantly more likely to make charitable donations, when controlling for their socio-demographic characteristics. Individuals with high perspective taking are significantly less likely to donate with their socio-demographic characteristics controlled. These relationships remain to be statistically significant at the 0.01 level, when principle of care is controlled in Model 3. Personal distress is positively related to the likelihood of giving, but becomes statistically significant only when principle of care is included ($p < 0.1$ in Model 3).

[Table 2.2 Probit regression models for total charitable giving]

We next explore the effects of the three dispositional empathy components on the likelihood of giving made to organizations supporting different charitable causes. As

reported in Table 2.3, the effects of these components, in fact, vary across organizations with different charitable causes. For basic needs organizations, empathic concern is significantly positively associated with the incidence of giving ($p < 0.01$); while perspective giving ($p < 0.01$) and personal distress ($p < 0.05$) both have a significantly negative relationship with the likelihood of giving. However, only perspective taking maintains the same effect in Model 3 when principle of care is controlled; whereas the influences of the other two measures of dispositional empathy become smaller and lose statistical significance in this model.

For educational organizations, both empathic concern and perspective taking show a significant, positive correlation with the probability of giving (both with $p < 0.01$), even after principle of care is controlled. Nevertheless, personal distress is not related to the probability of giving in both Models 2 and 3. For environmental organizations, empathic concern increases the likelihood that people give ($p < 0.01$), while personal distress negatively affects the incidence of giving ($p < 0.01$). There is no significant relationship between perspective taking and the probability of giving. These relationships remain the same when principle of care is included in the analysis. For health organizations, empathic concern and personal distress both increase the likelihood of giving ($p < 0.05$ and $p < 0.01$ in Model 2, respectively), but perspective taking decreases the probability that people give ($p < 0.01$). Principle of care does not affect the relationships between any measure of dispositional empathy and the incidence of giving to health organizations.

[Table 2.3 Probit regression models for charitable giving made to support different causes]

Dispositional Empathy and Amount Given

We then use Tobit regressions to examine how different components of dispositional empathy are associated with the dollar amount of charitable donations. Table 2.4 presents the results from Tobit regressions with the amount of total donations. Empathic concern shows a significant, positive association with the amount of total giving ($p < 0.05$), personal distress is negatively related to the amount donated ($p < 0.01$), and perspective taking has no effect. The inclusion of principle of care does not change any of these relationships. These results suggest that respondents with high empathic concern tend to donate more, and those with high personal distress tend to give less, when controlling for their socio-demographic characteristics.

[Table 2.4 Tobit regression models for amount of total charitable giving]

Lastly, we further examine how the influence of each dispositional empathy measure varies across organizations with different charitable causes (Table 2.5). For basic needs organizations, perspective taking is positively correlated with the amount of donations ($p < 0.05$); whereas personal distress shows a strong negative association with the amount of giving ($p < 0.01$), even when principle of care is controlled. Empathic concern is significantly and negatively related to the amount of donations only when principle of care is included ($p < 0.05$). By contrast, for educational organizations, both empathic concern and perspective taking significantly increase giving (both with $p < 0.01$ in Model 3), while personal distress has no effect. For environmental organizations, empathic concern is positively associated with the amount of donations ($p < 0.01$), while personal distress negatively affects donations ($p < 0.01$), and perspective taking does not

affect giving. For health organizations, empathic concern and perspective taking are both strong predictors of the amount given when principle of care is included, but in opposite directions. Empathic concern promotes larger donations, whereas perspective taking reduces the amount of donations (both with $p < 0.05$). In all of our models, the statistics show no multicollinearity problem (with Variance Inflation Factor less than 2.0).

[Table 2.5 Tobit regression models for amount of charitable giving made to support different causes]

Discussion and Conclusion

Dispositional empathy has both affective and cognitive dimensions, and may evoke altruistic or egoistic motives for prosocial behavior. This study examines the role that dispositional empathy plays in the likelihood and amount of charitable giving by analyzing data on a nationally representative sample of over 2,000 American adults from the 2008-2009 ANES panel study. Specifically, we investigate how three components of dispositional empathy interact with charitable giving. Drawing on prior research, we predict that empathic concern (Hypothesis 1) and perspective taking (Hypothesis 2) are both positively associated with the probability and dollar amount of giving; whereas personal distress (Hypothesis 3) is positively correlated with the decision to give, but decreases the amount donated.

When looking at total charitable giving, our regression analyses fully support Hypotheses 1 and 3, but rejects Hypothesis 2. Empathic concern is consistently positively related to the likelihood of giving and the total amount donated. Perspective taking has a

statistically significantly negative correlation with the likelihood of giving, but has a positive, yet insignificant, impact on the amount donated. Consistent with theoretical predictions, personal distress increases the probability of giving, but is significantly and negatively related to the amount of donations. Taken together, our findings suggest that both affective and cognitive aspects of dispositional empathy are important predictors of charitable giving. Individuals with high empathic concern are more likely to feel warmth and concern for others who are in need, and tend to be spontaneously moved to donate out of their altruistic concerns for others. Individuals with strong perspective taking ability tend to think from others' perspective and thus are less likely to be affected by emotional impulse. Hence, they may take more time to make giving decisions. Personal distress, as a self-oriented motive, does stimulate the giving decision slightly, but decreases the amount donated significantly. This is similar to the findings from the study of Verhaert and Van den Poel (2011), suggesting that any donation, even a small amount, may satisfy this egoistic motive to relieve the donors' own distress, and thus a generous contribution is not necessary.

For organizations with different charitable causes, we further find that the three components of dispositional empathy affect charitable giving in different ways. In this study, we examine giving to four causes in particular, including basic needs, education, environment, and health. Our analyses show mixed results for the influence of dispositional empathy on charitable giving to basic needs organizations. When controlling for principle of care, only perspective taking shows a significantly negative correlation with the likelihood of making a donation, while it increases the amount of donations. Both empathic concern and personal distress are not significantly related to the

likelihood of giving, but both have a strong, yet negative, impact on the amount given. Principle of care in fact shows a stronger positive impact on both the incidence and amount of giving to basic needs organizations, which supports the findings from previous studies (Wilhelm & Bekkers, 2010).

For giving to educational organizations, empathic concern and perspective taking, both manifesting altruistic motives, encourage charitable giving, whereas personal distress—the egoistic motive—has no significant influence on giving to this type of organizations. For giving to environmental organizations, both affective dimensions of dispositional empathy—the concern for others (empathic concern) and self-distress (personal distress)—are important predictors of giving. Specifically, empathic concern promotes giving, whereas personal distress discourages giving. For giving to health organizations, both affective dimensions of dispositional empathy increase giving, although the positive impact of personal distress on the amount of giving is not statistically significant. By contrast, the cognitive dimension of dispositional empathy—sharing other’s point of view (perspective taking)—reduces both the likelihood and amount of giving.

Our findings offer several direct implications for fundraisers and nonprofit organizations in constructing effective fundraising appeals. By understanding the philanthropic preferences of people with different dispositional empathy, fundraisers and nonprofits can better craft the messages targeting people with strong preferences for certain charitable causes. First, our study suggests that evoking altruistic concerns and sympathy for unfortunate others is critical when seeking new donors or larger donations, as empathic concern is the strongest predictor among the three dimensions of

dispositional empathy when making giving decisions. The only exception in our study comes from basic needs organizations, for which empathic concern decreases charitable giving. Instead, the moral principle of care has a stronger positive effect on giving. Second, fundraisers and nonprofits often wonder how the inclusion of negative language in fundraising messages affects the amount of money raised. This study suggests that nonprofits should be careful when discussing pressing social problems in the fundraising letter. When the problems seem to be too overwhelming, prospective donors may start to feel distress and discomfort. For environmental issues in particular, this self-oriented feeling tends to reduce charitable donations. The feeling of personal distress also tends to reduce the amount donated to basic needs organizations. Yet, only for health organizations, personal distress increases the likelihood of giving. Lastly, many fundraising messages share with potential donors the perspectives of those in need, with the expectation that a better recognition of the need and feelings of those who suffer might motivate generosity. However, as our study reveals, this strategy is not always effective. It works well with educational causes, but in fact has negative consequences for health organizations.

The major limitation of our study lies in the reliance on self-report survey data. The accuracy of self-report data on charitable giving may suffer from the difficulty in recalling past giving behavior. Self-report data on dispositional empathy may be subject to the tendency to provide socially acceptable responses to survey statements. Also, people are often motivated by a variety of exogenous variables such as situational factors, in addition to personal traits or demographic characteristics. In this study, we control for several socio-demographic variables in exploring the relationship between dispositional

empathy and charitable giving, but we were not able to control for the potential effects of exogenous variables that may affect giving behavior as well, for example social forces, tax considerations, or economic situations.

Table 2.1 Descriptive statistics of survey respondents

Variable		Obs.	%
Full sample		2,266	100
Made charitable donations		1,970	86.9%
Gender	Male	931	41.1%
	Female	1,335	58.9%
Marital status	Married	1,209	53.4%
	Widowed	204	9.0%
	Divorced	513	22.6%
	Separated	11	0.5%
	Never married	317	14.0%
	Unknown	12	0.5%
Education attainment	High school or less	301	13.3%
	Some college	727	32.1%
	College or above	1,232	54.4%
	Unknown	6	0.2%
Race	White	1,947	85.9%
	Black	174	7.7%
	Other ethnicity	145	6.4%
Religious affiliation	Protestant	1,034	45.6%
	Catholic	529	23.3%
	Jewish	70	3.1%
	Other	142	6.3%
	Secular	354	15.6%
	Unknown	137	6.1%
Household Income	Less than \$50,000	563	24.8%
	\$50,000 ~ \$99,999	1,187	52.4%
	\$100,000 or more	504	22.3%
	Unknown	12	0.5%
Home ownership	Ownership	1,868	82.4%
	Rent	359	15.9%
	Other	36	1.6%
	Unknown	3	0.1%
Variable		Average	Median
Amount donated		\$1,449	\$500
Age		53	53
Frequency of church attendance per year		34 times	8 times

Table 2.2 Probit regression models for total charitable giving

	Model 1	Model 2	Model 3
Empathic concern		0.056*** (0.013)	0.035*** (0.012)
Perspective taking		-0.037*** (0.012)	-0.039*** (0.011)
Personal distress		0.015 (0.010)	0.018* (0.010)
Principle of care			0.034*** (0.009)
Male (d)	-0.079*** (0.026)	-0.044** (0.022)	-0.041* (0.021)
Age	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)
Catholic (d)	0.019 (0.025)	0.016 (0.022)	0.018 (0.020)
Jewish (d)	0.039 (0.026)	0.030 (0.031)	0.029 (0.028)
Other religion (d)	0.014 (0.030)	0.015 (0.025)	0.014 (0.022)
Secular (d)	-0.108** (0.049)	-0.100** (0.047)	-0.122** (0.051)
Married (d)	0.115*** (0.042)	0.096** (0.040)	0.084** (0.039)
Widowed (d)	0.068*** (0.014)	0.061*** (0.013)	0.054*** (0.012)
Divorced (d)	0.080*** (0.017)	0.056*** (0.017)	0.051*** (0.016)
Separated (d)	-0.010 (0.066)	-0.018 (0.065)	-0.038 (0.075)
Household income: between \$50,000 and \$99,999 (d)	0.127*** (0.022)	0.120*** (0.027)	0.122*** (0.026)
Household income: \$100,000 or more (d)	0.026 (0.018)	0.027* (0.016)	0.032** (0.013)
Some college (d)	0.039* (0.022)	0.047** (0.020)	0.051*** (0.018)
College or above (d)	0.007 (0.023)	0.033 (0.023)	0.022 (0.020)
Home ownership: Rent (d)	-0.105** (0.044)	-0.109** (0.045)	-0.065* (0.037)
Home ownership: Other (d)	-0.248* (0.129)	-0.272** (0.134)	-0.252* (0.130)

Church attendance	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
<i>N</i>	2034	2034	2034
pseudo <i>R</i> ²	0.364	0.406	0.422

Notes: Marginal effects; robust standard errors in parentheses. (d) for discrete change of dummy variable from 0 to 1. Outliers for total giving were excluded from the analyses. Variance inflation factor (VIF) less than 2.0 in all models.

Reference category of religion is Protestant; reference category of marital status is never married; reference category of income is less than \$50,000; reference category of education level is high school or less; and reference category of home ownership is ownership.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 2.3 Probit regression models for charitable giving made to support different causes

	Basic Needs		Education		Environment		Health	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Empathic concern	0.115*** (0.026)	0.040 (0.028)	0.065*** (0.017)	0.101*** (0.020)	0.092*** (0.012)	0.072*** (0.014)	0.062** (0.027)	0.109*** (0.033)
Perspective taking	-0.073*** (0.024)	-0.086*** (0.026)	0.044*** (0.015)	0.047*** (0.015)	-0.013 (0.011)	-0.014 (0.012)	-0.101*** (0.023)	-0.096*** (0.023)
Personal distress	-0.047** (0.023)	-0.033 (0.023)	0.008 (0.013)	0.002 (0.013)	-0.038*** (0.010)	-0.033*** (0.011)	0.085*** (0.024)	0.073*** (0.025)
Principle of care		0.141*** (0.026)		-0.071*** (0.017)		0.037*** (0.012)		-0.089*** (0.031)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	2034	2034	2034	2034	2034	2034	2034	2034
pseudo <i>R</i> ²	0.354	0.379	0.340	0.354	0.427	0.433	0.248	0.255

Notes: Marginal effects; robust standard errors in parentheses. (d) for discrete change of dummy variable from 0 to 1. Outliers for total giving were excluded from the analyses. Variance inflation factor (VIF) less than 2.0 in all models.

Reference category of religion is Protestant; reference category of marital status is never married; reference category of income is less than \$50,000; reference category of education level is high school or less; and reference category of home ownership is ownership.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 2.4 Tobit regression models for amount of total charitable giving

	Model 1	Model 2	Model 3
Empathic concern		152.912** (77.900)	209.643** (92.096)
Perspective taking		13.172 (83.118)	19.268 (82.390)
Personal distress		-207.839*** (56.800)	-219.446*** (60.056)
Principle of care			-106.102 (76.390)
Male (d)	807.678*** (94.999)	776.132*** (107.425)	740.955*** (113.369)
Age	23.462*** (2.972)	23.727*** (3.084)	22.669*** (3.178)
Catholic (d)	-534.671*** (100.321)	-479.174*** (104.328)	-509.028*** (110.098)
Jewish (d)	-201.717 (241.074)	-72.624 (261.075)	-53.758 (259.095)
Other religion (d)	-503.386** (242.607)	-607.177** (237.530)	-579.674** (239.127)
Secular (d)	-717.441*** (151.115)	-758.983*** (152.591)	-740.232*** (150.998)
Married (d)	241.229 (151.926)	181.304 (166.082)	186.385 (165.331)
Widowed (d)	831.549*** (258.849)	975.328*** (264.777)	1002.879*** (261.983)
Divorced (d)	87.259 (139.755)	-186.045 (179.090)	-170.203 (178.833)
Separated (d)	1056.677 (961.639)	1020.225 (964.940)	1063.194 (950.704)
Household income: between \$50,000 and \$99,999 (d)	579.132*** (129.105)	685.170*** (140.565)	641.044*** (138.594)
Household income: \$100,000 or more (d)	477.138*** (166.396)	445.688*** (168.725)	385.294** (175.137)
Some college (d)	334.311*** (128.723)	298.356** (134.385)	298.924** (136.251)
College or above (d)	644.038*** (134.513)	446.031*** (154.554)	514.504*** (156.139)
Home ownership: Rent (d)	-364.609*** (118.581)	-173.347 (149.814)	-283.739 (179.317)
Home ownership: Other (d)	10.981 (249.834)	-16.710 (237.661)	-7.017 (234.499)

Church attendance	17.665*** (2.290)	16.660*** (2.258)	16.713*** (2.269)
<i>N</i>	1849	1849	1849
pseudo <i>R</i> ²	0.040	0.041	0.041

Notes: Marginal effects; robust standard errors in parentheses. (d) for discrete change of dummy variable from 0 to 1. Outliers for total giving were excluded from the analyses. Variance inflation factor (VIF) less than 2.0 in all models.

Reference category of religion is Protestant; reference category of marital status is never married; reference category of income is less than \$50,000; reference category of education level is high school or less; and reference category of home ownership is ownership.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 2.5 Tobit regression models for amount of charitable giving made to support different causes

	Basic Needs		Education		Environment		Health	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Empathic concern	-27.184 (17.736)	-53.137** (21.041)	46.460** (20.647)	64.637*** (23.482)	200.806*** (46.326)	204.676*** (52.467)	15.470 (11.904)	38.853** (15.486)
Perspective taking	47.810** (21.204)	45.996** (21.569)	65.269*** (22.397)	65.688*** (22.500)	-33.440 (41.549)	-33.708 (41.846)	-32.236** (13.809)	-29.792** (13.625)
Personal distress	-152.070*** (18.897)	-147.850*** (18.502)	-0.493 (15.721)	-3.414 (15.545)	-233.777*** (38.101)	-234.631*** (38.452)	11.626 (9.070)	6.187 (9.809)
Principle of care		48.877** (20.424)		-36.840 (22.803)		-7.128 (40.478)		-43.995*** (12.514)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	1849	1849	1849	1849	1849	1849	1849	1849
pseudo <i>R</i> ²	0.054	0.055	0.077	0.077	0.074	0.074	0.022	0.024

Notes: Marginal effects; robust standard errors in parentheses. (d) for discrete change of dummy variable from 0 to 1. Outliers for total giving were excluded from the analyses. Variance inflation factor (VIF) less than 2.0 in all models.

Reference category of religion is Protestant; reference category of marital status is never married; reference category of income is less than \$50,000; reference category of education level is high school or less; and reference category of home ownership is ownership.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

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Chapter 3 Trait Empathy and

Diversification of Monetary and Non-Monetary Prosocial Behavior towards Strangers

Introduction

We all receive numerous fundraising requests from different nonprofit organizations every year. Some people choose to focus their donations on a limited number of organizations or charitable causes; while others prefer to spread their donations across multiple organizations or causes. Why do we decide to concentrate or diversify when allocating our giving of money and time? Investors are often advised to spread their investments over multiple options to minimize potential risks, not putting all eggs in one basket. Do we follow this principle when making charitable investments as well? Moreover, as Benjamin Franklin (1748) advised, “time is money.” Do we thus make decisions about giving time in the same way as deciding on giving money? Very limited research has investigated diversification tendencies in prosocial behaviors, such as charitable giving and helping, and how it is associated with empathy—an important personality trait. This study aims to offer insights into these interesting questions.

The current chapter examines the relationship between trait empathy and the diversification of prosocial behavior in two ways. One is to investigate the independent effects of affective empathy and cognitive empathy; and another is to look at monetary and non-monetary giving separately. To achieve these goals, we analyzed data from two national surveys of American adults. In the following sections, we began with a review of existing literature on trait empathy, prosocial behavior, and diversification tendencies. We

then discussed research hypotheses, data, and results on giving money and time, respectively. Finally, we offered implications for nonprofit organizations and suggested possible avenues for future research.

Trait Empathy and Prosocial Behavior

Prosocial behavior is voluntary behavior that intentionally benefits others (Batson & Powell, 2003). It can be planned behavior that is done formally through a nonprofit organization—such as donating money and time, or informal, spontaneous behavior—for example, helping out a stranger or someone we know in our daily life. Existing research suggests that both individual and broader contextual characteristics can be important predictors of prosocial behavior. Personality, personal values, and socio-demographic characteristics are examples of individual-level predictors, while family, group identity, and cultural norms are examples of contextual predictors (Penner, Dovidio, Piliavin, & Schroeder, 2005; Batson & Powell, 2003). Among individual-level predictors, trait empathy is a key factor that can evoke an altruistic motivation for prosocial behavior to benefit others in need, which is often referred to as the empathy-altruism hypothesis in prior research (Batson, 2011). Research using meta-analysis reveals that empathy and prosocial behavior have a positive relationship, and that the strength of this correlation varies considerably by the way empathy is measured (Eisenberg & Miller, 1987; Ding & Lu, 2016).

Empathy is not a single-dimension concept; instead, it encompasses both emotional and cognitive dimensions (Davis, 1994). Empathic concern, or

affective/emotional empathy, measures the tendency to feel care, concern, and compassion for others. Perspective taking, or cognitive empathy, captures the tendency to imagine others' perspectives, desires, needs, and feelings. These two dimensions both tend to invoke an other-oriented motivation for prosocial behavior. It is important to note that we focus on empathy as a stable personality trait in the current paper, rather than state empathy, which can be aroused in special situations, such as disasters.

Trait Empathy and Giving Money

Existing research examining the relationship between empathic concern and charitable donations has mostly found a consistent positive correlation between them (Barraza & Zak, 2009; Bekkers, 2006; Bennett, 2003; Kim & Kou, 2014; Mesch et al., 2011; Piferi, Jobe, & Jones, 2006; Verhaert & Van den Poel, 2011; Wilhelm & Bekkers, 2010). However, fewer studies have analyzed the relationship between perspective taking and monetary donations, with inconsistent findings (Bekkers, 2006; Kim & Kou, 2014; Marjanovic, Struthers, & Greenglass, 2011). Research further finds that empathic concern and perspective taking are correlated with charitable contributions made to different causes in different ways (Kim & Kou, 2014). For example, empathic concern and perspective taking are both significant predictors of monetary donations made to support educational causes. However, for donations to health organizations, empathic concern remains a strong predictor of giving, but perspective taking is actually negatively correlated with giving to this cause.

Trait Empathy and Giving Time

A large body of research has examined both dimensions of trait empathy and helping behaviors (including volunteering), and identified a positive relationship (for instance, Batson, 1991; Carlo, Allen, & Buhman, 1999; Davis, 1994, 2015; Einolf, 2008; Eisenberg & Miller, 1987; Fultz et al., 1986; Strayer, 1987). Prior research further suggests that empathic concern may mediate the relationship between perspective taking and helping (Coke, Batson, & McDavis, 1978; Davis, 1994).

Diversification in Prosocial Behavior

The current paper explores the relationships between two dimensions of trait empathy and the diversification of prosocial behaviors, as measured by charitable giving (Study 1) and helping activities towards strangers (Study 2), respectively.

Prior research on decision making reveals that there is a “diversification bias” in our decision making process, which refers to a tendency to spread choices evenly over a variety of options (Read & Loewenstein, 1995). Research has examined this pattern of allocation in different settings, such as purchases by consumers (Simonson, 1990), procurement decisions in supplier selection (Gurnani, Ramachandran, Ray, & Xia, 2012), or allocation of retirement savings among investment options by employees (Benartzi & Thaler, 2001). Prior studies have also explored the diversification tendency in decision making and social behavior, such as intentions to revisit a holiday destination (Bigné, Sánchez, & Andreu, 2009). This line of literature has further identified several reasons that can help explain this variety-seeking behavior. For example, people tend to diversify

to reduce potential risks due to their uncertainty about preferences (Simonson, 1990). People may also seek variety to satisfy their desire for novelty or change (Venkatesan, 1973), or to obtain more information on various choices, which eventually informs further decision making (Read & Loewenstein, 1995). A series of experiments with undergraduate and graduate students in the U.S. revealed that people allocated money and consumption choices in different ways depending on how various options were grouped (Fox, Ratner, & Lieb, 2005). This “partition dependence” influences the diversification tendency; moreover, its impact was found to be moderated by the strength of intrinsic preferences (Fox et al., 2005, p.538).

When it comes to prosocial behaviors, this diversification tendency is associated with gender. Married couples with the wife as the decision maker tend to donate to a greater variety of charitable causes, compared to couples with the husband as the decision maker (Andreoni, Brown, & Rischall, 2003). Similarly, another study found that females were more likely than males to spread their charitable donations over multiple sectors (De Wit & Bekkers, 2016). There is, however, very limited research on how other individual differences are associated with the diversification of giving money and time.

Previous empirical studies offered several explanations for the diversification of prosocial behavior. A random adult survey in the UK found that individuals with higher emotional satisfaction or with a desire for variation or cognitive balance tended to donate to more different charitable causes (Bennett, 2012). The aforementioned “partition dependence”—how multiple options are grouped—led to different allocations of charitable donations (Fox et al., 2005, p.538). Moreover, another study conducted experiments with American college students, and suggested that the level of construals—

how people perceive and interpret the world around them, which guides decisions and behaviors—was associated with both money and time allocation preferences in charitable giving and volunteering (Burgoon, 2014). Specifically, individuals who focus attention on differences across things tend to concentrate, while those who focus attention on similarities across things tend to diversify. This is because people who focus on differences may find unique characteristics of each nonprofit and thus consider only a smaller number of organizations that are the most worthy of their support. By contrast, people who focus on similarities may find that a group of nonprofits share common characteristics and thus consider each as equally worthy of their support. In addition, people may choose to diversify their charitable donations due to a feeling of warm glow derived from every donation, a conception of distributive justice to allocate benefits equally among categories, or to reduce risks when they consider charitable giving as a type of social investment (Baron & Szymanska, 2011); however, these hypotheses are theoretical speculations, and no empirical studies have tested them.

These studies shed light on various reasons why some people tend to diversify, and others tend to concentrate, when it comes to giving money and time, but they offer limited insights into the influence of personality traits on the construction of an individual's prosocial behavior portfolio. In the current paper, we seek to answer this question using data collected from two surveys of adults in the U.S.

Trait Empathy and Diversification

One of the key personality traits explaining prosocial behavior is empathy (Batson, 2011); however, our review of the literature suggests a clear gap in exploring the relationship between trait empathy and the diversification tendency as related to giving money and time. The vast majority of research on empathy focuses on interpersonal behavior, rather than basic cognitive processes or decision making. Although our measures of prosocial behavior are clearly interpersonal, we are more interested in the decision making process in the current studies.

Research in personality psychology suggests a dual-process model in our decision making, often referred to as the cognitive-experiential self-theory (CEST) (Epstein, 2003). According to CEST, there are two fundamental systems: an experiential system and a rational system. The experiential system is fast, outcome-oriented, and driven by emotions and “what feels good” (Epstein, 2003, p.160). It operates based on past experience. By contrast, the rational system is slow, process-oriented, and analytical. It is driven by logic reasons and “what is sensible” (Epstein, 2003, p.160). These two systems operate independently, yet influence each other. Furthermore, the experiential system, but not the rational system, was found to be highly correlated with a higher level of emotional empathy; however, cognitive empathy was not examined in this study (Norris & Epstein, 2011). Prior studies have also offered some evidence supporting that the experiential system is associated with higher risk taking, while the rational system is linked to less risk taking (Figner et al., 2009; Memari et al., 2015).

Taken together, empathic concern is highly correlated with the experiential system, and we expect that empathic concern is associated with higher risk taking (i.e. lower diversification / more concentration). We further posit that perspective taking is closely related to the rational system, and thus perspective taking would be associated with lower risk taking (i.e. higher diversification / more spreading out).

The Current Studies

This chapter seeks to explore the diversification of prosocial behavior among people with varying levels of empathic concern and perspective taking. We examine two main research questions:

Giving Money: How do empathic concern and perspective taking differentially predict the varieties of charitable causes that an individual donates to? (Study 1)

Giving Time: How do empathic concern and perspective taking differentially predict the varieties of helping behaviors towards strangers? (Study 2)

Drawing from prior literature on trait empathy, diversification tendencies, and information-processing systems, we hypothesize that:

Hypothesis 1a: People who have a higher level of empathic concern tend to concentrate their *money* on a limited number of charitable causes (Study 1).

Hypothesis 1b: People who have a higher level of empathic concern tend to concentrate their *time* on a limited number of charitable causes (Study 2).

Hypothesis 2a: People who have a higher level of perspective taking tend to diversify the allocation of *money* across multiple charitable causes (Study 1).

Hypothesis 2b: People who have a higher level of perspective taking tend to diversify the allocation of *time* across multiple charitable causes (Study 2).

This paper contributes to the literature by providing empirical evidence on the direct link between trait empathy and the diversification of prosocial behaviors. Findings from the research could shed light on the national debate about the role of empathy in our society, and offer practical implications for nonprofits in communicating with prospect and existing donors and volunteers.

Study 1: Dispositional Empathy and Diversification of Giving Money

We used two datasets to explore the diversification of giving money and time, respectively. In this section, we discuss data, methodology, and results on the relationship between trait empathy and the diversification of monetary donation.

Data and Methodology

We used data from the 22nd wave of the 2008-2009 American National Election Studies (ANES) Panel Study, a representative sample of American citizens aged 18 and older. The sample contains responses from 2,266 individuals who completed the surveys. Because the current study examines the relationship between trait empathy and diversification tendencies in charitable giving, non-donors were excluded from the analysis (about 13%). The final sample size was 1,443 respondents (40% male and mean age = 48.75), after removing those with missing data on key variables.

The main dependent variable is the diversification of charitable donations across causes. Wave 22 of the ANES asked respondents whether and how much they and their partner donated to each of 11 charitable causes in 2008, including religion, basic necessities, health, education, youth, arts/culture, neighborhood improvement, environment, international aid, combined purposes, and other. Following previous studies on diversification in charitable giving (Andreoni, Brown, & Rischall, 2003; De Wit & Bekkers, 2016), we calculated a Hirschman-Herfindahl index (HHI) as a measure of the diversification of charitable giving across causes.² The HHI is a widely used method to calculate market concentration that was introduced to the nonprofit literature as a measure of revenue diversification since the early 1990s (Chikoto, Ling, & Neely, 2015).

In this study, we calculated the HHI as follows: $HHI = \sum_{i=1}^N \left(\frac{d_i}{D}\right)^2$, where d_i is the amount of charitable donations made to each cause i , D is the total amount of donations made to all causes, and N is the number of charitable causes. We then used the normalized HHI in the analysis, ranging from 0 to 1. A *lower* HHI score indicates a *more diversified* giving pattern, while a *higher* HHI score means a *more concentrated* giving pattern, with 1 indicating a complete concentration of donations made to one cause only. In our sample, the HHI ranged from 0.02 to 1, with an average value of 0.52.

In ANES wave 22, empathic concern ($\alpha=.80$) and perspective taking ($\alpha=.79$) were each measured by a set of seven statements from the Interpersonal Reactivity Index (IRI) (Davis, 1983). Respondents were asked to indicate how well each statement described their thoughts or feelings on a five-point scale (1=does not describe me very well,

² Another way to measure the allocation of donations would be to use the Gini coefficient; however, we chose to use HHI here to be consistent to previously published research on the diversification of charitable giving.

5=describes me very well). These two measures of empathy have been widely tested and used in previous studies, and both show good internal and external validity.

We controlled for several socio-demographic variables in the analysis, including age, gender, educational attainment, relationship status, household income, religious attendance, and religious denomination. Ordinary least squares (OLS) regression was used to examine the relationship between the two measures of dispositional empathy and the diversification of charitable giving. Table 3.1 presents descriptive statistics of all variables in the analysis.

[Table 3.1 Descriptive statistics, donors only (weighted)]

Results

In Model 1 of the OLS regression, only the two measures of dispositional empathy were entered, and in Model 2, all control variables were added (see Table 3.2). Empathic concern showed a significant, positive association with the HHI in both models. This indicates that individuals with a higher level of empathic concern tend to concentrate their giving to fewer charitable causes and have a more focused giving portfolio. By contrast, perspective taking was significantly, negatively correlated with the HHI in both models. This suggests that individuals with a higher level of perspective taking tend to spread their donations across charitable causes and have a more diversified giving portfolio. Our results supported both Hypothesis 1a and Hypothesis 2a.

[Table 3.2 OLS regression results on the HHI, donors only (weighted)]

All socio-demographic variables controlled in the analysis, except education, showed a statistically significant relationship with the HHI. Specially, age and being a

male were both negatively associated with the HHI, suggesting that older individuals and male individuals are more likely to diversify their monetary donation across various charitable causes. Being in a relationship (i.e. married or living with a partner), higher household annual income, and frequent religious attendance were all positively linked to the HHI; that is, individuals who are in a relationship, have a higher level of household income, or attend religious services more frequently are more likely to concentrate their monetary donation to fewer charitable causes. In addition, religious denomination also showed a significant correlation with the HHI. Compared to donors with no religious denomination, Protestant donors tend to have a higher HHI, and thus are more likely to focus their monetary donations. By contrast, Catholic and Jewish donors are more likely than donors with no religious denomination to diversify their giving across multiple causes.

Study 2: Dispositional Empathy and Diversification of Giving Time

We next examine the relationship between trait empathy and the diversification of giving time in a different dataset.

Data and Methodology

We used data collected from a convenience sample of American adults in 2013. The online survey asked respondents how often they engaged in each of 10 altruistic behaviors towards a stranger during the past 12 months, for example, volunteering for a charity, allowing someone ahead of you in line, or giving directions to a stranger. This set

of questions was from the General Social Survey (Smith, Marsden, Hout, & Kim, 2017). One behavior asked about donating money to a charity directly, and was thus excluded from the analysis. The other nine activities all require respondents to contribute some of their time in order to help a stranger, so they were included in the analysis as measures of time donation. Further, as in Study 1, we only included helpers—respondents who participated in at least one of the nine non-monetary giving activities. The final sample included 859 respondents (27% male and mean age = 27.94).

The main dependent variable is the diversification of time allocation across prosocial activities. Following the diversification of monetary donation, we calculated the HHI for giving time using the number of times participated in each activity (calculated based on the frequency of participation, see Table 3.3 for details) and the total number of prosocial activities. In our sample, the normalized HHI score ranged from 0 to 1, with an average value of 0.31, suggesting a rather diversified allocation of time donations in the sample.

[Table 3.3 Calculation of the number of times participated in each altruistic activity toward strangers during the past year]

This survey again measured empathic concern ($\alpha=.79$) and perspective taking ($\alpha=.79$) using the IRI (see Study 1). We similarly controlled for several socio-demographic variables, including age, gender, educational attainment, relationship status, household income, religious attendance, and religious denomination. Again, we employed OLS regression to examine the relationship between the two measures of trait

empathy and the diversification of giving time. Table 3.4 presents the descriptive statistics of all variables included in the analysis.

[Table 3.4 Descriptive statistics, helpers only (unweighted)]

Results

Model 1 of the OLS regression included the two measures of trait empathy only, and Model 2 added all control variables (Table 3.5). Both empathic concern and perspective taking showed a negative correlation with the HHI; however, this correlation was small and not statistically significant in the models. This indicates that, unlike the distribution of monetary donation, the distribution of time spent in helping others through various prosocial activities was not related to the level of trait empathy. Therefore, our results rejected both Hypothesis 1b and Hypothesis 2b.

Among all socio-demographic variables examined in the analysis, only age, relationship status, and religious denomination showed a statistically significant relationship with the HHI in terms of time donation. Specially, age and being in a relationship were both positively correlated to the HHI. This suggests that older individuals and those who are in a relationship (i.e. married, living with a partner, or dating one person) tend to focus their time on fewer types of activities when helping strangers. By contrast, Jewish individuals and those with Unitarian religious views are more likely than individuals with no religious beliefs to diversify their time across multiple altruistic activities when helping strangers.

[Table 3.5 OLS regression results on the HHI, altruistic activities towards strangers, helpers only (unweighted)]

Discussion

This paper examined the relationship between trait empathy and the diversification of giving money and time. Existing research offers abundant evidence for the positive empathy-helping relationship; however, very limited research has investigated diversification tendencies in giving money and time to help strangers, and no prior studies have explored how empathy is related to such tendencies. This paper addresses this question by analyzing data from two large surveys of American adults. It further investigates whether the affective and cognitive dimensions of trait empathy act in the same way. Overall, we found that empathic concern and perspective taking played an opposite role in decision making in monetary charitable donations (Study 1), whereas these two dimensions of empathy were not related to the allocation of time donations (Study 2).

When donating money, donors high in emotional empathy—individuals with a higher level of empathic concern—tend to focus their giving to fewer charitable causes, while donors high in cognitive empathy—individuals with a higher level of perspective taking—tend to spread their giving over a variety of causes. In this sense, individuals may make monetary donation and investments in a similar way, as rational investors tend not to “put all eggs in one basket.” The results supported our hypotheses (1a and 2a). They offered additional, though indirect, evidence supporting that affective and cognitive empathy may be associated with different information-processing systems (Shamay-Tsoory, Aharon-Peretz, & Perry, 2009).

However, our analysis of giving time revealed that trait empathy was not associated with how an individual allocates time over various helping activities towards strangers. This is also true when looking at the distribution of time spent in helping someone known personally (see Table 3.6). This suggests that different underlying mechanisms may be at play when people make monetary versus non-monetary giving decisions. Previous research reveals that people often perceive money and time differently. For example, people tend to perceive the value of time more as ambiguous and abstract than the value of money (Macdonnell & White, 2015; Okada & Hoch, 2004). Research further finds that money and time primes activate different mindsets and lead to different behaviors (Li & Ling, 2015; Liu & Aaker, 2008). When primed with the concept of money, people tend to think about economic utility, have a stronger sense of independence, and donate less. By contrast, time priming triggers an emotional mindset, and leads to an increase in monetary donations. Therefore, it is possible that, when making decisions about giving time, people tend to become more emotional, regardless of the level of their trait empathy, which attenuates the potential correlation between the two types of empathy and the allocation of giving time. It is also possible that people allocate money and time donations based on other considerations that are not examined in the study. For example, people may rely on different moral principles when allocating charitable giving. Those who value the principle of care may offer to donate and volunteer whenever they see the needs. Those who prefer the principle of distributive justice may allocate their money and time donations based on merit, equity, or need (Hoffman, 1990). Moreover, it is also possible that the differences between giving money

and time in our two studies were explained by the different participants (Study 1 was a nationally representative sample, while Study 2 was a convenience sample) or by the different measures used (Study 1 examined formal giving via nonprofit organizations, while Study 2 primarily examined informal giving behaviors). Future research can help to better understand these results.

[Table 3.6 OLS regression results on the HHI, altruistic activities towards people known personally, helpers only (unweighted)]

This paper contributes to the literature by providing empirical evidence on the direct link between trait empathy and the diversification of prosocial behaviors. Findings from the research offer practical implications for nonprofit organizations in communicating with prospective and existing donors and volunteers. When communicating with emotionally empathic donors, nonprofits need to understand the philanthropic passion and priorities of these donors, and align messages more closely with their priorities, as these donors tend to concentrate their financial support to a relatively smaller group of charitable causes. When engaging cognitively empathic donors, nonprofits could perhaps stress more about the impact of their work and how donations can help to increase the impact, so that these donors better understand how their financial support can make a difference.

The paper has several limitations, and suggests possible avenues for future research on this topic. First, the findings are based on self-reported data on charitable giving and helping from two surveys of American adults. Research finds that the accuracy of self-reported survey data is affected by various factors, such as survey design and a social desirability tendency of respondents (Bekkers & Wiepking, 2006, 2010;

Wilhelm, 2007). Future research can test the empathy-diversification relationship using other methodologies, and compare the findings. Second, given data availability, the current paper is not able to test potential underlying mechanisms that explain the empathy-diversification relationship and its differences in giving money and time. It would be important to understand *why* affective and cognitive empathy are related to different giving decisions and how this interplays with people's perceptions of money and time. Third, future research can examine the potential moderating role of solicitation in empathy-diversification relationship. Research shows that solicitation—being asked—is one of the major factors driving charitable giving (Bekkers & Wiepking, 2011), and social interactions may increase the possibility of being asked. Therefore, affective and cognitive empathy may have different relationships with the diversification of giving money and time when individuals interact with strangers versus someone known (such as a neighbor, friend, or coworker). Our study included some preliminary examinations on this, and future research can help address this more comprehensively through experiments or other methodologies.

Table 3.1 Descriptive statistics, donors only (weighted)

	Mean	Std. Deviation	Min	Max
Number of charitable causes donated to	4.09	2.07	1	10
Total amount donated (\$)	1,638	3,110.74	1	67,363
HHI	.52	.25	.02	1
Empathic concern	3.91	.66	2	5
Perspective taking	3.49	.63	1.57	5
Age	48.75	17.87	18	88
Gender (1=male, 0=female)	.40	.49	0	1
In a relationship (1=married / living with partner, 0=other)	.65	.48	0	1
Highest level of education (1=less than high school, 5=graduate / professional degree)	3.00	1.20	1	5
Household annual income (1=<\$5,000, 19=\$175,000+)	12.07	3.17	1	19
Religious attendance (times per year)	28.76	47.09	0	672
Religious Denomination: No Religion	.14	.35	0	1
Religious Denomination: Protestant	.53	.50	0	1
Religious Denomination: Catholic	.23	.42	0	1
Religious Denomination: Jewish	.02	.15	0	1
Religious Denomination: Other	.07	.26	0	1

Table 3.2 OLS regression results on the HHI, donors only (weighted)

	Model 1	Model 2
Empathic concern	.250**	.181**
Perspective taking	-.329**	-.482**
Age		-.245**
Gender (1=Male, 0=Female)		-.139**
In a relationship (1=Yes, 0=No)		.106**
Highest level of education		.023
Household annual income		.065*
Religious attendance		.235**
Religious Denomination: Protestant		.233**
Religious Denomination: Catholic		-.112*
Religious Denomination: Jewish		-.053~
Religious Denomination: Other		-.018
R ²	.053	.176
N	1,443	1,443

Notes: Standardized coefficients are reported in the table. ~p < .10, *p < .05, **p < .01. Reference category of religion is No Religion.

Table 3.3 Calculation of the number of times participated in each altruistic activity toward strangers during the past year

Frequency of Participation in Each Activity (Asked in the survey)	Number of Times Participated in Each Activity (Converted value used in the analysis)
Not at all in the past year	0
Once in the past year	1
At least 2 or 3 times in the past year	2.5
Once a month	12
Once a week	52
More than once a week	78

Table 3.4 Descriptive statistics, helpers only (unweighted)

	Mean	Std. Deviation	Min	Max
Number of non-monetary altruistic activities engaged in	5.79	1.93	1	9
Total number of times engaged in non-monetary altruistic activities	52.57	64.66	1	702
HHI	.31	.23	0	1
Empathic concern	3.83	.64	1.57	5
Perspective taking	3.56	.64	1.43	5
Age	27.94	13.84	18	75
Gender (1=male, 0=female)	.27	.44	0	1
In a relationship (1=married, living with partner, or dating one person; 0=other)	.47	.50	0	1
Highest level of education (1=less than high school, 7=doctoral or MD)	3.72	1.30	1	7
Gross household annual income (1=<\$10,000, 10=\$200,000+)	6.78	2.65	1	10
Religious attendance (1=never, 7=every day)	3.08	1.61	1	7
Religious Denomination: No Religion	.19	.39	0	1
Religious Denomination: Protestant	.32	.46	0	1
Religious Denomination: Catholic	.21	.41	0	1
Religious Denomination: Jewish	.17	.38	0	1
Religious Denomination: Other	.04	.20	0	1
Religious Denomination: Spiritual/Open/Unitarian	.01	.12	0	1
Religious Denomination: Unsure/Undetermined/Agnostic	.05	.22	0	1

Table 3.5 OLS regression results on the HHI, altruistic activities towards strangers, helpers only (unweighted)

	Model 1	Model 2
Empathic concern	-.031	-.044
Perspective taking	-.055	-.052
Age		.082*
Gender (1=male, 0=female)		-.031
In a relationship (1=yes, 0=no)		.080*
Highest level of education		.010
Gross household annual income		-.046
Religious attendance		-.041
Religious Denomination: Protestant		-.081
Religious Denomination: Catholic		-.025
Religious Denomination: Jewish		-.112*
Religious Denomination: Other		-.058
Religious Denomination: Spiritual/Open/Unitarian		-.087*
Religious Denomination: Unsure/Undetermined/Agnostic		.029
R ²	.006	.049
N	841	841

Notes: Standardized coefficients are reported in the table. ~p < .10, *p < .05, **p < .01. Reference category of religion is No Religion.

Table 3.6 OLS regression results on the HHI, altruistic activities towards people known personally, helpers only (unweighted)

	Model 1	Model 2
Empathic concern	-.011	-.035
Perspective taking	-.005	-.004
Age		.015
Gender (1=male, 0=female)		-.121**
In a relationship (1=yes, 0=no)		-.023
Highest level of education		-.063
Gross household annual income		-.001
Religious attendance		.059
Religious Denomination: Protestant		-.091
Religious Denomination: Catholic		-.062
Religious Denomination: Jewish		-.021
Religious Denomination: Other		-.050
Religious Denomination: Spiritual/Open/Unitarian		-.011
Religious Denomination: Unsure/Undetermined/Agnostic		.073~
R ²	.000	.030
N	849	849

Notes: Standardized coefficients are reported in the table. ~p < .10, *p < .05, **p < .01. Reference category of religion is No Religion.

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Chapter 4 The Relationship between

Different Types of Arts Engagement, Empathy, and Prosocial Behavior

“The arts have an incredible potential for expanding interconnectedness, for reaching people, touching them, and increasing empathy and compassion in the world.” ~Olafur Eliasson

The arts are embedded in our daily life. Through creative expression, the arts explicitly or implicitly influence what we see, how we feel, and who we are. The arts bring us diverse perspectives, personal enrichment, and a sense of social belonging (see Carnwath & Brown, 2015 for a comprehensive literature review on the value and impacts of arts and cultural experiences). There are two levels of participation in the arts. Arts *creation* involves making or doing arts (such as painting, playing a musical instrument, acting, or dancing) and arts *consumption* involves attending art museums, galleries, events, or performances. In the current paper, we examined the social and emotional implications of arts participation, specifically to what extent arts creation and consumption are associated with prosocial traits (e.g. empathy) and behaviors (e.g. giving time and money).

Empathy has its historical roots in the arts. The term “empathy” was originally translated to English in the early 1900s from the German word “*Einfühlung*,” which involved an aesthetic process of engaging with art by “feeling into” it (Stueber, 2016). The term has evolved to its modern usage by social scientists to mean feeling care and concern for others and imagining their perspectives (Davis, 1983). There is a common belief that engagement with the arts promotes empathy and more prosocial behavior. In the current paper, we thoroughly investigated the connection between arts engagement

and prosocial traits (including empathy) and behavior through a comprehensive review of existing literature, and by using the best available data from four different large datasets (three of which are nationally representative).

Potential Benefits of Arts Engagement

Existing research has proposed various cognitive models of arts engagement, offering theoretical explanations for the impact of arts engagement and its underlying processes (see Pelowski, Markey, Luring, & Leder, 2016 for a review of six major models). However, these models often focus on different segments of the underlying process, considering different inputs and outcomes, and thus lack a unified conceptual framework. In particular, social and socio-cultural outcomes, as well as long-term impacts on health and well-being, are usually missing in the current models. The model proposed by Tay, Pawelski, & Keith (2018) is a recent endeavor to provide a conceptual framework for the impact of arts engagement on well-being. This model proposes that arts engagement can produce four groups of outcomes, including immediate neurological, physiological, and psychological outcomes, enduring psychological competencies (such as self-efficacy and creativity), physical and psychological well-being, and positive normative outcomes (such as character, values, morality, and civic engagement). The model further proposes four mechanisms through which arts engagement may bring those outcomes, including immersion, embeddedness, socialization, and reflectiveness. Additionally, the potential benefits of arts engagement are hypothesized to differ by the level of arts participation and arts genre. Building upon this conceptual framework, this

paper aims to explore the correlation between arts engagement (by level of participation and arts genre) and prosocial traits and behaviors.

Overall, prior empirical research finds that greater arts engagement—as combined measures of creation and/or consumption—is correlated with higher academic achievement, increased literacy and numeracy, more healthy behaviors, positive mental well-being, and higher life satisfaction (Catterall, 2002, 2009; Catterall, Chapleau, & Iwanage, 1999; Catterall, Dumais, & Hampden-Thompson, 2012; Cuypers et al., 2012; Deasy, 2012; Hunter, 2005; Mangione et al., 2018, Martin et al., 2013; Renton et al., 2012; Ruppert, 2006; Williams, 1997). These findings are consistent across samples from different countries, for example, the U.S. (Catterall, 2009; Catterall et al., 2012), UK (Renton et al., 2012), Norway (Cuypers et al., 2012), and Australia (Martin et al., 2013). But does greater arts engagement have implications for empathy and prosocial behavior? We next review this literature, broken down by arts genre.

Performing Arts, Empathy, and Prosocial Behavior

We first review how engagement with the performing arts (music, theater, and dance) is associated with empathy and prosocial behavior.

Music. As can be seen from Table 4.1, there is evidence that *music creation* activities like participating in group musical activities or playing an instrument are associated with increased empathy, prosocial values, and prosocial behavior among children and adults (Good & Russo, 2016; Kirschner & Tomasello, 2010; Miksza, 2010; Rabinowitch, Cross, & Burnard, 2013; Schellenberg, Corrigall, Dys, & Malti, 2015; Wiltermuth & Heath, 2009). However, one study finds no increase in parent-rated

adaptive social behaviors after children are randomly assigned to take music lessons (Schellenberg, 2004). Among college students, those who report playing instruments for fun alone score higher in empathy (Kawase, 2016).

[Table 4.1 Summary of literature review]

As for *music consumption*, correlational studies find that adults who listen to more music score higher in empathy (Kawase, 2016), especially if the music is sad (Eerola, Vuoskoski, & Kautiainen, 2016; Garrido & Schubert, 2011). Experiments confirm that the type of music seems to matter; listening to music with prosocial (Greitemeyer, 2009) or happy lyrics (Kniffin, Yan, Wansink, & Schulze, 2017) causes an increase in empathy and prosocial behavior, possibly by priming the participants to think more prosocially.

Theater. As can be seen from Table 4.1, there is evidence that *theater creation* activities like participating in acting classes or drama lessons are associated with an increase in empathy (Goldstein & Winner, 2012; Nettle, 2006) and theory of mind, a type of cognitive empathy in which people are able to recognize or infer others' mental states such as emotions and desires (Goldstein & Winner, 2011; Goldstein, Wu, & Winner, 2009). These effects have been found in people of all ages ranging from children to adults, and the causal role of acting training on theory of mind has been confirmed in experimental studies (Chandler, 1973; Chandler, Greenspan, & Barenboim, 1974). However, there are some inconsistent effects reported in the literature depending on age and type of theatrical activity (Freeman, Sullivan, & Fulton, 2003; Goldstein & Winner, 2012; Goldstein et al., 2009; Schellenberg, 2004).

As for *theater consumption*, theater audiences report being engaged by and enjoying feeling empathy for characters of plays (Konijn, 1999). However, very few studies examine the effect of watching a play or theater performance on empathy or prosocial behavior outside of engaging with the characters. Those that do exist find that theater performances can lead to increased empathy in viewers (Greene, Erickson, Watson, & Beck, 2017; Harvey & Miles, 2009). We know of no published research examining how theater engagement is associated with prosocial behavior.

Dance. In terms of dancing itself (*creation*), dancers have been found to have higher empathy than non-dancers (Kalliopuska, 1989). Yet, as can be seen in Table 4.1, much research in this area has focused not on dance necessarily, but on synchronous movement, compared to asynchronous movement. While dance can sometimes be in tandem and synchronous, it often is not, making strong conclusions limited. Several studies have found that synchronous movement, compared to asynchronous movement, leads to an increase in empathy (Valdesolo & DeSteno, 2011) and prosocial behavior among children and adults who are not dancers or otherwise trained in dance (Cirelli, Einarson, & Trainor, 2014; Cirelli, Wan, Spinelli, & Trainor, 2017; Cirelli, Wan, & Trainor, 2014, 2016; Good, Choma, & Russo, 2017; Rabinowitch & Meltzoff, 2017; Reddish, Fischer, & Bulbulia, 2013; Reddish, Tong, Jong, Lanman, & Whitehouse, 2016; Tunçgenç & Cohen, 2018; Valdesolo & DeSteno, 2011; Wiltermuth & Heath, 2009). Most studies examine prosocial behavior directed toward one's own movement partner, but some find that synchronous movement extends to other targets—to friends of one's movement partner among infants (Cirelli et al., 2014, 2016), and even to outgroup members among adults (Good et al., 2017; Reddish et al., 2016). However, the results are

not entirely consistent. For example, one study finds that dance training is associated with fewer aggressive behaviors, but no change in prosocial behavior (Koshland, 2009), and other studies have found no changes in empathy (Federman, 2011) or theory of mind (Goldstein & Winner, 2011) with dance training. (For a review of this research, see Cirelli, 2018).

As for watching dance performances (*consumption*), we know of no research that examines the effect of watching a dance performance on empathy or prosocial behavior.

Literature, Empathy, and Prosocial Behavior

In the domain of literature, there is much less research on *creation* (writing) compared to *consumption* (reading), and the results are mixed (see Table 4.1). For example, when comparing writers to a general population, two studies find that writers have higher emotional sensitivity / empathy (Drevdahl & Cattell, 1958; Taylor, Hodges, & Kohányi, 2003), yet one study finds no differences between the two groups (Bischoff & Peskin, 2014). Another study finds that people who write more complex fictional descriptions of characters score higher on empathy (Maslej, Oatley, & Mar, 2017). One systematic review of literature identifies eight studies that quantify changes in empathy outcomes before and after reflective writing interventions in medical education (Chen & Forbes, 2014). These studies all show a link between reflective writing and an increase in empathy, although they use different measures of empathy. No research that we are aware of examines the relationship between writing and prosocial behavior.

In terms of literature *consumption* (i.e. reading), two meta-analyses currently exist. The first examines individual differences in reading habits and finds that people

who read more fiction and nonfiction score higher in empathy (Mumper & Gerrig, 2017). The second examines experimental studies in which participants are randomized to read fiction versus control groups (either nonfiction or no reading). Overall, reading fiction directly causes an increase in empathy (Dodell-Feder & Tamir, 2018). There are far fewer studies examining whether reading is associated with increased prosocial behavior, but these studies suggest that reading-related increases in empathy translate into increases in prosocial behavior (Johnson, 2012; Johnson, Cushman, Borden, & McCune, 2013; Koopman, 2015). This increase in prosocial behavior is more likely when readers are more transported into the story (Johnson, 2012), have higher imagery while reading (Johnson et al., 2013), and are reading personal life narratives, regardless of whether they are seen as true stories or fictional (Koopman, 2015).

Visual Art, Empathy, and Prosocial Behavior

Is engaging with the visual arts associated with empathy and prosocial behavior? A recent book that reviewed the effects of different kinds of arts education (including theater and music) directly noted that there was virtually no quantitative research on visual arts participation and prosocial traits and behavior in childhood and adolescence (Winner, Goldstein, & Vincent-Lancrin, 2013). In line with this, our review uncovered very few studies (See Table 4.1).

In terms of visual art *creation*, although one study finds that professional visual artists score higher in emotional sensitivity than the general population (Drevdahl & Cattell, 1958), studies examining shorter term outcomes find null results on empathy (Federman, 2011; Goldstein & Winner, 2012) and prosocial behavior (Good & Russo,

2016), and inconsistent results on theory of mind (Goldstein & Winner, 2012). This may be because visual arts training involves teaching specific techniques related to the elements and principles of design, rather than the more emotionally rich and socially engaging practices inherent to the other arts.

The effects of visual art *consumption* are mixed, with two studies finding no effects of visual arts exposure among health students / residents (Zazulak, Halgren, Tan, & Grierson, 2015; Zazulak et al., 2017) and another study finding that children who receive a single guided tour at an art museum show higher empathy than those who do not (Greene, Kisida, & Bowen, 2014). We know of no studies that measure prosocial behavior as an outcome. Again, this may be due to the type of content covered in the programs. There is no reason to expect that programs focusing on memorizing information about art works, or learning basic principles and techniques of art and design, should have any influence on empathy or prosocial behavior; whereas programs that include relevant practices could influence empathy and prosocial behavior (e.g. perspective taking exercises, emotional engagement activities, selecting highly evocative images, or highlighting social justice themes).

Combined Arts Participation, Empathy, and Prosocial Behavior

Another line of research examines arts engagement across different artistic disciplines as a single measure, or by distinguishing arts creation from arts consumption. Arts engagement, measured as an overall score, is found to be positively associated with empathy (Mangione et al., 2018). Both arts creation and consumption are found to have a positive correlation with participation in various social organizations (Leroux &

Bernadska, 2014), helping behaviors towards strangers (Leroux & Bernadska, 2014), volunteering (National Endowment for the Arts, 2007, 2009; Polzella & Forbis, 2017; Van de Vyver & Abrams, 2017), and charitable donations (Van de Vyver & Abrams, 2017).

Three longitudinal studies offer some evidence that arts engagement at one time point is associated with prosocial behavior at a later time. Americans who have rich arts experiences in high school are found to be more likely to volunteer when they are young adults (aged 20 and 26; (Catterall, 2009; Catterall et al., 2012). Importantly, this relationship holds for young adults from both high and low socioeconomic status. Using data from a longitudinal dataset of households in the UK, a recent study discovers “a virtuous circle” of arts engagement and prosocial behavior, controlling for socio-demographic variables (Van de Vyver & Abrams, 2017, p. 6). Specifically, this study finds that arts creation and consumption are both related to increases in charitable giving and volunteering two years later; and vice versa—that charitable giving and volunteering are both related to increases in arts creation and consumption three years later. Moreover, the long-term effect of arts participation on prosocial behavior appears to be stronger than the reverse path. However, these authors do not examine whether the effects are stronger for specific genres of art.

What are Some Gaps in the Literature?

Our review shows an emerging body of literature on arts engagement of various kinds and prosocial traits and behavior. However, it also points out some gaps in the literature. For example, there is very little research examining how theater engagement,

writing, and visual arts engagement are associated with prosocial behavior. Moreover, we know of no research examining the effects of watching dance performances. In addition, many studies focus on children or adolescents, and often in controlled settings. Very few studies use large, nationally representative samples of adults that are ecologically valid in that they examine how arts engagement is associated with prosocial traits and behaviors in the real world (but see previous section for examples). Moreover, current research does not offer clear insights into potential causal directions in the relationship between arts engagement (examined as combined measures) and various beneficial characteristics, nor do many studies control for variables that may explain the positive correlations between the two. A more comprehensive approach is needed in order to better understand how arts engagement and prosociality are linked.

Overview of the Current Study

In the current chapter, we use four datasets to address five separate research questions. *Research question 1* asks how creating versus consuming art is associated with prosocial traits and behavior. *Research question 2* asks how different art genres (performing arts, literature, and visual arts) are associated with prosocial traits and behavior. *Research question 3* asks whether people in arts occupations differ in prosocial traits and behavior compared to others. *Research question 4* follows older adults over time, asking how arts engagement in 2004 predicts later prosocial behavior, in 2011. And *research question 5* uses the same dataset to examine the reverse pathway, asking how prosocial behavior in 2004 predicts later arts engagement, in 2011. This paper is the first

comprehensive attempt to investigate the relationships between arts engagement, prosocial traits, and prosocial behavior, by level of arts participation (creation versus consumption), and by artistic genre (performing arts, literature, and visual arts). Moreover, our study further examines the long-term association between arts engagement and prosocial behavior over a seven-year span with a sample of American adults.

Data and Methodology

We used four datasets in the study to examine the relationship between prosocial traits, prosocial behavior, and arts engagement. We explain the main variables used in each dataset in this section, and present a detailed description of these variables in the supplementary tables included in Appendix D.

Data

The **2002 General Social Survey (GSS)**; Smith, Marsden, Hout, & Kim, 2017) is a representative dataset of American adults containing rich information on attitudes, behaviors, and attributes. The 2002 GSS contains a battery of questions on prosocial behavior and traits in its Altruism Module, and another set of questions on attendance and engagement in various arts activities in its Culture Module. Our sample consisted of more than 2,000 American adults who had completed responses for items of interest in our study. The sample was 47 percent male and 57 percent married, with an average age of 43. The average self-rating of physical health was 3.6 on a scale of 1 (Poor) to 5 (Excellent). Weights were applied in the analysis.

The **Wisconsin Longitudinal Study (WLS)** traces individuals who graduated from high schools in Wisconsin in 1957 over their life span. It contains a random sample of one-third high school graduates from the class of 1957. This dataset is “broadly representative of white, non-Hispanic American men and women who have completed at least a high school education” (Wisconsin Longitudinal Study User’s Guide, p. 20). The longitudinal nature of the WLS allows us to explore the relationship between prosociality and arts involvement over time. Data from the 2004 WLS (unweighted) were analyzed to address the first two research questions. Data from the 2004 and 2011 waves (unweighted) were analyzed to answer the last two research questions. Our sample included over 5,400 adults, with an average age of 65 in 2004. Around 46 percent of respondents were male and 78 percent were married in 2004. The average self-rating of physical health in 2004 was 3.8 on a scale of 1 (Poor) to 5 (Excellent).

The **2008–2009 American National Election Studies (ANES) Panel Study** is a representative sample of American adults. The 2008-2009 ANES interviewed the same group of respondents every month during the presidential season between January 2008 and October 2009. It contains a total of 22 waves, including questions on electoral politics and a variety of non-political topics, such as media use, lifestyle, religion and spirituality, economic security, and leisure activities. In our analysis, we used data from four waves in order to capture respondents’ prosocial traits, prosocial behavior, and arts engagement. Our sample consisted of more than 1,000 American adults who had completed responses for items of interest in our study. The sample was 46 percent male and 74 percent were in a relationship (married or living with a partner), with an average

age of 48. The average self-rating of physical health was 3.6 on a scale of 1 (Poor) to 5 (Excellent). Weights were applied in the analysis.

The **2012 Survey of Public Participation in the Arts (SPPA)** is a representative sample of American citizens aged 18 or above. It was administered as a supplement to the Current Population Survey in July 2012. Sponsored by the National Endowment for the Arts, the 2012 SPPA contains detailed questions on participation in the arts, such as the type and frequency of activities, learning and exposure, and artistic preferences. All respondents were randomly assigned to one of the two core questionnaires, and then were randomly assigned to two of the five modules. Over 13,800 American adults who answered questions from Core 1 and Modules C and D were included in our analysis. This sample was 47 percent male and 58 percent were married, with an average age of 49. Weights were applied in the analysis.

Key Measures

Our analysis included two main dependent variables: prosocial traits and prosocial behavior. Key independent variables were arts engagement by level of art participation (i.e. arts creation and arts consumption) and by genre of art (i.e. visual arts, performing arts, and literature). These variables are explained in this section, and a detailed description is included in the supplementary tables in Appendix D. We separately analyzed each dataset.

Prosocial traits were included in two datasets: GSS and ANES. GSS contains empathic concern and principle of care, and ANES contains empathic concern, perspective taking, and principle of care.

In both datasets, *empathic concern* was measured by a set of seven statements from the Interpersonal Reactivity Index (IRI) developed by Davis (1983). Respondents were asked to indicate how well each statement describes them (1=does not describe me very well, 5=does describe me very well).

Perspective taking in the ANES was similarly measured by a set of seven statements adapted from the IRI using the same scale.

Principle of care was measured by another set of statements on helping attitudes, which are different in both datasets (Bekkers & Ottoni-Wilhelm, 2016; Nickell, 1998; Webb, Green, & Brashear, 2000). Respondents were asked to indicate whether they agreed with each statement (1=strongly disagree, 5=strongly agree).

Then, with GSS data, we created a single variable for prosocial traits by calculating the average of empathic concern and principle of care. Similarly, with ANES data, we calculated an overall score for prosocial traits using the average of the standardized values of all three variables.

Prosocial behavior was measured by three variables: charitable donations, volunteering, and helping activities. The first two variables were available in all four datasets, and the third variable was available in all datasets except for the SPPA.

Charitable donations were measured by whether or not respondents made a charitable donation in the past year (1=Yes, 0=No) in all datasets, except that the SPPA asked about donations made to arts or cultural organizations specifically.

Volunteering was measured in the four datasets by whether or not respondents volunteered for an organization during the past year (or month) (1=Yes, 0=No).

Helping activities were measured by whether or not respondents helped other people directly in the past year (or month) (1=Yes, 0=No).

The exact wording of these questions differs in all datasets and tables in Appendix D present the original questions for all. We then calculated a single score for prosocial behavior in each dataset, using the average of these three variables (or the average of two in the SPPA).

Arts engagement. All four datasets contain some questions on various forms of arts engagement, allowing us to examine engagement by genre of art (i.e. visual arts, performing arts, and literature) and by level of art participation (i.e. arts creation versus arts consumption). We created a dummy variable for each type of art activities participated in as creator or consumer, respectively, based on variable availability (1=participated in the past 12 months, and 0=did not participate in the past 12 months).

Visual arts creation, available in all four datasets, was measured by being involved in any art-making activities (such as paintings, pottery, woodworking, or quilts).

Visual arts consumption, available in GSS and SPPA, was measured by visits to an art museum or gallery. The SPPA also contains questions on attendance at visual arts events and purchasing artwork (such as paintings, drawings, sculpture, prints, or lithographs).

Performing arts creation was measured by the participation in a music, dance, or theatrical performance or playing a musical instrument. This was available in all four datasets in varying forms.

Performing arts consumption, available in GSS and SPPA, was measured by attending a live ballet, dance, classical music, or opera performance, or a non-musical stage play (excluding school performances).

Literature creation was measured by engaging in writing, available in two datasets. The ANES asked respondents about writing in general, and the SPPA asked about creative writing specifically, such as fiction, non-fiction, poetry, or plays.

Literature consumption was measured by engaging in reading fiction, poetry, or plays, not required by work or school. This was available in all of the four datasets, except that the ANES asked about reading in general. The WLS also asked respondents about reading non-fiction in a separate question, which was also included in our analysis.

Arts occupations are available in two datasets: GSS and SPPA. Both datasets used Census occupation classification, including over 20 major groups and more than 380 occupations. We created a dummy variable for arts occupation, by coding all occupations that are related to visual arts, performing arts, or literature to 1, and all others to 0. Both datasets contain less than two percent of respondents in arts occupations.

Socio-demographic characteristics were included in the analysis with all four datasets, including age, gender, relationship status, education, household income, religious attendance, political ideology (on a 1-7 liberal and conservative political scale), and self-rated physical health. The latter three covariates were available in all studies except the SPPA. In addition, the Big five personality traits were also included in the analysis with WLS. Tables in Appendix D present the descriptive statistics of all variables included in the analysis.

Results

Data Cleaning and Analysis Strategy

We created a single score for arts creation and arts consumption, respectively, by calculating the average of creation and consumption activities in each dataset. We also created a single score for visual arts, performing arts, and literature, by combining the creation and consumption behaviors within each arts genre. See tables in Appendix D for specific variables used and descriptive statistics. Logistic regression and ordinary least squares (OLS) regression were used to explore the relationship between arts engagement, prosocial traits, and prosocial behavior.

Research Question 1: How is Creating versus Consuming Art Associated with Prosocial Traits and Behavior?

Overall, both arts creation and consumption were positively correlated with prosocial traits and prosocial behavior in all datasets, even when controlling for socio-demographic characteristics (see Table 4.2). We further compared the regression coefficients statistically. As shown in the last row of Table 4.2, arts creation and arts consumption have similarly sized associations with prosocial *traits*. However, when looking at prosocial *behavior*, arts consumption had larger effects than arts creation in all datasets except for one. (Detailed regression results on single measures of arts engagement, prosocial traits, and prosocial behavior, are included in Table D6 in Appendix D.)

[Table 4.2 OLS regression results on prosocial traits and behavior, by level of art participation]

Research Question 2: How Are Different Art Genres (Performing Arts, Literature, Visual Arts) Associated with Prosocial Traits and Behavior?

Overall, arts engagement was positively correlated with both prosocial traits and prosocial behavior, regardless of artistic genres (see Table 4.3). The results were consistent in all datasets, with a few exceptions in the ANES only. We also statistically compared regression coefficients, and presented results at the bottom of Table 4.3. The results did not show clear patterns across datasets, which may be partially attributed to the variations in data availability in each dataset. For example, the WLS and ANES had information on the creation of visual arts and performing arts, but no information on the consumption of these two artistic disciplines. (Detailed regression results on single measures of arts engagement, prosocial traits, and prosocial behavior, are included in Table D6 in Appendix D. Arts engagement, except visual arts creation, showed no statistically significant relationships with charitable donations made to congregations alone. See Table D7 in Appendix D for regression results.)

[Table 4.3 OLS regression results on prosocial traits and behavior, by genre of art]

Research Question 3: Do People in Arts Occupations Differ in Prosocial Traits and Behaviors Compared to Others?

In this question, we examined whether people in an arts occupation differed from others in terms of their prosocial traits and behavior. We analyzed data from the GSS and

SPPA, and presented results in Table 4.4 separately. Both national datasets had less than two percent of individuals in an arts occupation, so the results presented here were preliminary and required further examination in future studies.

As shown in Table 4.4, people in arts occupations were more likely than others to have a higher level of empathic concern and principle of care. However, after adjusting for covariates, people in arts occupations showed no statistically significant difference in both traits from those in other occupations.

When examining prosocial behavior, people in arts occupations were significantly more likely than others to make charitable gifts to arts or cultural organizations, even when socio-demographics were controlled (SPPA). However, people in arts occupations were not more likely to give to charity overall (GSS). The results on volunteering were inconsistent between the two datasets, which may be because of differences in the wording of survey questions or the small sample of people in arts occupations in both datasets.

[Table 4.4 OLS regression results on prosocial traits and behavior, by occupation]

Research Question 4: How Does Arts Engagement in 2004 Predict Prosocial Behavior in 2011?

Next, we examined whether the positive correlations between arts engagement and prosocial behavior persisted over a longer period. The WLS contained the same questions on arts engagement and prosocial behavior in both 2004 and 2011 waves, so we tested the correlations between arts engagement in 2004 wave and prosocial behavior in 2011 wave, controlling for socio-demographic characteristics and the Big 5 personality

traits in the 2004 wave. Overall, performing arts creation (or playing a musical instrument specifically) was the only type of arts engagement that showed no statistically significant correlation with prosocial behavior measured seven years later (see Table 4.5). By contrast, reading fiction and general arts consumption had positive relationships with all of the three types of prosocial behavior measured seven years later. Visual arts creation was positively correlated with volunteering and informal helping activities measured seven years later, while reading non-fiction was significantly, positively associated with informal helping and charitable donations measured seven years later. [Table 4.5 Logistic regression results on prosocial behavior, 2004 and 2011 WLS]

Research Question 5: How Does Prosocial Behavior in 2004 Predict Arts Engagement in 2011?

We further tested the potential reverse correlations between prosocial behavior and arts engagement at a later time. Overall, all types of prosocial behavior were positively related to general arts consumption seven years later; and charitable giving was positively correlated with arts consumption in general and in literature seven years later (see Table 4.6). Both patterns were very consistent with the findings to Research Question 4, controlling for socio-demographics, political ideology, and Big 5 personality traits. This suggested a virtuous circle between prosocial behavior and general arts consumption, as well as between charitable giving and literature consumption (i.e. reading), reinforcing each other over time. In addition, volunteering was also positively associated with performing arts creation and reading non-fiction measured seven years

later. Informal helping was also positively correlated with performing arts creation seven years later.

[Table 4.6 Logistic regression results on arts engagement, 2004 and 2011 WLS]

General Discussion

Our study is a comprehensive investigation of arts engagement and prosocial traits and behavior across various levels of art participation and artistic genres. The study confirms an overall positive correlation between arts engagement and prosociality, which also persists over time. Our analysis accounted for several factors that may potentially explain this positive relationship, such as age, household income, education, health, or political ideology.

In terms of the specific results, arts engagement was associated with increased prosocial traits and behavior; the effects on prosocial behavior were stronger for consumption activities compared to direct creation, but no specific genre of arts was consistently associated with larger effects (performing arts, literature, and visual arts). In terms of arts occupations, there was no statistically significant difference in prosocial traits between people who worked in any types of arts field and those who worked in other occupations. Arts employed individuals also made more art-related charitable donations, but were not more likely to make donations in general. Finally, our longitudinal analysis found evidence for both directions of causality: in general, arts participation in 2004 was associated with more prosocial behavior in 2011, and more prosocial people in 2004 were more engaged with the arts in 2011. Our paper also

provides detailed results on the link between arts engagement and prosociality by genre of art, by analyzing the best available data from four large datasets to fill in the gaps that we identified in the review of the existing literature.

Our findings offer further evidence supporting the mutually beneficial cycle between arts engagement and prosociality over time. In particular, our findings confirmed a virtuous circle between general arts consumption and prosocial behavior, as well as between literature consumption (reading fiction and non-fiction) and charitable giving, when socio-demographics, political ideology, and Big 5 personality traits were controlled for in the analysis. In doing so, we contribute to the nationwide discussion on the potential benefits of arts engagement in local communities, especially social values of arts engagement among adults. Understanding the underlying link between arts participation and prosocial traits (including empathy) and behavior will shed light on how nonprofits, grant makers, and policy makers can cultivate stronger civic engagement in local communities through the arts and empathy building.

Strengths, Limitations, and Future Directions

Although this is the most comprehensive analysis of these research questions to date that fills in several gaps in the literature, our paper has several limitations and more research is needed to further explore this important topic. First, most datasets analyzed in the study are cross-sectional data, which do not allow for an examination of causal relationships between arts engagement and prosocial behavior. The WLS used in the analysis is longitudinal, but it is not a nationally representative sample, and thus findings

on the potentially mutually beneficial effects of arts engagement and prosociality may not be generalized broadly to the general American population.

Second, although the four datasets contain rich information on arts engagement and prosociality, they all have some limitations on certain key measures, which is why we included four datasets in the study trying to put together as complete a picture as possible. Nor are the datasets directly comparable in the specific wording used across the datasets; but that can be a strength in terms of conceptually replicating results—if we find similar patterns despite this, it suggests a very robust effect. Related to the issue of measures, these datasets include measures of prosocial traits, but do not include measures of selfish or antisocial traits (e.g. narcissism). As with other positive behaviors, it is possible that there are two paths to arts engagement, one more other-oriented and one more self-oriented (e.g. see these papers for discussions on volunteering and charitable giving: Konrath et al., 2012, 2016; Konrath & Handy, 2018). Future research should address this possibility.

In addition, as Van de Vyver and Abrams (2017) suggested, more research is needed to investigate the mechanisms that connect arts engagement and prosociality. Why should these effects exist? We controlled for obvious potential explanations like demographic variables, income, health, political ideology, and personality traits; however, many other potential explanations remain (e.g. early childhood experiences). Although we did not uncover potential mechanisms of these results in the current paper, future research needs to better understand why various types of arts engagement are associated with increased empathy and prosocial behavior. It is possible that there are overarching single mechanisms (e.g. both arts and empathy involve increased human connections,

emotional engagement, and exercising imagination). It is also possible that different genres of arts (performing arts, literature, and visual arts) and different levels of arts engagement (creating versus consuming) have different explanatory pathways to the same outcomes. One promising area of future research may be to explore overlapping neural systems that are associated with both empathizing and arts engagement, such as the default network (Li, Mai, & Liu, 2014; Vessel, Starr, & Rubin, 2012).

More future research is also needed to examine the specific content of art. As with other media effects (e.g. Greitemeyer & Mügge, 2014; Prot et al., 2014), it is likely that more prosocial messages in the art works would help to inspire more prosocial outcomes, while more aggression or antisocial content would inspire less beneficial outcomes. This possibility has received very little research attention to date.

Finally, the rapid development of technology has changed our lives in dramatic ways. Among others, technology has changed the way we participate in the arts by enabling innovative channels beyond traditional venues. There have been declines in arts participation in museum visits and attendance to performing arts performances over time in U.S.; however, participation rates of arts creation and consumption via electronic media increased dramatically during the same time (Stallings & Mauldin, 2016). New developments like this provide challenges and opportunities for arts organizations to engage individuals in more diverse ways. They also call for new research methodologies and better data in order to accurately capture and map the patterns and trends of arts participation over time. More research is also needed to better understand the potential benefits and limitations of arts participation via electronic media, as compared to

traditional arts participation, which will offer practical insights into effective strategies to promote arts engagement in the technology era.

Table 4.1 Summary of literature review

Type	Citation	Participants	Study Design	Arts-Related Variable	Prosocial Variable
Performing Arts: Music					
Creation	Miksza, 2010	High school students	Correlational	Participation in high school music ensembles	↑ importance of friendships, helping others, correcting inequality
Creation	Kawase, 2016	College students (music majors)	Correlational	Playing instrument for fun alone	↑ empathy
Creation	Rabinowitch et al, 2013	8-10 year olds	Longitudinal	Group music engagement vs. control group	↑ empathy over time
Creation	Schellenberg et al, 2015	8-9 year olds	Longitudinal	Group music training vs. control group	↑ empathy and prosocial skills over time, but only for low scorers at beginning
Creation	Kirshner & Tomasello, 2010	4 year olds	Experimental	Group music engagement vs. control group	↑ prosocial behavior
Creation	Schellenberg, 2004	6 year olds	Experimental	Music lessons vs. control group (drama)	= adaptive social functioning (no change)
Creation	Good & Russo, 2016	7-8 year olds	Experimental	Group singing vs. group art vs. control	↑ prosocial behavior
Creation	Wiltermuth & Heath, 2009	Adults	Experimental	Synchronous singing & moving vs. synchronous singing only vs. asynchronous	↑ prosocial behavior
Consumption	Kawase, 2016	College students (music majors)	Correlational	Listening to music	↑ empathy

Type	Citation	Participants	Study Design	Arts-Related Variable	Prosocial Variable
Consumption	Eerola et al, 2016	Adults (Finland)	Correlational	Listening to sad music	↑ empathy
Consumption	Garrido & Schubert, 2011	College students	Correlational	Listening to sad music	↑ empathy
Consumption	Greitemeyer, 2009	College students	Experimental	Listening to prosocial vs. neutral music	↑ empathy ↑ prosocial behavior
Consumption	Kniffin et al, 2017	College students	Experimental	Listening to happy vs. other music	↑ prosocial behavior
Performing Arts: Theater					
Creation	Nettle, 2006	Adults	Correlational	Professional acting	↑ empathy
Creation	Goldstein et al, 2009	High school and college students	Correlational	Acting classes	↑ theory of mind = empathy (no change)
Creation	Goldstein & Winner, 2011	7-11 year olds	Correlational	After school acting classes vs. dance vs. summer camp	↑ theory of mind
Creation	Goldstein & Winner, 2012	7-10 year olds	Longitudinal	After school acting classes vs. visual arts (elementary)	↑ empathy = theory of mind (no change)
		High school students	Longitudinal	Acting major vs. visual arts/music (high school)	↑ empathy and theory of mind
Creation	Chandler, 1973	Delinquent boys ages 11-13	Experimental	Acting training vs. control groups	↑ theory of mind
Creation	Chandler et al, 1974	Emotionally disturbed 9-14 year olds	Experimental	Acting training vs. control group	↑ theory of mind
Creation	Schellenberg, 2004	6 year olds	Experimental	Drama lessons vs. control group (music)	↑ adaptive social functioning

Type	Citation	Participants	Study Design	Arts-Related Variable	Prosocial Variable
Creation	Freeman et al, 2003	8-9 year olds	Experimental	Drama lessons vs. control group (music)	= social skills (no change)
Consumption	Harvey & Miles, 2009	12 year olds	Experimental	Attending a play about Holocaust vs. control groups	↑ empathy
Consumption	Greene et al, 2017	9-17 year olds	Experimental	Attending live theater vs. watching film vs. control	↑ tolerance, empathy
Performing Arts: Dance					
Creation	Kalliopuska, 1989	9-17 year olds	Correlational	Ballet dancers vs. control	↑ empathy
Creation	Koshland, 2009	6-9 year olds	Longitudinal	Dance lessons vs. control group	↓ aggressive behavior = prosocial behavior (no change)
Creation	Federman, 2011	Graduate students	Longitudinal	Dance therapy training vs. art therapy training vs. social science students	= empathy (no change)
Creation	Goldstein & Winner, 2011	7-11 year olds	Longitudinal	After school dance classes vs. acting vs. summer camp	= theory of mind (no change)
Creation	Cirelli, Einarson, & Trainor, 2014	14 month olds	Experimental	Bouncing synchronously vs. asynchronously	↑ prosocial behavior
Creation	Cirelli, Wan, & Trainor, 2014	14 month olds	Experimental	Bouncing synchronously vs. asynchronously	↑ prosocial behavior, but only toward synchronous partner (not toward stranger)

Type	Citation	Participants	Study Design	Arts-Related Variable	Prosocial Variable
Creation	Cirelli et al, 2016	14 month olds	Experimental	Bouncing synchronously vs. asynchronously	↑ prosocial behavior, toward synchronous partner and her friend
Creation	Cirelli et al, 2017	14 month olds	Experimental	Bouncing synchronously vs. asynchronously	↑ prosocial behavior
Creation	Rabinowitch & Meltzoff, 2017	4 year olds	Experimental	Swinging synchronously vs. asynchronously	↑ prosocial behavior
Creation	Tunçgenç & Cohen, 2019	4-6 year olds	Experimental	Synchronous vs. asynchronous movement	↑ prosocial behavior
Creation	Good et al, 2017	College students	Experimental	Tapping synchronously vs. asynchronously with group members	↑ prosocial behavior toward outgroup members
Creation	Reddish et al, 2013	Adults	Experimental	Synchronous vs. asynchronous movement	↑ prosocial behavior
Creation	Reddish et al, 2016	Adults	Experimental	Synchronous vs. asynchronous movement	↑ prosocial behavior, even toward outgroup members
Creation	Wiltermuth & Heath, 2009	Adults	Experimental	Synchronous singing & moving vs. synchronous singing only vs. asynchronous	↑ prosocial behavior
Creation	Valdesolo & DeSteno, 2011	Adults	Experimental	Tapping synchronously vs. asynchronously with partner	↑ empathy ↑ prosocial behavior
Literature					
Creation	Taylor et al, 2003	Adults	Correlational	Writers vs. general population	↑ empathy
Creation	Drevdahl & Cattell, 1958	Adults	Correlational	Writers vs. artists vs. general population	↑ emotional sensitivity (writers vs. general population)

Type	Citation	Participants	Study Design	Arts-Related Variable	Prosocial Variable
Creation	Bischoff & Peskin, 2014	Adults	Correlational	Writers vs. general population	= empathy
Creation	Maslej et al, 2017	College students	Correlational	Complexity of fictional character descriptions	↑ empathy
Creation	Chen & Forbes, 2014	Medical/pharmacy students	Pre- and post-interventions	Reflective writing interventions in medical education	↑ empathy
Consumption	Mumper & Gerrig, 2017	Various	Meta-analysis of 36 correlational studies	Reading more fiction Reading more nonfiction	↑ empathy ↑ empathy
Consumption	Dodell-Feder & Tamir, 2018	Various	Meta-analysis of 53 experimental studies	Reading fiction vs. nonfiction / no reading controls	↑ empathy
Consumption	Johnson, 2012	Adults	Correlational	Being transported into story while reading	↑ empathy ↑ prosocial behavior
Consumption	Johnson et al, 2013	Adults	Experimental	High imagery while reading vs. controls	↑ empathy ↑ prosocial behavior
Consumption	Koopman, 2015	College students	Experimental	Fiction vs. nonfiction Genre (life narrative vs. literary narrative vs. expository text)	= empathy (no difference) = prosocial behavior (no difference) = empathy (no difference) ↑ prosocial behavior for life narrative
Visual Arts					
Creation	Drevdahl & Cattell, 1958	Adults	Correlational	Artists vs. writers vs. general population	↑ emotional sensitivity (artists vs. general population)

Type	Citation	Participants	Study Design	Arts-Related Variable	Prosocial Variable
Creation	Federman, 2011	Graduate students	Longitudinal	Art therapy training vs. dance therapy training vs. social science students	= empathy (no change)
Creation	Goldstein & Winner, 2012	7-10 year olds	Longitudinal	After school visual arts classes vs. acting (elementary)	= empathy (no change) = theory of mind (no change)
		High school students	Longitudinal	Visual arts/music major vs. acting (high school)	= theory of mind (RMET; no change) ↑ theory of mind (empathic accuracy) = empathy (no change)
Creation	Good & Russo, 2016	7-8 year olds	Experimental	Group art vs. group singing vs. control	= prosocial behavior (no change)
Consumption	Zazulak et al, 2015	Health students	Quasi-experimental	Art education vs. control group	= empathy (no change)
Consumption	Zazulak et al, 2017	Medical residents	Quasi-experimental	Art education vs. control group	= empathy (no change)
Consumption	Greene, 2014	9 to 17 year olds	Experimental (blocked)	Guided art museum visit vs. wait list control	↑ empathy

Table 4.2 OLS regression results on prosocial traits and behavior, by level of art participation

Independent Variable: Arts Engagement	Dependent Variable					
	Prosocial Traits		Prosocial Behavior			
	GSS (2002)	ANES (2008-09)	GSS (2002)	WLS (2004)	ANES (2008-09)	SPPA (2012)
	National representative sample; Weighted	National representative sample; Weighted	National representative sample; Weighted	Longitudinal dataset of high school graduates in Wisconsin in 1957; Unweighted	National representative sample; Weighted	National representative sample; Weighted
Arts Creation	.133** (a)	.035	.267** (a)	.075** (a)	.122**	.278**
Arts Consumption	.088*	.053~ (b)	.373**	.159** (c)	-.015 (b)	.355**
Creation vs. Consumption Z (p)	1.11 (.267)	-.41 (.682)	-1.59 (.112)	-3.93** (<.0001)	2.44* (.015)	-2.95** (.003)

Notes: Standardized coefficients are reported in the table. Covariates in the analyses with GSS, ANES, and WLS include age, gender, relationship status, education, household income, religious attendance, self-rated physical health, and political ideology. Big five personality traits are also included in the analysis with WLS. Covariates in the analyses with SPPA include age, gender, relationship status, education, and household income. Results on covariates in each regression are omitted here and are available upon request.

~p<.10, *p<.05, **p<.01.

(a) Including Visual Arts and Performing Arts only; (b) Including Literature only; (c) Including Literature and General Arts only.

Table 4.3 OLS regression results on prosocial traits and behavior, by genre of art

Independent Variable:	Dependent Variable					
	Prosocial Traits		Prosocial Behavior			
	GSS (2002)	ANES (2008-09)	GSS (2002)	WLS (2004)	ANES (2008-09)	SPPA (2012)
Arts Engagement	National representative sample; Weighted	National representative sample; Weighted	National representative sample; Weighted	Longitudinal dataset of high school graduates in Wisconsin in 1957; Unweighted	National representative sample; Weighted	National representative sample; Weighted
Visual Arts	.132**	-.051~ (a)	.363**	.057** (a)	.049 (a)	.275**
Performing Arts	.071*	-.001 (a)	.262**	.051** (a)	.123** (a)	.259**
Literature	.064~ (b)	.118**	.172** (b)	.079** (b)	.044	.139**
VA vs. PA Z (p)	1.24 (.215)	1.18 (.238)	2.22* (.026)	.23 (.818)	-1.60 (.110)	.98 (.327)
VA vs. Literature Z (p)	1.38 (.168)	-1.50 (.134)	4.02** (<.0001)	-.77 (.441)	-.19 (.849)	7.83** (<.0001)
PA vs. Literature Z (p)	.14 (.889)	-2.67** (.008)	1.80~ (.072)	-.96 (.337)	1.78~ (.075)	6.95** (<.0001)

Notes: Standardized coefficients are reported in the table. Covariates in the analyses with GSS, ANES, and WLS include age, gender, relationship status, education, household income, religious attendance, self-rated physical health, and political ideology. Big five personality traits are also included in the analysis with WLS. Covariates in the analyses with SPPA include age, gender,

relationship status, education, and household income. Results on covariates in each regression are omitted here and are available upon request.

~p<.10, *p<.05, **p<.01.

(a) Including creation only; (b) Including consumption only.

Table 4.4 OLS regression results on prosocial traits and behavior, by occupation

Independent Variable: Arts Occupation	Dependent Variable				
	Prosocial Traits		Prosocial Behavior		
	Empathic Concern Std. B	Principle of Care Std. B	Donations (YN) B (OR)	Volunteering (YN) B (OR)	Helping (sum) Std. B
GSS (2002)					
Raw	.073**	.050~	-.333 (.717)	.205 (1.227)	.049~
Adjusted (with covariates)	.055	.023	-.683 (.505)	.267 (1.306)	.042
SPPA (2012)					
			Donations to Arts (YN) B (OR)	Volunteering (YN) B (OR)	
Raw	N/A	N/A	1.633** (5.118)	.806** (2.238)	N/A
Adjusted (with covariates)	N/A	N/A	1.284** (3.611)	.596** (1.815)	N/A

Notes: Std. B: Standardized coefficients from OLS regressions. B (OR): Coefficients (odds ratios) from logistic regressions.

Covariates in the analyses with GSS include age, gender, relationship status, education, household income, religious attendance, self-rated physical health, and political ideology. Covariates in the analyses with SPPA include age, gender, relationship status, education, and household income. Results on covariates in each regression are omitted here and are available upon request.

~p<.10, *p<.05, **p<.01.

Table 4.5 Logistic regression results on prosocial behavior, 2004 and 2011 WLS

Independent Variable: Arts Engagement (2004)	Dependent Variable: Prosocial Behavior (2011)		
	Volunteering (YN)	Helping (YN)	Donations (YN)
Visual Arts Creator: Make art	.206* (1.229)	.262** (1.300)	-.026 (.975)
Performing Arts Creator: Play instrument	.190 (1.209)	.125 (1.134)	-.097 (.907)
Literature Consumer: Read fiction	.250* (1.284)	.234* (1.264)	.244~ (1.276)
Literature Consumer: Read non-fiction	.173 (1.189)	.243* (1.275)	.221~ (1.247)
General Arts Consumer: Arts activities (e.g. concert, play, museum)	.465** (1.592)	.385** (1.470)	.475** (1.609)

Notes: Coefficients and odds ratios (in parentheses) are reported in the table. Covariates in the analyses include age, gender, relationship status, education, household income, religious attendance, self-rated physical health, political ideology, and Big five personality traits. Results on covariates in each regression are omitted here and are available upon request.

~p<.10, *p<.05, **p<.01.

Table 4.6 Logistic regression results on arts engagement, 2004 and 2011 WLS

Independent Variable: Prosocial Behavior (2004)	Dependent Variable: Arts Engagement (2011)				
	Visual Arts Creator: Make art	Performing Arts Creator: Play instrument	Literature Consumer: Read fiction	Literature Consumer: Read non-fiction	General Arts Consumer: Arts activities
Volunteering (YN)	.170 (1.185)	.393** (1.482)	.133 (1.142)	.294** (1.342)	.495** (1.641)
Helping (YN)	.087 (1.091)	.414** (1.513)	.048 (1.050)	.137 (1.147)	.347** (1.415)
Donations (YN)	-.050 (.951)	.052 (1.053)	.412** (1.510)	.171~ (1.186)	.582** (1.790)

Notes: Coefficients and odds ratios (in parentheses) are reported in the table. Covariates in the analyses include age, gender, relationship status, education, household income, religious attendance, self-rated physical health, political ideology, and Big five personality traits. Results on covariates in each regression are omitted here and are available upon request.

~p<.10, *p<.05, **p<.01.

Appendix D Supplementary tables

Table D1. Data availability by key measure and dataset

	Prosocial Traits			Prosocial Behavior			Visual Arts		Performing Arts		Literature	
	Empathic Concern	Perspective Taking	Principle of Care	Donate	Volunteer	Informal Help	Create	Consume	Create	Consume	Create	Consume
GSS (2002)	•		•	•	•	•	•	•	•	•		•
WLS (2004)				•	•	•	•		•			•
ANES (2008-09)	•	•	•	•	•	•	•		•		•	•
SPPA (2012)				•	•		•	•	•	•	•	•

Table D2. Key measures in 2002 General Social Survey (GSS)

Measures	Survey Questions	% or Mean (SD)
Arts Engagement		
Visual Arts Creation	Next I'd like to ask about some leisure or recreational activities that people do during their free time. As I read each activity, can you tell me if it is something you have done in the past twelve months? (1=yes, 0=no) Make art or craft objects such as pottery, woodworking, quilts, or paintings	46%
Visual Arts Consumption	Visit an art museum or gallery (1=yes, 0=no)	46%
Literature Consumption	Read novels, short stories, poems, or plays, other than those required by work or school (1=yes, 0=no)	73%
Performing Arts Creation	1=participated in any of the following two activities; 0=none: Take part in a music, dance, or theatrical performance Play a musical instrument like a piano, guitar, or violin	27%
Performing Arts Consumption	1=participated in any of the following three activities; 0=none: Go to a live ballet or dance performance, not including school performances Go to a classical music or opera performance, not including school performances Go to a live performance of a non-musical stage play, not including school performances	44%
Arts Creation	Average of Visual Arts Creation and Performing Arts Creation (ranging from 0 to 1)	M = .37 SD = .36
Arts Consumption	Average of Visual Arts Consumption, Literature Consumption, and Performing Arts Consumption (ranging from 0 to 1)	M = .54 SD = .35
Visual Arts	Average of Visual Arts Creation and Visual Arts Consumption (ranging from 0 to 1)	M = .46 SD = .38
Literature	Same as Literature Consumption	

Measures	Survey Questions	% or Mean (SD)
Performing Arts	Average of Performing Arts Creation and Performing Arts Consumption (ranging from 0 to 1)	M = .36 SD = .37
Prosocial Behavior		
DonateYN	During the past 12 months, how often have you done each of the following things: Given money to a charity (1=Once in the past year or more; 0=Not at all in the past year)	83%
VolunteerYN	During the past 12 months, how often have you done each of the following things: Done volunteer work for a charity (1=Once in the past year or more; 0=Not at all in the past year)	49%
HelpingYN	During the past 12 months, how often have you done each of the following things: (1=any of the following activities; 0=none) B. Given food or money to a homeless person C. Returned money to a cashier after getting too much change D. Allowed a stranger to go ahead of you in line G. Offered your seat on a bus or in a public place to a stranger who was standing I. Carried a stranger's belongings, like groceries, a suitcase, or shopping bag J. Given directions to a stranger K. Let someone you didn't know well borrow a item of some value like dishes or tools H. Looked after a person's plants, mail, or pets while they were away	99%
HelpingSum	Total number of the helping activities involved (ranging from 0 to 8)	M = 4.88 SD = 1.83
Prosocial Behavior	Average of DonateYN, VolunteerYN, and the 8 activities included in HelpingYN (ranging from 0 to 1)	M = .62 SD = .22

Prosocial Traits		
Empathic Concern	<p>Average of the scores from the following statements</p> <p>The following statements ask about your thoughts and feelings in various situations. For each item indicate how well it describes you: (ranging from 1=Does not describe me very well to 5=Does describe me very well)</p> <p>A. I often have tender, concerned feelings for people less fortunate than me</p> <p>B. Sometimes I don't feel very sorry for other people when they are having problems</p> <p>C. When I see someone being taken advantage of, I feel kind of protective towards them</p> <p>D. Other people's misfortunes do not usually disturb me a great deal</p> <p>E. When I see someone being treated unfairly, I sometimes don't feel very much pity for them</p> <p>F. I am often quite touched by things that I see happen</p> <p>G. I would describe myself as a pretty soft-hearted person</p>	<p>M = 3.97</p> <p>SD = .72</p>
Principle of Care	<p>Average of the scores from the following statements</p> <p>Please tell me whether you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the following statements: (ranging from 1=Strongly disagree to 5=Strongly agree)</p> <p>People should be willing to help others who are less fortunate</p> <p>Those in need have to learn to take care of themselves and not depend on others</p> <p>Personally assisting people in trouble is very important to me</p> <p>These days people need to look after themselves and not overly worry about others</p>	<p>M = 3.52</p> <p>SD = .62</p>
Prosocial Traits	Average of Empathic Concern and Principle of Care (ranging from 1 to 5)	<p>M = 3.75</p> <p>SD = .58</p>
Socio-Demographics		
Age	Age of respondent	<p>M = 41.49</p> <p>SD = 13.00</p>
Male	1 = Male, 0 = Female	52%
Relationship Status	1 = Married; 0 = Widowed, divorced, separated, or never married	57%

Education	Highest year of school completed (ranging from 0 to 20)	M = 13.74 SD = 2.92
Household Income	Total family income (last year before taxes, ranging from 1=Under \$1,000 to 12=\$25,000 or over)	M = 11.46 SD = 1.55
Religious Attendance	How often do you attend religious services? (ranging from 0=Never to 8=Several times a week)	M = 3.59 SD = 2.58
Self-Rated Physical Health	Would you say that in general your health is Excellent, Very good, Good, Fair, or Poor? (ranging from 1=Poor to 5=Excellent)	M = 3.77 SD = 1.02
Political Views	We hear a lot of talk these days about liberals and conservatives. I'm going to show you a seven-point scale on which the political views that people might hold are arranged from extremely liberal (point 1) to extremely conservative (point 7). Where would you place yourself on this scale?	M = 4.13 SD = 1.36
Arts Occupation	What kind of work (does/did) you normally do? (Using Census Occupation Codes, 1=occupations related to visual arts, performing arts, or literature; 0=otherwise)	2%

Table D3. Key measures in 2004 and 2011 Wisconsin Longitudinal Study (WLS)

Measures	Survey Questions	% or Mean (SD)
Arts Engagement (2004)		
Visual Arts Creation	During the past year, how many hours per month did you paint, draw, or do another form of art? (1=yes, 0=no)	19%
Reading Fiction	During the past year, how many hours per week did you read fiction? (1=yes, 0=no)	62%
Reading Non-fiction	During the past year, how many hours per week did you read biographies or other non-fiction books? (1=yes, 0=no)	58%
Performing Arts Creation	During the past year, how many hours per month did you play a musical instrument? (1=yes, 0=no)	12%
General Arts Consumption	During the past year, how many hours per month did you spend going to a lecture, concert, play, museum or other similar activity? (1=yes, 0=no)	60%
Arts Creation	Average of Visual Arts Creation and Performing Arts Creation (ranging from 0 to 1)	M = .16 SD = .28
Arts Consumption	Average of Reading Fiction, Reading Non-fiction, and General Arts Consumption (ranging from 0 to 1)	M = .61 SD = .43
Visual Arts	Same as Visual Arts Creation	
Literature	Average of Reading Fiction and Reading Non-fiction (ranging from 0 to 1)	M = .61 SD = .41
Performing Arts	Same as Performing Arts Creation	
Prosocial Behavior (2004)		
DonateYN	During the last year, did you or your spouse make charitable contributions of money or property totaling \$500 or more? (1=yes, 0=no)	64%
VolunteerYN	Did graduate do volunteer work in the last 12 months? (1=yes, 0=no)	47%

Measures	Survey Questions	% or Mean (SD)
HelpingYN	1=any of the following activities; 0=none During the past month, did you help a friend, neighbor, or co-worker with transportation, errands or shopping? During the past month, did you help a friend, neighbor, or co-worker with housework, yard work, repairs or other work around the house? During the past month, did you give a friend, neighbor, or co-worker advice, encouragement, moral or emotional support? During the past month, did you help a friend, neighbor, or co-worker with baby sitting or child care?	58%
Prosocial Behavior	Average of DonateYN, VolunteerYN, and HelpingYN (ranging from 0 to 1)	M = .56 SD = .33
Socio-Demographics (2004)		
Age	Age of respondent in 2004	M = 65.13 SD = .49
Male	1 = Male, 0 = Female	47%
Relationship Status	1 = Married in 2004; 0 = Widowed, divorced, separated, or never married in 2004	79%
Education	Years of regular education based on highest degree in 2004 (ranging from 12 to 21)	M = 13.78 SD = 2.36
Household Income	log of total household income in 2003	M = 4.38 SD = 1.23
Religious Attendance	Frequency of religious attendance in 2003 (ranging from 0=Never or Less than once a year to 11=Approximately once a day)	M = 4.89 SD = 2.94
Self-Rated Physical Health	In general, would you say your health is excellent, very good, good, fair, or poor? (ranging from 1=Poor to 5=Excellent)	M = 3.7780 SD = .987

Measures	Survey Questions	% or Mean (SD)
Political Views	Where would you place yourself on a liberal and conservative political scale? (ranging from 1=Extremely Liberal to 7=Extremely Conservative)	M = 4.49 SD = 1.30
Openness	Summary score (ranging from 6-36)	M = 21.59 SD = 4.56
Extraversion	Summary score (ranging from 6-36)	M = 22.80 SD = 5.22
Agreeableness	Summary score (ranging from 12-36)	M = 28.82 SD = 4.19
Conscientiousness	Summary score (ranging from 11-36)	M = 28.77 SD = 4.09
Neuroticism	Summary score (ranging from 5-30)	M = 14.98 SD = 4.53

Table D4. Key measures in 2008-2009 American National Election Studies (ANES) Panel Study

Measures	Survey Questions	% or Mean (SD)
Arts Engagement		
Visual Arts Creation	1=participated in any of the following eight activities; 0=none Select the hobbies that you have engaged in during the past 12 months: Ceramics / Pottery Making jewelry Quilting Sculpting Please tell us if you regularly, occasionally, or never participated during the past year: Needlework/Knitting/Crocheting Painting or drawing Photography Woodworking	71%
Literature Creation	Please tell us if you regularly, occasionally, or never participated during the past year: Writing (1=yes, 0=no)	55%
Literature Consumption	Please tell us if you regularly, occasionally, or never participated during the past year: Reading (1=yes, 0=no)	90%
Performing Arts Creation	Please tell us if you regularly, occasionally, or never participated during the past year: Dancing (1=yes, 0=no)	44%
Arts Creation	Average of Visual Arts Creation, Literature Creation, and Performing Arts Creation (ranging from 0 to 1)	M = .56 SD = .32
Arts Consumption	Same as Literature Consumption	
Visual Arts	Same as Visual Arts Creation	
Literature	Average of Literature Creation and Literature Consumption (ranging from 0 to 1)	M = .73 SD = .33
Performing Arts	Same as Performing Arts Creation	

Prosocial Behavior		
DonateYN	During the year 2008, did you [or your partner] donate money, assets, or property/goods, with a combined value of more than \$25 to religious or charitable organizations? (1=yes, 0=no)	81%
VolunteerYN	In the last month, did you do any volunteer activity through organizations--that is, donate your time and energy not for pay? (1=yes, 0=no)	43%
HelpingYN	In the last year, how much, if at all, did you help homeless people, needy neighbors, family friends, or other people in need, directly, not through an organization? (1=yes, 0=no)	83%
Prosocial Behavior	Average of DonateYN, VolunteerYN, and HelpingYN (ranging from 0 to 1)	M = .73 SD = .31
Prosocial Traits		
Empathic Concern	<p>Average of the scores from the following statements</p> <p>For each item, please indicate how well it describes you by checking the box underneath the number that best describes you: (ranging from 1=Does not describe me very well to 5=Does describe me very well)</p> <p>I often have tender, concerned feelings for people less fortunate than me</p> <p>Sometimes I don't feel very sorry for other people when they are having problems</p> <p>When I see someone being taken advantage of, I feel kind of protective towards them</p> <p>Other people's misfortunes do not usually disturb me a great deal</p> <p>When I see someone being treated unfairly, I sometimes don't feel very much pity for them</p> <p>I am often quite touched by things that I see happen</p> <p>I would describe myself as a pretty soft-hearted person</p>	M = 3.88 SD = .66

<p>Perspective Taking</p>	<p>Average of the scores from the following statements For each item, please indicate how well it describes you by checking the box underneath the number that best describes you: (1=Does not describe me very well to 5=Does describe me very well) I sometimes find it difficult to see things from the other person's point of view I try to look at everybody's side of a disagreement before I make a decision I sometimes try to understand my friends better by imagining how things look from their perspective If I'm sure I'm right about something, I don't waste much time listening to other people's arguments I believe that there are two sides to every question and try to look at them both When I'm upset at someone, I usually try to put myself in their shoes for a while Before criticizing somebody, I try to imagine how I would feel if I were in their place</p>	<p>M = 3.52 SD = .62</p>
<p>Principle of Care</p>	<p>Average of the scores from the following statements Please tell us if you agree, disagree, neither agree nor disagree, disagree, or strongly disagree with the following: (ranging from 1=Strongly Disagree to 5=Strongly Agree) People should be willing to help others who are less fortunate Everybody in this world has a responsibility to help others when they need assistance These days people need to look after themselves and not overly worry about others When people are less fortunate, it is important to help them even if they are very different from us It is important to help one another so that the community in general is a better place Personally assisting people in trouble is very important to me When thinking about helping people in trouble, it's important to consider if the people are like us or not We should not care too much about the needs of people in other parts of the world</p>	<p>M = 3.85 SD = .66</p>
<p>Prosocial Traits</p>	<p>Average of standardized Empathic Concern, Perspective Taking, and Principle of Care (ranging from -2.68 to 1.89)</p>	<p>M = -.05 SD = .83</p>

Socio-Demographics		
Age	Age on election day 2008	M = 48.02 SD = 16.80
Male	1 = Male, 0 = Female	47%
Relationship Status	1 = Married or living with a partner; 0 = Widowed, divorced, separated, or never married	74%
Education	Educational attainment (ranging from 1=No high school diploma to 5=Graduate degree)	M = 2.93 SD = 1.15
Household Income	Family income (ranging from 1=Less than \$5,000 to 19=\$175,000 or more)	M = 11.98 SD = 3.75
Religious Attendance	Times of church attendance, yearly (ranging from 0 to 672)	M = 38.32 SD = 63.30
Self-Rated Physical Health	In general, would you say your physical health is... (Excellent, Very good, Good, Fair, Poor)? (ranging from 1=Poor to 5=Excellent)	M = 3.60 SD = .94
Political Views	Political ideology (ranging from 1=Extremely Liberal to 7=Extremely Conservative)	M = 4.49 SD = 1.85

Table D5. Key measures in 2012 Survey of Public Participation in the Arts (SPPA)

Measures	Survey Questions	% or Mean (SD)
Arts Engagement		
Visual Arts Creation	1=any of the following activities; 0=none [During the last 12 months,] did you create any films or videos as an artistic activity? [During the last 12 months,] did you take any photographs as an artistic activity? [During the last 12 months,] did you create any other visual art, such as paintings, sculpture, or graphic designs? [During the last 12 months] did you work with pottery, ceramics, or jewelry? [During the last 12 months] did you do any leatherwork, metalwork or woodwork? [During the last 12 months] did you do any weaving, crocheting, quilting, needlepoint, knitting, or sewing?	26%
Visual Arts Consumption	1=any of the following activities; 0=none [During the last 12 months] did you visit an art museum or gallery? [During the last 12 months] did you visit a crafts fair or a visual arts festival? Did you purchase or acquire any of these pieces [of art, such as paintings, drawings, sculpture, prints, or lithographs] during the last 12 months?	34%
Literature Creation	[During the last 12 months,] did you do any creative writing, such as: fiction, nonfiction, poetry, or plays? (1=yes, 0=no)	6%
Literature Consumption	[During the last 12 months] did you read any (INSERT)? (1=yes, 0=no) a. Novels or short stories b. Poetry c. Plays	49%

Measures	Survey Questions	% or Mean (SD)
Performing Arts Creation	<p>1=any of the following activities; 0=none</p> <p>During the last 12 months, did you create or perform any music?</p> <p>During the last 12 months, did you create or perform any dance?</p> <p>During the last 12 months did you play a musical instrument?</p> <p>During the last 12 months did you do any acting?</p> <p>During the last 12 months, did you perform or practice any dance?</p> <p>During the last 12 months did you perform or practice any singing?</p> <p>[During the last 12 months] did you perform or practice jazz?</p> <p>[During the last 12 months] did you perform or practice classical music?</p> <p>[During the last 12 months] did you perform or practice opera?</p> <p>[During the last 12 months] did you perform or practice Latin, Spanish or salsa music?</p> <p>[During the last 12 months] did you perform or practice choral music or sing in a glee club or choir?</p> <p>[During the last 12 months] did you perform or practice a musical or non-musical stage play?</p>	21%

Measures	Survey Questions	% or Mean (SD)
Performing Arts Consumption	<p>1=any of the following activities; 0=none With the exception of elementary or high school performances, did you go to a live jazz performance during the last 12 months? did you go to a live Latin, Spanish, or salsa music performance [during the last 12 months?] did you go to a live classical music performance such as symphony, chamber, or choral music [during the last 12 months? did you go to a live opera [during the last 12 months?] did you go to a live musical stage play [during the last 12 months?] did you go to a live performance of a nonmusical stage play [during the last 12 months?] did you go to a live ballet performance [during the last 12 months?] Did you go to a live dance performance other than ballet, such as modern, contemporary, folk, traditional, or tap dance [during the last 12 months?] did you go to any other music, theater, or dance performance [during the last 12 months?] did you visit an outdoor festival that featured performing artists?</p>	40%
Arts Creation	Average of Visual Arts Creation, Literature Creation, and Performing Arts Creation (ranging from 0 to 1)	M = .22 SD = .31
Arts Consumption	Average of Visual Arts Consumption, Literature Consumption, and Performing Arts Consumption (ranging from 0 to 1)	M = .40 SD = .39
Visual Arts	Average of Visual Arts Creation and Visual Arts Consumption (ranging from 0 to 1)	M = .28 SD = .39
Literature	Average of Literature Creation and Literature Consumption (ranging from 0 to 1)	M = .36 SD = .46
Performing Arts	Average of Performing Arts Creation and Performing Arts Consumption (ranging from 0 to 1)	M = .26 SD = .38

Measures	Survey Questions	% or Mean (SD)
Prosocial Behavior		
DonatetoArtsYN	[During the last 12 months], did you donate any money, goods or services to an arts or cultural organization? (1=yes, 0=no)	11%
VolunteerYN	[During the last 12 months], did you do any volunteer or charity work? (1=yes, 0=no)	32%
Prosocial Behavior	Average of DonatetoArtsYN and VolunteerYN (ranging from 0 to 1)	M = .28 SD = .41
Socio-Demographics		
Age	PERSONS AGE AS OF THE END OF THE SURVEY WEEK	M = 49.24 SD = .17
Male	1 = Male, 0 = Female	47%
Relationship Status	1 = Married; 0 = Widowed, divorced, separated, or never married	58%
Education	HIGHEST LEVEL OF SCHOOL COMPLETED OR DEGREE RECEIVED (ranging from 31=Less than 1st grade to 46=Doctorate degree (ex: PHD, EDD))	M = 40.42 SD = 2.66
Household Income	FAMILY INCOME (ranging from 1=Less than \$5,000 to 16=150,000 or more)	M = 10.75 SD = 4.01
Arts Occupation	Occupation code for primary job (Using Census Occupation Codes, 1=occupations related to visual arts, performing arts, or literature; 0=otherwise)	1%

Table D6. OLS and logistic regression results on prosocial traits and behavior, by level of art participation and genre of art

Independent Variable: Arts Engagement		Dependent Variable						Notes on Dataset
		Prosocial Traits			Prosocial Behavior			
		EC Std. B	PT Std. B	PoC Std. B	Donations (YN) B (OR)	Volunteering (YN) B (OR)	Helping (YN, except GSS - sum) B (OR); Std. B	
Visual Arts Creator: Make art								
Make art (single)	GSS (2002)	.078*	N/A	.126**	.758** (2.135)	.572** (1.771)	.239**	National representative sample; Weighted
Make art (single)	WLS (2004)	N/A	N/A	N/A	.041 (1.042)	.474** (1.606)	.481** (1.618)	Longitudinal dataset of high school graduates in Wisconsin in 1957; Unweighted
Make art (mixed)	ANES (2008-09)	-.053~	.012	-.083**	.117 (1.124)	.585** (1.794)	.637** (1.891)	National representative sample; Weighted
Make art (mixed)	SPPA (2012)	N/A	N/A	N/A	1.165** (3.205)	1.201** (3.324)	N/A	National representative sample; Weighted
Visual Arts Consumer: Visit art								
Visit art (single)	GSS (2002)	.048	N/A	.096**	.746** (2.109)	.897** (2.452)	.281**	National representative sample; Weighted

Independent Variable: Arts Engagement		Dependent Variable						Notes on Dataset
		Prosocial Traits			Prosocial Behavior			
		EC Std. B	PT Std. B	PoC Std. B	Donations (YN) B (OR)	Volunteering (YN) B (OR)	Helping (YN, except GSS - sum) B (OR); Std. B	
Visit art (mixed)	SPPA (2012)	N/A	N/A	N/A	1.448** (4.253)	1.348** (3.850)	N/A	National representative sample; Weighted
Performing Arts Creator: Create or perform music, dance, theater; or play instrument								
Perform music, dance, or theater & play instrument (mixed)	GSS (2002)	.061~	N/A	.083*	-.066 (.936)	.399* (1.490)	.157**	National representative sample; Weighted
Play instrument (single)	WLS (2004)	N/A	N/A	N/A	.355** (1.426)	.296** (1.345)	.377** (1.458)	Longitudinal dataset of high school graduates in Wisconsin in 1957; Unweighted
Dance (single)	ANES (2008- 09)	.015	.006	-.024	.590** (1.804)	.092 (1.096)	.265 (1.304)	National representative sample of U.S. adults; Weighted
Create or perform music, dance, theater, & play instrument (mixed)	SPPA (2012)	N/A	N/A	N/A	1.077** (2.934)	1.191** (3.289)	N/A	National representative sample; Weighted

Independent Variable: Arts Engagement		Dependent Variable						Notes on Dataset
		Prosocial Traits			Prosocial Behavior			
		EC Std. B	PT Std. B	PoC Std. B	Donations (YN) B (OR)	Volunteering (YN) B (OR)	Helping (YN, except GSS - sum) B (OR); Std. B	
Performing Arts Consumer: Attend performances								
Attend performances (mixed)	GSS (2002)	-.034	N/A	.088*	1.078** (2.937)	.651** (1.917)	.214**	National representative sample; Weighted
Attend performances or events (mixed)	SPPA (2012)	N/A	N/A	N/A	1.221** (3.391)	1.346** (3.841)	N/A	National representative sample; Weighted
Literature Creator: Write								
Do writing (single)	ANES (2008-09)	.103**	.117**	.088**	.734** (2.082)	.110 (1.116)	.455* (1.576)	National representative sample; Weighted
Do creative writing (single)	SPPA (2012)	N/A	N/A	N/A	1.488** (4.427)	.940** (2.560)	N/A	National representative sample; Weighted
Literature Consumer: Read								
Read novels, poems, or plays (single)	GSS (2002)	.025	N/A	.092*	.912** (2.489)	.642** (1.900)	.132**	National representative sample; Weighted
Read fiction (single)	WLS (2004)	N/A	N/A	N/A	.209~ (1.232)	.323** (1.382)	.076 (1.079)	Longitudinal dataset of high

Independent Variable: Arts Engagement		Dependent Variable						Notes on Dataset
		Prosocial Traits			Prosocial Behavior			
		EC Std. B	PT Std. B	PoC Std. B	Donations (YN) B (OR)	Volunteering (YN) B (OR)	Helping (YN, except GSS - sum) B (OR); Std. B	
							school graduates in Wisconsin in 1957; Unweighted	
Read non-fiction (single)	WLS (2004)	N/A	N/A	N/A	.250* (1.284)	.294** (1.341)	.365** (1.440)	Longitudinal dataset of high school graduates in Wisconsin in 1957; Unweighted
Read (single)	ANES (2008-09)	.025	.032	.073*	.445 (1.561)	-.075 (.928)	.185 (1.203)	National representative sample; Weighted
Read fiction, poetry or plays (single)	SPPA (2012)	N/A	N/A	N/A	.936** (2.550)	.859** (2.362)	N/A	National representative sample; Weighted
General Arts Consumer: Attend arts activities								
Go to arts activities (e.g. lecture, concert, play, museum) (single)	WLS (2004)	N/A	N/A	N/A	.504** (1.655)	.756** (2.130)	.658** (1.931)	Longitudinal dataset of high school graduates in Wisconsin in 1957; Unweighted

Notes: Std. B: Standardized coefficients from OLS regressions. B (OR): Coefficients (odds ratios) from logistic regressions.

Covariates in the analyses with GSS, ANES, and WLS include age, gender, relationship status, education, household income, religious attendance, self-rated physical health, and political ideology. Big five personality traits are also included in the analysis with WLS. Covariates in the analyses with SPPA include age, gender, relationship status, education, and household income. Results on covariates in each regression are omitted here and are available upon request.

~p<.10, *p<.05, **p<.01.

Table D7. Logistic regression results on charitable donations to congregations, by level of art participation and genre of art, ANES 2008-09

Independent Variable: Arts Engagement	Dependent Variable: Giving to Congregations (YN) B (OR)
Visual Arts Creator: Make art	
Make art (mixed)	.414~ (1.513)
Performing Arts Creator: Dance	
Dance (single)	.109 (1.116)
Literature Creator: Write	
Do writing (single)	.030 (1.030)
Literature Consumer: Read	
Read (single)	.445 (1.561)

Notes: B (OR): Coefficients (odds ratios) from logistic regressions. Covariates in the analyses include age, gender, relationship status, education, household income, religious attendance, self-rated physical health, and political ideology. Results on covariates in each regression are omitted here and are available upon request. ~p<.10, *p<.05, **p<.01.

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Chapter 5 General Discussion

Empathy is fundamental to our social life. It plays an important role in shaping social relationships. Empathy helps us step out of our egocentric perception to better understand each other and care for each other. It is one of the core values of a caring society. In three separate chapters, this dissertation explored trait empathy and its implications for two essential components of social life: prosocial behavior and arts engagement. Existing research has offered much evidence supporting the empathy–altruism hypothesis that empathic concern (emotional empathy) produces altruistic motivation for prosocial behavior, including informal helping, volunteering, and charitable giving (Batson, 2011). Prior research has also found that perspective taking (cognitive empathy) and personal distress (self-oriented response to others' in need) similarly have a positive relationship with informal helping (Davis, 2015), but limited studies have examined these two dimensions with volunteering or charitable giving, with inconclusive results (Bekkers, 2005, 2006; Carlo, Allen, & Buhman, 1999; Davis et al., 1999; Griffin, Babin, Attaway, & Darden, 1993; Kim & Kou, 2014; Verhaert & Van den Poel, 2011). This dissertation aimed to provide new knowledge on the empathy–prosocial behavior relationship, and as such, it can offer practical implications for professionals working in the nonprofit sector (see Appendix E for a summary of key findings for professionals). The three chapters included in the dissertation addressed three distinct sets of research questions as described below.

Chapter 2: Are affective and cognitive dimensions of trait empathy associated with charitable giving in the same way? Do these associations vary by charitable cause?

Chapter 3: What is the role of trait empathy in decision making about allocating money and time across various charitable causes? Do affective and cognitive empathy work in the same way in this decision making process?

Chapter 4: How is arts engagement related to prosocial traits (like empathy) and prosocial behavior? Does this relationship vary by level of art participation or genre of art?

Chapters 2 and 3 focused on the relationship between two sets of constructs included in the organizational model proposed by Davis (2006)—*antecedents* (i.e. trait empathy and other individual characteristics) and *interpersonal outcomes* (i.e. prosocial behavior). Both chapters aimed to investigate whether different dimensions of empathy were linked to different behavioral outcomes. By contrast, Chapter 4 considered empathy and prosocial behavior both as outcomes and explored how arts engagement was correlated with these two concepts. By examining empathy on the two sides of the equation, this dissertation offered insights into the importance of empathy and potential approaches to cultivate empathy.

Overall, Chapters 2 and 3 confirmed that affective and cognitive dimensions of trait empathy worked differently in individuals' decision making on charitable giving, in terms of the likelihood of giving, the amount donated, and the distributions of monetary donations across different types of charities. Our results did not show any significant associations between trait empathy and the distribution of giving time in different ways.

We specifically found that empathic concern had a *positive* relationship with charitable giving, in terms of both the *likelihood* of giving and the *amount* given (Chapter 2). This positive correlation was found to be consistent across three of the four charitable

causes examined. Furthermore, individuals with a higher level of empathic concern tended to focus their monetary donation to a smaller number of causes (Chapter 3). These two results present a consistent profile of emotionally empathic individuals, who are passionate and committed to the causes that they choose to support. For nonprofit professionals, these findings stress the importance of understanding the philanthropic passion and preferences of emotionally empathic donors. A close alignment between charitable needs and donors' aspirations can help engage emotionally empathic donors.

Perspective taking was found to have a *negative* correlation with the *likelihood* of total giving, but it was unrelated to the *amount* donated (Chapter 2). Across charitable causes, perspective taking demonstrated a mixed pattern. Specifically, for giving to support *basic needs*, perspective taking was significantly, positively related to the amount donated, although it was negatively related to the likelihood of giving. For giving to *health organizations*, perspective taking had a negative relationship with both the likelihood and amount of giving. By contrast, perspective taking was positively associated with the likelihood and amount of giving to *educational organizations*. Moreover, perspective taking had no significant relationship with giving to *environment organizations*. When examining allocations of giving, individuals who scored high on perspective taking showed a tendency for diversification, suggesting that they tended to spread their charitable dollars over multiple causes (Chapter 3).

Given these mixed findings, it is hard to summarize the profile of cognitively empathic individuals in a simple way. Their charitable behavior varied greatly depending on specific causes. The nature of the social issues that each cause aims to address may play a considerable role in the charitable decision making for them. For causes addressing

issues that often have short-term, concrete indicators of impact, such as basic needs and education, individuals with a higher level of perspective taking tended to give more; whereas for causes targeting issues that often have long-term, intangible indicators of impact, such as health and environment, individuals with a higher level of perspective taking were less likely to commit financial support. However, future research would be needed to better understand these results. The mixed results from the study also confirm that there is no one-size-fits-all strategy in fundraising and donor engagement. For example, for nonprofits addressing educational issues, our study shows that it is beneficial to help donors better understand the needs and perspectives of people in need; whereas this is not effective for nonprofits focusing on environmental issues, and it even brings unintended negative consequences to nonprofits fighting health issues.

Personal distress was only included in Chapter 2. We found that personal distress was *positively* related to the *likelihood* of total giving, but it had a strong, *negative* correlation with the *amount* donated (Chapter 2). The relationship between personal distress and donation varied across charitable causes. In particular, for giving to *basic needs* and *environment organizations*, personal distress was associated with a lower probability of giving and a lower amount of giving. It was positively related to the likelihood of giving to *health organizations*, but it had no significant relationship with the amount donated to health organizations. Taken together, personal distress was related to lower giving, suggesting that when the needs are overwhelming, the personal feeling of distress does not evoke helping with monetary donation. For nonprofit professionals, it would perhaps be more effective to address social issues along with potential solutions and impact, which can help alleviate to the feeling of distress when communicating with

prospect and current donors. However, again we need future research to test and confirm this hypothesis.

Chapter 4 revealed different patterns between the two dimensions of trait empathy and arts engagement. Empathic concern showed again a consistent, positive relationship with arts engagement, regardless of the levels of art participation or genres of art. However, we did not find significant correlations between perspective taking and arts engagement across various levels of art participation or genres of art. Additionally, principle of care was found to be positively linked to arts engagement.

The positive associations between arts creation and consumption with prosocial *traits* were around the same size. When looking at the genres of art, literature creation and consumption were associated with a higher level of prosocial traits, whereas the results on visual arts and performing arts were inconclusive, with significantly positive correlations only in one of the two datasets analyzed.

Arts engagement also showed a positive relationship with prosocial *behavior* consistently, in terms of informal helping, volunteering, and charitable giving. This positive relationship was very consistent across various levels of art participation or genres of art in all of the four datasets. Arts *consumption* had a stronger positive correlation with prosocial behavior than arts *creation*, while visual arts and performing arts had a stronger correlation than literature with prosocial behavior in two of the four datasets analyzed.

Via a longitudinal study, our analysis further confirmed a virtuous circle between arts engagement (especially general arts consumption and literature consumption) and prosocial behavior, suggesting that these two reinforce each other's development over

time, at least among the older adults in Wisconsin from our sample. Our thorough review of the literature along with our analyses of four datasets help to strengthen the case that promoting arts programs could be an effective way to cultivate prosocial-minded citizens. Although our four datasets were among adults, the literature review (Table 4.1 in Chapter 4) demonstrated effects in children as young as 14 months (for synchronous movement).

Findings from this chapter provide new evidence on the social values of arts engagement. With the growing digitalization of the media, the arts can be brought to a broader audience and thus potentially have a larger impact. However, the growing digitalization also leads to a shift towards less text and changing expectations in experience, which will inevitably change the forms of arts engagement in various ways and the impact of arts engagement in future. More research is needed to explore whether arts engagement via new forms of media has the same influence as traditional arts participation on prosociality.

This dissertation focused on empathy and its implications for prosocial behavior and arts engagement. However, empathy also has potential problems and can lead to undesired outcomes. For example, some research found that empathic concern was associated with stronger prosocial behavior towards in-group members than towards out-group members, suggesting an in-group/out-group bias in the empathic concern–helping relationship (Cikara, Bruneau, & Saxe, 2011; Davis & Maitner, 2010; Stürmer, Snyder, & Omoto, 2005; Stürmer et al., 2006). There are also studies that revealed a disempowering effect of empathy on individuals who received the empathy, suggesting that empathy may in fact “exacerbate than mitigate group-based status differences” (Vorauer & Quesnel, 2018, p. 549). Moreover, studies also found that perspective taking may have negative

effects on intergroup relations too, such as triggering negative stereotypes of out-group members (Vorauer, 2013). Perspective taking may reduce egocentric biases, but it may also reduce the accuracy of interpersonal judgments (Eyal, Steffel, & Epley, 2018). In addition, empathy can also be biased by certain characteristics of recipients—such as attractiveness of recipients, or lead to partiality (Konrath & Grynberg, 2013). Future research can explore how these potential downsides of empathy affect prosocial behavior.

The research conducted in this dissertation has several limitations in common. First, all studies relied on self-reported survey data. The accuracy of self-report data on prosocial traits and behavior may suffer from social desirability bias, in which survey respondents may give socially desirable responses, regardless of their true perspectives and behavior. Earlier research found that the empathy–helping relationship remained even when controlling for social desirability (Eisenberg et al., 1989), but more research is needed to examine the effect of social desirability on the relationship between empathy and charitable donations or volunteering. Potential recall bias—the inaccurate responses derived from the difficulty in recalling past behaviors—may also affect the accuracy of self-report data on prosocial behavior. Thus, future research should include social desirability measures at minimum, or even better, measure actual behavior if possible. We know of no research using experience sampling methods to examine the link between arts engagement and prosocial behavior in real time, as they both occur. We see this as an extremely promising and innovative potential future study that could help to address the recall bias issue.

Second, in addition to individual personality trait and socio-demographics, many other factors also influence prosocial behavior. Such factors include macro-level factors, for example, the economy, tax considerations, social and cultural norms, and household-level factors, such as parenting styles, the needs of children, or other family dynamics. These factors were not included in the analyses here, due to data availability. Future research can help identify potential moderating and mediating factors that come into play.

Third, our results reflect important correlations between prosocial traits, prosocial behavior, and arts engagement; however, these were largely based on cross-sectional data (except for one longitudinal dataset in Chapter 4), and as such, they cannot explain causal relationships between these constructs. Future research that addresses some of these methodological limitations would contribute to the literature.

Moreover, more research is needed to examine the underlying processes that link these constructs together. For example, why is participation in the arts related to a higher level of prosocial behavior? Why do affectively and cognitively empathic individuals make charitable decisions differently? Future research can help illuminate the processes that link empathy and prosocial behavior as well as the intrapersonal outcomes as suggested in the organizational model of Davis (2006). Research using other methodologies, especially lab experiments, can help shed light on the underlying mechanisms and causal relationships. For instance, experiment studies can further explore the empathy–diversification relationship by testing money and time primes among participants, or investigate the direct link between the two dimensions of empathy and the dual-process model in our decision making. Experiments can also help tease out potential reasons why perspective taking has different relationships with charitable

donations made to organizations addressing different societal issues. This dissertation provides valuable insights into the role of empathy in our society, but also opens up the way for more research on this important topic.

Appendix E Summary of key findings for professionals

Empathy and Its Implications for Prosocial Behavior and Engagement with the Arts

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Empathic Concern



- Have a *positive* relationship with charitable giving (*consistent*)
- Tend to *focus* monetary donation to a smaller number of causes
- Are passionate and committed to their causes
- Show a *positive* relationship with arts creation (consistent across genres)

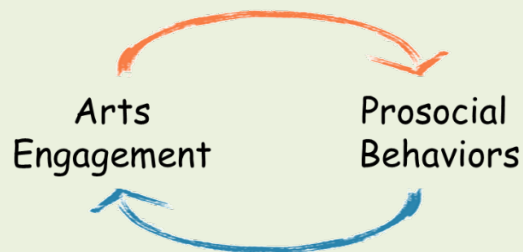
Perspective Taking



- Have a *negative* correlation with the *likelihood* of total giving (*mixed*)
- Tend to *spread* their charitable dollars over multiple causes
- Vary greatly depending on specific causes
- Mostly show no correlation with arts engagement (consistent across genres and levels of participation)

Arts Engagement and Prosocial Behaviors

- Arts engagement has a *positive* relationship with prosocial behaviors (*consistent* across levels of art participation and genres of art)
- Arts *consumption* had a *stronger* positive correlation with prosocial behaviors than arts *creation*
- A virtuous cycle (among older adults in WI)



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Johns Hopkins University Institute for Policy Studies Master of Arts in Public Policy	Baltimore, MD 2008
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Tianjin United Education Assistance Foundation <i>Co-Founder, Board Member</i>	Tianjin, China 2005 – Present
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PUBLICATIONS

Peer-Reviewed Journal Articles

Kim, S., & Kou, X. (2014). Not all empathy is equal: How dispositional empathy affects charitable giving. *Journal of Nonprofit & Public Sector Marketing*, 26(4), 312-334.

Kou, X., Hayat, A. D., Mesch, D. J., & Osili, U. O. (2014). The global dynamics of gender and philanthropy in membership associations: A study of charitable giving by Lions Clubs International members. *Nonprofit and Voluntary Sector Quarterly*, 43(2S), 18S-38S.

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Brown, M. S., with Kou, X. (2010). Giving differences among the generations. In T. L. Seiler, E. E. Aldrich & E. R. Tempel (Eds.), *Achieving excellence in fund raising* (3rd ed.) (pp. 199-210). San Francisco, CA: John Wiley & Sons, Inc.

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Practitioner-Oriented Reports

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Other Co-Authored Reports (Selected)

“The 2016 Planned Giving Study. Building Lasting Legacies: New Insights from Data on Planned Gifts.” Indianapolis, IN: Indiana University Lilly Family School of Philanthropy, 2016.

- “Giving in Chicago.” Indianapolis, IN: Indiana University Lilly Family School of Philanthropy, 2015.
- “Giving beyond borders: A study of global giving by U.S. corporations.” Indianapolis, IN: Indiana University Lilly Family School of Philanthropy, 2013.
- “A decade of million-dollar gifts: A closer look at major gifts by type of recipient organization, 2000-2011.” Indianapolis, IN: Indiana University Lilly Family School of Philanthropy, 2013.
- “Serving, giving, and leading globally: Philanthropic commitment in Lions Clubs International.” Indianapolis, IN: The Center on Philanthropy at Indiana University, 2012.
- “Serving, giving, and leading in the United States: Gender and philanthropic commitment in Lions Clubs International.” Indianapolis, IN: The Center on Philanthropy at Indiana University, 2012.
- “Understanding donor motivations for giving.” Indianapolis, IN: The Center on Philanthropy at Indiana University, 2009.
- “Abandonment in Baltimore: Considerations for Public Investment Priorities.” Johns Hopkins MPP 2008 Class Occasional Paper No. 31. 2007.

CONFERENCE PRESENTATIONS (SELECTED)

- “Operationalizing and Theorizing Enabling Conditions of Philanthropy and Fundraising for Cross-National Comparative Research: Challenges and Promise” (colloquy co-chair) at the 46th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 18, 2017, Grand Rapids, MI.
- “Empathy, Social Class, and Charitable Giving” (co-presenter) at the 46th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 16, 2017, Grand Rapids, MI.
- “Giving portfolio of emotional and rational altruists: Dispositional empathy and diversification of helping activities and charitable giving” at the 45th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 19, 2016, Washington, DC.
- “Giving with affluence: How social pressure and prosocial motivation drive giving by the wealthy in the US and the Netherlands” (co-presenter) at the 45th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 19, 2016, Washington, DC.
- “Giving in Chicago study: Methods and an analysis of household giving to basic needs” at the 44th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 21, 2015, Chicago, IL.
- “The relationship between volunteering and charitable giving” (co-presenter) at the 44th annual Association for Research on Nonprofit Organizations and Voluntary Action

- (ARNOVA), November 21, 2015, Chicago, IL.
- “Does it matter to ask where the money comes from?” (co-presenter) at the 42th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 23, 2013, Hartford, CT.
- “Exploring corporate philanthropy in a global context: An analysis of domestic and international charitable contributions by Fortune 500 companies” at the 42th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 21, 2013, Hartford, CT.
- “Giving beyond borders” at the 26th Annual Symposium of Indiana University Lilly Family School of Philanthropy, November 6, 2013, Indianapolis, IN.
- “Not all empathy is equal: How empathy affects charitable giving” (co-presenter) at the Workshop in Multidisciplinary Philanthropic Studies, Indiana University Lilly Family School of Philanthropy, April 23, 2013, Indianapolis, IN.
- “Understanding the impact of empathy on charitable giving” (co-presenter) at the 41st annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 15, 2012, Indianapolis, IN.
- “Private aid for international issues” (co-presenter) at the 40th Anniversary Symposium of Poynter Center for the Study of Ethics and American Institutions, October 11, 2012, Bloomington, IN.
- “The global dynamics of gender and philanthropy” at the 40th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 18, 2011, Toronto, ON, Canada.
- “Does religious similarity matter for philanthropic giving?” (co-presenter) at the 40th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 17, 2011, Toronto, ON, Canada.
- “Who decides revisited: Household decision making and charitable giving” at the 39th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 20, 2010, Alexandria, VA.
- “Gender differences in giving motivations for bequest donors and non-donors” at the 38th annual Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), November 20, 2009, Cleveland, OH.

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- Elite 50 Award:** Indiana University-Purdue University Indianapolis, 2015
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