

From Beliefs to Virtuous Behaviors:
The Influence of God-concepts on Intentions to Volunteer

by

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ABSTRACT

People may conceptualize God as benevolent and as authoritarian. This research investigates the influence of these God-concepts on prosocial behavior; specifically whether such concepts differentially predict a set of beliefs about the self and the world, volunteer motivations, and intentions to volunteer for secular causes. Two studies, one correlation and one experimental, were conducted among college students who were Christians and indicated they believe that God exists. A measurement model of the concepts of Benevolent and Authoritarian God was first tested, and a conceptual path model was then analyzed. I found that concepts of a benevolent God were associated with a benevolent self-identity, perceived moral and religious obligations to help, and a high sense of personal responsibility with a total positive indirect effect on intentions to volunteer – mainly via internal motivations. In contrast, concepts of an authoritarian God were associated with a perceived religious obligation, having a positive indirect effect on intentions to volunteer via external motivations; but also with a low benevolent self-identity and low personal responsibility associated with amotivation (the disinclination to volunteer). Thus, there was a null total indirect effect of belief in an authoritarian God on intentions to volunteer. Future directions including the use of religious primes are discussed.

DEDICATION

This dissertation is dedicated to B. L. Koyen, Joan Fitzpatrick, Emilie S. Smith, Julie VanderHaar, Francis Frangipane, and Andrew Womack who have all instructed me regarding the subtle differences between a benevolent and an authoritarian God.

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Chapter 1

INTRODUCTION

People conceptualize God in various ways such as a compassionate father, a commanding judge, or an immaterial force. Those concepts of God have been shown to relate to a number of personality, attitudinal, and behavioral consequences including agreeableness (Froese & Bader, 2010; Saroglou, 2002), self-esteem (Benson & Spilka, 1973), moral judgments (Morewedge & Clear, 2008), and aggression (Bushman, Ridge, Das, Key, & Busath, 2007). However, researchers have not yet sufficiently addressed how the variability in concepts of God may function differently in respect to prosocial behavior. One important kind of prosocial behavior is volunteerism – the giving of one’s time and effort without compensation, often for the benefit of non-kin and members outside of one’s social or religious group. The present research investigates the direct and indirect effects of benevolent and authoritarian God-concepts on volunteerism using both correlational and experimental designs.

Overview and Conceptual Model

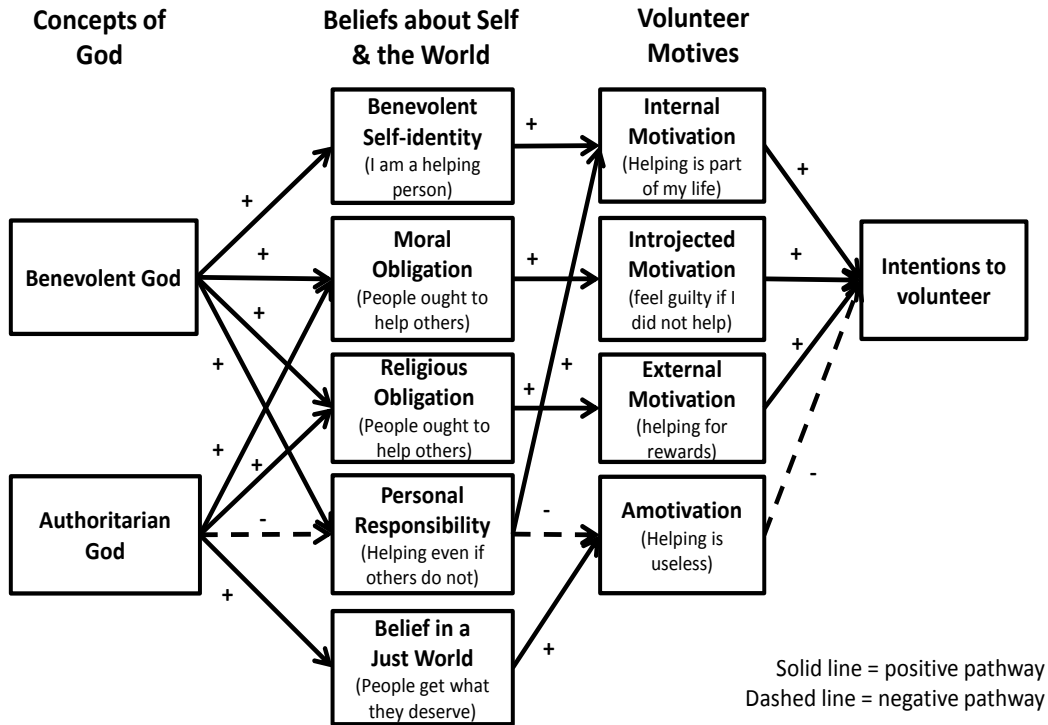
The concept of a high, moralizing, punishing God, watching from above, appears to keep human behavior in check by fostering extrinsically-motivated cooperation (Shariff, Norenzayan, & Henrich, 2009; Swanson, 1968). Just as the implied presence of a *human* observer can heighten reputational concerns and, thereby, reduce anti-social behaviors, the awareness of a *divine* watcher can also curb anti-social behavior – particularly if God is a stern

judge who is able to punish (Shariff & Norenzayan, 2011). As societal size increases, groups with high, punishing, all-knowing Gods often become more cooperative and less subject to in-group fragmentation – particularly in harsh environments (Roes & Raymond, 2003; Snarey, 1996). However, the more strongly one identifies with a particular group, the more susceptible he or she may be to ingroup biases and dislike for members of outgroups (Tajfel & Turner, 1979) – particularly when there is a perceived threat to status or resources (Altemeyer & Hunsberger, 1992; D. Johnson & Bering, 2009). Thus, concepts of a commanding, judging, punishing God may dissuade people from volunteering for the benefit of outgroups. However, religious people are typically the *most* likely to volunteer, even for secular organizations (Jackson, Bachmeier, Wood, & Craft, 1995; Ruiter & DeGraaf, 2006).

I propose that, whereas concepts of an authoritarian God have been shown to be associated with ingroup solidarity, derogation of outgroups, and reputational concerns, concepts of God as a benevolent care-giver are more likely to be associated with a compassionate self-identity, an increasing sense of moral and religious obligations to help those outside one's own social group, and a personal responsibility to help others. As shown in the Conceptual Model in Figure 1, the concept of a benevolent God is expected to be associated with particular beliefs about the self and the world which, in turn, are associated with certain intrinsic (internal and introjected) and extrinsic (external) motives for volunteering – mitigating the belief that helping is useless (amotivation). Intrinsic motivations coupled with extrinsic motivations to help

are likely to be associated with intentions to volunteer (e.g., Clary, et al., 1998; Gagne, 2003; Grano, Lucidi, Zelli, & Violani, 2008).

Figure 1. Conceptual Model of the Mediated Effects of Beliefs in a Benevolent God and Authoritarian God on Intentions to Volunteer



Indicators for each of the manifest variables and correlations within each class of variables are omitted for clarity.

I propose that an authoritarian God-concept is also likely to be associated with perceived moral and religious obligations to help and, as in the case of a benevolent God-concept, that these obligations are likely to be associated with introjected and extrinsic motives for volunteering. In contrast to a benevolent God-concept, however, an authoritarian God-concept is also associated with a belief that the world is just for others (other people get the rewards and punishments they deserve; Lipkus, Dalbert, & Siegler, 1996) and a lack of personal responsibility for the misfortunes of those outside one's own social or

religious group. Consequently, the positive association between introjected and external motivations and intentions to volunteer may be degraded or offset by beliefs that volunteering is unwarranted (or even useless) – particularly when helping is for the benefit of the undeserving (i.e., miscreants and outgroup members). In sum, although an authoritarian God-concept is often effective as a deterrent to anti-social behavior (e.g., Shariff & Norenzayan, 2011) such concepts may be less likely to induce prosocial behaviors such as volunteerism.

In Study 1, I test the structure of the Conceptual Model and expect to find that only the concept of a benevolent God facilitates intentions to volunteer (since the concept of an authoritarian God both elicits and inhibits intentions to volunteer). In Study 2, I test the hypothesis that priming a benevolent God-concept will be associated with increased volunteer motivations, volunteer intentions, and secular volunteerism, relative to priming an authoritarian God-concept or control.

God-concepts

Beliefs about the existence, attributes, and activities of immaterial agents appear to be central in the lives of all religious people and the origin and function of these beliefs has been prominent in theorizing about religion's evolutionary roots (Boyer, 2001; Atran & Norenzayan, 2004). Although many religious adherents conceptualize a high, moralizing God (e.g., Meier, Hauser, Robinson, Friesen, & Schjeldahl, 2007; Roes & Raymond, 2003; Swanson, 1968), there is great variation in the attributes, activities, morphology, origin(s), and social roles

of deity(ies) both within and between religious traditions (see Hopfe & Woodward, 2004).

Beliefs about the nature and character of God are referred to as God-concepts in the psychological literature. (The affective response to thoughts of God is sometimes differentiated and referred to as the God-image in the psychoanalytic tradition; Hoffman, et al., 2008). Psychological researchers, for the most part, have focused on two God-concepts: benevolent and authoritarian. As discussed in the following section, a benevolent God may be thought of as being aware of one's needs, being attentive, protective, loving, caring, forgiving, kind, and generous among other positive attributes (Benson & Spilka, 1973; Froese & Bader, 2010; Rosmarin, Krumrei, & Andersson, 2009). For many religious people God is also authoritarian: restricting, controlling, angered by sin, wrathful, severe, and punishing. This view of God focuses less on God's acts for the benefit of humans and more on how God commands, controls, and punishes people who behave anti-socially (Shariff, et al., 2009).

Concepts of God as benevolent and authoritarian can be thought of as separate dimensions (cf. Benson & Spilka, 1973). For example, an individual may strongly believe that God is both benevolent and authoritarian. In a national sample assessing the extent to which participants thought of God as wrathful and punishing, Froese & Bader (2010) found significant variation both within religious congregations and between denominations. For example, 70% of Black Protestants, 50% of Evangelical Protestants, 22% of Catholics, and 15% of Jews

rated God as authoritative. Yet, even within the same congregation, there were individual differences in ratings of God as benevolent and authoritarian.

Another dimension of God-concept is the extent to which God is deemed to be distant, impersonal, or undefined vs. person-like and engaged in human affairs (Froese & Bader, 2010; Krejci, 1998). For example, although the ancient Hebrew texts often refer to God by various human-like traits or acts (e.g., The Lord of Hosts or the Lord who Provides; Berlin, Brettler, & Fishbane, 2004; Unger, 1988/1957), these references to God in anthropomorphic terms may be contrasted with later philosophical views that God can only be described in terms of what God is *not*, rather than in terms of what God *is* (i.e., apophatic theology; Samuelson, 2003). In the U.S. today, beliefs about God are often eclectic with many imagining God as a pervasive cosmic force rather than a person-like deity (Pew Forum on Religion & Public Life, 2009).

Concepts of God as benevolent, authoritarian, or distant and undefined are available in every theistic religious tradition. In Islam, for example, Allah is conceptualized as both punitive and merciful, or as Light (Hourani, 1991), Hindu gods and goddesses may be malevolent or benevolent avatars but the Self is also a part of the divine (Babb, 1975; Flood, 1996), and Christians, too, may imagine and relate to God as punishing judge, benevolent savior, or Spirit within (Kunkel, Cook, Meshel, Daughtry, & Hauenstein, 1999; Noffke & McFadden, 2001). However, concepts of God as a distant cosmic force or an ultimate reality, for example, do not provide a volunteer role model (as does the concept of a benevolent God). Nor do concepts of a distant God imply that God is watching

(as does the concept of an authoritarian God). As Fyodor Dostoevsky has been attributed, “If God is dead, then anything is permitted” (Froese & Bader, 2010). Therefore, the proposed research is limited to investigating the effects of concepts of a benevolent and an authoritarian God. I do not measure or manipulate the effects of undefined or abstract God-concepts on prosocial attitudes and behavior in this research.

God-concepts and psycho-social functioning

Specific concepts of the divine can be important predictors of the thoughts, feelings, and behaviors of religious individuals. Chronically held concepts of God as loving and caring are typically associated with increased self-esteem (Benson & Spilka, 1973) and secure attachments to others, including romantic partners (Kirkpatrick & Shaver, 1992). Those who believe that God is loving but not punishing have been shown to be more agreeable on a Big Five personality assessment (Froese & Bader, 2010; Saroglou, 2002). Orthodox Jews who conceptualized God as loving and attentive, and not angry, were also much less likely to be anxious or depressed relative to their non-Orthodox Jewish counterparts (Rosmarin, Pirutinsky, Pargament, & Krumrei, 2009); and the concept of a loving God has been linked with psychological health in other populations as well (Hill & Pargament, 2003).

On the other hand, women who think of God as controlling and authoritarian report more hopelessness (Steenwyk, Atkins, Bedics, & Whitley, 2010), and those with an image of a high, controlling God have been shown to have negative affective reactions to God primes (Wiegand & Weiss, 2006). When

presented with scriptures related to God's wrath and sanctioned violence, people were more likely (relative to control) to punish losers in a game with loud blasts of air, a measure of aggression (Bushman, et al., 2007).

Concepts of God also correlate with social attitudes. In national surveys assessing Americans' perceptions of God, Froese and Bader (2010) found that most Americans think of God as being benevolent; however, the degree to which God was deemed to be authoritarian was a robust predictor of prejudice toward homosexuals and social attitudes ranging from (being against) stem-cell research to preferring that the church rather than the government care for the poor. People with a concept of God as wrathful and punishing were also four times more likely than those with a benevolent God-concept to believe that God allows tragedies to occur as a warning or punishment to sinners.

Beliefs about God's nature as benevolent and authoritarian are differentially associated with certain beliefs about the self and the world. Further, it seems likely that those beliefs, in turn, may differentially predict intentions to engage in prosocial behaviors.

God-concepts and prosocial behavior

Social psychologists define behaviors that benefit others, or society in general, as prosocial; and one important category of prosocial behavior is "helping." Helping behaviors may be further classified in three ways: (1) planned vs. spontaneous helping, (2) indirect vs. direct helping (Pearce & Amato, 1980), and (3) the recipient of the helping behavior. Whereas spontaneous helping involves unplanned acts such as helping a stranger change a flat tire, planned

helping involves deliberate efforts to assist others; for example, delivering weekly meals to a frail grandparent. Indirect helping includes generous acts such as giving one's possessions to charity, whereas direct helping entails giving one's *time* to help those in need. Finally, helping behavior can be directed toward kin and kith, to members of one's own church (e.g., religious in-group), or to strangers and members of an outgroup (e.g, Catholics helping Jews during the observance of *Yom Kippur*).

Much research has been conducted concerning spontaneous helping, prompting Dovidio, Piliavin, Schroeder, and Penner (2006) to say the literature "may even have reached the state in which we can say that no more [research] is needed!" (p. ix). In contrast, these psychologists state that less is known regarding sustained, planned helping – particularly how formal helping may be associated with religious beliefs (p. 155-156). Moreover, because it is an observable, sustained, planned activity, variability in rates of volunteerism are not easily explained by immediate situational factors (e.g., bystander effects, etc.) and, instead, are likely to be related to chronic beliefs and attitudes about the self and others – and, I propose, concepts of God.

People are likely to help those who are related (Bryan, Hammer, & Fisher, 2000), or like themselves (see Dovidio, 1984), or who share group membership (Flippen, Hornsteein, Siegal, & Weitzman, 1996). Much of the literature on volunteerism has included activities that directly benefit an individual's offspring (e.g., transporting neighborhood children to school, little league coaching, etc.; Becker & Dhingra, 2001; Garland, Myers, & Wolfer, 2008). However, it is often

dissimilar others – those outside one’s religious or social group – that typically need help; for instance, the poor, the immigrant, prisoner, rape victim, orphan, and a host of others. In the proposed studies, I have chosen to focus on planned acts of helping directed toward those who are outside one’s family or religious group, what I term *secular* volunteerism. This focus is consistent with the following definition of formal or organizational volunteering as an unpaid, voluntary activity that involves “. . . taking actions within an institutional framework that potentially provides some service to one or more other people or to the community at large” (Piliavin & Siegl, 2007, p. 454).

God-concepts and volunteerism

It is well documented that religious people volunteer more than non-religious people (Jackson, Bachmeier, Wood, & Craft, 1995; Ruiter & DeGraaf, 2006). However, there are mixed results in rates of planned volunteering across religious groups (Bekkers & Schuyt, 2008; Berger, 2006; Driskell, Lyon, & Embry, 2008; Taniguchi & Thomas, 2010) and not all religious people volunteer. This opens up interesting questions about how different religious beliefs and volunteer motives might vary between individuals *within* these groups.

Specifically, do some concepts of God lead religious people to engage in the prosocial behavior of secular volunteering while other God-concepts do not?

First, people who have developed a higher sense of self-esteem, a strong sense of self-efficacy, and close social relations are more likely to volunteer (Okun, Pugliese, & Rook, 2007; Wilson, 2000). Since these personal characteristics and views of the self are also known to be associated with

benevolent God-concepts (Benson & Spilka, 1973; Kirkpatrick & Shaver, 1992; Roberts, 1989), it seems reasonable to expect that concepts of a benevolent God may also be associated with increased rates of volunteerism.

Second, humanitarian values are often the most important reason cited for volunteering (Allison, Okun, & Dutridge, 2002; Carlo, Okun, Knight, & Guzman, 2005; Clary & Snyder, 1999) and belief in a benevolent God may reflect the value of benevolence. In the development of a classification system of human values, Shalom Schwartz found that the values of benevolence (e.g., helping, caring, and forgiving) and universalism (e.g., protecting the weak, and treating all justly) involve caring and concern for others, self-transcendence and a nurturing personality. In contrast, the values of dominance (e.g., control, authority, and commanding) and power (e.g., resource acquisition, wealth, and material success) are associated with self-enhancement, personal focus, anxiousness, and a domineering attitude toward others. Again, it stands to reason that placing a higher value on benevolence and universalism would be associated with a benevolent God-concept and, consequently, predict increased rates of secular volunteerism relative to the more self-focused values of obedience and authority (which, I suggest, correspond more closely to an authoritarian God-concept).

Third, although religious adherents in nearly all faith traditions are instructed to be generous, merciful, and benevolent (even to the stranger and the social outcast), religious obligations are sometimes inconsistent with personal desires or felt moral obligations – particularly when the individual thinks of God as an impersonal, powerful force (Morewedge & Clear, 2008). Religious people

may attend services, abstain from certain foods, or avoid temptations out of obedience but without *internally* desiring to do so – but because of a sense of tradition or community (Cohen, Hall, Koenig, & Meador, 2005). Therefore, believing that God (and the religious community) expects benevolent acts and that there will be punishment for non-compliance constitutes an *external* motivation, but need not imply that one personally values benevolence. To the extent an individual believes God is a strict judge who punishes transgressions, that individual may feel compelled to volunteer out of obedience, feeling guilty if he or she does not help and, consequently, be likely to volunteer.

On the other hand, in highly restrictive or exclusive groups, individuals often exhibit a strong ingroup bias and a corresponding denigration of outgroup members (e.g., Altemeyer & Hunsberger, 1992; Eidelson & Eidelson, 2003; Tajfel & Turner, 1979). In that case, it becomes *unlikely* that a person will volunteer to aid outgroup members (Reed II & Aquino, 2003). Taken together then, the effects of moral or religious obligation coupled with potential outgroup denigration may “wash out” with no aggregate effect of belief in an authoritarian God on intentions to volunteer.

A personified God can become an influential social agent. Although human role models certainly provide examples of prosocial behavior, Christians may view Jesus Christ as the quintessential altruist – a role model who gave up his life for the benefit of outgroup members, with no apparent reward or compensation. Religious people may also think of God as an important, person-like, agent who is superior to humans, having strategic knowledge about their

inner thoughts, motives, and actions (Boyer, 2001). God is also thought to have special powers and to be able to dispense rewards and punishments for prosocial behavior – but with *eternal* significance.

Unlike human role models who can be seen, heard, and publicly observed, concepts about the nature, thoughts, and intentions of God are left largely to the imagination of the religious adherent. Such concepts can develop after personal reflection or through interactions with parents and important others (Beck & McDonald, 2004; Dickie, Ajega, Kobylak, & Nixon, 2006; Kirkpatrick & Shaver, 1992). However, the process of religious socialization is never complete and there is wide variation in conceptualizations of God. It is precisely because concepts of God are so variable that they can serve different functions. However, researchers have not yet adequately addressed the functionality and behavioral outcomes of diverse concepts of God, or how they might relate differentially to prosocial behavior and, particularly, to rates of volunteerism. In the next section, I propose a conceptual framework that links God-concepts to beliefs about the self, the world, volunteer motivations, and intentions to volunteer.

Chapter 2

CONCEPTUAL MODEL

A conceptual model is proposed with pathways indirectly linking beliefs about God as *benevolent* and *authoritarian* to intentions to volunteer (Figure 1 above). First, on the left side of the model, beliefs about God as benevolent and authoritarian are theorized to influence *beliefs about the self and the world*. These beliefs about the self and the world are posited to affect *volunteer motives*, derived from the application of self-determination theory to volunteerism. These motives, in turn, are predicted to be associated with intentions to volunteer.

The purpose of the present research was twofold. The first goal (Study 1) was to test the overall fit of the conceptual model as well as the direct effects and indirect (mediated) effects suggested by the model. Although the correlations among the variables and the direct effects of God-concepts and Beliefs about the Self and the World on Volunteer Motivations and Intentions to Volunteer are not depicted in the model to reduce complexity, these were also tested and accounted for as discussed in the following sections.

The terms “mediated,” “direct or indirect effects” are commonly used to describe the relations between variables in models using cross-sectional designs; however, such correlation designs do not provide sufficient evidence for causation. Instead, the best way to determine the causal direction of those associations is by using experimental manipulations. Thus, a second goal of this research was to test the causal direction of the relation between concepts of God and beliefs about the self and the world as discussed in the following sections.

Benevolent and Authoritarian Concepts of God

There has been a fair amount of research investigating how religious individuals conceptualize God, and researchers have generally had participants rate various adjectives to identify different dimensions in thinking about God. In the first of these studies, a 64-adjective measure of God-concepts developed by Spilka, Armatas, and Nussbaum (1964) was administered to 228 female, Catholic college students and then to 364 undergraduates at a large university. Using a Q-sort task, at least six types of God-concepts were identified: Kindly (helpful, merciful, forgiving, and protective), Stern (demanding, punishing, and stern), Vindictive (wrathful, avenging, and damning), and three impersonal views of God as Allness (infinite, absolute, wise, and unchanging), Distant (inaccessible), and Supreme Ruler (majesty and sovereignty).

Gorsuch (1968) posited that these concepts of God map on to the three dimensions of general meaning of *all* concepts as proposed by Osgood and colleagues (1957; 1962): evaluation (e.g., safe vs. dangerous), potency (e.g., strong vs. weak), and activity (e.g., active vs. passive). Using undergraduates' ratings of how well 63 adjectives from Spilka, et al., (1964) and 28 adjectives from Osgood's semantic differential research described God, Gorsuch conducted a factor analysis and identified four factors that corresponded with previous research. First, a "Kindly" God was described by items such as charitable, comforting, considerate, fair, forgiving, gentle, gracious, just, kind, loving, merciful, and patient. Second, representative adjectives describing a "Wrathful" God were avenging, blunt, critical, cruel, damning, hard, jealous, punishing,

severe, sharp, stern, tough, and wrathful. Other factors included descriptors such as impersonal, distant, passive, inaccessible (“Deistic” factor) or infinite, omnipotent, omnipresent, omniscient (“Omni-ness” factor).

Subsequently, Benson and Spilka (1973) tested concepts of a loving God and a controlling God using a semantic differential assessment of ten pairs of adjectives, in a sample of 128 Catholic high school boys. In the Benson-Spilka scale, five adjective pairs define a Loving vs. not-Loving God (accepting-rejecting, loving-hating, saving-damning, forgiving-unforgiving, and approving-disapproving) and five pairs defining a Controlling vs. not-Controlling God (demanding-not demanding, restricting-freeing, controlling-uncontrolling, strict-lenient, and rigid-permissive). These researchers then related these God-concepts with self-esteem and locus of control, finding that self-esteem was positively correlated with the Loving God scale and negatively correlated with the Controlling God scale. These correlations remained significant even after controlling for religiosity, church attendance, and SES.

Drawing on theories of self-perception and interpersonal relations, Lawrence (1997) administered a different God Image Scale to 1,580 U.S. adults. Rather than a list of adjectives, the God Image Scale involves rating the extent to which a participant endorses 72 statements about God and their relationship with God. Similar to earlier studies identifying themes of distance, loving-kindness, and punishment-control, Lawrence used a factor analytic approach and found three dimensions: belonging (presence and challenge), goodness (acceptance and benevolence), and control (influence and providence). Within each of these

dimensions two sub-sets were identified as focusing on either the self or the nature and intentions of God: belonging (God's nearness to the self which is differentiated from God's challenge for personal growth), goodness (self being acceptable to God which is differentiated from God's benevolence toward the self), and control (one's perceived influence on God which is differentiated from God's control over the self).

More recently, using an 85-item card sort and a survey derived from a phenomenological probe of 20 college students, Kunkel and his colleagues (1999) developed a concept map of representations of God with two dimensions: punitive vs. nurturant and mystical vs. anthropomorphic.

In a similar analysis of a 27-item card sort, and using a sample of 215 adult (mean age 37 years) Lutheran college undergraduates, Krejci (1998) found that concepts of God varied along three dimensions: Positive-Negative (supporting, caring, and patient vs. judge and master), Controlling-Saving (stern, distant, demanding vs. redeemer, divine, and savior), and Concrete-Abstract (mother, father, protector vs. infinite, perfect, and just). Krejci also found that males were more like to endorse the concept of a controlling God.

In sum, there have been multiple methods (open-response, card sorts, ratings of God-concept statements, adjective lists), multiple types of analyses (factor analyses, multidimensional scaling), and multiple research goals (e.g., linking God-concepts with self-esteem, locus of control, life satisfaction, and gender differences). Yet no psychometrically sound, standard measure of God-concepts has been generally adopted in the literature. Moreover, previous studies

have often been plagued by small sample sizes (e.g., $n = 20$; Kunkel, et al., 1999), non-representative samples (e.g., all Catholic high school boys or girls; Benson & Spilka, 1973), and adjective checklists which vary across studies in both number and content of the items. However, there is some consensus that concepts of an anthropomorphic, person-like God are generally found to be either positively (loving and benevolent) or negatively (punishing and authoritarian) valenced. Moreover, these concepts of God as benevolent and authoritarian are associated with a host of psycho-social attitudes and behaviors indirectly related to prosocial behavior including depression (authoritarian God-concepts; Rosmarin, et al., 2009), the attribution of others' misfortune to the will of God (authoritative God-concept; Froese & Bader, 2010), and the belief that the government should distribute wealth more evenly (benevolent God-concept; Froese & Bader, 2010).

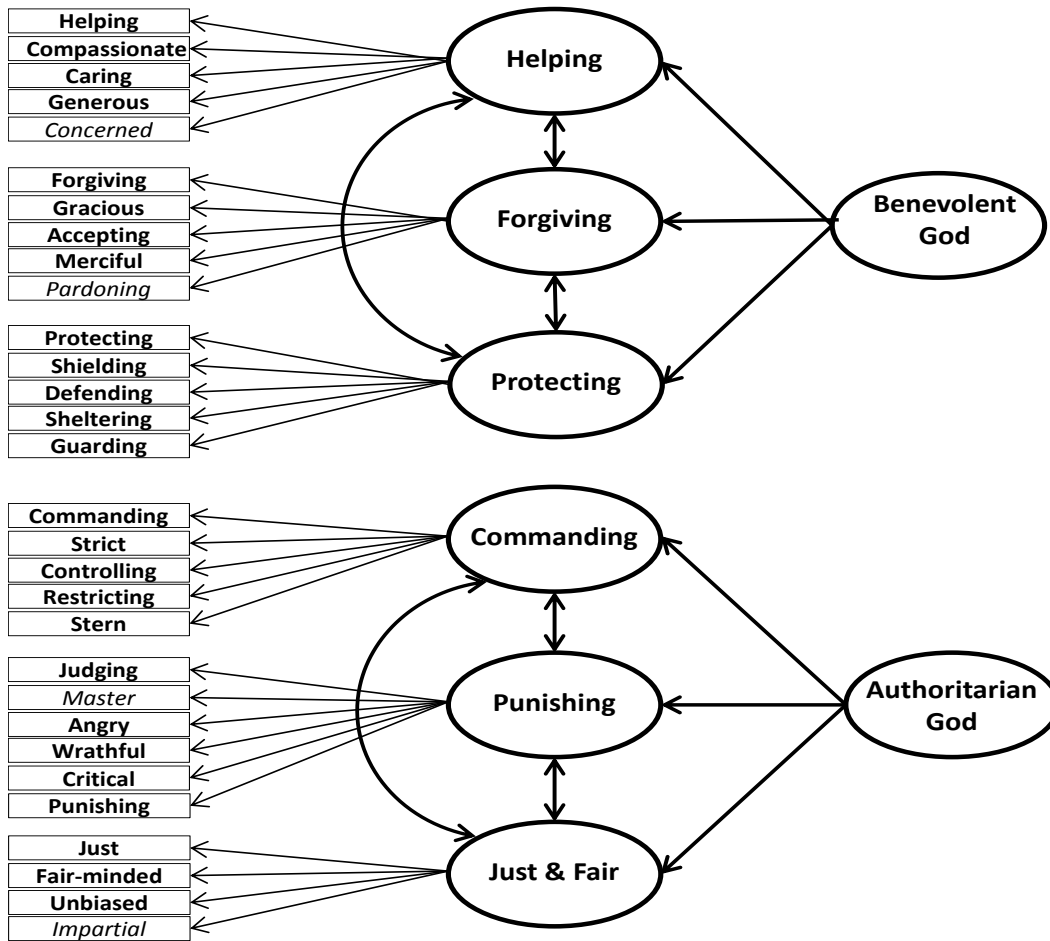
Consequently, in order to test the conceptual model, there was a need to develop an internally reliable set of indicators which would uniquely define the concepts of Benevolent and Authoritarian God. In considering what might constitute the breadth of items that define the concepts of Benevolent and Authoritarian God, Krejci's (1998) study provides the most recent research with an adequate sample size ($n = 215$) and data collected from Christian college students, all of whom were Catholic or non-Catholic Christian. In that study, Krejci used a card-sort measure to investigate the dimensional structure of 27 adjectives representing roles that God plays such as "Judge," personality traits that might be attributed to God such as "Gentle," theologically correct terms such as "Perfect," and gender-typical roles that God might assume such as "Father."

Participants sorted the adjectives and nouns which were printed on cards into categorical piles and, consistent with previous literature, a multidimensional scaling analysis revealed a three dimensional structure: (Dimension 1) God as Nurturing (e.g., supporting, caring) versus Judging (e.g., judge, master); (Dimension 2) Saving (e.g., redeemer, savior) versus Controlling (e.g., stern, demanding); and (Dimension 3) God as Concrete (e.g., mother, father, protector) versus Abstract (infinite, just).

It should be noted that Krejci's terms *nurturing*, *judging*, *saving*, *controlling*, *concrete*, and *abstract* were all labels imposed by the researcher as interpretations of the multidimensional scaling analyses – these labels were not among the 27 adjectives presented to participants. Moreover, the 27 adjectives used in Krejci's study were limited in two ways. First, there were only two items associated with some end-points of the dimensions (e.g., Judging and Master). Second, ten of the 27 adjectives and nouns were located in the center of the conceptual space indicating that they only weakly loaded on the critical positive and negative end points. Nevertheless, Krejci's study represents the most recent research informed by previous literature and suggests three important dimensions in thinking about God.

Thus, following Krejci (1998), the key attributes of a Benevolent God were proposed to be (1) Helping (i.e., nurturing), (2) Forgiving (i.e., saving), and (3) Protecting; and the key attributes of an Authoritarian God were proposed to be (1) Punishing (i.e., judging), (2) Commanding (i.e., controlling), and (3) Just & Fair (i.e., abstract).

Figure 2. Hypothesized God-concepts measurement model from Study 1



Indicators for the six proposed first-order latent variables (Helping, Forgiving, Protecting and Commanding, Judging, and Just & Fair) and the relation of the first-order latent variables to the two key hypothesized second-order latent variables: belief in a Benevolent God and belief in an Authoritarian God. Indicators in italics were omitted in the final CFA model. Note: Error terms are not depicted in this model.

The next step in developing a reliable measure of the concepts of Benevolent and Authoritarian God was to identify potential items, or adjective descriptors, to serve as indicators of each of these six key attributes. In other words, the goal was to create subscales to measure the two central concepts of Benevolent God and Authoritarian God. Ideally, each subscale should have good

internal reliability, three to five indicators, and these indicators should have relatively high and unique loadings on each particular subscale. Further, each subscale should be a unique and reliable indicator of one of the latent variables: Benevolent God or Authoritarian God.

Drawing from descriptors used in previous research (Benson & Spilka, 1973; Froese & Bader, 2010; Gorsuch, 1968; Kunkel, et al., 1999; Spilka et al., 1964), adjectives were selected as items for three subscales representing the concept of a Benevolent God and three subscales representing an Authoritarian God as shown in Figure 2.

Benevolent God.

Helping God [Helping, Compassionate, Caring, Generous, Concerned].

For religious people, thinking of God as a nurturing care-giver may provide a kind of psychological role model for helping. These adjectives are descriptive of helping others in some way to repair or recover from personal misfortune. Thus, high ratings of a belief in a helping God are predicted to be associated with a self-identity as also helping, as well as the belief that one has a moral and religious obligation to help. One may reason, “The world is not fair, bad things happen, and people need to be helped along the way.” In addition to a benevolent self-identity, a strong belief in a nurturing, helping God is expected to be associated with a sense of personal responsibility to help.

Forgiving God [Forgiving, Gracious, Accepting, Merciful, Pardoning].

These adjectives describe the belief that God is not holding people’s sins and mistakes against them. For religious people, thinking of God as being forgiving

may be associated with an increased willingness to help because, importantly, people are no longer blamed for their own misfortunes. This is consistent with the religious doctrines of redemption and grace prominent in Protestant Christianity. Belief in a forgiving God may be associated with the forgiveness of outgroup members as well and, consequently, the willingness to volunteer for the benefit of those outside the family or religious group. One may reason, “The world is not fair, people do wrong, but all people are accepted, forgiven and, consequently, deserving of help.” However, strong belief in a forgiving God may also reduce religious obedience (Shariff & Norenzayan, 2011).

Protecting God [Protecting, Shielding, Defending, Sheltering, Guarding]. These adjectives are most descriptive of helping individuals *avoid* misfortune. Many religious people may think of God as a divine protector who watches over them. Belief that God is also protecting may be associated with a moral (humanitarian) and religious (God will help me if I help others) obligation to help, and may also increase a benevolent, nurturing, self-identity.

Authoritarian God.

Commanding God [Commanding, Strict, Controlling, Restricting, Stern]. These adjectives describe God as Master - a ruler with strict rules of conduct. Belief in a commanding God should be associated with a sense of moral obligation, and a keen awareness of religious obligations –but not necessarily an intrinsic desire to help. Those adhering to God’s strict code of conduct would most likely expect others to do the same, believe that the world is just, and believe that individuals are held accountable for their actions. Thus, those who

conceptualize a stern, commanding God may expect other individuals to care for themselves.

Punishing God [Judging, Master, Angry, Wrathful, Critical, Punishing].

Reminders of a judgmental and punishing God can lead to aggression (Bushman, et al., 2007), hopelessness (Steenwyk, Atkins, Bedics, & Whitley, 2010), depression (Rosmarin, et al., 2009) and blaming victims for their misfortunes (Froese & Bader, 2010). People who are aggressive, depressed, and who blame others would be unlikely to feel intrinsically motivated or personally responsible to volunteer to care for those others. Further, if an individual believes that others are being punished via their misfortunes (measured as Belief in a Just World for Others and differentiated from Belief in a Just World for the Self; Lipkus, Dalbert, & Siegler, 1996), that individual may also reason that there is no use in helping. On the other hand, to the extent that an individual believes that one has a religious obligation to help others, then belief in a punishing God may also increase obedience regarding divine commands, leading to volunteerism.

Just & Fair [Just, Fair-minded, Unbiased, Impartial]. These adjectives describe the belief that God is a perfectly fair judge – people get exactly the rewards and punishments they deserve. The belief in a just God is expected to be associated with the corresponding belief that God's *world* is also just and fair - BJWO. Those who believe in a just and fair God – and a just world – may reason that people reap what they sow. Such individuals may feel a lack of personal responsibility to help others who (ostensibly) have “earned” their circumstances as a just reward (or punishment).

In sum, the Helping and Punishing aspects of God's nature can be seen as involving God's intentions regarding either physical care or physical harm to the self. The Forgiving and Commanding aspects capture the tension between religious doctrines of grace (freely forgiven) and "law" (obedience to divine commands and their consequent rewards and punishments) - distinctions that may be most salient for Christians. The Protecting and Just & Fair aspects of God involve concepts of God as either a personal, parent-like, anthropomorphic being that actively protects and cares for people or God as an abstract operative principle of predictable, just, and fair causes and effects in the world.

Thus, the measurement model to be tested takes into account the multi-dimensionality of God-concepts and affords a comprehensive understanding and clear definition of both Benevolent and Authoritarian God-concepts, the critical exogenous variables under investigation in this research.

Beliefs about the self and the world

Conceptualizations of God as benevolent and authoritarian are posited to be related with five beliefs about the self and the world: Benevolent Self-identify, Moral Obligations, Religious Obligations, Personal Responsibility, and BJWO.

Benevolent Self-identity. Beliefs about God often correspond with one's own values, opinions, and self-identity (Epley, Converse, Delbosc, Monteleone, & Cacioppo, 2009; Roberts, 1989; Sharp, Gibson, & Johnson, 2011), and many religious people value benevolence (Saroglou, Delpierre, & Dernelle, 2004; Schwartz & Huismans, 1995). Positive images of God as nurturing and caring have been shown to be highly correlated with positive images of the self (Bassett

& Williams, 2003; Benson & Spilka, 1973; Roberts, 1989). Consequently, an individual who thinks of God as benevolent is also likely to value benevolence and strive to be generous, helpful, and forgiving, in accord with the value of benevolence as defined by Schwartz & Huisman (1995). A person who self-identifies as benevolent would see himself or herself as compassionate and caring (Crocker & Canevello, 2008).

Importantly, having a positive image of God has also been associated with better social relationships (Simpson, Newman, & Fuqua, 2008). Further, people who act in benevolent or altruistic ways – i.e., giving time and resources to others without compensation – are more likely to be deemed trustworthy and sought out in coalition formation (e.g., Putnam & Campbell, 2010). Consequently, a Benevolent Self-identity is expected to be a strong, indirect, and positive predictor of intentions to volunteer.

Moral Obligation. Moral obligations arise in part from social norms and in part from internalized values and intuitions cutting across several domains (e.g., harm/care, fairness/reciprocity, ingroup/loyalty, authority/respect, and purity/sanctity; Haidt & Graham, 2007).

All religious traditions do stress the importance of helping others (see Dovidio, et al., 2006), and belief in a Benevolent and/or an Authoritarian God is expected to be associated with a perceived Moral Obligation to help.

However, the moral obligation to help should also be grounded in moral intuitions about caring and the internalized value of benevolence. Indeed, personal values are often cited as a primary reason for volunteering (Hodgkinson,

Weitzman, & Kirsch, 1990; Snyder & Omoto, 2000), and the belief that helping others is a positive behavior is an important precursor to helping (Ajzen, 1991; Carlo, et al., 2005; Grano, et al., 2008). Consequently, although the social norms for religious people of any ilk should dictate a moral obligation to help, those who value forgiveness and compassion are particularly likely to have a strong belief in a Benevolent God and a corresponding strong sense of a moral obligation to help others.

Religious Obligation. Moral obligations and religious obligations are not the same and may be associated with different views of God (Morewedge & Clear, 2008). Whereas Moral Obligations arise partly from the expectations of others and partly from internalized values, Religious Obligations are entirely external to the self. For example, the Bible (and scriptural texts from other faith traditions) instructs people to help the poor, the needy, and even strangers (e.g., Leviticus 23; The Good Samaritan parable). God commands helping and the commandments must be obeyed. However, religious individuals may act out of compliance with religious commands, but may not have internalized the desire to do so. This notion is consistent with the finding that religious people may attend services, abstain from certain foods, or avoid temptations out of obedience but without *internally* desiring to do so (i.e., for external reasons; Cohen, et al., 2005).

To differentiate between Moral and Religious Obligations in the present research, “Religious Obligation” is added to the model.

Personal Responsibility. Moral obligations to help arise when there is some awareness of adverse consequences to others coupled with the recognition

that another person (e.g., the self) is able to help (Schwartz, 1968). Nevertheless, people may report that they are exceptionally concerned about social issues such as helping the homelessness or feeding the hungry, and yet admit they are doing nothing to address these concerns (White & Plous, 1995). There are many justifications for not acting, and in a series of experimental studies, Schwartz found that despite endorsement of volunteer norms, those who denied *personal* responsibility were unlikely to act (Schwartz 1968, 1973; Schwartz & Howard, 1981). Indeed, accepting personal responsibility has been shown to be a robust predictor of volunteer behavior, especially in cases where there are many justifications for not helping (e.g., there are lots of others who can help, I have too much schoolwork, etc.; Schwartz, 1974).

The willingness to help others, even if no one else is helping, has also been referred to as Social Responsibility and it is measured as one of seven components of the Prosocial Personality Battery (Penner, Fritzsche, Craiger, & Freifeld, 1995). The Social Responsibility subscale falls on the “other-oriented empathy” dimension of the Prosocial Personality Battery (the other dimension is “helpfulness”) and correlates highly with the Big 5 personality trait of Agreeableness.

The Social Responsibility scale (also referred to as the Ascription of Responsibility scale) is unusual in that all but one item is reverse scored and the scale was actually intended to measure the correspondence between social norms and the ascription of personal responsibility to the self (Schwartz, 1968). Schwartz (1973) found, for instance, that social norms may not be activated when

people deny personal responsibility. That is, when the costs of helping increase – or when one does not intend to help – denial of social norms, blaming others, and excusing themselves (i.e., “it’s not my problem”) is thought to be a defensive cognitive strategy to assuage feelings of accountability or guilt (Schwartz & Howard, 1980, 1981). On the other hand, some people feel internally and personally motivated to act and do not use the inaction of others as a “way out.”

To convey the meaning of the scale more clearly, I have labeled the variable Personal Responsibility rather than Social Responsibility in the present research. The measure is particularly useful in the conceptual model in its relation to internal and external volunteer motives. An individual who scores high on the reverse scored Personal Responsibility scale is likely to have less regard for what others are thinking and doing as a determinant of their own behavior (i.e., volunteerism is neither determined nor excused by social norms). Instead, these individuals are intrinsically motivated by their own personal, internalized values.

Because concepts of a Benevolent God are associated with high self-esteem, self-efficacy, and agreeableness (Kirkpatrick & Shaver, 1992; Roberts, 1989; Saroglou, 2002; Schwartz & Huisman, 1995; Wiegand & Weiss, 2006), I predict that the concept of a Benevolent God will also be associated with higher rates of perceived Personal Responsibility.

On the other hand, those with a belief in an authoritarian God may be more focused on God’s wrath and, therefore, less likely to help those who are

deemed to be religious transgressors or as members of the “wrong” religious group. In that case, helping may not be viewed as a religious obligation at all.

Belief in a Just World for Others (BJWO). BJWO measures the tendency to blame the needy as being responsible for their misfortune (Furnham, 2003; Lipkus, et al., 1996). In other words, high scores on the BJWO scale indicate that the individual believes “people get what they deserve” and volunteer helping may be perceived as unwarranted. For example, Pichon and Saroglou (2009) found that BJWO partially mediated the relation between orthodox religiosity and negative helping attitudes – especially toward immigrants.

Thoughts of a benevolent God are expected to mirror a benevolent self-identity – an attitude of forgiveness, compassion, and care for others. An authoritarian God-concept (i.e., a God whose concern is justice and dispensing rewards and punishments) is predicted to correspond with beliefs that the world is also just; that is, good acts and good character are rewarded with good fortune, whereas transgressions and bad character are punished with misfortune. In a BJWO framework, people get what God thinks they deserve. This is precisely the logic of the Protestant Work Ethic (Weber, 1958/1988) and suggests that people with an authoritarian God-concept may not help others.

Volunteer Motives

A third class of variables is motivational determinants of volunteering. An important antecedent of any planned behavior is the intention to act (Theory of Planned Behavior; Ajzen, 1991; Ajzen, Czasch, & Flood, 2009). In the case of volunteering, the intention to act is related to a number of “functional

motivational” antecedents typically measured by the Volunteer Functions Inventory (VFI) including: self-esteem, humanitarian values, personal rewards, and meeting the expectations of important others. Of these, intrinsic, humanitarian values are often the most important motive (Allison, et al., 2002; Carlo, et al., 2005; Clary & Snyder, 1999).

In an alternative approach, volunteer motives culled from self-determination theory (SDT) have been incorporated in recent models of volunteerism (Gagne, 2003; Grano, et al., 2008). SDT proposes six types of motives including: no motivation to volunteer (*amotivation*), compliance (*external* regulation), feelings of guilt or self-esteem (*introjection*, partial external regulation), adopting a value as one’s own (internalization/ *identification*), a sense that the value is emanating from the self (*integration*), and, finally, a purely *intrinsic* motivation of personal interest or enjoyment. Identified, integrated, and intrinsic motivations are considered to be *autonomous* or internal motivations, meaning that the desire to act is perceived as a feeling of volition without external rewards or punishments. SDT holds that people who are self-motivated rather than externally controlled (by coercion or reward) are more enthusiastic, persistent, creative, and satisfied with life (Ryan & Deci, 2000).

In the present research, the SDT approach rather than the volunteer functions approach is employed because of the stronger conceptual links from beliefs about the self and the world to the SDT volunteer motives as compared to the volunteer functions motives. More specifically, the beliefs about the self and the world can be tied to the distinction between intrinsic and extrinsic orientations

that provide the theoretical underpinning for the SDT approach. For example, acts of helping as stemming from benevolent self-identity are associated with an intrinsic or internal orientation; whereas acts of helping stemming from a religious obligation related to God's expectations are associated with an extrinsic or external orientation.

In a recent study, Grano et al., (2008) applied these SDT pathways to intentions to volunteer and found that as the value of helping others becomes an integrated aspect of the self, positive attitudes about helping increase, although intrinsic motivation (i.e., volunteering simply for pleasure or personal learning) was not a significant predictor of intentions to volunteer.

In two pilot studies, the association between the six SDT motives and volunteer frequency was investigated in separate samples of college students ($n = 233$; $n = 1,167$) using the Motivation to Volunteer Scale (Grano, et al., 2008). Replicating Grano's findings, the Integrated self-identity motive exhibited the strongest correlation with reported volunteering, $r = .59$; $r = .43$, $p's < .001$. The Integrated motivation (measuring volunteer identity) and Internalized motivation (measuring personal value of volunteering) were also highly and positively correlated in both studies, $r = .78$; $r = .73$, $p's < .001$. Because these two scales measure nearly the same construct, they are collapsed in the conceptual model as "Internal Motivation."

Grano et al. (2008) also found that people volunteer for External (earthly) rewards and to avoid criticism by important others. However, in two pilot studies, avoiding the criticism of one's *religious* group and the promise of *heavenly*

rewards (i.e., religious External motives) were not significantly correlated with volunteer frequency. This is consistent with self-determination theory (Ryan & Deci, 2000) and with Gagne's (2003) finding that internal motives are more powerful predictors of volunteerism than are external motives.

In the Conceptual Model, four motivations – Internal (i.e., Integrated and Identified), Introjected, and Amotivation are included as antecedents of intentions to volunteer as discussed below. Although External motives have been shown to be only weakly correlated or uncorrelated with volunteer frequency, External Motives are also included in the model inasmuch as they are important in self-determination theory which undergirds the conceptual model. Further, the dependent variable in the conceptual model is the intention to volunteer and not volunteer frequency (as in the pilot studies and previous research).

Internal Motivation. Self-identifying as a volunteer is a robust predictor of continued volunteerism (Callero, Howard, & Piliavin, 1987; Finkelstein, 2008). A benevolent self-identity includes the belief that helping others is a positive behavior (Grano, et al., 2008) and that compassion is an important value in one's life (Carlo, et al., 2005; see also Crocker & Canevello, 2008). The importance of identifying as a volunteer or having a Benevolent Self-identity is underscored by research showing that self-identity (i.e., Integrated motivation) predicts behavioral intentions over and above previous behavior, positive attitudes toward volunteering, or subjective norms (e.g., Sparks & Shepherd, 1992; Terry, Hogg, & White, 1999). Further, activities that are repeated serve to reinforce the behavior

as a component of self-identity, often reinforcing an individual's identity as a volunteer (Callero, et al., 1987; Penner & Finkelstein, 1998; Terry, et al., 1999).

Thus, a Benevolent Self-identity is expected to be positively associated with Internal motivations to volunteer, and the Benevolent God → Benevolent Self-Identity → Internal motivational pathway is expected to have a significant and positive indirect effect on intentions to volunteer.

Introjected Motivation. People with a perceived moral obligation to help others may feel guilty if they do not volunteer. First, the expectations of important others are powerful motivations for volunteering (Clary, et al., 1998) and people may feel guilty for not conforming to social norms.

More importantly, a perceived Moral Obligation to help others is also associated with the value of benevolence and, consequently, an internalized motivation to help others. An individual is likely to feel guilty if he or she does not help those in need.

Both the Benevolent God and Authoritarian God-concepts are expected to be associated with Moral Obligations. Moral Obligation elicits feelings of guilt if one does not act (i.e., Introjected Motivation). Thus, Benevolent God and Authoritarian God → Moral Obligation → Introjected Motivation pathways will have significant, positive, indirect effects on intentions to volunteer.

External Motivation. Volunteerism is typically defined as a planned behavior that “offers little or no tangible reward” (Finkelstein, 2009; Penner, 2002); so, not surprisingly, external motivation has been shown to be a weak predictor (Gagne, 2003; Grano, et al., 2008; Stukas, Worth, Clary, & Snyder,

2009), or uncorrelated (Johnson, Okun, & Cohen, 2010), with frequency of volunteerism. However, whereas moral obligations may be grounded in strictly humanitarian concerns, religious obligations are associated with a system of (often eternal) rewards or punishments in accord with divine commands, and these external rewards may motivate Intentions to Volunteer as discussed above. Therefore, External Motivation is included in the Conceptual Model to account for the posited indirect effects of Religious Obligation on Intentions to Volunteer. That is, in an SDT framework, the motive most closely associated with the entirely external demands of Religious Obligation is “External motivation” – volunteering in order to earn recognition, to obtain rewards, or to avoid criticism (or punishment) from important others (e.g., God and religious group members).

This emphasis on obedience to God’s commands and the expectation of others may be accentuated by a corresponding increase in participation in religious group activities, another strong predictor of volunteerism (Jackson, et al., 1995; Park & Smith, 2000). People who are especially prone to obey God’s commands may also be more likely to join a religious group; and religious group membership can provide opportunities to volunteer (Bekkers & Schuyt, 2008; Okun, Pugliese, & Rook, 2007).

Both the Benevolent and Authoritarian God-concepts are expected to be positively associated with Religious Obligations. I hypothesize that Religious Obligation is positively associated with External motivations to volunteer, and that Benevolent God/ Authoritarian God → Religious Obligation → External Motivation pathways will have significant, positive, indirect effects on intentions

to volunteer. However, it is expected that the indirect path from God-concept to Intentions to Volunteer via External Motivation will be weaker relative to the pathway via Internal Motivation.

Amotivation. Just as a benevolent God-concept is expected to be associated with a benevolent Self-identity, belief in an authoritarian God may be associated with more critical attitudes toward others, particularly if an individual believes that the world is just and people get what they deserve. Belief in a just world (for others) leads people to blame others for their misfortunes, thus reducing motives for helping (e.g., Pichon & Saroglou, 2009). Therefore, Amotivation (volunteering is perceived as a “useless waste of time”) is expected to be associated with *low* intentions to volunteer and *not* volunteering.

I hypothesize that Personal Responsibility will neutralize justifications for not helping, thereby decreasing Amotivation. The Benevolent God → Personal Responsibility → Amotivation pathway will have a significant and *positive* indirect effect on Intentions to Volunteer because a benevolent God-concept increases personal responsibility – a willingness to help even if others do not.

The Authoritarian God → (denial of) Personal Responsibility → Amotivation pathway will have a significant and *negative* indirect effect on intentions to volunteer because an authoritarian God-concept is grounded in a rewards-and-punishments, “just world” belief system. Consequently, one is only personally responsible for his or her own actions and circumstances.

Similarly, I predict that BJWO will increase Amotivation (i.e., lack of motivation) to volunteer, and that Authoritarian God → Belief in a Just World for

Others → Amotivation pathway will have a significant and *negative* indirect effect in predicting intentions to volunteer.

Beliefs and motivational pathways leading to volunteerism

To summarize the general conceptual model, the beliefs in a benevolent and an authoritarian God are functionally different, and are expected to be associated with different downstream predictors of prosocial behavior. These two functionally different concepts of God are theorized to relate to specific beliefs about self and the world as discussed above. Benevolent God is associated with (1) Benevolent Self-identity which is a predictor of Internal motivations and robust intentions to volunteer, (2) perceived Moral Obligation to help others which, in turn, is associated with Introjected Motivations (guilt if one does not help) and Intentions to Volunteer, (3) Religious Obligation to help others, which is associated with External Motivations, and (4) Personal Responsibility (i.e., a willingness to help even if others do not), which is also associated with Internal Motivations and Intentions to Volunteer. Three of these four paths (Benevolent Self, Moral Obligation, and Personal Responsibility) constitute a suite of beliefs related to benevolence and an overall intrinsic desire to help others – the most potent predictor of Intentions to Volunteer.

Conceptualizing an Authoritarian God also leads to (1) a perceived Moral Obligation to help others, and (2) Religious Obligation to help. However, an Authoritarian God-concept is also associated with: (3) the denial of Personal Responsibility (i.e., I will only help if others help first) which is theorized to be associated with Amotivation, and diminished Intentions to Volunteer; and (2)

BJWO, which is also theorized to be associated with Amotivation. Extrinsic or external motivations are only weakly associated with Intentions to Volunteer. Further, the positive indirect effects of Moral Obligation and Religious Obligation are expected to be degraded or even negated by the negative (Amotivation) pathway via Belief in a Just World and lack of Personal Responsibility.

Moderation (Model 2)

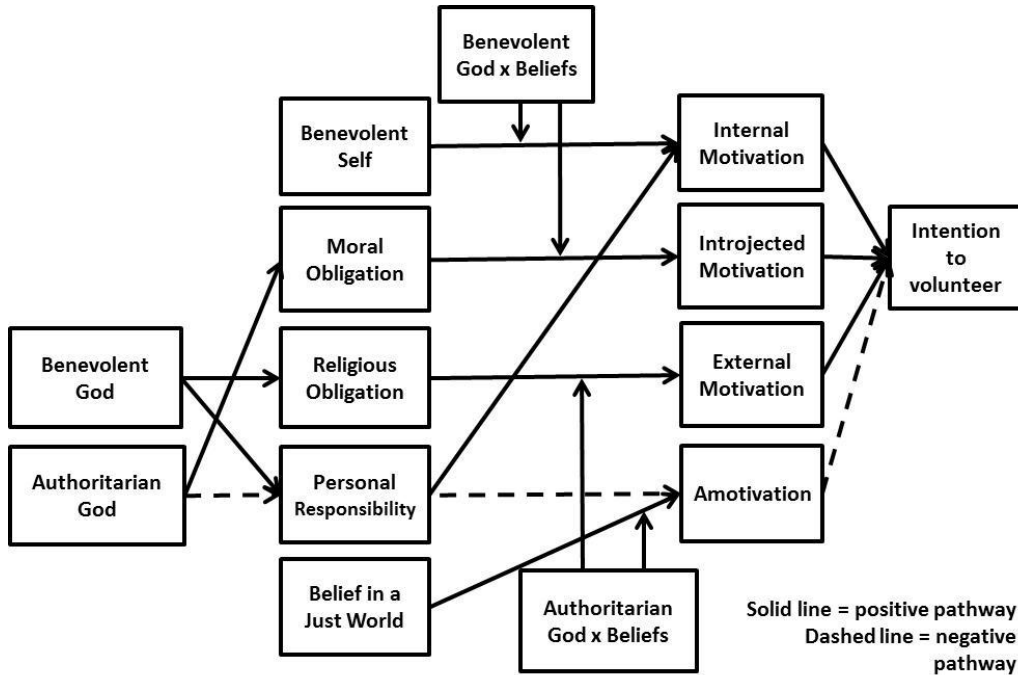
Research on conceptions of God is in its infancy, and researchers have not investigated the possibility that thoughts of a benevolent God or an authoritarian God might *interact* with beliefs about the self and the world to affect volunteer motives. Therefore, in Model 2, God-concepts are conceptualized as moderators that interact with beliefs about the self and the world to either support or discourage volunteer motivations as shown in Figure 3.

First, since a belief that God is benevolent (forgiving of self and others, compassionate, and protecting) is consistent with a benevolent self-identity, an increase in scores on Benevolent God may augment the relation between Benevolent Self and Internal Motivation. Second, belief in a benevolent, forgiving God may alleviate guilt if moral obligations are not acted upon. Thus, the relation between Moral Obligation and Introjected Motivation may be reduced by increased belief in a benevolent God.

Third, a belief that God is authoritarian (the author of strict rules of conduct, just and fair, rewarding obedience and punishing disobedience) is consistent with the belief that there are external rewards and punishments for compliance with, or disobedience of, divine commands. Therefore, the relation

between Religious Obligations and External Rewards may be amplified as belief in an Authoritarian God increases.

Figure 3. Conceptual model adding hypothesized interaction effects



Indicators for each of the manifest variables and correlations within each class of variables are omitted for clarity.

Finally, a strong belief in God as authoritarian may reinforce the belief that, if people are to blame for their own misfortunes (i.e., BJWO), there is no need to help them – the misfortune they are experiencing is most likely deserved. Consequently, authoritarian God-concepts are expected to amplify the relation between BJWO and Amotivation.

Overview of studies

In Study 1, the constructs of Benevolent and Authoritarian God are investigated. Using the scales that most clearly defined the two God-concepts, the mediational pathways of the Conceptual Model (Model 1) and the moderating

effects of Benevolent God and Authoritarian God (Model 2) were tested in an all-Christian (Catholics and non-Catholic Christians) college student sample. Approximately 78% of the U.S. population self-reports being Christian (Pew Forum on Religion & Public Life, 2008), with 60% to 80% believing in a personal God. Therefore, Christians are an important population for initial testing of the directional effects suggested by the conceptual model. Although Catholics and non-Catholic Christians differ in some respects (Li, Johnson, Cohen, Williams, Knowles, & Chen, 2010), they also rely on the same foundational scriptural texts, share belief in Jesus as a benevolent savior, and endorse volunteerism as a prosocial behavior.

In Study 2, Benevolent and Authoritarian God-concepts were experimentally manipulated in order to test the causal direction of the relation between concepts of God and beliefs about the self and the world. Further, Study 2 included a behavioral measure designed to test whether the beliefs and motivations in the proposed model predict volunteer behavior as well as intentions to volunteer.

Chapter 3

STUDY 1: TESTS OF THE CONCEPTUAL MODEL (MODELS 1 & 2)

Study 1 consisted of an online survey to examine the mediated effects of beliefs in a Benevolent and Authoritarian God on intentions to volunteer, via beliefs about the self and the world and volunteer motivations as shown in Figure 1 (see Chapter 1). Specifically, the following hypotheses were tested:

Hypotheses

H1: Belief in a Benevolent God (BenGod) will have a significant and positive indirect effect on Intentions to Volunteer via Benevolent Self-identity (BenSelf) and Internal Motivation (Internal).

H2: Belief in a Benevolent God will have a significant and positive indirect effect on intentions to volunteer via Moral Obligation (MoralObl) and Introjected Motivation (Introjected).

H3: Benevolent God will have a significant and positive indirect effect on Intentions to Volunteer via Religious Obligation (RelObl) and External Motivation (External).

H4: Benevolent God will have a significant and positive indirect effect on Intentions to Volunteer via Personal Responsibility (PersResp) and Internal Motivation, as well as via Amotivation.

H5: Authoritarian God (AuthGod) will have a significant and positive indirect effect on Intentions to Volunteer via Moral Obligation and Introjected Motivation.

H6: Authoritarian God will have a significant and positive indirect effect on Intentions to Volunteer via Religious Obligation and External Motivation.

H7: Authoritarian God will have a significant and *negative* indirect effect on intentions to volunteer via Personal Responsibility and Amotivation.

H8: Authoritarian God will have a significant and *negative* indirect effect on intentions to volunteer via BJWO and Amotivation.

Interactions.

The conceptual model tested in the present study posits that beliefs about God are associated with downstream beliefs about the self and the world which, in turn, are predictors of volunteer motives. However, beliefs about the self and the world may, instead, be augmented, or suppressed, by related beliefs about God. Thus, an alternative model is proposed in which beliefs about God act as moderators of certain beliefs about the self and the world to either increase or decrease the strength of their relations with volunteer motives (Figure 2).

Hypotheses specific to Model 2 are:

H9: As scores on BenGod increase, the relation between Benevolent Self and Internal Motives will increase.

H10: As scores on BenGod increase, the relation between Moral Obligation and Introjected Motive will decrease.

H11: As scores on AuthGod increase, the relation between belief in Religious Obligation to help and External Rewards will increase.

H12: As scores on AuthGod increase, the relation between BJWO & Amotivation will increase.

Methods

Participants.

Participants were undergraduates attending Arizona State University. All participants were enrolled in either Psychology 101 or in online sociology courses unrelated to religion. All sociology students received extra course credit and all psychology students received partial credit in fulfillment of course requirements.

Recent samples at this university include about 24% Atheist or Agnostic, 25% Catholic or Orthodox, 31% Mainline Protestant or Evangelical Christian, and 20% Other. Although data was collected from all religious groups, Catholics and non-Catholic Christians (hereafter referred to as Christians) are an important volunteer population and may differ in response patterns when contrasted with Muslims or Jews, for example. Therefore, only Christians were included in the analyses in Study 1.

There were 454 Christians who participated in the survey. To guard against careless survey participation, one page of the online survey included a distractor page explaining that people often hurry through surveys and asking participants *not* to provide a 1 to 7 Likert response to the statement, “Here is the question that you should not answer.” Participants who responded with any rating were deemed to have not followed the survey instructions and were omitted from the analyses ($n = 7$).

Belief in God is a central assumption in the proposed theoretical model of religious volunteerism. Therefore, participants were also carefully screened for belief in God using two different measures: (1) rating of 3 or more, “God might

exist,” on a five item multiple choice question at the beginning of the survey, and (2) rating of 4 or more on a 7-point Likert scale question asked near the end of the survey, “To what extent do you believe that God exists?” Participants who reported belief in God as less than 3 on the multiple-choice measure *or* as less than 4 on the Likert-scale measure were excluded from the study as not having met the inclusion criteria ($n = 20$).

The 427 Christian participants who successfully completed the online survey and who reported belief in God were comprised of 165 Catholics and 262 non-Catholic Christians. There were 163 males (64 were Catholic), 263 females (101 Catholic) and one with missing data. Participants were Euro-American (66%), Hispanic (21%), or other (13%) ethnicity, and were normally distributed across five socio-economic classes with 49% reporting being middle class.

Procedure.

The online survey consisted of three sections: Beliefs about the Self and the World (Self & World Section), Volunteer Experience, Motivations, and Intent (Volunteer Section), and Religious Beliefs (Religion Section). The three sections were presented as though they were unrelated studies as described ahead. In order to guard against ordering effects, there were two versions of the survey: SVG (Self & World, Volunteer, and God) and VSG (Volunteer, Self & World, and God). Because the measures in the Beliefs about God Section are hypothesized to activate prosocial behaviors, these measures were always presented last, following the Self & World and Volunteer Sections.

To diminish response bias due to conceptually linking the different survey sections, participants were told they would be randomly chosen to participate in three of a possible six different surveys. First, participants were randomly assigned to one of the two versions of the survey by birth month. After completing the first section, participants were then ostensibly randomly chosen for the “second survey” based on their choice of a favorite color or favorite fruit.

The online survey consisted of the measures discussed below. For each measure, unless otherwise indicated, participants were asked to rate the extent to which they agreed with at least three statements regarding: (1) beliefs about the nature of God, (2) beliefs about the self as benevolent, (3) beliefs about the world, (4) motivations for volunteering, and (5) intentions to volunteer. All ratings were assessed on a 1 to 7 Likert scale.

Measures.

Beliefs about the nature of God (Appendix A).

As discussed in the previous section and as shown in Appendix A, 30 adjectives were selected to represent the constructs of Benevolent God (BenGod) and Authoritarian God (AuthGod) derived from previous research (Benson & Spilka, 1973; Froese & Bader, 2010; Krejci, 1998; Kunkel, et al., 1999; Rosmarin, et al., 2009; Spilka, et al., 1964; Steenwyk, et al., 2010; Wiegand & Weiss, 2006). From these 30 adjective descriptors, I expected to create three subscales under BenGod (God as Helping, Forgiving, and Protecting) and three subscales under AuthGod (God as Commanding, Punishing, and Just & Fair).

On a separate page of the survey, participants were also asked to what extent they think “God is Benevolent (helping, forgiving, protecting)” and “God is Authoritarian (commanding, just, punishing).”

Beliefs about the self as benevolent (Appendix B).

Aquino and Reed (2002, 2003) have shown that a high sense of “moral identity” expands the psychological boundaries of the ingroup with a corresponding perceived obligation to help others. These researchers assessed moral identity by presenting a list of traits associated with being a “moral” person (caring, compassionate, fair, friendly, generous, helpful, hardworking, honest, and kind) and asking participants to rate the extent to which they identified with these traits. They found there is both an internal (beliefs) and external (self-reported behaviors) dimension of a moral self-identity.

Following Reed and Aquino, participants were provided with a list of five adjectives characterizing a *benevolent* person from adjectives used in various published value scales (e.g., Schwartz, 1992; Schwartz & Huisman, 1995). The adjectives were: caring, compassionate, accepting of others, generous, and helpful. The external behavior questions referred to membership in organizations and involvement in activities related to volunteerism. Therefore, although all 10 questions were administered, the external dimension of a benevolent self-identity was not included in the measure of Benevolent Self. Thus, the Benevolent Self scale consisted of the six items measuring an internalized benevolent self-identity as indicated in Appendix B. The reliability coefficient of the Benevolent Self (Internal) scale was .79.

Beliefs about the World (Appendix C).

Moral Obligation. Because there was not a published scale to assess a perceived moral obligation to volunteer, four items were created: “People have a moral obligation to volunteer to help others,” “I personally feel I have a moral obligation to volunteer to help others,” “If a stranger needs help, a person who is able to provide it has a moral obligation to do so,” and “Helping others is an important moral activity.” The reliability coefficient for the Moral Obligation scale was .77.

Religious Obligation. Similarly, four items were created to assess the perceived obligation to obey religious commands to help others: “God expects people to obey the commandments,” “I have a religious obligation to help others,” “God commands people to help one another” and “The scriptures command people to help others.” Participants rated the extent to which they agreed with the statements on a 7-point Likert scale ($\alpha = .81$).

Personal Responsibility. The Social Responsibility subscale is one component of the larger Prosocial Personality Battery (Penner, et al., 1995) and falls on the other-oriented empathy dimension of the Prosocial Personality Battery. Borrowed from Schwartz & Howard (1981), the scale was originally called Ascription of Responsibility and presents interpersonal situations in which participants either accept or deny responsibility to act. Sample items are “When people are nasty to me, I feel very little responsibility to treat them well” and “I would feel less bothered about leaving litter in a dirty park than in a clean one.” As can be seen from the items listed in Appendix C, the gist of the scale is “I will

act responsibly only if others do so.” Or, reversed scored, “I will act responsibly even if others do not.”

Personal Responsibility was assessed using (1) the seven items from the Social Responsibility scale, and (2) one item from Schwartz’s original Ascription of Responsibility scale to increase internal reliability. Seven of the eight items are reversed scored. Although the reliability for the scale was still relatively low in the present sample ($\alpha = .70$), the measure has often been used in research on prosocial behavior (Dovidio, et al., 2006).

Belief in a Just World for Others. Belief in a Just World for Others scale consists of six items (Lipkus, et al., 1996; Sutton & Douglas, 2005). To reduce the length of this section of the survey, two items that were less relevant to the present research were omitted from the original eight. These were: “People treat each other fairly in life” and “People treat each other with the respect they deserve.” The reliability coefficient of the 6-item scale was .84.

Volunteer motivations (Appendix D).

Volunteer motivations were adapted from the Volunteer Motivations scale (Grano, et al., 2008) which consists of six motive subscales: Intrinsic (volunteering for personal pleasure), Integrated (identity as a volunteer), Identified (endorsing the value of volunteering), Introjected (feeling guilty for not volunteering), External (volunteering at the behest of others), and Amotivation (not volunteering).

In previous research, Intrinsic volunteer motivation assesses volunteering strictly for personal pleasure and has been shown to be uncorrelated with

volunteer intentions. Thus, Intrinsic motivation ($\alpha = .75$) was measured for descriptive purposes only, and is not included in the conceptual model.

Integrated and Identified motives have been shown to be highly correlated in previous research and in the present study ($r = .64, p < .001$). Therefore, in order to avoid multi-collinearity issues, the Integrated and Identified motives were collapsed and analyzed as one scale renamed Internal ($\alpha = .87$).

People sometimes volunteer in order to earn rewards and recognition or to avoid the criticism of important others (Cnaan & Goldberg-Glen, 1991). The External scale (Grano, et al., 2008; representative item, “I volunteer for the recognition I receive from others”) was modified to focus on external motivations with respect to *religious* others (e.g., “I volunteer for the rewards I will receive in the afterlife”). The reliability coefficient for the modified scale was .72.

The remaining subscales, Introjected ($\alpha = .79$) and Amotivation (.86) were included and analyzed as published.

Intentions to Volunteer (Appendix E).

The final endogenous variable in the path model in Study 1 was the intention to volunteer. Real-world volunteer opportunities range from blood donation, to providing Meals on Wheels, building homes, or traveling abroad as a Peace Corps volunteer. People often choose activities that “match” their own life experiences or interests (e.g., Stukas, Snyder, & Clary, 1999). To sample across individual proclivities, the 7-point Likert-scale ratings regarding intentions to volunteer were specified as five different types of volunteer activities located away from the ASU campus (VolIntentUS). Sample items included “Helping

underprivileged youths learn to read” and “Distributing reading materials to hospice patients” (alpha = .83). The intention to help out-group members was further assessed by asking how likely participants would be to package hygiene items and school supplies for shipment to natural disaster victims in Israel, Pakistan, and Haiti (VolIntentFOR; alpha = .96).

The correlation between the intent to volunteer for the benefit of others in the US and the intent to volunteer for the benefit of foreigners was quite high, $r = .66, p < .001$. Further, as can be seen in Table 6, the correlations between each of the two measures and the other variables in the model did not appear to differ significantly. Therefore, the two measures of Intentions to Volunteer were collapsed and analyzed as one measure (VolIntent; alpha = .90).

Other measures not included in the conceptual model.

There were several additional measures included in the survey for exploratory purposes, descriptive purposes, or as distractor items. An additional item, “God is rejecting,” was included due to an oversight in creating the final list of God-concept adjectives. These additional measures are described below. However, the measures were omitted from tests of the model and in the results reported here.

Self and the World Section. To avoid a response bias to self-report as benevolent and a strong endorsement of helping norms, there were four distractor measures in the Self and World Section: (1) a rank order task asking about favorite activities, (2) a rank order task asking about personality traits (e.g., compassionate, ambitious, creative, etc), (3) a measure of participant values

including benevolence, power, hedonism, and so forth, and (4) a measure of the participant's self-identity as being trustworthy.

Volunteer Section. Prior volunteer experience may be associated with subsequent volunteer experience, and data was collected regarding previous volunteer activities for descriptive purposes including: frequency of volunteer experience during the previous year, the type of volunteer experience, and the participant's volunteer role model.

Four items from Grano's Volunteer Motives scale were not relevant to the conceptual model (discussed above), but were included in the survey as part of the full measure.

Religion Section. Participants were also asked to rank order the adjectives "caring, forgiving, protecting, controlling, punishing, judging, and uninvolved" as descriptors of (1) how God relates with the self, and (2) how God relates with others. Rosmarin et al.'s (2009) Trust/Mistrust in God scale, as well as two single items rating God as benevolent and God as authoritarian were also administered as validity checks of the BenGod and AuthGod scales.

Other rated measures of religiosity included: (1) beliefs about heaven and hell, (2) participant's degree of spirituality, (3) Intrinsic and Extrinsic Religious Orientation Scale (Gorsuch & McPherson, 1989), and (4) Quest Religious Orientation Scale (Batson & Schoenrade, 1991). There was also a measure of self/other overlap with God (Sharp, et al., 2011).

PANAS. The International Short form of the Positive and Negative Affect Schedule (Thompson, 2007) was administered on the last page of the survey

following the collection of demographic information: age, gender, socioeconomic status (SES), religious group, and ethnicity. There are many international ASU students and future studies are expected to include samples from other religious cultures (e.g., Muslim); therefore, the I-PANAS-SF was included as it has been shown to be a reliable measure of general mood across cultures.

Analytic Strategy.

To test the hypotheses regarding the beliefs and motivations leading to volunteerism, a full path analysis was constructed in four steps: (1) factor analyses of the God-concept adjective items including exploratory and confirmatory factor analyses; (2) computation of manifest variables and descriptive statistics; (3) full path analysis testing the fit of the data to the proposed conceptual Model 1, with post hoc re-specification of the model as necessary; (4) analysis of the alternative theoretical Model 2 with Benevolent God as a moderator of Benevolent Self and Moral Obligation and Authoritarian God as a moderator of Religious Obligation and BJWO; and (5) comparison of the goodness of fit of Models 1 and 2 where Model 1 was empirically generated on a post hoc basis.

Results

Factor analysis of God-concept adjectives.

A factor analysis was conducted to assess the adequacy of the 30 God-concept adjectives in describing God as benevolent and authoritarian. The two-fold goal in conducting the factor analyses was (1) to ascertain which items could be grouped together with good internal reliability, and (2) to create two God-

concept scales, Benevolent God (BenGod) and Authoritarian God (AuthGod), which would serve as exogenous variables in the model.

First, a model was tested aimed at creating the hypothesized second-order factor structure with Helping, Forgiving, and Protecting constituting the second-order factor, BenGod, and Commanding, Punishing, and Just & Fair constituting the second-order factor, AuthGod. As indicated in Figure 2, each of the proposed BenGod factors were allowed to correlate with each other (so, for example, Helping was specified to correlate with Forgiving); the proposed AuthGod factors were allowed to correlate with each other; and the second order factors, BenGod and AuthGod were also allowed to correlate. This model was determined to be positive definite and standard errors could not be computed. Further, truncated models conducted separately with the BenGod factors only and then with the AuthGod factors only were also found to be positive definite.

Since the composition of the pool of items in the current study was unique, the next step was to identify (1) the correct number of factors and (2) exclude poor-fitting items prior to conducting the revised confirmatory factor analysis as recommended by Cabrera-Nguyen (2010). To that end, an exploratory factor analysis (EFA) was conducted using MPlus software, version 6. As previously discussed, a priori assumptions grounded in previous, empirical research had been made (Benson & Spilka, 1973; Froese & Bader, 2010; Gorsuch, 1968; Krejci, 1998; Kunkel, et al., 1999; Lawrence, 1997; Rosmarin, et al., 2009; Shariff & Norenzayan, 2011); that is, the items would constitute three latent variables comprising belief in a Benevolent God (Helping, Forgiving, and Protecting) and

three latent variables comprising belief in an Authoritarian God (Commanding, Punishing, Just & Fair) as shown in Figure 2 (Chapter 2). Thus, the EFA was first conducted for the items proposed to indicate the latent variables associated with BenGod, and then for the items associated with AuthGod. The MPlus default oblique GEOMIN rotation was used, and all 15 indicators in each of the two separate EFA's were allowed to load freely on any factor with the number of factors unspecified.

EFA for BenGod. The analysis of the descriptors for BenGod revealed eigenvalues of 6.88 (F1), 1.57 (F2), .84 (F3) suggesting that a two-factor structure would provide the best fit for the data and there were two rather than three factors.

The output from MPlus also provides fit statistics for the measurement model when conducting EFA. Since factor models are likely to be rejected on the basis of chi square tests alone, I followed Hu and Bentler's (1999) recommendation to include the comparative fit index (CFI), standardized root mean square of the model residuals (SRMR), and the root mean square error of approximation (RMSEA) as evaluative goodness of fit indices. A model is said to provide a good fit for the data with CFI values greater than .90 (adequate) or .95 (good fit), values less than .05 for SRMR, and values less than .06 for RMSEA.

As shown in Table 1, the model fit statistics were good using the two-factor structure, $X^2(76) = 177$, RMSEA = .06, CFI = .97, SRMR = .03. As can be seen from the factor loadings (Table 2), the indicators for the Helping and Forgiving factors comprised a single first factor, with the indicators for Protecting God (ProtectGod) constituting the second factor.

Table 1. *Goodness of fit statistics for Benevolent God and for Authoritarian God Measurement Models using EFA in Study 1*

Analysis^b	df	X²^a	RMSEA	CFI	SRMR
1 factor EFA – BenGod	90	482	.10	.86	.07
2 factor EFA – BenGod	76	177	.06	.97	.03
1 factor EFA – AuthGod	90	469	.10	.80	.08
2 factor EFA – AuthGod	76	241	.07	.91	.04
3 factor EFA - AuthGod	63	125	.05	.97	.03

^aAll Chi-Squares are significant at $p < .01$.

A secondary purpose of the EFA was to identify items that may fit poorly within the proposed conceptual categories of Helping, Forgiving, and Protecting (or Commanding, Punishing, and Just & Fair for AuthGod). Poor fitting items can be identified by factor loadings of less than .5 and/or by high cross-loadings (variables loading on more than one factor with values greater than .2).

Table 2. *Factor loadings for Benevolent God-concept measurement model (EFA) in Study 1*

Benevolent God Adjective item	Helping Forgiving	Protecting
Helping	.63	.18
Compassionate	.90	-.06
Caring	.81	.00
Generous	.68	.09
<i>Concerned</i>	<i>.46</i>	<i>.22</i>
Forgiving	.80	-.06
Gracious	.72	.14
Accepting	.62	-.02
Merciful	.56	.19
<i>Pardoning</i>	<i>.39</i>	<i>.14</i>
Shielding	-.01	.68
Defending	.11	.62
Sheltering	-.01	.67
Guarding	.10	.66
Protecting	.25	.50

$N = 427$; Highest factor loadings for each variable are shown in **bold**; Items with low factor loadings are indicated in *italics*.

As can be seen in Table 2, the BenGod items with significant cross-loadings or with less than ideal factor loadings were Concerned and Pardoning and these were omitted in the test of the full measurement model.

EFA for AuthGod. The analysis of the descriptors for AuthGod revealed eigenvalues of 5.14 (F1), 1.94 (F2), 1.18 (F3), and .96(F4), suggesting that either a two- or three-factor model would provide adequate fit for the data.

Table 3. *Factor loadings for Authoritarian God-concept measurement model (EFA) in Study 1*

Authoritarian God Adjective item	Commanding	Punishing	Just & Fair
Strict	.81	.00	-.07
Commanding	.63	.08	.15
Controlling	.60	.13	.02
Restricting	.78	-.07	-.11
Stern	.72	-.06	.04
<i>Master</i>	.26	.04	.47
<i>Punishing</i>	.41	.36	.01
Critical	.60	.05	-.08
Angry	.05	.69	-.04
Wrathful	.10	.59	.00
Judging	-.01	.71	.01
Just	.10	.00	.60
Fair-minded	.00	-.15	.67
Unbiased	-.23	-.02	.54
<i>Impartial</i>	-.18	.23	.24

$N = 427$; Highest factor loadings for each variable are shown in **bold**; Items with low factor loadings are indicated in *italics*.

As shown in Table 1, the model fit statistics were poor for the one factor model; adequate for the two-factor model, $X^2(76) = 241$, RMSEA = .07, CFI = .91, SRMR = .04, and significantly improved ($\Delta X^2_{[13]} = 116$, $p < .001$) using the three-factor model, $X^2(63) = 125$, RMSEA = .05, CFI = .97, SRMR = .03. There

were two poor fitting items in the three-factor model identified by factor loadings of less than .5 and/or by high cross-loadings: Master on factors 1 and 3, and Impartial on factors 2 or 3, as shown in Table 3. These items were omitted in the analysis of the full measurement model.

In deciding whether to utilize the two- or three-factor solution in the CFA, a theoretical rather than a data-driven approach was taken. Since the primary goal of the factor analysis was to identify items uniquely contributing to a single factor (i.e., AuthGod) with good internal consistency reliability, I decided that by collapsing factors 1 and 2, I could utilize all of the critical items pertaining to both the Commanding and the Punishing nature of God in accord with previous research. This was critical because individuals' beliefs about the dual nature of God have been central in theorizing about God-concepts and their corresponding influence on attitudes and behaviors. Researchers have measured God-concepts in two broad, contrasting dimensions as loving and wrathful (Froese & Bader, 2010), loving and controlling (Benson & Spilka, 1973), kindly and wrathful (Gorsuch, 1968), positive and negative (Rosmarin, et al., 2009; Rosmarin, Pirutinsky, Pargament, & Krumrei, 2009), or nice and mean (Shariff & Norenzayan, 2011).

Finally, it was not irrefutably clear from the goodness of fit statistics that a two-factor model for AuthGod was inadequate inasmuch as (1) the fit statistics for the two-factor model were also good, and (2) there were only three items on the second factor (F2) of the three-factor solution, angry, wrathful, and judging, making this a very short scale, and (3) a scree plot indicated that a two-factor model may be preferred.

Therefore, consistent with the literature and because the EFA was intended to be only a preliminary test of the items, the decision was made to include the indicators from both of the first two factors of the EFA for AuthGod as a single factor in the measurement model – thereby incorporating both the commanding/ controlling as well as the punishing/wrathful factors as a single factor, AuthGod. This single factor would be tested again in the revised confirmatory factor analysis along with the BenGod items. The remaining indicators from the theorized measurement model (Just, Fair, Unbiased) were treated as a second, albeit weak, AuthGod factor – Just & Fair God (JustGod).

Confirmatory Factor Analysis. In light of the poor fit of the data to the original model, the EFA's were used to identify the problematic items associated with each of the two higher-order scales (i.e., BenGod and AuthGod).

Next, based upon the results of the two EFA's, a Confirmatory Factor Analysis (CFA) was conducted to test the four-factor measurement model using the remaining indicators. Each indicator was specified to load on only one of four factors, BenGod (F1), ProtectGod (F2), AuthGod (F3), or JustGod (F4) as suggested by the factor loadings from the EFA's (see Table 3). Preliminary analyses of the data had revealed evidence of nonnormality for some of the variables. Therefore, the CFA was conducted with robust maximum likelihood (MLM) estimation as recommended by Byrne (2012).

As expected, the goodness of fit statistics showed an acceptable fit of the data for the four-factor model, $MLM X^2(293) = 548$, $RMSEA = .05$, $CFI = .93$, $SRMR = .06$. The factor loadings for the four factors are shown in Table 4.

As anticipated, BenGod (F1) was positively correlated with ProtectGod (F2), $r = .65$. However, unexpectedly, JustGod (F4) was highly correlated with both Ben God, $r = .65$, and ProtectGod, $r = .83$, indicating that JustGod may have been mis-specified as an indicator of AuthGod. Therefore, a final model was tested with Helping & Forgiving (F1), Protecting (F2), and Just & Fair (F3) as first-order indicators of a second-order factor, BenGod, along with Commanding & Judging (F4) as the single indicator of AuthGod. The goodness of fit statistics indicated that this model was an equally good fit for the data, MLM $X^2(295) = 564$, RMSEA = .05, CFI = .93, SRMR = .07.

Table 4. *Factor loadings for God-concept measurement model (CFA) in Study 1*

Factor 1		Factor 2		Factor 3		Factor 4	
Benevolent God		Protecting God		Authoritarian God		Just God	
(alpha = .90)		(alpha = .81)		(alpha = .88)		(alpha = .60)	
Helping	.74	Protecting	.67	Commanding	.71	Just	.64
Compassionate	.86	Guarding	.73	Strict	.78	Fair-minded	.64
Caring	.85	Defending	.70	Control	.70	Unbiased	.45
Generous	.75	Shielding	.66	Restricting	.68		
Forgiving	.79	Sheltering	.66	Stern	.66		
Accepting	.64			Punishing	.69		
Merciful	.64			Critical	.61		
Gracious	.80			Angry	.58		
				Wrathful	.58		
				Judging	.56		

However, there was no longer any obvious theoretical reason to collapse the three factors of BenGod into one scale – especially since JustGod had been re-specified as an indicator of BenGod rather than AuthGod. Additionally, each of the three factors may contribute uniquely to the proposed beliefs about the self

and the world. For example, belief that God is helping and forgiving may be associated with a benevolent self-identity whereas belief that God is just may be associated with BJWO.

Thus, as shown in Table 4, the four factor model relating to God's nature was retained and the final adjectives serving as indicators for the latent variables were: Benevolent God (BenGod) – Helping, Compassionate, Caring, Generous, Forgiving, Gracious, Accepting, and Merciful ($M = 6.20$, $SD = .92$; $\alpha = .90$); Protecting God (ProtectGod) – Protecting, Guarding, Defending, Shielding, Sheltering ($M = 5.60$, $SD = 1.13$; $\alpha = .81$); Authoritarian God (AuthGod) – Strict, Commanding, Controlling, Restricting, Stern, Punishing, Critical, Angry, Wrathful, and Judging ($M = 3.27$, $SD = 1.23$; $\alpha = .88$); and Just & Fair God (JustGod) – Just, Fair, Unbiased ($M = 5.43$, $SD = 1.24$; $\alpha = .60$). Scores for BenGod and AuthGod were uncorrelated, $r = .02$, $p = .65$.

As a test of the validity of the scale scores, participants' ratings for the single items "God is benevolent" and "God is authoritarian" were correlated with each of the four God-concepts. Likert scale ratings for "God is benevolent" were positively and significantly correlated (all p 's < .001) with the BenGod, ProtectingGod, and JustGod scores, $r = .59$, $.49$, $.36$, respectively, but uncorrelated with the AuthGod scale, $p = .61$. Participants' ratings for the single item, "God is authoritarian" were also positively and significantly correlated with BenGod and ProtectingGod, $r = .15$, $.27$, respectively, but more highly correlated with the AuthGod scores, $r = .58$, (all p 's < .002). Contrary to original

predictions but consistent with the analysis of the measurement model, “God is Authoritarian” was uncorrelated with the JustGod scale, $p = .10$.

The indirect effects of ProtectGod and JustGod on Intentions to Volunteer may be interesting. However, the purpose of the present research was to define and investigate the effects of Benevolent and Authoritarian God-concepts on Volunteerism; and the unique effects of ProtectGod or JustGod, over and above BenGod, had not been included in the model. Further, the reliability of the JustGod scale was quite low ($\alpha = .60$). Therefore, the analytic strategy was to test the Conceptual Model using the Helping & Forgiving scale as the BenGod scale and the Commanding & Judging scale as the AuthGod scale. The concepts ProtectGod and JustGod would be tested for exploratory purposes only after controlling for all other variables and significant pathways in the original Conceptual Model (Model 1). If the original Conceptual Model required re-specification, the concepts ProtectGod and JustGod would be tested for significance in the re-specified model.

Descriptive statistics for model variables.

As shown in the conceptual model in Figure 1, there were 12 proposed variables. The number of items for each of these variables ranged from four (e.g., Moral Obligation, External Motivation) to ten (e.g., AuthGod). Using manifest variables (parcels or aggregated scale scores) rather than latent variables is often recommended in path analyses when the ratio of number of indicators to sample size is relatively large (Little, Cunningham, Shahar, & Widaman, 2001). This is because fewer parameters are estimated when manifest variables are used. Thus,

indexes of model fit are often more acceptable with manifest variables, provided that each of the variables are unidimensional with high reliability. In that same vein, the pragmatic (but more liberal) position taken by many statisticians is that research should aim to build replicable models based on scale scores representing core constructs that can be readily assessed using established measures.

Thus, given the complexity of the research model, aggregate scale scores were computed for each of the measured Beliefs about God, Beliefs about Self and the World, Volunteer Motivations, and Intentions to Volunteer. This was done by taking the average of all the items for that scale. The aggregate score was computed only if more than 75% of the items for that scale had been answered by the individual participant. After all scale scores were computed for each of the 427 participants, there was only one missing data point – an aggregate score missing for one participant on the scale JustGod. This was indicated by entering a missing data marker score of -99 in the dataset and by using a listwise deletion for missing data in subsequent analyses.

There was also one outlier in the data – a participant with scores of 1 on aggregate ratings for BenGod, AuthGod, JustGod, and ProtectGod. This suggests that the participant may not believe in a personal God – a criterion for inclusion in this study. Therefore, the participant was excluded from further analysis of the data. The final data set included 425 cases with no missing data. The means, standard deviations, reliability coefficients, number of items, and representative items for each of the manifest variables are shown in Table 5.

Table 5. *Descriptive Statistics for Variables in the Conceptual Model in Study 1*

Variable	M	SD	Alpha	#Items	Representative Item
BenGod	6.20	.92	.90	8	God is helping/forgiving
*ProtectGod	5.60	1.13	.81	5	God is protecting
AuthGod	3.27	1.23	.87	8	God is strict/punishing
*JustGod	5.43	1.24	.60	3	God is just/fair
BenSelf	5.98	.92	.79	6	I am the sort of person who [is compassionate and caring]
MoralObl	4.70	1.10	.77	4	People have a moral obligation to volunteer to help others
RelOblig	5.30	1.23	.84	5	God commands people to help one another
BJWO	3.68	1.03	.75	6	People get what they deserve
PersResp	5.07	.86	.70	8	I would feel less bothered about leaving litter in a dirty park than in a clean one
Internal	4.94	1.10	.87	8	I volunteer because it is part of who I am
*Integrated	4.73	1.32	.83	4	I volunteer because it is one of the ways I live my life
*Identified	5.05	1.16	.78	4	I volunteer because it's a good way to contribute
Introjected	3.80	1.47	.79	4	I volunteer because I would feel guilty if I did not volunteer
External	3.33	1.36	.72	4	I volunteer because I will earn rewards in the afterlife
Amotivation	1.84	1.17	.86	4	I don't know; I can't see how volunteering really helps
VolIntent	4.66	1.34	.92	9	I am likely to volunteer . . .
*VolIntentUS	4.65	1.34	.83	5	Helping underprivileged youths learn to read
*VolIntentFOR	4.68	1.60	.96	4	I would be likely to package school supplies to ship to natural disaster victims in Israel

*Variables not included in the model

Table 6. Zero-order correlations between the manifest variables in the conceptual model, Study 1

	Variables																										
	Ben God		Protect God		Auth God		Just God		Ben Self		Moral Obl		Rel Oblig		Pers Resp		Internal MOT		Introj MOT		External MOT		Amotive				
BenGod																											
ProtectGod	.56 ^{**}																										
AuthGod	.02	.22 ^{**}																									
JustGod	.47 ^{**}	.57 ^{**}	.04																								
BenSelfInt	.34 ^{**}	.23 ^{**}	-.22 ^{**}	.16 ^{**}																							
MoralObl	.23 ^{**}	.16 ^{**}	.06	.13 ^{**}	.31 ^{**}																						
RelOblig	.38 ^{**}	.43 ^{**}	.36 ^{**}	.24 ^{**}	.13 ^{**}	.31 ^{**}																					
BJWO	-.12 [*]	-.04	.05	-.11 [*]	-.14 ^{**}	.08	.03																				
PersResp	.20 ^{**}	.12 [*]	-.18 ^{**}	.12 [*]	.40 ^{**}	.12 [*]	.14 ^{**}	-.40 ^{**}																			
InternalM	.20 ^{**}	.21 ^{**}	.02	.14 ^{**}	.34 ^{**}	.42 ^{**}	.21 ^{**}	.02	.12 [*]																		
IntrojM	.02	.08	.04	.04	.11 [*]	.40 ^{**}	.20 ^{**}	.08	-.10 [*]	.47 ^{**}																	
ExternalM	.13 [*]	.26 ^{**}	.28 ^{**}	.12 [*]	-.00	.20 ^{**}	.39 ^{**}	.16 ^{**}	-.23 ^{**}	.25 ^{**}	.40 ^{**}																
Amotive	-.26 ^{**}	-.14 ^{**}	.23 ^{**}	-.11 [*]	-.48 ^{**}	-.20 ^{**}	-.05	.12 [*]	-.41 ^{**}	-.23 ^{**}	.09 [*]	.25 ^{**}															
VollIntent	.17 ^{**}	.17 ^{**}	-.00	.13 ^{**}	.25 ^{**}	.30 ^{**}	.22 ^{**}	-.00	.13 ^{**}	.47 ^{**}	.27 ^{**}	.20 ^{**}	-.22 ^{**}														

Correlations between all variables in the model (including the ProtectGod and JustGod variables) are shown in Table 6. As can be seen there, Intentions to Volunteer were most highly correlated with Internal Motives, $r = .47, p < .01$. There were a number of high correlations between variables not predicted in the conceptual model, suggesting that the model may need to be respecified and that some pathways may need to be added to or omitted from the model. For example, there was a significant, negative correlation between Authoritarian God and Benevolent Self, $r = -.22, p < .01$. Moral Obligation was highly correlated with Internal Motives, $r = .42, p < .01$. Further, Authoritarian God was uncorrelated with both Moral Obligation, $r = .06$, and BJWO, $r = .05$; and BJWO was only very weakly correlated with Amotivation, $r = .12, p < .05$.

Path analysis of conceptual Model 1.

A path analysis was conducted using MPlus software, version 6. Preliminary analysis had revealed that all variables except BJWO were significantly skewed; for example, BenGod and Benevolent Self were each negatively skewed and Amotivation was positively skewed. Therefore, the models were estimated with robust maximum likelihood (MLM) estimation to adjust for the nonnormality. The significance of each parameter respecification was tested with the Satorra-Bentler scaled chi square as recommended by Byrne (2012) and Tabachnick and Fidell (2007). Scaling output corrections are necessary when using robust MLM estimation. The Satorro-Bentler chi-square difference test is computed in a three step process: (1) the scaling correction factor is obtained from the MPlus output, (2) the degrees of freedom and MLM

chi-square are adjusted by the scaling correction factor, (3) the difference in the re-scaled chi-squares is computed and then tested for significance.

As in the CFA, values less than .06 for the RMSEA, greater than .95 for the CFI, and less than .05 for the SRMR were used to conclude there was good model fit (Hu and Bentler, 1999).

To begin, a model was tested specifying the structural paths among the manifest variables in accord with the predictions of the conceptual model (Figure 1). All variables within each class of variables were allowed to correlate. So, for example, Internal, Introjected, External, and Amotivation Motives were allowed to correlate with every other variable in the Volunteer Motives class. As shown in the first row of Table 7, the fit of the data to the structure of the conceptual model was poor, $MLM X^2(31) = 228$, $RMSEA = .12$, $CFI = .80$, $SRMR = .09$.

Post hoc model modifications are typically required in the analysis of structural equations (Byrne, 2012) and were, therefore, performed in an attempt to develop a better fitting model. The goal was to specify the most parsimonious model with both good theoretical justification for each estimated parameter and with good fit statistics. To that end, I followed the recommendation of Tabachnick and Fidell (2007) to add one new path at a time, checking for an incremental improvement in fit statistics, until a good fit of the model to the data has been reached; then, all non-significant paths were to be omitted.

In order to determine which paths to add, I consulted the modification indices provided in the MPlus output. Modification indices are estimates of the incremental reduction in chi-square that could be achieved by the addition of

specified pathways. However, paths suggested by the modification indices were added only if doing so was reasonable within the conceptual framework as discussed below. (So, for example, a suggested path leading from Amotivation back to Benevolent Self was not added to the model.)

Table 7. *Sequential Chi-square difference tests for Model 1 in Study 1*

Analysis	df	Chi-Square^a	RMSE A	CFI	SRMR	ΔX^2
Conceptual Model	31	228	.12	.80	.09	
<i>Add paths:</i>						
Internal Motive regressed on Moral Oblig	30	184	.11	.84	.07	43.90***
Amotivation regressed on Benevolent Self	29	116	.08	.91	.06	56.02***
Extern Motive regressed on Personal Respons	28	91	.07	.94	.05	24.52***
Benevolent Self regressed on AuthGod	27	75	.07	.95	.04	17.55***
BJWO regressed on BenGod	26	70	.06	.96	.04	5.47**
<i>Omit non-significant paths:</i>						
Moral Oblig regressed on AuthGod	27	71	.06	.95	.04	1.77
BJWO regressed on AuthGod	28	72	.06	.96	.05	1.38
Amotivation regressed on BJWO	29	73	.06	.96	.05	0.01
Volunteer intentions regressed on Introjected	30	74	.06	.96	.05	1.33
AuthGod uncorrelated with BenGod	31	75	.06	.96	.05	0.11
<i>Omit Variable BJWO:</i>						
BJWO regressed on BenGod – Final Model	25	68	.06	.95	.05	6.69**

^aAll Chi-Squares are significant at $p < .01$.

*** $p < .005$; ** $p < .025$

Thus, my strategy was to add, one at a time, the paths with the greatest estimated reduction in chi-square until the model provided a good fit for the data as discussed below. The incremental improvement in chi-square for each added pathway can be seen in Table 7. The final model provided a good fit for the data, MLM $X^2(25) = 68$, RMSEA = .06, CFI = .95, SRMR = .05.

Added pathways.

A total of five paths were added to the model: (1) Internal Motives regressed on Moral Obligation, (2) Amotivation regressed on Benevolent Self, (3) External Motives regressed on Personal Responsibility, (4) Benevolent Self regressed on AuthGod, and (5) Belief in a Just World for Others was regressed on BenGod (this path was omitted later in the analyses as BJWO did not predict any Volunteer Motive).

Three paths pertained to beliefs regarding the Self and the World. First, Moral Obligation was added as a significant predictor of Internal Motives. This is consistent with research in moral decision making (e.g., Haidt & Graham, 2007) showing that moral judgments are grounded in both social norms (external to the self) and personal intuitions (internalized values).

Second, increased scores on Benevolent Self led to a reduction in Amotivation. This, too, is understandable. Since Benevolent Self was a strong *positive* predictor of Internal Motives and, thereby, Intentions to Volunteer, it follows that scores on Benevolent Self would be *negatively* associated with the inverse – Amotivation (i.e., not being motivated to volunteer).

Third, Personal Obligation was a significant, *negative* predictor of External Motives. Similar to the inverse effects of Benevolent Self on Internal Motives and Amotivation, this path seems to model the inverse of the predicted positive path from Personal Responsibility to Internal Motives. High scores on Personal Responsibility reflect an attitude that one should help (positive effect on Internal Motive) even when others do not (negative effect on External Motive).

In the original conceptual model, Benevolent God was predicted to be the only God-concept to be positively associated with belief in a Benevolent Self. In the final model, a negative pathway from Authoritarian God to Benevolent Self was added. If people see God as punishing, wrathful, and commanding, they may be less likely to see themselves as forgiving, compassionate, and gracious. This is consistent with studies showing that opinions of the self are mirrored by opinions about God (Epley, et al., 2009; Roberts, 1989).

Omitted pathways.

After the addition of the significant pathways discussed above, four non-significant hypothesized paths between classes of variables were deleted from the model: (1) Moral Obligation was not predicted by belief in AuthGod, (2) Belief in a Just World for Others (BJWO) was not predicted by belief in AuthGod, (3) Amotivation was not predicted by BJWO, and (4) Intentions to Volunteer were not predicted by Introjected Motivation. Also, because BenGod and AuthGod were uncorrelated (standardized coefficient $-.01$, $p = .78$) this parameter was constrained to zero. Finally, because BJWO had no effect on any of the measured Volunteer Motives, one of the parameters that had been added earlier regressing

BJWO on Benevolent God, $\beta = -.11$, and all the related within-class correlations (e.g., BJWO with Benevolent Self) were deleted from the model.

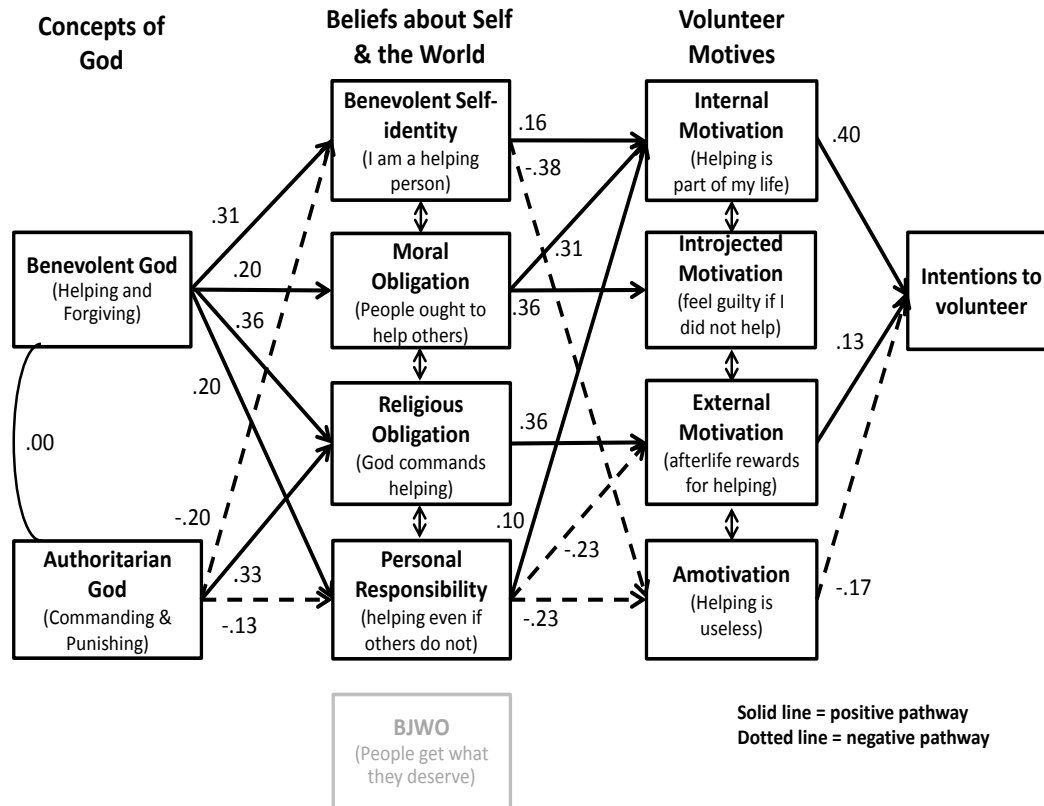
In contrast to previous research (Pichon & Saroglou, 2009), BJWO was a non-significant predictor of Amotivation in this student sample. The negative correlation between BJWO and Personal Responsibility (Table 6; $r = -.40$) suggests that BJWO is associated with less Personal Responsibility and this may represent the pathway by which BJWO is inversely related to volunteerism.

Two additional pathways were omitted in the post hoc analysis. Introjected Motivation was not a significant predictor of Intentions to Volunteer. Introjected Motivation assesses feelings of guilt for not volunteering, and a simple explanation is that guilt does not motivate religious people to help unrelated others. As can be seen in Table 6, Introjected Motivation was highly correlated with both Internal Motivation, $r = .47, p < .01$, and External Motivation, $r = .40, p < .01$; and yet less highly correlated with Volunteer Intentions, $r = .27, p < .01$. Thus, it may also be that feelings of guilt for not volunteering come into play only via the other motivational pathways.

Finally, scores on Authoritarian God were uncorrelated with a Moral Obligation to help but, notably, significantly and positively correlated with Religious Obligation, $r = .36, p < .01$. This lends support to previous research showing that people differentiate between moral and religious obligations (Cohen, et al., 2005) and that God-concepts may be important in making that distinction (Morewedge & Clear, 2008).

The fit of the data to the final model was good, MLM $X^2(25) = 68$, RMSEA = .06, CFI = .95, SRMR = .05, as shown in the final row of Table 7. Overall, the model accounted for 23% of the variance in Intentions to Volunteer. The standardized coefficients for the final model are depicted in Figure 4.

Figure 4. Significant Path Coefficients in the Structural Model 1 in Study 1



Standardized coefficients for the significant paths between four classes of variables in the final model: Beliefs about God, Beliefs about the Self and the World, Volunteer Motivations, and Intentions to Volunteer, $X^2(25) = 68$, RMSEA = .06, CFI = .95, SRMR = .05. All p 's < .001 except Personal Responsibility leading to Internal Motivations, $p = .05$. Four paths were added to the conceptual model: (1) Authoritarian God → Benevolent Self, (2) Benevolent Self → Amotivation, (3) Moral Obligation → Internal Motives, and (4) Personal Responsibility → External Motives. Four paths were deleted from the conceptual model: (1) Authoritarian God → BJWO, (2) Authoritarian God → Moral Obligation, (3) BJWO on Amotivation, and (4) Introjected → Volunteer Intentions. Correlations between variables within each class are omitted for clarity and can be seen in Table 8.

Table 8. *Correlations between variables within each class in Model 1 in Study 1*

Correlation by Variable Class	Standardized Coefficients	p-value
<i>Beliefs about Self & the World</i>		
Benevolent Self with Moral Obligation	.28	<.001
Benevolent Self with Religious Obligation	.11	.025
Benevolent Self with Personal Responsibility	.31	<.001
Moral Obligation with Religious Obligation	.23	<.001
Moral Obligation with Personal Responsibility	.11	.018
Religious Obligation with Personal Responsibility	.15	.002
<i>Volunteer Motives</i>		
Internal Motive with Introjected Motive	.39	<.001
Internal Motive with External Motive	.20	<.001
Internal Motive with Amotivation	-.05	.407
Introjected Motive with External Motive	.31	<.001
Introjected Motive with Amotivation	.16	<.001
External Motive with Amotivation	.24	<.001

The indirect effects related to all significant paths in the model are shown in Table 9. The sum of the indirect effects, also sometimes called the total indirect (or total) effect, is the sum of the indirect effects that a predictor variable has on an endogenous variable via mediating variables. The indirect effects and their sums for BenGod and AuthGod on Volunteer Intentions are presented in Table 9 and discussed in the following section.

Effects of Belief in a Benevolent God. There are multiple pathways that highlight the relation between belief in a benevolent God and intentions to volunteer (sum of the indirect effects, $\beta = .09, p < .001$). As predicted (H1), high scores on BenGod were associated with high scores on Benevolent Self which, in turn, was associated with high scores on Internal Motivation (the strongest motivational predictor of intentions to volunteer in this study), $\beta = .02, p = .01$. Consistent with H1, high scores on Benevolent Self were also associated with low

scores on Amotivation (the disinclination to volunteer), with a positive total effect of BenGod → Benevolent Self → Amotivation → Volunteer Intentions, $\beta = .02$, $p < .001$. Taken together, these pathways highlight the importance of belief in a Benevolent God and a Benevolent Self in relation to Intentions to Volunteer.

Table 9. *Standardized indirect effects depicted in the model from Benevolent and Authoritarian God to Volunteer Intentions (the final endogenous variable)*

Path	Indirect		
	Effects (IE)	SE	IE/SE
<i>Benevolent God</i>			
BenGod → BenSelf → Internal → Volunteer Int	.02	.01	2.80**
BenGod → BenSelf → Amotivation → Volunteer Int	.02	.01	3.12**
BenGod → Moral Oblig → Internal → Volunteer Int	.02	.01	3.43***
BenGod → Religious Oblig → External → Volunteer Int	.02	.01	2.43**
BenGod → Personal Respons → Internal → Volunteer Int	.01	.00	1.71
BenGod → Personal Respons → External → Volunteer Int	-.01	.00	-2.07*
BenGod → Personal Respons → Amotive → Volunteer Int	.01	.00	2.33**
Sum of the Indirect Effects BenGod → Volunteer Intentions	.09	.02	6.12***
<i>Authoritarian God</i>			
AuthGod → BenSelf → Internal → Volunteer Int	-.01	.01	-2.81**
AuthGod → BenSelf → Amotivation → Volunteer Int	-.01	.00	-3.01***
AuthGod → Religious Oblig → External → Volunteer Int	.02	.01	2.49**
AuthGod → Personal Respons → Internal → Volunteer Int	-.01	.00	-1.76
AuthGod → Personal Respons → External → Volunteer Int	.00	.00	1.83
AuthGod → Personal Repons → Amotive → Volunteer Int	-.01	.00	-2.10*
Sum of the Indirect Effects AuthGod → Volunteer Intentions	-.02	.01	-1.66

*** $p < .001$; ** $p < .025$; * $p < .05$

As hypothesized (H2), BenGod was positively associated with Moral Obligation which, in turn, was associated with higher scores on Introjected Motivation (feeling guilty for not helping), $\beta = .07, p < .001$ (Table 10).

Although Introjected Motivation was positively correlated with Volunteer Motivations, it was not a significant predictor of Volunteer Intentions after controlling for Internal and External Motivations. Instead, it was discovered that Moral Obligation was also significantly and positively associated with Internal Motives, $\beta = .31$. Further, the BenGod \rightarrow Moral Obligation \rightarrow Internal Motivations \rightarrow Volunteer Intentions was the only significant path for BenGod via Moral Obligation, $\beta = .02, p < .001$ (Table 9).

As hypothesized (H3), Benevolent God was also associated with increased perceived Religious Obligation to help which was, in turn, associated with External Motivation, leading to Volunteer Intentions, $\beta = .02, p = .02$. As predicted by self-determination theory (Ryan & Deci, 2000) and in accord with previous research (Grano, et al., 2008), External Motivation was less likely to increase Volunteer Intentions relative to Internal Motivations, $\beta = .13$ versus $\beta = .40$, respectively.

In accord with hypothesis (H4), BenGod was positively associated with Volunteer Intentions via a positive effect on Personal Responsibility and a negative effect on Amotivation, $\beta = .01, p = .02$. However, the indirect effect of BenGod on Intentions to Volunteer via Personal Responsibility and Internal Motives was not significant, $\beta = .01, p = .09$. A second path had been added in the re-specification of effects of belief in a Benevolent God – the direct and

negative effect of Personal Responsibility on External Motivation, $\beta = -.23$ (Figure 4). The indirect effect of the BenGod \rightarrow Personal Responsibility \rightarrow External Motives \rightarrow Volunteer Intentions path was significant, $\beta = -.01, p = .04$.

Effects of Belief in an Authoritarian God. Unlike belief in a benevolent God, the sum of the indirect effects of belief in an authoritarian God on Volunteer Intentions was not significant, $\beta = -.02, p = .10$. Contrary to hypothesis (H5), the path from Authoritarian God to Moral Obligation was not significant, $\beta = .08, p = .18$. Even when considering the zero-order correlations, $r = .06$, AuthGod and Moral Obligation were not significantly correlated, suggesting the effect was not simply being partialled out in the structure model.

However, as hypothesized (H6), belief in an AuthGod was associated with a perceived Religious Obligation to help which, in turn, was positively associated with External Motivations and Intentions to Volunteer, $\beta = .02, p = .01$.

Further, as predicted (H7), AuthGod was significantly and negatively associated with Personal Responsibility. That is, believing that God is commanding and punishing seems to be associated with feelings that an individual will help only if others also help which, in turn, is both negatively associated with Internal Motivation and positively associated with Amotivation.

However, whereas the indirect effect for the path AuthGod \rightarrow Personal Responsibility \rightarrow Amotivation \rightarrow Volunteer Intentions path was significant, $\beta = -.01, p = .04$, the path via Internal Motivations was not, $\beta = -.01, p = .08$.

Table 10. Sums of the standardized indirect effects for paths depicted in the final model between the exogenous variables BenGod and AuthGod and Volunteer Motives in Study 1

Path	(IE)	SE	IE/SE
<i>Indirect paths to Internal Motives</i>			
BenGod → BenSelf → Internal Motives	.05	.02	2.87**
BenGod → Moral Oblig → Internal Motives	.06	.02	3.73***
BenGod → Personal Respons → Internal Motives	.02	.01	1.76
Indirect effects BenGod to Internal Motives	.13	.02	6.13***
AuthGod → BenSelf → Internal Motives	-.03	.01	-2.94**
AuthGod → Personal Respons → Internal Motives	-.01	.01	-1.83
Indirect effects AuthGod to Internal Motives	-.04	.01	-3.88***
<i>Indirect paths to Introjected Motives</i>			
BenGod → Moral Oblig → Introjected Motives	.07	.02	4.03***
Indirect effects BenGod to Introjected Motives	.07	.02	4.03***
AuthGod → Moral Oblig → Introjected Motives	.00	.00	.00
Indirect effects AuthGod to Introjected Motives	.00	.00	.00
<i>Indirect paths to External Motives</i>			
BenGod → Religious Oblig → External Motives	.13	.03	5.18***
BenGod → Personal Respons → External Motives	-.04	.01	-3.08**
Indirect effects BenGod to External Motives	.09	.03	3.08**
AuthGod → Religious Oblig → External Motives	.12	.02	5.73***
AuthGod → Personal Respons → External Motives	.03	.01	2.37**
Indirect effects AuthGod to External Motives	.15	.02	6.31***
<i>Indirect paths to Amotivation</i>			
BenGod → BenSelf → Amotivation	-.12	.03	-4.79***
BenGod → Personal Respons → Amotivation	-.05	.02	-2.95**
Indirect effects BenGod to Amotivation	-.16	.03	-5.16***
AuthGod → BenSelf → Amotivation	.08	.02	3.98***
AuthGod → Personal Respons → Amotivation	.03	.01	2.45**
Indirect effects AuthGod to Amotivation	.11	.03	4.47***

*** $p < .001$; ** $p < .025$; * $p < .05$

Finally, the path from Personal Responsibility to External Motives had been added in the re-specification; however, the AuthGod → Personal Responsibility → External Motivation → Volunteer Intentions path was not significant, $\beta = .00$, $p = .07$. In sum, there appears to be little evidence that AuthGod predicts Volunteer Intentions via Personal Responsibility.

Contrary to the study hypothesis (H8), belief in an authoritarian God was not significantly associated with belief in a just world for others (BJWO), $\beta = .07$, $p = .17$. The indirect effect of the path from AuthGod → BJWO → Amotivation → Volunteer Intentions was also non-significant, $\beta = .00$, $p = .52$. Moreover, despite previous research to the contrary (e.g., Pichon & Saroglou, 2009), BJWO was not directly associated with any of the Volunteer Motives. Thus, the manifest variable BJWO was omitted from the re-specified model shown in Figure 4.

Finally, although not hypothesized, AuthGod was associated with an indirect negative effect on Volunteer Intentions via Benevolent Self and Internal Motivations, $\beta = -.01$, $p = .01$, as well as via Benevolent Self and Amotivation, $\beta = -.01$, $p < .001$. This is in contrast to the positive effects of Benevolent God and is consistent with the zero-order correlations shown in Table 6, where it can be seen that BenGod was positively associated with Volunteer Intentions ($r = .16$, $p = .001$), whereas AuthGod and Volunteer Intentions were not ($r = -.00$, $p = .95$).

In conclusion, the positive indirect effects of AuthGod via Religious Obligation appear to be negated by the negative effects via Benevolent Self.

Tests of moderation (Model 2)

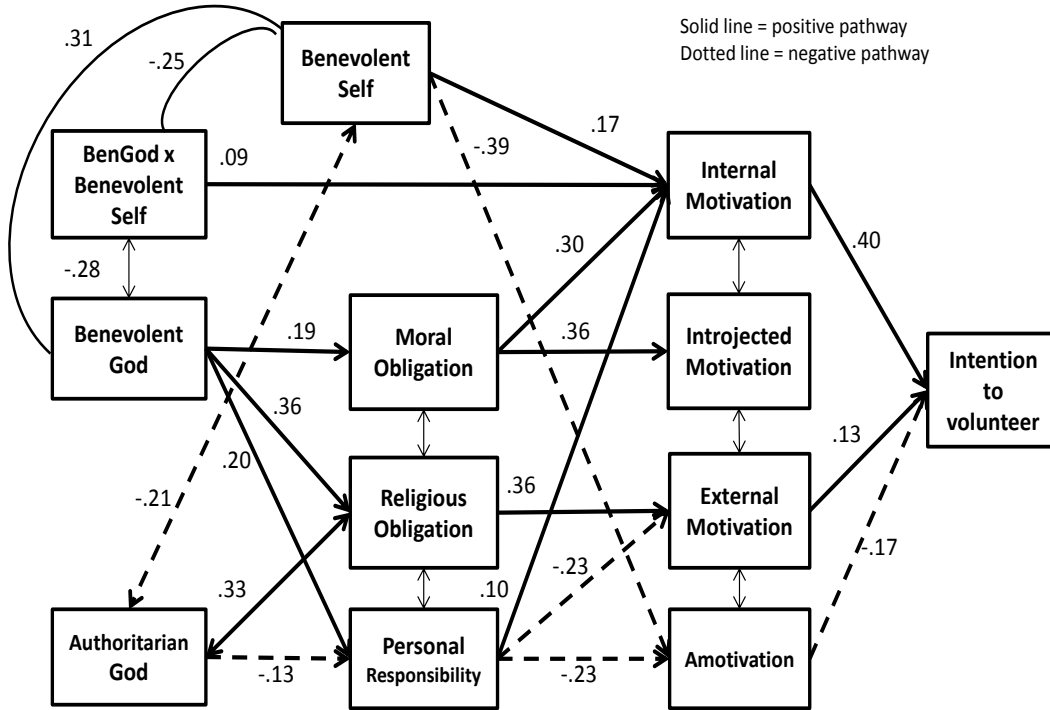
Next, an alternative Model 2 was tested which posits that BenGod and AuthGod are moderators of the effects of particular beliefs about the self and the world on Volunteer Motives. To that end, all the relevant manifest variables in the data set were first centered, and then interaction terms were calculated for the hypothesized interactions: (1) BenGod interacts with Benevolent Self to affect Internal Motives, (2) BenGod interacts with Moral Obligation to affect Introjected Motives, and (3) AuthGod interacts with Religious Obligations to affect External Motives. A fourth interaction, AuthGod interacts with BJWO to affect Amotivation was not included inasmuch as BJWO was omitted from the final, re-specified model. The re-specified Model 1 had included another important path, Moral Obligation leading to Internal Motivation. Therefore, the interaction of BenGod and Moral Obligation to affect Internal Motives was also tested.

In order to test the effects of the interaction terms, it was also necessary to re-specify Model 2 so that the endogenous variables Benevolent Self, Moral Obligation, and Religious Obligation served as exogenous variables. Further, where necessary, significant regression paths in Model 1 were re-specified as correlations in Model 2 (e.g., Benevolent Self was no longer regressed on AuthGod and, instead, allowed to correlate with AuthGod).

The data had been analyzed with MLM in Model 1 to correct for non-normality which required a scaling correction to test the chi-square difference in sequential models. However, since all the variables had been centered in Model

2, ML (Maximum Likelihood) was utilized, and the significance of the chi-square difference was calculated without the need for the Satorro-Bentler correction.

Figure 5. Significant Path Coefficients and Correlations in the Interaction Model 2 in Study 1



Standardized coefficients for the model adding the interaction term (BenGod x Benevolent Self) with significant paths between four classes of variables in the final model: Beliefs about God, Beliefs about the Self and the World, Volunteer Motivations, and Intentions to Volunteer, $X^2(31) = 87$, RMSEA = .07, CFI = .94, SRMR = .05. All p 's < .001 except Interaction term and Personal Responsibility leading to Internal Motivations, $p = .04$ and $.03$, respectively. Some correlations between variables within each class are omitted for clarity.

As had been done in analyzing Model 1, the four interaction terms (with their related correlations) were tested sequentially in four separate steps. In the path analysis model, the interaction of BenGod with Benevolent Self as a predictor of Internal Motives was significant, $\beta = .09$, $p = .04$, and the effect of BenGod on Internal Motives was no longer significant, $p = .20$. However, the

overall fit of the model (Figure 5) was slightly degraded with the additional degrees of freedom, $X^2(31) = 87$, RMSEA = .07, CFI = .94, SRMR = .05; $\Delta X^2(6) = 16$, $p < .025$.

The interaction of BenGod with Moral Obligation as a predictor of Introjected Motives was non-significant, $\beta = .05$, $p = .27$.

The interaction of BenGod with Moral Obligation as a predictor of Internal Motives was also non-significant, $\beta = .04$, $p = .43$.

Finally, the interaction of AuthGod with Religious Obligation as a predictor of External Motives was not significant, $\beta = .03$, $p = .44$. Figure 5 presents the expanded model with the single interaction term, Benevolent God by Benevolent Self, added.

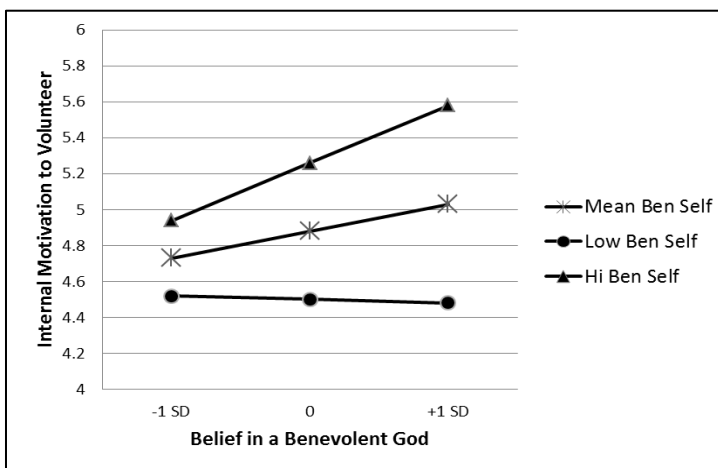
Decomposition of BenGod x Benevolent Self Interaction. The single significant interaction, BenGod with Benevolent Self, was further probed in SPSS. In testing the interaction effect, centered scores for all variables (from the MPlus data file) were used. The interaction term was re-created in SPSS by multiplying the centered scores for BenGod by the centered Benevolent Self scores. Since Moral Obligation was also an important predictor of Internal Motivations, a regression model was run which included Moral Obligation.

Outside of the full structural model, the BenGod by Benevolent Self interaction effect, $\beta = -.09$, was not a significant predictor of Internal Motivation, $p = .056$. The full model accounted for 21% of the variance in frequency of volunteer scores, $F(4, 420) = 27.34$, $p < .001$. Above and beyond the main effects of Benevolent Self, however, the interaction term accounted for less than 1% of

the variance in Internal Motivation. Notably, the effect of BenGod was also non-significant in the SPSS model, $p = .23$, with Moral Obligation included in the model.

Nevertheless, to further probe the interaction effect on Internal Motivation in the full model, simple slopes were calculated following procedures outlined in Aiken and West (1991). When centered BenGod scores were the predictor, the equation for predicted Internal Motivation scores was $\hat{Y}_i = .166(X_i) + 4.877$. To illustrate the interaction effects, predicted Internal Motivation scores were generated for individuals who were: (a) one standard deviation below the mean, (b) at the mean, and (c) one standard deviation above the mean on the BenGod scale. As can be seen in Figure 6, the positive relation between Benevolent Self and Internal Motivation was much stronger among participants who were high in belief in a benevolent God. In other words, belief in a benevolent God augments the relation between Benevolent Self and Internal Motivations to Volunteer.

Figure 6. Plot of Interaction of Benevolent God by Benevolent Self on Internal Motivation to volunteer in Study 1 ($N = 425$).



Post hoc tests.

Exploratory tests for possible interactions. Certain interaction terms had been hypothesized as an alternative to the conceptual model. However, because MPlus modification indices do not specify the addition of interaction terms, an exploratory analysis was conducted using SPSS software using centered variables, and testing three sets of additional, potential interactions: (1) the interaction of BenGod by AuthGod on Beliefs about Self & the World, (2) the interaction of God-concept by Beliefs about Self & the World on Motivations, and (3) the interaction of the God-concept by each Motivation on Intentions to Volunteer.

Tests of the effects of the AuthGod by BenGod interaction indicated there were no significant interaction effects on Benevolent Self, Religious Obligation, Personal Responsibility, and BJWO. However, the interaction was significant for Moral Obligation, $\beta = -.12, p = .01$. An analysis of the simple slopes revealed that those who were high in both AuthGod and BenGod were equally likely to report a perceived Moral Obligation to help others. Those who were one standard deviation below the mean for BenGod but high in AuthGod were also likely to perceive a moral obligation. However, those who were low in both BenGod *and* AuthGod were the least likely to perceive a Moral Obligation to volunteer.

As can be seen in Table 11, the next set of exploratory analyses revealed that there were several significant interactions involving the God-concept by Belief about Self & World on Volunteer Motivations. For example, as previously discussed, the effect of a Benevolent Self on Internal Motivations to volunteer may depend upon one's concept of God, such that a Benevolent Self-identity is

strengthened by belief in a Benevolent God-concept but – as suggested by the analyses here – may also be weakened by belief in an Authoritarian God.

Table 11. *Exploratory analysis of the interactions of God-concepts by Beliefs on Volunteer Motivations*

Interaction Term	Internal		Introjected		External		Amotivation	
	β	p	β	p	β	p	β	p
<i>BenGod x</i>								
BenSelf	.15 ^a	.00***	.09	.09	.11	.03*	.04	.37
MoralOblig	.06 ^a	.17	.06 ^a	.22	-.01	.86	-.08	.12
ReligOblig	.03	.49	.05	.27	.03	.59	-.01	.92
PersResp	.06	.25	.03	.60	.07	.17	.20	.00***
BJWO	-.07	.18	-.06	.22	.02	.71	-.01	.86
<i>AuthGod x</i>								
BenSelf	-.17	.00***	-.11	.03*	-.13	.01**	-.16	.00***
MoralOblig	-.10	.03*	-.06	.17	-.03	.50	.02	.62
ReligOblig	.06	.25	-.08	.13	-.01 ^a	.88	-.11	.03*
PersResp	-.07	.17	-.06	.24	-.03	.60	-.13	.00***
BJWO	-.02	.63	-.13	.01**	-.01	.87	.07 ^a	.13

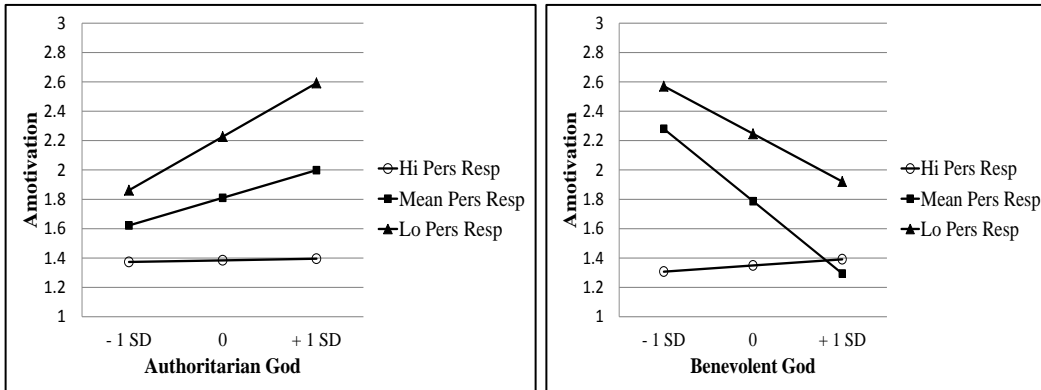
*** $p < .001$; ** $p < .025$; * $p < .05$

^a Hypothesized interactions discussed in preceding section

In tests of the Conceptual Model, low scores on Personal Responsibility were associated with high scores on Amotivation. Thus, it is also interesting to note here that this association may depend on concepts of God. Simple slopes analysis of the effects of the AuthGod by Personal Responsibility interaction on Amotivation revealed that those who were low in Personal Responsibility (individuals who are inclined to make excuses for not helping) and who were also high in belief in an Authoritarian God were significantly less likely to intend to volunteer (i.e., higher amotivation scores). Conversely, those who were low in Personal Responsibility but were high in belief in a Benevolent God were *more* likely to be motivated to volunteer (i.e., lower amotivation scores).

There were also three significant interactions of Beliefs by Motivations on Volunteer Intentions: BenGod by Internal Motives ($\beta = .10, p = .03$), BenGod by Amotivation ($\beta = -.13, p = .01$), and AuthGod by Amotivation ($\beta = .15, p < .01$).

Figure 7. *Simple slopes for the interaction of God-concept by Personal Responsibility on Amotivation*



These analyses were conducted for exploratory purposes only and should be interpreted with caution since (1) no hypotheses had been made concerning these interactions, and (2) multiple tests are likely to uncover significance for at least some effects. My strategy was to test these interactions again in Study 2.

The effects of Protecting and Just God. Because the variables ProtectGod and JustGod had not been specified in the original model, the decision was made to add these variables for exploratory purposes only, and only after testing and re-specifying the original Conceptual Model. In the first post hoc test, ProtectGod was allowed to correlate with BenGod, $r = .51, p < .001$, and AuthGod, $r = .21, p < .001$, and there was a significant and direct effect of ProtectGod on Religious Obligation only, $\beta = .21, p = .001$. ProtectGod → Religious Obligation → External Motives → Intentions to Volunteer provided a significant pathway in the model, with the estimated indirect effect = $.01, p = .05$.

However, the addition of ProtectGod did not significantly improve the model, MLM $X^2(33) = 82$, RMSEA = .06, CFI = .95, SRMR = .05, $\Delta X^2(8) = 13.68$, $p > .10$.

Since JustGod was expected to be associated with BJWO, a variable that had been omitted from the final model, and because the reliability coefficient for JustGod was relatively low ($\alpha = .60$) and with very low loadings on one of the three items, post hoc tests involving JustGod were not performed.

Discussion

A number of important conclusions can be derived from the final model. First, consistent with self-determination theory (Ryan & Deci, 2000) and previous research (Gagné, 2003; Grano, et al., 2008), internal (i.e., intrinsic) motivation was a stronger predictor of intentions to volunteer for secular causes than was external (i.e., extrinsic) motivation. Feeling guilty about not helping was a non-significant predictor of intentions to volunteer after controlling for internal and external motives.

A benevolent self-identity as well as the belief that one has a moral obligation to help appears to be a potent predictor of internal motivation to volunteer. Notably, moral obligation was only modestly correlated with religious obligation. Moreover, perceived religious obligations (obeying God's commandments) were associated with volunteer intentions only via External Motives (e.g., rewards in the afterlife or to avoid criticism by the religious group). Amotivation was also an important predictor of Intentions to Volunteer such that Benevolent Self and Personal Responsibility were negatively associated with Amotivation.

An authoritarian God-concept also contributed to Intentions to Volunteer via a perceived religious obligation. Unexpectedly, AuthGod was not linked with a moral obligation to help, and was negatively associated with thinking of the self as benevolent or with feeling a sense of personal responsibility – volunteering even when others do not. Thus, whereas religious obligation likely contributes to intentions to volunteer, these obligations appear to be offset by a lack of personal responsibility. After all, belief in an authoritarian God corresponds with belief in a system of rewards and punishments and personal accountability. Christians may employ these beliefs in evaluating the circumstances of others with the conclusion that help is unwarranted.

In sum, belief in a benevolent God appears to make a greater contribution to Intentions to Volunteer for secular causes (with five positive pathways and only one negative path) relative to belief in an authoritarian God (with one positive path and three negative pathways in the model).

Chapter 4

STUDY 2: EXPERIMENTAL TEST OF THE EFFECTS OF BENEVOLENT AND AUTHORITARIAN GOD-CONCEPTS ON INTENTIONS TO VOLUNTEER AND VOLUNTEER BEHAVIOR

Concepts of God may originate through projections of an individual's own thoughts (e.g., Epley, et al., 2009; Freud, 1961), interactions with religious leaders, parents, and important others (Beck & McDonald, 2004; Dickie, et al., 2006; Kirkpatrick & Shaver, 1992), religious narratives, personal experiences, or all of these (Boyer, 2001). As observed in Study 1, an individual's concept of God can have positive and negative effects on diverse social attitudes. However, it is unclear whether God-concepts are a consequence of one's personal pre-dispositions or whether God-concepts shape one's self-identity, values and beliefs about the world. The best way to investigate the causal direction of God-concepts and beliefs and motivations on volunteerism is by experimental manipulation.

God-concepts often change over a person's lifespan (Dickie, et al., 2006; Fowler, 1996; Rizzuto, 1979) in contexts like conversion, traumatic events (Aten, et al., 2008), personal religious experiences (James, 1902/2002), and through social interactions (e.g., new romantic partners). Consequently, priming various concepts of God has been successful in previous studies, eliciting different attitudinal and behavioral responses (Barrett, 1998; Barrett & Keil, 1996; Barrett & VanOrman, 1996; Bushman, et al., 2007; Johnson, et al., 2011).

Thus, the purpose of Study 2 was twofold: (1) to examine the effect of activating concepts of God as benevolent and authoritarian on beliefs about the self and the world, volunteer motivations, and intentions to volunteer; and (2) to examine the effects of activating concepts of God as benevolent and authoritarian using a behavioral measure of volunteerism.

In week 1, participants first completed a pre-test measure of the 11 key variables (BenGod, AuthGod, Benevolent Self, Moral Obligation, Religious Obligation, Personal Responsibility, BJWO, and Internal, Introjected, or External or Motives and Amotivation) from the Benevolence Survey used in Study 1. In week 2, participants returned to the lab and were randomly assigned to one of four priming conditions, Benevolent God, Authoritarian God, Religious Control, or Secular Control. After completing a bogus memory test and the Benevolence Survey for a second time, participants also completed the two dependent variables: (1) the Intentions to Volunteer section of the Benevolence Survey, and (2) a behavioral measure which entailed whether or not they would voluntarily return to the lab (without compensation) at the same time the following week to package hygiene items and school supplies for children in Haiti.

Hypotheses

Despite the fact that several paths in the model had been re-specified in Study 1, the hypotheses in Study 2 were generated based on the original conceptual model. This was done for two reasons. First, the results of an experimental study (Study 2) may not exactly duplicate the correlational data in

Study 1. Similarly, Study 1 measures chronic beliefs, whereas Study 2 was designed to assess temporary beliefs activated by priming.

The following results were expected:

H13: Activating belief in a *Benevolent* God through explicit scriptural references will result in higher scores regarding Benevolent Self-identity, higher scores on Internal Motivation to volunteer, stronger Volunteer Intentions, and a greater likelihood of Volunteer Sign-ups relative to the Religious Control, Secular Control, and Authoritarian God conditions.

H14: Activating belief in a *Benevolent* God through explicit scriptural references will result in higher scores on Moral Obligation, Introjected Motivation and Volunteer Intentions, leading to a greater likelihood of Volunteer Sign-ups relative to the two Control and the Authoritarian God conditions.

H15: Activating belief in an *Authoritarian* God through explicit scriptural references will result in higher scores on Religious Obligation, External Motivation, Volunteer Intentions, and a greater likelihood of Volunteer Sign-ups relative to the two Control (but not the Benevolent God) conditions.

H16: Activating belief in an *Authoritarian* God through explicit scriptural references will result in lower scores on Personal Responsibility, higher scores on amotivation, lower scores on Volunteer Intentions, and less likelihood of Volunteer Sign-ups relative to the two Control and the Benevolent God conditions.

H17: Activating belief in an *Authoritarian* God through explicit scriptural references will result in higher scores on Belief in a Just World for Others and

Amotivation, leading to lower scores on Volunteer Intentions, and less likelihood of Volunteer Sign-ups relative to the two Control and Benevolent God conditions.

Methods: Study 2

Participants.

Participants were 335 psychology undergraduates recruited from the Introductory Psychology general survey at the beginning of the Fall 2011 and Spring 2012 semesters. Participants were recruited based on their religious affiliation as being either Catholic or non-Catholic Christian. All participants had also reported belief in God with a rating of three or more (“God might exist”) on a five point multiple-choice question, as in Study 1. Participants earned partial credit in fulfillment of course requirements.

There were 140 Catholics and 195 non-Catholic Christians (163 males and 172 females), with religious affiliation and gender of participants randomly distributed across the four conditions (Table 12). Participants reported being Euro-American (66%), Hispanic (17%), Black (7%), Asian-American (6%), or other (4%) ethnicity. There were no significant differences across the four groups regarding social class ($X^2 [12] = 10.45, p = .57$).

Table 12. *Religious affiliation and gender of participants in Study 2*

Condition	Catholic		Christian		Total		Grand Total
	M	F	M	F	M	F	
Authoritarian	22	32	29	26	51	58	109
Benevolent	22	20	31	40	53	60	113
Religion Control	12	11	19	17	31	28	59
Secular Control	8	13	20	13	28	26	54
Total	64	76	99	96	163	172	335

Procedure.

The study was administered across three weeks. All participants self-scheduled for the same date and time for Week 1 (T1) and Week 2 (T2). Participants arrived in the lab during Week 1 and completed the online version of the Benevolence Survey from Study 1, except that the questions regarding Intentions to Volunteer (DV1) were not included. Of the 335 participants, 13 did not participate in the Pre-test survey at T1.

Participants returned to the lab at the same date and time during Week 2 for a study ostensibly testing whether answering questions of a personal nature interferes with memory for learned quotations. The “learned quotations” were presented in booklets consisting of nine quotations from one of the four priming conditions along with a photo on the first page of the book of either an angry God (AuthGod condition), a dove (BenGod condition), or a question mark (Religious and Secular Control conditions). The quotations were drawn primarily from the Biblical Psalms and Proverbs and were pre-tested in a different sample of Catholic and non-Catholic Christian psychology undergraduates ($n = 212$) for relevance to an authoritarian or benevolent God or as being neutral.

As can be seen in Table 12, on average, 69% rated the AuthGod scriptures as being reminders of an authoritarian God (e.g., “The Lord rained down burning sulfur on Sodom and Gomorrah – and fire out of heaven”) and 83% rated the BenGod scriptures as being reminders of a benevolent God (e.g., “The Lord will be like soft rain falling on a mown field, like showers watering the earth”).

Table 13. *Primes for AuthGod and BenGod conditions with percentage of participants' ratings of scriptures as authoritarian or benevolent*

%	Quotation	Source
<i>AuthGod Authoritarian God</i>		
75	The LORD burned with anger against his own people; He was disgusted with those who belonged to him	Ps 106:40
64	The face of the Lord is against those who do evil, to cut off the memory of them from the earth	Ps 34:16
72	The Lord rained down burning sulfur on Sodom and Gomorrah – and fire out of heaven	Gen 19:24
66	It is God who judges: He brings down one, and exalts another	Ps 75:7
54	Justice and judgment are the habitation of God's throne	Ps 89:14
71	God judges the righteous, and is angry with the wicked every day	Ps 7:11
80	God will punish them with everlasting destruction and shut them out from the presence of the Lord	2 Th 1:9
65	The wrath of God is being revealed . . . against all godlessness	Ro 1:18
73	The voice of the Lord strikes with flashes of lightning, shakes the desert, and strips the forests bare	Ps 29:7-9
<i>BenGod Benevolent God</i>		
85	The Lord is gracious and full of compassion, slow to anger, and rich in love	Ps 145:8
86	God is our refuge and our strength, an ever present help in times of trouble	Ps 46:1
86	The Lord gives strength to his people; the Lord blesses his people with peace	Ps 29:10
87	The Lord satisfies the thirsty and fills the hungry with good things	Ps 107:9
82	The Lord will be like soft rain falling on a mown field, like showers watering the earth	Ps 72:6
80	The steadfast love of the Lord never ceases; his mercies never come to an end	Lam 3:22
74	The Lord is my shepherd, I shall lack nothing	Ps 23:1
85	The Lord is my strength and my shield; my heart trusts in him, and I am helped	Ps 28:7
80	For God did not send his Son into the world to condemn the world, but to save the world through him	Jn 3:17

Table 14. *Primes for Religion Control and Secular Control conditions with percentage of participants' ratings of scriptures (Religion Control) as neither authoritarian nor benevolent*

%	Quotation	Source
<i>Neutral Religion Control - wisdom of the Bible</i>		
62	A quarrelsome wife is like a constant dripping on a rainy day	Pr 27:15
61	Like a gold ring in a pig's snout is a beautiful woman who shows no discretion	Pr 11:22
67	Better to meet a bear robbed of her cubs than a fool in his folly	Pr 17:12
54	It is not good to have zeal without knowledge, nor to be hasty and miss the way	Pr 19:2
57	A word aptly spoken is like apples of gold in settings of silver	Pr 25:11
66	Ants are creatures of little strength, yet they store up their food in the summer.	Pr 30:25
71	How useless to spread a net in full view of all the birds!	Pr 1:17
51	Wise men store up knowledge, but the mouth of a fool invites ruin	Pr 10:14
 <i>Secular Control - tips for organizing a desk</i>		
Throw out those things that are not needed, like old papers, or torn scraps of paper, or even an outdated picture.		
Decide what are your most important and most-used items. Items such as pencils, pens, scissors, and important documents, should be placed in a drawer that is within easy reach (or, in the case of pens and pencils, in a cup).		
You should keep an in/out tray, clock, lamp and a calendar on your desk.		
Place loose papers in a desk box, and mark them by using a tiny dot or paper clip on the top so you'll remember to go back to them.		
Papers that are not being worked on can be put in a binder or a folder.		
Do not store information in envelopes, as it creates clutter in your desk and in your mind.		
Things needed more often, can be placed in a drawer instead of being left on top.		
Develop a filing system so you know where to put things like receipts, and so you can find things easily without disturbing everything else.		

As shown in Table 14, 61% rated the Religion Control scriptures as being neither authoritarian nor benevolent. The Secular Control statements regarding organizing a desk were created for this study and were not pre-tested, but were assumed to be unrelated to religion or concepts of God (e.g., “You should keep an in/out tray, clock, lamp, and a calendar on your desk”).

It is noteworthy that, although the items in the AuthGod prime clearly portrayed God as punishing, only about 69% of the participants rated these verses as reminding them of an authoritarian God and about 18% rated these verses as being neither benevolent nor authoritarian. These ratings are in contrast to the 83% average rating for the benevolence verses as being reminders of a benevolent God. This suggests there may be reactance to characterizations of God as authoritarian – even if those characterizations are scriptural.

After a four minute study period of reading and memorizing the condition-relevant quotations, participants again completed the online version of the Benevolence Survey including the questions regarding Volunteer Intentions (DV1). A bogus memory test was also administered along with several distractor questions asking about the efficacy of the participant’s memory.

The online instructions then informed the participants that the study had ended but asked whether the participant would be willing to sign up for a volunteer activity scheduled to take place at that same time and day of the following week (DV2). Participants were informed that the activity would involve packaging hygiene items and school supplies to ship to children in Haiti. Participants were also informed that the activity was entirely voluntary and they

would not receive any additional credit or compensation for returning the following week to volunteer. Participants could respond (1) not interested, (2) would like to help but cannot, or (3) yes, I will return next week to help.

Participants who did not sign up were dismissed and instructed to take a blue flyer (with a list of other ASU volunteer opportunities); and participants who did volunteer were instructed to take a green flyer with a reminder notice of the dates and times of the volunteer activity as they left.

During Week 3, volunteers returned and packaged approximately 500 care packages that were eventually shipped to orphanages in Haiti and Mexico. However, due to experimenter error, an unknown number of volunteers failed to sign in and register their attendance. Therefore, the measure of actual volunteer attendance was dropped as a third DV in the study.

Measures.

All measures were completed in the lab using the online version of the Benevolence Survey (from Study 1). As in Study 1, all items were rated on a 1 to 7 Likert scale and were randomized within each section.

Pre-test (T1).

BenGod and AuthGod. As in Study 1, and as shown in Appendix A, there were 30 items pertaining to the concepts of Benevolent God (BenGod; alpha = .91) and Authoritarian God (AuthGod; alpha = .90). On a separate page of the survey, participants were also asked to what extent they think “God is Benevolent (helping, forgiving, protecting)” and “God is Authoritarian (commanding, just, punishing).”

Benevolent Self. As in Study 1, participants rated the extent to which a list of six adjectives characterizing a benevolent person pertained to them: caring, compassionate, accepting of others, generous, and helpful (Appendix B). The reliability coefficient for the Benevolent Self scale (T1) was .79.

Moral Obligation. As in Study 1, participants rated their perceived moral obligation to volunteer to help others (Appendix C). The reliability coefficient for the Moral Obligation scale (T1) was .77.

Religious Obligation. As in Study 1, participants were asked to rate the extent to which they believed they had a religious obligation to help others (Appendix C), alpha (T1) = .81

Personal Responsibility. As in Study 1, Personal Responsibility was assessed using seven items of the Prosocial Personality Battery subscale (Appendix C), alpha (T1) = .54.

Belief in a Just World for Others. As in Study 1, BJWO was assessed using the BJWO scale (Lipkus, et al., 1996; Sutton & Douglas, 2005) as listed in Appendix C (alpha [T1] = .67).

Volunteer Motivations. As in Study 1 (Appendix D), volunteer motivations were assessed using the Internal, Introjected Motives, External Motives, and Amotivation scales (Grano, et al., 2008). The reliability coefficients (T1) were .87, .81, .75, and .84, respectively.

Intentions to Volunteer. As in Study 1, the first dependent variable was Intentions to Volunteer (Appendix E; alpha = .83). Sample items included “Helping underprivileged youths learn to read” and “Distributing reading

materials to hospice patients.” The intention to help out-group members was further assessed by asking how likely participants would be to package hygiene items and school supplies for shipment to natural disaster victims in Israel, Pakistan, and Haiti (alpha = .96).

Other measures. In order to differentiate the surveys presented at T1 and T2, there were several additional measures included in the Pre-test (T1) survey as distractor items. Participants were asked: (1) to rate themselves as being an athlete, musician, techie, etc., (2) ten questions regarding how well they could remember things, (3) an intolerance of ambiguity scale (Budner, 1962), and (4) religiosity and beliefs about heaven and hell, etc. The frequency of volunteer experience during the previous year, the type of volunteer experience, and the participant’s volunteer role model were also assessed. The results of these measures were omitted from the results reported here.

Post-test (T2).

The Benevolence Survey administered at T2 included all the variables from Study 1 and the Pre-Test: BenGod, AuthGod, Benevolent Self, Moral Obligation, Religious Obligation, Personal Responsibility, BJWO, Internal Motives, Introjected Motives, External Motives, and Amotivation. As before, all items were rated on a 1 to 7 Likert scale.

Also as in Study 1, participants rated their Volunteer Intentions (Appendix E). Other measures included the bogus memory test and five questions asking participants to rate their memory. The PANAS-X was also administered.

The order of presentation of the Benevolence Survey at T2 was: (1) Beliefs about Self and the World, (2) Volunteer Motives, (3) PANAS-X, (4) religious beliefs including the extent to which “God is benevolent” and “God is authoritarian,” (5) 30 adjectives describing Beliefs about the nature of God, (6) the bogus memory test, (7) demographics, (8) Volunteer Intentions, and (9) the opportunity to sign up as a volunteer for the coming week.

Analytic Strategy. The data were analyzed in five steps: (1) computation of scale scores, descriptive statistics, and reliability coefficients for the items at T1 and T2, (2) a manipulation check of the effectiveness of the primes, (3) tests of the main effects of the prime on Volunteer Intentions and Volunteer Behavior, (4) tests of the main effect of the primes on the five Beliefs about Self and the World and the four Volunteer Motives, and (5) a test of the interaction of BenGod by Benevolent Self on Internal Motives as suggested by the results of Study 1.

Results

Descriptive statistics for variables in T1 and T2.

Aggregate scale scores were computed for each of the measured Beliefs about God, Beliefs about Self and the World, Volunteer Motivations at both T1 and T2 and for Volunteer Intentions at T2. This was done by taking the average of all the items for that scale. The aggregate score for each scale was computed only if more than 75% of the items for that scale had been answered by the individual participant.

The items comprising the BenGod and AuthGod scales were the eight items pertaining to the BenGod scale and the ten items pertaining to the AuthGod

scale as in Study 1. The BenGod scale and the single “Benevolent God” item were correlated, $r = .66, p < .001$. The AuthGod scale and the single “Authoritarian God” item were correlated, $r = .58, p < .001$. In contrast to Study 1, the BenGod and AuthGod scales were significantly correlated, $r = .23, p < .001$.

Table 15. *Descriptive statistics in Study 2, across all groups, for variables in the conceptual model at T1 and T2*

	Pre-test (T1)			Post-test (T2)			Mean Diff T1-T2
	N = 320			N = 333			
	<i>M</i>	<i>SD</i>	<i>Alpha</i>	<i>M</i>	<i>SD</i>	<i>Alpha</i>	
Benevolent God	6.37	.77	.91	6.36	.73	.90	-.01
Authoritarian God	3.48	1.37	.90	3.56	1.38	.91	.08
Benevolent Self	6.19	.76	.79	6.11	.50	.78	-.08*
Moral Obligation	5.03	1.06	.78	5.03	1.07	.82	.00
Religious Obligation	5.05	1.37	.81	5.16	1.31	.82	.11*
Personal Responsibility	4.96	.77	.54	5.05	.87	.73	.09**
Belief in Just World Others	3.78	.90	.67	3.98	.89	.71	.21***
Internal Motivations	5.01	1.03	.87	5.08	1.07	.91	.07
Introjected Motivations	3.71	1.36	.81	3.88	1.33	.85	.17**
External Motivations	3.35	1.25	.75	3.69	1.24	.78	.34***
Amotivation	1.75	.90	.84	1.81	1.03	.91	.06
Volunteer Intentions	n/a	n/a	n/a	4.46	1.37	.94	n/a

*** $p < .001$; ** $p < .025$; * $p < .05$

The means, standard deviations, and reliability coefficients for each of the independent variables, across all groups, at T1 and T2, and the dependent variable at T2, are shown in Table 15 (above).

Preliminary tests of normality showed that there was one outlier in the data at T1 – a participant with extreme scores on five of the eleven variables. A second participant in the Religious Control condition had failed to complete either of the two DV's at T2. These two participants were excluded from further analysis of the data. The final data set included 320 cases at T1 and 333 cases at T2 (13 participants had not reported to the lab during Week 1, but were allowed to participate in the priming task and Benevolence Survey at T2). Of these, there were seven cases with missing data including four participants who failed to complete 75% of the items on the Volunteer Intentions scale.

Manipulation check.

As a manipulation check, four 4 x 2 mixed MANOVA's were performed. The between-subjects factor was God-concept prime condition (BenGod, AuthGod, Religion Control, or Secular Control) and the within-subjects factor was occasion (Pre-test [T1] vs. Post-test [T2] scores). The four dependent variables were: (1) the single item, God is Benevolent, (2) the single item, God is authoritarian, (3) the aggregate score on the BenGod scale, and (4) the aggregate score on the AuthGod scale.

Although the significance tests of MANOVA assume a multivariate normal distribution, modest violations are acceptable except in the case of outliers (Tabachnick & Fidell, 2007). Thus, Mahalanobis distances were first calculated

across the four T2 variables and compared with the critical value of 18.47. Two additional outliers were identified (Mahalanobis = 21.36 and 30.41) and, therefore, also omitted from subsequent analyses.

There were no significant interactions between condition and time of test for either of the two Benevolent God-concept measures: BenGod scale, Wilks Lambda = .996, $F(3, 310) = .46$, $p = .71$ and the “God is Benevolent” item, Wilks Lambda = .997, $F(3, 309) = .34$, $p = .80$. Further, there were no main effects of time for the two variables: BenGod scale, $F(1, 310) = .05$, $p = .83$; “God is Benevolent” item, $F(1, 309) = .33$, $p = .56$. There were also no main effects between conditions for the two variables, BenGod scale, $F(3, 310) = .37$, $p = .77$; “God is Benevolent” rating, $F(3, 309) = .99$, $p = .40$, indicating that the BenGod prime appears to have had little or no effect as can be seen in the comparison of pre- and post-test scores in Table 16. Notably, the scores for the Benevolent God single item and the BenGod scale were nearly at ceiling (7 points).

There was not a significant condition by time interaction for the AuthGod scale, Wilks Lambda = .983, $F(3, 310) = 1.74$, $p = .16$. There was no main effect of condition, $F(3, 310) = .42$, $p = .74$, indicating that belief in an Authoritarian God was also fairly constant across conditions and, indeed, the estimated marginal means for AuthGod were lower than the other three groups: AuthGod, $EMM = 3.45$, $SE = .13$; BenGod, $EMM = 3.52$, $SE = .13$; ReligionPrime, $EMM = 3.69$, $SE = .18$; and SecularPrime, $EMM = 3.51$, $SE = .19$. There was also no main effect of time across the four conditions, $F(1, 310) = 2.38$, $p = .12$.

However, there was a significant condition by time interaction for the “God is Authoritarian” single item rating, Wilks Lambda = .967, $F(3, 309) = 3.51$, $p = .02$, partial eta squared, .03.

Table 16. *Differences in scores for BenGod scale, single item “God is benevolent,” AuthGod scale, and single item “God is Authoritarian,” by condition, in Study 2*

	BenGod Prime		AuthGod Prime		Religion Control		Secular Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
BenGod (Scale) Pre	6.39	.75	6.41	.75	6.31	.79	6.38	.89
BenGod (Scale) Post	6.39	.71	6.36	.74	6.26	.74	6.45	.72
Δ BenGod	<u>.00</u>		<u>-.05</u>		<u>-.04</u>		<u>.06</u>	
“Benevolent” Item - Pre	6.29	1.11	6.41	.98	6.22	1.37	6.49	1.14
“Benevolent” Item - Post	6.29	.99	6.50	.85	6.29	.98	6.45	.89
Δ Benevolent	<u>.00</u>		<u>.09</u>		<u>.07</u>		<u>-.04</u>	
AuthGod (Scale) Pre	3.52	1.32	3.33	1.28	3.68	1.57	3.47	1.43
AuthGod (Scale) Post	3.51	1.37	3.56	1.38	3.70	1.45	3.54	1.44
Δ AuthGod	<u>-.01</u>		<u>.23^{**}</u>		<u>.02</u>		<u>.07</u>	
“Authoritarian” Item - Pre	4.31	2.13	4.10	2.16	4.18	2.30	4.14	2.37
“Authoritarian” Item - Post	4.09	1.96	4.47	2.14	4.49	2.10	4.29	2.20
Δ Authoritarian	<u>-.22[†]</u>		<u>.37^{**}</u>		<u>.31^{††}</u>		<u>.14</u>	

^{**} $p < .025$; [†] $p = .10$; ^{††} $p = .12$

A subsequent examination of the means and data plots indicated that the “Authoritarian” item had *increased* between T1 and T2 in the AuthGodPrime condition and *decreased* between T1 and T2 in the BenGodPrime condition.

A set of individual, paired-samples t-tests was conducted comparing scores from T1 and T2 for each of the four sets of variables (AuthGod scale, BenGod scale, God is Authoritarian single item, and God is Benevolent single item) in each of the four conditions (BenGodPrime, AuthGodPrime, Religion Control, and Secular Control) and the results are reported in Table 15. As can be seen there, the change in scores on the two measures of AuthGod from T1 to T2 was significant only in the AuthGodPrime condition, $t(100) = 2.64, p = .01$ and $t(100) = 2.43, p = .02$, respectively.

Main effects of primes on Volunteer Intentions and Behavior.

Although the results of the manipulation check had indicated that there were no significant differences between groups in ratings of either BenGod or AuthGod at T2, the AuthGodPrime condition did appear to have some effect. Moreover, there may have been implicit changes in beliefs about the self and the world, volunteer motives, or volunteer intentions not reflected in explicit ratings of God's character. Therefore, the next step was to investigate the proposed main effects of the BenGod Prime and AuthGod Prime on Volunteer Intentions and Volunteer Sign-ups.

Volunteer Intentions.

It was predicted (H13 and H14) that activating thoughts of a benevolent God would indirectly increase Volunteer Intentions (BenGodPrime condition, $M = 4.56, SD = 1.44$) relative to the AuthGodPrime, $M = 4.46, SD = 1.21$, Religion Control, $M = 4.51, SD = 1.46$, and Secular Control $M = 4.30, SD = 1.40$, conditions. Contrary to the hypothesis, there was not a significant difference in

Volunteer Intentions across conditions, $F(3, 319) = .46, p = .71$. Three independent samples t-tests with BenGodPrime as the reference group also confirmed that there were no significant differences in Volunteer Intentions as a result of reminders of a Benevolent God (lowest $p = .27$; BenGodPrime vs. Secular Prime).

It was also predicted that activating thoughts of an authoritarian God would have both a positive (H15) indirect effect (via Religious Obligation and External Motives) and a negative (H16 and H17) effect (via Personal Responsibility and Amotivation) – thus, no effect – on Volunteer Intentions relative to the BenGodPrime, Religion Control, and Secular Control conditions. A second set of independent t-tests with AuthGodPrime as the reference group confirmed there were no significant differences in Volunteer Intentions relative to any of the other groups (lowest $p = .47$; AuthGodPrime vs. Secular Prime).

It is possible, however, that Volunteer Intentions were predicted by pre-existing beliefs regarding God's nature. Therefore, a hierarchical multiple regression analysis was performed with Volunteer Intentions as the dependent variable and pre-test (T1) scores for BenGod entered at Step 1, condition (dummy coded) at Step 2, and interaction terms for T1 by condition at Step 3. The full model for the BenGod terms was significant, accounting for 6% of the variance, $F(7, 302) = 3.60, p = .001$. The interactions were not significant and there was (as expected) no main effect of condition. However, pre-test scores for BenGod was a significant predictor in the full model, $\beta = .46, p < .001$.

A second regression model with AuthGod, condition (dummy coded), and the interaction terms for T1 by condition as the predictor variables was not significant, $p = .59$. This supports the finding in Study 1 that AuthGod appears to have a net, null effect on Volunteerism.

Volunteer Sign-ups.

It was predicted that reminders of a benevolent God would increase Volunteer Sign-ups and reminders of an authoritarian God would have a net of no effect on Volunteer Sign-ups relative to Control. To investigate the proposed main effect of BenGodPrime on Volunteer Sign-ups, a Chi Square test for independence was performed for the binary dependent variable (Volunteer Sign-up). There were no significant differences in registering to attend the volunteer activity across the four groups: BenGodPrime, 24%; AuthGodPrime, 23%; Religion Control, 25%; and Secular Control, 21% signed up to volunteer, $X^2(3) = .20, p = .98$.

Finally, a logistic regression was conducted to ascertain whether T1 scores on BenGod or T1 scores on AuthGod were able to predict Volunteer SignUps over and above condition, or time by condition interaction. The model was not a good fit for the data, $p = .43$.

Main Effects of the primes on Beliefs and Motives.

To test the effects of the God-concept primes on (a) the five types of beliefs and (b) the four types of volunteer motivations, a series of mixed MANOVA's was conducted. The between-subjects factor was Condition (BenGodPrime, AuthGodPrime, Religion Control, or Secular Control) and the

within-subjects factor was the occasion (pre-test [T1] vs. post-test [T2] scores). For beliefs, the dependent variables were the vector of scores on the measures of Benevolent Self, Moral Obligation, Religious Obligation, Personal Responsibility, and Belief in a Just World. For motives, the dependent variables were the vector of scores on Internal, Introjected, and External Motivations and Amotivation.

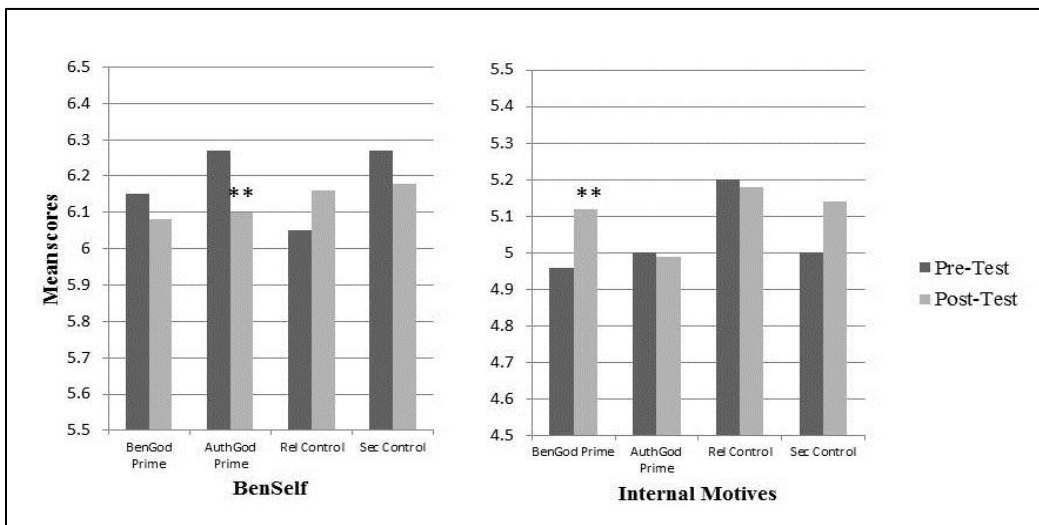
(H13) *BenGodPrime* → *Benevolent Self* → *Internal Motives*. Contrary to the hypothesis, the estimated marginal means for Benevolent Self were actually lower for participants in the BenGodPrime condition, $M = 6.12$, $SE = .07$, relative to the AuthGodPrime, $M = 6.18$, $SE = .07$, Religion Control, $M = 6.10$, $SE = .09$, or Secular Control, $M = 6.22$, $SE = .10$, conditions. However, a mixed MANOVA revealed there was not a significant interaction of condition by time across the four priming conditions, Wilks Lambda = .981, $F(3, 310) = 2.00$, $p = .11$. There were no significant differences between the conditions, $p = .74$, and Benevolent Self scores did not significantly differ from T1 to T2 across all groups, $p = .18$. Analyzed individually, paired-samples t -tests showed that there was a significant decrease in Benevolent Self scores from T1 to T2 in the AuthGodPrime condition only, $t(100) = 3.19$, $p = .002$.

Also contrary to hypothesis (H13), the estimated marginal means for Internal Motivation did not differ significantly for the BenGodPrime condition, $M = 5.04$, $SE = .10$, relative to the AuthGodPrime, $M = 4.99$, $SE = .10$, Religion Control, $M = 5.19$, $SE = .13$, or Secular Control, $M = 5.07$, $SE = .14$. A mixed MANOVA revealed that there was not a significant condition by time interaction across the four conditions, Wilks Lambda = .983, $F(3, 310) = 1.80$, $p = .15$.

There were no significant differences between the conditions, $p = .69$, and Internal Motives did not significantly differ from T1 to T2 across all groups, $F(3, 310) = 3.25, p = .07$. Individual paired-samples t -tests for each condition showed that the difference in Internal Motivation scores at T1 and T2 had increased significantly in the BenGodPrime condition only, $t(108) = 2.87, p = .005$.

Figure 8 graphically illustrates the difference in scores on Benevolent Self and Internal Motives (two variables in a primary pathway in the conceptual model) for the two priming and the two control conditions.

Figure 8. Differences between Pre- and Post-test, by condition, for Benevolent Self and Internal Motives.

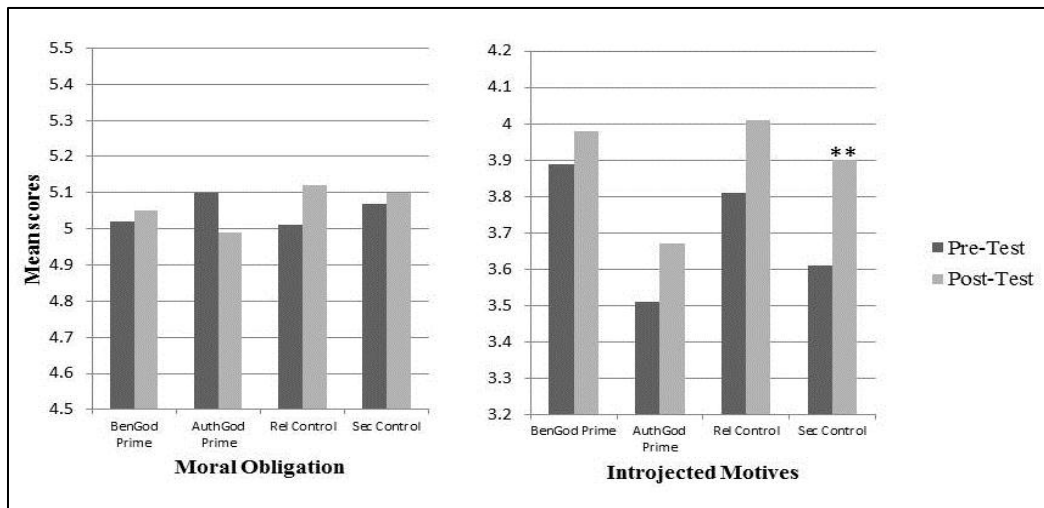


(H14) *BenGodPrime* → *Moral Obligation* → *Introjected Motives*.

Contrary to the hypothesis, the estimated marginal means for Moral Obligation did not differ for participants in the BenGodPrime condition, $M = 5.03, SE = .10$, relative to the AuthGodPrime, $M = 5.04, SE = .10$, Religion Control, $M = 5.07, SE = .13$, or Secular Control, $M = 5.08, SE = .14$, conditions. A mixed MANOVA

showed there was not a significant condition by time interaction across the four conditions, Wilks Lambda = .988, $F(3, 310) = 1.21$, $p = .31$. There were no significant differences between the conditions, $p = .99$, and Moral Obligation did not significantly differ from T1 to T2 across all groups, $p = .77$. When analyzed individually in paired-samples t -tests, there were again no significant differences from T1 to T2, as shown in Figure 9.

Figure 9. Differences between Pre- and Post-test, by condition, for Moral Obligation and Introjected Motives.



Consistent with the hypothesis (H14), the estimated marginal means for Introjected Motivation were higher in the BenGodPrime condition, $M = 3.94$, $SE = .12$, relative to the AuthGodPrime, $M = 3.59$, $SE = .12$, Religion Control, $M = 3.91$, $SE = .17$, or Secular Control, $M = 3.76$, $SE = .18$, conditions. However, a mixed MANOVA revealed that there was no condition by time interaction, Wilks Lambda = .996, $F(3, 310) = .44$, $p = .72$, and the differences between the conditions were not significant, $p = .19$. However, there was a main effect of time, $F(1, 310) = 8.70$, $p = .003$. Subsequent paired-samples t -tests showed that

the difference in Introjected Motivation scores at T1 and T2 did not change significantly in the BenGodPrime condition as predicted, $p = .36$. Instead, the Secular Control group unexpectedly increased in Introjected Motives, $p = .025$.

Thus, in accord with the final model in Study 1, AuthGodPrime had no effect on Moral Obligation or Introjected Motives. Although BenGod was found to be a significant predictor of Moral Obligation in the final model in Study 1, the BenGodPrime condition also had little or no effect on Moral Obligation. The BenGodPrime condition also had no significant effect on Introjected Motives.

(H15) AuthGodPrime → Religious Obligation → External Motives.

Contrary to the hypothesis, the estimated marginal means for Religious Obligation did not differ for participants in the AuthGodPrime condition, $M = 5.13$, $SE = .13$, relative to the BenGodPrime, $M = 5.14$, $SE = .12$, Religion Control, $M = 5.05$, $SE = .17$, or Secular Control, $M = 5.06$, $SE = .18$, conditions. A mixed MANOVA confirmed there was not a significant condition by time interaction, Wilks Lambda = .987, $F(3, 309) = 1.40$, $p = .24$. There were no significant differences between the conditions, $p = .97$.

Although the differences from T1 to T2 did not reach conventional levels of significance, $F(1, 309) = 3.44$, $p = .065$, subsequent paired-samples t -tests within each group showed that there was a significant increase in Religious Obligation from T1 to T2 in the BenGodPrime condition, $t(107) = 3.27$, $p = .001$. Contrary to the hypothesis, however, the difference in Religious Obligation from T1 to T2 in the AuthGodPrime condition was not significant, $p = .96$.

Also contrary to hypothesis (H15), the estimated marginal means for External Motivation were similar for the AuthGodPrime, $M = 3.54$, $SE = .11$, BenGodPrime, $M = 3.63$, $SE = .10$, Religion Control, $M = 3.37$, $SE = .15$, and Secular Control, $M = 3.31$, $SE = .17$, conditions. A mixed MANOVA revealed there was not a significant condition by time interaction, Wilks Lambda = .995, $F(3, 309) = .54$, $p = .66$. There were no significant differences between the conditions, $p = .31$. Unexpectedly, however, the differences from T1 to T2 were significant across all conditions for External Motives, $F(1, 309) = 34.83$, $p < .001$. Moreover, subsequent paired-samples t -tests showed that the difference in External Motivation scores at T1 and T2 increased significantly in three of the four conditions (including the Secular Control), p 's ranging from .001 to .07.

Figure 10. Differences between Pre- and Post-test, by condition, for Religious Obligation and External Motives.

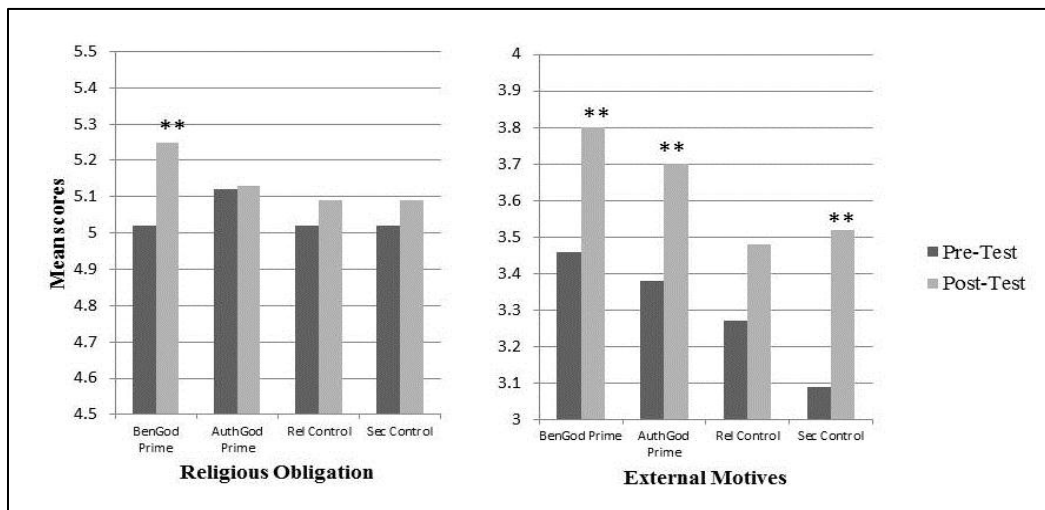


Figure 10 (above) shows the difference in scores on Religious Obligation and External Motives in each of the four conditions.

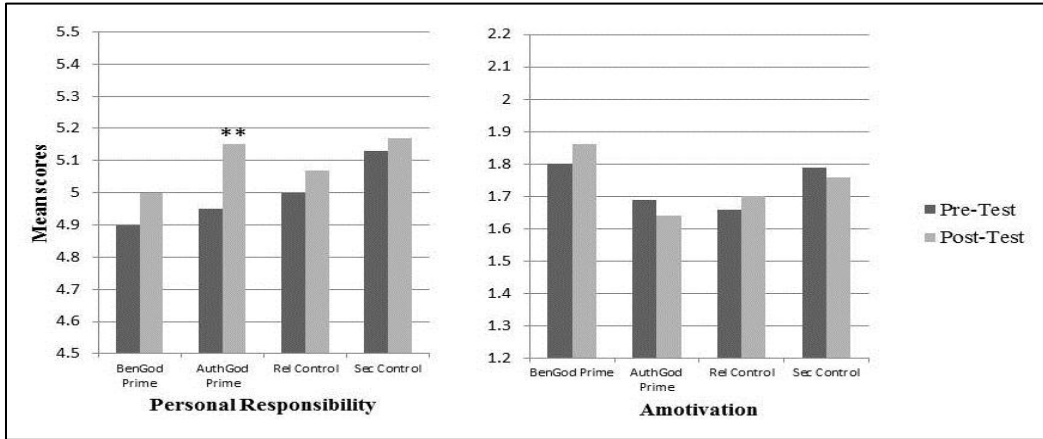
(H16) *AuthGodPrime* → *Personal Responsibility* → *Amotivation*.

Contrary to the hypothesis, the estimated marginal means for Personal Responsibility did not differ for participants in the *AuthGodPrime* condition, $M = 5.05$, $SE = .07$, relative to the *BenGodPrime*, $M = 4.95$, $SE = .07$, *Religion Control*, $M = 5.03$, $SE = .10$, or *Secular Control*, $M = 5.15$, $SE = .11$, conditions. A mixed MANOVA showed there was not a significant condition by time interaction, Wilks Lambda = .992, $F(3, 309) = .82$, $p = .49$. There were no significant differences between the conditions, $p = .47$. However, there was a main effect of time, $F(1, 309) = 5.78$, $p = .02$. Subsequent paired-samples *t*-tests showed that the increase in Personal Responsibility at T1 and T2 was statistically significant in the *AuthGodPrime* condition only, $t(107) = 2.66$, $p = .009$. This is in contrast to the decrease that would have been predicted by the final model in Study 1.

Contrary to the hypothesis (H16), the estimated marginal means for Amotivation were about the same for the *AuthGodPrime* condition, $M = 1.67$, $SE = .08$, *BenGodPrime*, $M = 1.83$, $SE = .08$, *Religion Control*, $M = 1.68$, $SE = .11$, and *Secular Control*, $M = 1.78$, $SE = .12$, conditions. A mixed MANOVA revealed there was not a significant condition by time interaction regarding Amotivation, Wilks Lambda = .995, $F(3, 310) = .55$, $p = .65$. There were no significant differences between the conditions, $p = .51$, and no differences across the four groups from T1 to T2, $p = .88$. Subsequent paired-samples *t*-tests confirmed that the difference in Amotivation scores at T1 and T2 did not differ significantly in the *AuthGodPrime* condition, $p = .47$, as hypothesized.

Figure 11 shows the difference in scores on Personal Responsibility and Amotivation in each of the four conditions.

Figure 11. Differences between Pre- and Post-test, by condition, for Personal Responsibility and Amotivation.



(H17) *AuthGodPrime* → *BJWO* → *Amotivation*. Contrary to the hypothesis, the estimated marginal means for *BJWO* were only slightly higher for participants in the *AuthGodPrime* condition, $M = 3.92$, $SE = .08$, relative to the *BenGodPrime*, $M = 3.94$, $SE = .08$, *Religion Control*, $M = 3.82$, $SE = .11$, or *Secular Control*, $M = 3.76$, $SE = .12$, conditions. A mixed MANOVA showed there was not a significant condition by time interaction regarding *Amotivation*, Wilks Lambda = .939, $F(3, 310) = .94$, $p = .42$. There were no significant differences between the conditions, $p = .55$. However, across the four groups there was a significant differences in scores on *BJWO* from T1 to T2, $F(1, 310) = 21.35$, $p < .001$. Subsequent paired-samples t -tests showed that the increase in *BJWO* at T1 and T2 was statistically significant in each of the religious prime conditions, *AuthGodPrime*, $t(100) = 3.42$, $p = .001$, *BenGodPrime*, $t(108) = 2.36$, $p = .02$, and the *Religion Control*, $t(54) = 3.13$, $p = .003$; ($p = .39$ for

Secular Control). As discussed above, there were no significant differences in Amotivation.

Figure 12. Differences between Pre- and Post-test, by condition, for BJWO and Amotivation.

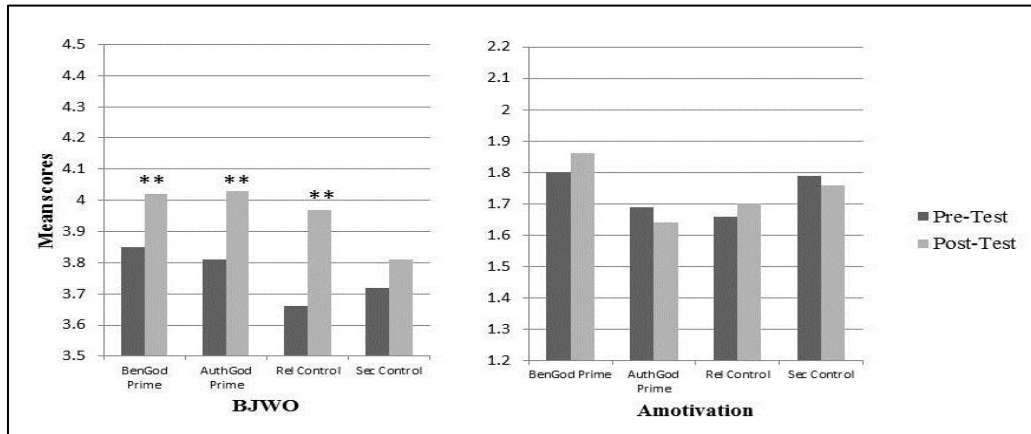


Figure 12 (above) shows the difference in scores on BJWO and (again) Amotivation in each of the four conditions.

Tests of moderation

The test of the structural equation model carried out as part of Study 1 yielded an interaction of BenGod by Benevolent Self on Internal Motives. To test this interaction in Study 2, a hierarchical regression model was used to predict Internal Motivations at T2.

Specifically, to test whether the BenGodPrime interacts with the *pre-test* scores for Benevolent Self to affect changes in Internal Motivation Post-test (T2), Internal Motivation scores were regressed on:

Step 1 - Pre-test Internal Motivation scores [*change in motivation*]

Step 2 - Pre-test Benevolent Self scores [*pre-existing beliefs*]

Step 3 - Three dummy variables contrasting (a) AuthGodPrime with Secular Control, (b) BenGodPrime with Secular Control, and (c) Religion Control with Secular Control [*prime condition*]

Step 4 - Three interaction terms representing Pre-test Benevolent Self scores by each of the three dummy variables entered in Step 3 [*interaction of BenGodPrime with Benevolent Self*]

In the final model, the interaction was not significant, $p = .89$. Thus, the interaction of BenGod by Benevolent Self on Internal Motives in Study 1 is not supported by the analysis of the data in Study 2.

Post hoc tests

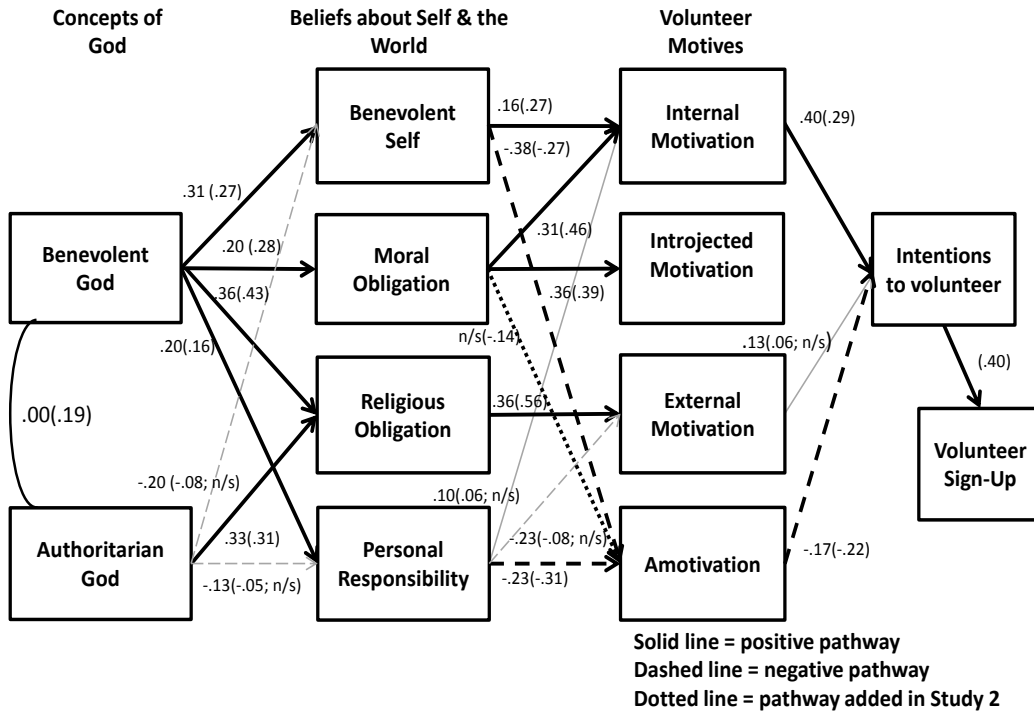
Tests of the Conceptual Model in Study 2.

The effects of priming benevolent and authoritarian God concepts were modest or null in Study 2, and it may be that an individual's chronic beliefs are more predictive of downstream beliefs and behaviors than are temporary reminders of different aspects of God's nature. Therefore, to simultaneously (1) test the relations between chronic beliefs about God's nature and volunteer intentions and behavior, and (2) replicate the structural model in Study 1, the full data set – without regard to condition – was submitted to a path analysis using the parameters specified in the final path model in Study 1 (including all correlations and omitting all non-significant pathways from the conceptual model).

In specifying the Study 2 model, Post-test (T2) scores on the following variables were used: BenGod, AuthGod, Benevolent Self-identity, Moral Obligation, Religious Obligation, Personal Responsibility, BJWO, Internal

Motives, Introjected Motives, External Motives, Amotivation, and Intentions to Volunteer. (Note that BJWO was also specified in the model in Study 2 but was again found to be non-significant.) Additionally, in this model, the 13th variable was the categorical variable, Volunteer Sign-up, coded 0 for “no” and 1 for “yes.”

Figure 13. Path Model from Study 1 with data from Study 2



Comparison of the paths and path coefficients from Study 1 and Study 2. Path coefficients for Study 2 are indicated by parentheses. The dotted line indicates the single path added in Study 2. The grey lines indicate non-significant paths in Study 2. Goodness of fit statistics for the re-specified model in Study 2 were $X^2(32) = 52$, RMSEA = .04, CFI = .98, SRMR = .04. All variables were allowed to correlate within each class but are not shown in the model for clarity.

Evaluation of the goodness of fit statistics showed that adding the path, Moral Obligation → Amotivation would improve the model fit. However, the two paths that had been added to the conceptual model in the post hoc re-specification in Study 1 (Authoritarian God → Benevolent Self and Personal Responsibility → External Motivation) were non-significant in Study 2.

Table 17. *Standardized indirect effects for paths depicted in the final model between the exogenous variable BenGod and the endogenous variables: Motives, Volunteer Intentions, and Volunteer Sign-Up, in Study 2*

Path from BenGod →	Motives		Volunteer Intentions		Volunteer Sign-Up	
	IE	IE/SE ^a	IE	IE/SE ^a	IE	IE/SE ^a
BenSelf → Internal	.07	3.35 ^{***}				
→ Volunteer Int			.02	2.80 ^{**}		
→ Volunteer Sign-Up					.01	2.67 ^{**}
BenSelf → Amotive	-.07	-3.16 ^{**}				
→ Volunteer Int			.02	2.66 ^{**}		
→ Volunteer Sign-Up					.01	2.56 ^{**}
Moral Oblig → Internal	.13	4.71 ^{***}				
→ Volunteer Int			.04	3.24 ^{***}		
→ Volunteer Sign-Up					.01	3.04 ^{***}
Moral Oblig → Amotive	-.04	-2.09 ^{**}				
→ Volunteer Int			.01	1.88		
→ Volunteer Sign-Up					.00	1.84
Relig Oblig → External	.24	7.14 ^{***}				
→ Volunteer Int			.01	1.12		
→ Volunteer Sign-Up					.00	1.12
Pers Respons → Internal	.01	1.11				
→ Volunteer Int			.00	1.11		
→ Volunteer Sign-Up					.00	1.12
Pers Respons → External	-.01	-.16				
→ Volunteer Int			.00	-.91		
→ Volunteer Sign-Up					.00	-.91
Pers Respons → Amotive	-.05	-2.50 ^{**}				
→ Volunteer Int			.01	2.00 [*]		
→ Volunteer Sign-Up					.01	1.98 [*]
Sum of the Indirect Effects						
Study 2 Ben God paths:						
Internal Motives	.21	6.04 ^{***}				
External Motives	.23	6.75 ^{***}				
Amotivation	-.16	-5.39 ^{***}				
Volunteer Intentions			.11	4.98 ^{***}		
Volunteer Sign-Up					.04	4.23 ^{***}

^a All standard errors for Motives < .04, Vol Intention & Vol Sign-Ups < .01.

Table 17. *Standardized indirect effects for paths depicted in the final model between the exogenous variable AuthGod and the endogenous variables: Motives, Volunteer Intentions, and Volunteer Sign-Up, in Study 2*

Path from AuthGod →	Motives		Volunteer Intentions		Volunteer Sign-Up ^b	
	IE	IE/SE ^a	IE	IE/SE ^a	IE	IE/SE ^a
BenSelf → Internal	-.02	-1.27				
→ Volunteer Int			.000	-1.24		
→ Volunteer Sign-Up					.00	-1.24
BenSelf → Amotive	.02	1.27				
→ Volunteer Int			.00	-1.24		
→ Volunteer Sign-Up					.00	-1.24
Moral Oblig → Internal	.00	.05				
→ Volunteer Int			.00	.05		
→ Volunteer Sign-Up					.00	.05
Moral Oblig → Amotive	.00	-.05				
→ Volunteer Int			.00	.05		
→ Volunteer Sign-Up					.00	.05
Relig Oblig → External	.17	6.43***				
→ Volunteer Int			.00	1.10		
→ Volunteer Sign-Up					.00	1.10
Personal Respons → Internal	.00	-.70				
→ Volunteer Int			.00	-.70		
→ Volunteer Sign-Up					.00	-.70
Pers Respons → External	.00	.62				
→ Volunteer Int			.00	.57		
→ Volunteer Sign-Up					.00	.57
Pers Respons → Amotive	.01	.73				
→ Volunteer Int			.00	-.71		
→ Volunteer Sign-Up					.00	-.71
Sum of the Indirect Effects						
Study 2 AuthGod paths:						
Internal Motives	-.02	-.62				
External Motives	.17	6.45***				
Amotivation	.03	1.09				
Volunteer Intentions			.00	-.14		
Volunteer Sign-Up					.00	-.14

^a All standard errors for Motives < .04, Vol Intention & Vol Sign-Ups < .01.

^b There were no significant paths from Motives to Volunteer Intentions for AuthGod

Furthermore, three paths in the original conceptual model which were significant in Study 1 were non-significant in Study 2: (1) AuthGod → Personal Responsibility, (2) Personal Responsibility to Internal Motivation, and (3) External Motivation → Intentions to Volunteer. The re-specified model, shown in Figure 13, provided a good fit for the data, $X^2(32) = 52$, RMSEA = .04, CFI = .98, SRMR = .04, accounting for 16% of the variance in Volunteer Sign-ups and 19% of the variance in Intentions to Volunteer.

The sums of the indirect effects for BenGod and AuthGod in the model are shown in Tables 16 and 17, respectively. Importantly, in the structural model from Study 2, there were no significant indirect pathways from AuthGod to Volunteer Intentions or Volunteer Sign-up. Instead, Volunteer Intentions and Volunteer Sign-up were significantly predicted by the indirect effects of BenGod. As a final step, the interaction term BenGod(T2) x Benevolent Self (T2) was computed across the full data set, and the interaction tested as a predictor of Internal Motivations at T2. The interaction was not significant, $p = .69$.

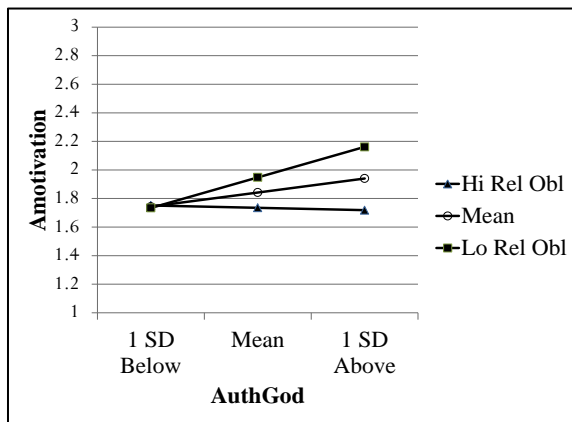
Attempt to replicate the interactions from Study 1.

Several interactions were observed in the exploratory analyses of all possible between-class interactions that had been conducted in Study 1. However, because no hypotheses had been made concerning these interactions and since some percentage of multiple tests for significance are likely to be positive, I attempted to replicate the interactions from Study 1 using the complete data set from Study 2. As in the exploratory analyses in Study 1, the strategy was to center all variables (here, using the post-test scores), create interaction terms

for each of the between-class variables (e.g., AuthGod by Personal Responsibility); and then, using SPSS software, to test all possible ($n = 53$) regression equations (e.g., Amotivation regressed on AuthGodxPersResp).

Only one of the 53 interactions was significant in *both* Studies 1 and 2: Amotivation regressed on AuthGod by Religious Obligation, $\beta = -.11$, $p = .03$ in Study 1, and $\beta = -.11$, $p = .05$ in Study 2. As shown in Figure 14, the association between religious obligation and amotivation increased as AuthGod increased.

Figure 14. Plot of Interaction of AuthGod by Religious Obligation on Amotivation



When included in the full path model, there was a significant improvement in the Chi-square relative to the degrees of freedom, $\Delta X^2(7) = 47$, $p < .001$. However, the other three fit indices were degraded and indicated a less than adequate fit, $X^2(39) = 99$, RMSEA = .07, CFI = .92, SRMR = .07.

Discussion

Activating beliefs about the self and the world have been shown to alter opinions about God's nature (Epley, et al., 2009). However, beliefs about God may also affect beliefs about the Self and the World. For example, when people

convert to a new religious group, their values and goals also often change (Rambo, 1993). Thus, the purpose of Study 2 was to test whether temporarily priming different concepts of God influences certain downstream beliefs and motivations, ultimately leading to volunteer intentions and volunteer behavior.

However, a manipulation check of the effectiveness of the explicit scriptural primes used in Study 2 indicated that belief in a benevolent God was largely unaffected by reminders of God's benevolent nature. This may be because the scores of BenGod were nearly at ceiling ($M = 6.39$ on a 1-7 Likert scale) in this group comprised of Christian believers only. Moreover, although ratings for AuthGod did increase in the AuthGodPrime condition between time 1 and time 2, people in the AuthGod condition did not differ significantly at time 2 from people in the other experimental groups, calling into question either the effectiveness or the duration of the priming manipulations.

Ratings on the individual item, "God is authoritarian" did decrease in the *BenGodPrime* condition, although these differences did not reach conventional levels of statistical significance ($p = .10$). There was also an (albeit non-significant) increase in the "God is Authoritarian" single item scores in both the Religion Control and the AuthGodPrime condition; and that increase was greater for the single item than for the full scale. The single items were presented among other questions on the first page of the religion section in the Benevolence Survey. This suggests that whatever small effects there may have been due to the prime may have been negated as individuals considered all 30 adjectives describing God's nature later in the section.

Overall, however, it must be concluded that the priming manipulations were weak, thus making it difficult to confidently interpret subsequent analyses.

Further, contrary to my hypothesis, individuals in the BenGodPrime condition were not significantly more likely to have Intentions to Volunteer and were not more likely to Volunteer, another indication that there were seemingly no direct effects of the BenGodPrime on volunteerism.

Since the BenGodPrime condition was ineffective in increasing belief in a Benevolent God, it is not surprising that there were also no increases in Benevolent Self, Moral Obligation, or Personal Responsibility. However, when the BenGodPrime condition was considered individually, there was a significant increase in Religious Obligation – the strongest path from BenGod to Beliefs about Self & the World in both Study 1 ($\beta = .36$) and Study 2 ($\beta = .43$).

Scores on both Internal and External Motives also significantly increased in the BenGodPrime condition. These effects, coupled with the increase in Religious Obligation, suggest that, given a more effective prime, reminders of God's benevolence may indirectly increase volunteer motivations. Yet increased motivations to volunteer do not seem to translate into intentions to act.

Although the differences from T1 to T2 were not significant across all four groups (except for internal motivations), the AuthGodPrime condition seems to have had some influence inasmuch as people primed with an Authoritarian God-concept significantly decreased in ratings of Benevolent Self, increased in Personal Responsibility, and increased in External Motivation. As predicted by the model, these effects were null in their impact on Volunteer Intentions because

the positive effects of increased External Motivation are offset by the negative effects due to a decrease in Benevolent Self. It is less clear, however, why scores on Personal Responsibility would increase in the AuthGodPrime condition.

Finally and unexpectedly, Belief in a Just World for Others increased significantly in each of the religion priming conditions and in the Religion Control (reading scriptures from Proverbs). It is intriguing to think that BJWO may be enhanced by religious primes. On the other hand, there may have simply been an increase in familiarity with the items from T1 to T2. In any case, as in Study 1, BJWO was not a significant predictor of Volunteer Motives after controlling for the effects of Benevolent Self, Moral Obligation, Religious Obligation, and Personal Responsibility. Again, any of the modest results reported here should be interpreted with caution and seem to merely suggest trends in the data.

Despite the uncertain results of the priming experiment, Study 2 afforded an opportunity to test the fit of the data to the final Conceptual Model from Study 1. The path model and indirect effects were largely supported by the data in Study 2 except that External Motives, while strongly associated with both concepts of God in Study 2, were not predictive of Intentions to Volunteer.

Finally, only one of the exploratory interactions observed in Study 1 was replicated in Study 2; that is, there was an interaction of AuthGod by Religious Obligation in predicting Amotivation such that those high in AuthGod but low in Religious Obligation were more likely to report that Volunteering is useless (i.e., Amotivation). It seems plausible that people who are focused on God's wrath but

who may have rejected religious obligations may also be unlikely to help others. It was unclear the extent to which this interaction contributes to our understanding of the linkages between God-concepts and Volunteerism; however, this interaction should be addressed in future research.

Chapter 5

SUMMARY AND CONCLUDING DISCUSSION

This research addressed the question whether concepts of God influence secular volunteerism among Christians – where secular volunteerism is defined as acts within an organizational context that provide service to the community at large. It was hypothesized that belief in a benevolent, compassionate, helping God would be positively associated with a benevolent self-identity, perceived religious and moral obligations, and the ascription of personal responsibility to help. These beliefs about the self and the world were, in turn, expected to be associated with internal and external volunteer motivations and a sense of regret if one does not help (i.e., introjected motivation). Consequently, belief in a benevolent God was expected to have positive indirect effects on intentions to volunteer and on acts of secular volunteerism.

Belief in an authoritarian God, who dispenses rewards and punishments, was also expected to be positively associated with both a moral and religious obligation to help – but not a benevolent self-identity. These obligations were, in turn, expected to be associated with both internal and external volunteer motivations and a sense of regret if one does not volunteer. However, belief in an authoritarian God was also predicted to be associated with beliefs that the world is just and, generally, people get what they deserve. Consequently, there may be a lack of personal responsibility to come to the aid of others – particularly for those outside the religious community – leading to the belief that helping is useless or unwarranted (i.e., amotivation). Thus, in contrast to the effects of belief in a

benevolent God, belief in an authoritarian God was posited to elicit internal, introjected, and external motives but also amotivation. Therefore, the sum of the indirect effects on intentions to volunteer for secular causes was expected to be non-significant.

A conceptual model was developed with proposed pathways between four classes of variables: Beliefs about God, Beliefs about the Self and the World, Volunteer Motivations, and Volunteer Intentions. The related hypotheses and the structural equations of the conceptual model were tested in two studies, one correlational (Study 1) and one experimental (Study 2).

Study 1 consisted of an online survey administered to Christian (Catholics, Protestants, Evangelical Christians, etc.) undergraduates at Arizona State University enrolled in sociology or introductory psychology. Participants who were pre-screened for belief in God completed measures of each of the variables in the conceptual model in three ostensibly unrelated sections: Volunteerism, Social Attitudes (Beliefs about the Self and the World), and Religion. The correlational data from this Benevolence Survey enabled me to test (1) the psychological constructs of Benevolent and Authoritarian God, (2) the mediational pathways in the conceptual model, and (3) the adequacy of an alternative model with both mediation and moderation.

In Study 2, Christian introductory psychology students who were prescreened for belief in God participated in a three-week study with an experimental design. In Week 1, participants completed the online Benevolence Survey (from Study 1) in the lab, omitting the Volunteer section. When

participants returned to the lab in Week 2, the concepts of a Benevolent or an Authoritarian God were experimentally manipulated by presenting scriptures to be remembered in a bogus memory test. Participants were then administered the Benevolence Survey for a second time with all sections included. Participants were also invited to sign up, without credit or compensation, to participate in a volunteer project to be conducted in the lab during Week 3. Thus, the study was designed to test the indirect causal influence of Authoritarian or Benevolent God-concepts on Volunteerism relative to a religion control (neutral scriptures) and a secular control (tips for organizing a desk).

Summary of Results

In order to test the Conceptual Model, I first examined the newly developed God-concept measurement model consisting of 30 adjectives as indicators of the concepts of either a Benevolent or Authoritarian God. Finding that the proposed measurement model was not a good fit for the data, an exploratory factor analysis was performed to identify the number of factors and the adjectives with the highest single factor loadings. A subsequent confirmatory factor analysis indicated that the concept of Benevolent God could be defined as *helping, compassionate, caring, generous, forgiving, gracious, accepting, and merciful* (eight items), and that Authoritarian God could be defined as *strict, commanding, controlling, restricting, stern, punishing, critical, angry, wrathful, and judging* (ten items). Two additional factors, Protecting God and Just God were found to be separate constructs and were examined in post hoc analyses in Study 1 only.

Conclusions regarding benevolent God-concepts.

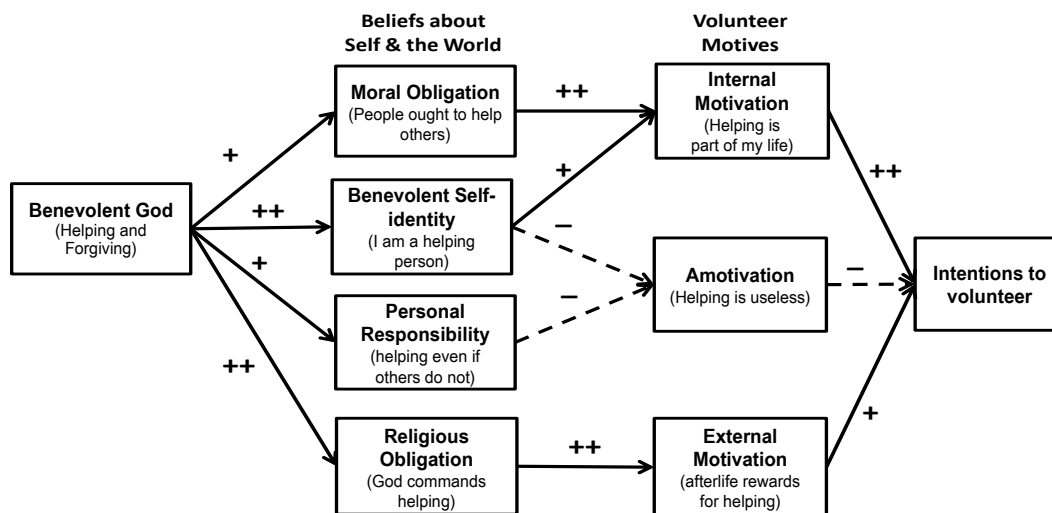
A full path analysis of the data in Study 1 largely supported the hypotheses and proposed pathways in the conceptual model. After re-specifying some paths in the model (discussed below), five significant, positive, indirect pathways from Benevolent God (BenGod) to Volunteer Intentions were identified: (1) BenGod → Benevolent Self → Internal Motivations, (2) BenGod → Benevolent Self → low scores on Amotivation, (3) BenGod → Moral Obligation → Internal Motivation, (4) BenGod → Religious Obligation → External Motivation, and (5) BenGod → Personal Responsibility → low scores on Amotivation. There was one significant, negative, indirect pathway, BenGod → Personal Responsibility → low scores on External Motivation.

Study 2 afforded an opportunity to attempt to replicate the structural equations in the revised model from Study 1. This analysis revealed that there were two main differences between the two studies pertaining to belief in a benevolent God. First, the single negative path from BenGod to Intentions to Volunteer via Personal Responsibility and External Motivation was not significant in Study 2. Second, although the path BenGod → Religious Obligation → External Motives was significant, External Motivations did not predict Intentions to Volunteer in Study 2.

Across the two studies, and consistent with self-determination theory, internal motives were robust predictors of Intentions to Volunteer. Taking into account the sums of the indirect effects across the two studies, a revised model predicting the effects of BenGod on intentions to volunteer is shown in Figure 15.

In the model, BenGod is associated with four types of beliefs: a Benevolent Self-identity, a perceived Moral Obligation, a perceived Religious Obligation, and a sense of Personal Responsibility to act responsibly even if others do not. Moral Obligation and Benevolent Self are associated with high scores on Internal Motivation; Benevolent Self and Personal Responsibility are associated with low scores on Amotivation; and a Religious Obligation is associated with External Motives – the least potent pathway in the BenGod model.

Figure 15. Revised Conceptual Model for Benevolent God



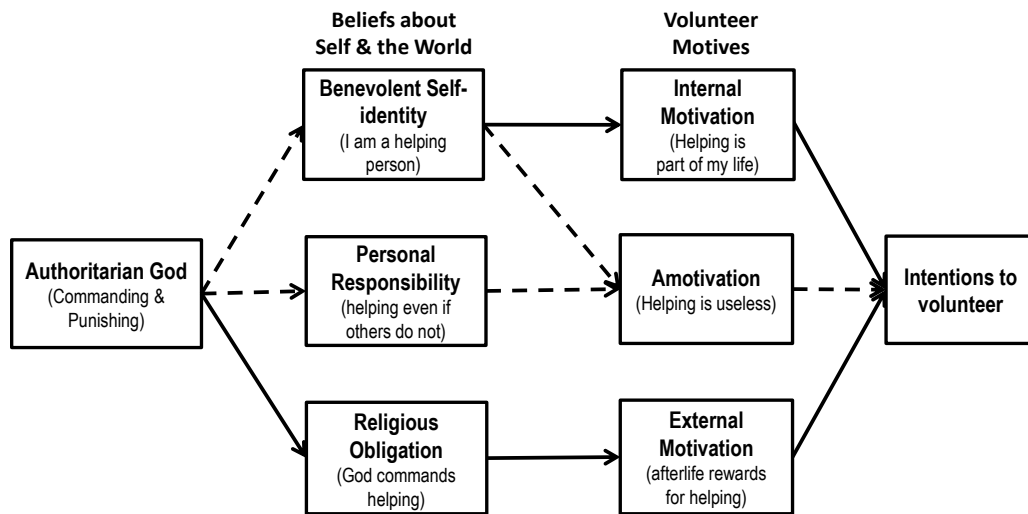
Note: Correlations between the variables within-class are not shown for clarity.

Conclusions regarding authoritarian God-concepts.

The indirect effects of belief in an authoritarian God were more complex and a revised model for Authoritarian God is depicted in Figure 16. On the one hand, there was one significant, positive, indirect effect of AuthGod on Intentions to Volunteer via Religious Obligation and External Motivation in Study 1. On the other hand, there were also three significant, negative, indirect paths from

AuthGod to Intentions to Volunteer: (1) AuthGod → low scores on Benevolent Self → low scores on Internal Motivations, (2) AuthGod → low scores on Benevolent Self → Amotivation, and (3) AuthGod → low scores on Personal Responsibility → Amotivation. Thus, overall, there was a net (i.e., a null) indirect effect on Intentions to Volunteer in both Studies 1 and 2.

Figure 15. Revised Conceptual Model for Authoritarian God



Note: Correlations between the variables within class are not shown for clarity

One striking difference between the two studies pertains to the effects of AuthGod on Personal Responsibility. In Study 1, there was a significant interaction of AuthGod by Personal Responsibility on Amotivation. However, this effect did not replicate in Study 2.

On the other hand, scores for Personal Responsibility seem to have increased in the AuthGodPrime condition. Indeed, previous research suggests that reminders that “God is watching” increases prosocial behavior (Shariff & Norenzayan, 2007) and that a belief in an authoritarian God decreases cheating

(Shariff & Norenzayan, 2011) – attitudes measured by the Personal Responsibility scale.

It may be that Authoritarian God primes are only effective for the subset of individuals who also have a low sense of Personal Responsibility. Since the strength of the interaction and effectiveness of the prime are both in doubt, it remains for future research to clarify the relation between AuthGod and Personal Responsibility. In the revised model, I continue to hypothesize that belief in an Authoritarian God predicts low scores on Personal Responsibility mainly because the correlation between AuthGod and Personal Responsibility was negative in both studies (although non-significant in Study 2).

Unexpectedly, belief in an authoritarian God was uncorrelated with a perceived moral obligation to volunteer to help others. This is in contrast to the effects of belief in a benevolent God and is important because Moral Obligations are associated with the more powerful Internal Volunteer motivations whereas Religious Obligations are only related to the less potent External Volunteer motivations.

Finally, in contrast with previous research (Pichon & Saroglou, 2009) and the model predictions, BJWO was not predictive of Volunteer Motivations after partialling out the effects of other beliefs about the self and the world. Although this variable has, consequently, been omitted from the revised model, it is important to continue to try and identify what role BJWO (and, perhaps, related constructs such as Belief in a Dangerous World or Social Dominance Orientation) might play in relation to Personal Responsibility and Authoritarian God-concepts.

Limitations and Future Directions

Study 2 was designed to activate thoughts of a Benevolent or Authoritarian God in order to test the causal direction of these effects. There were some very modest changes in scores for the measured variables. However, taking a conservative approach, it can only be concluded that the primes were ineffective and that no claims regarding causal relations can be made from this study.

Nevertheless, there were trends in the data that suggest research should continue in this direction. For example, the Conceptual Model predicts that increases in belief in an Authoritarian God should lead to decreases in Benevolent Self-identity and this was the case in Study 2 in the AuthGodPrime condition. As another example, Internal Motivations would be expected to increase under a BenGodPrime only, and this was also the case in Study 2. As a third example, the Conceptual Model predicts that reminders of both a benevolent and an authoritarian God should increase External Motivation and this was the case in every condition, including (unexpectedly) the Secular Control condition.

Thus, future studies should focus on developing more effective primes of God-concepts. One possibility would be to use a more implicit manipulation such as religious images which have been shown to be effective in other studies (Johnson, Li, Cohen, & Okun, 2012). However, there is also some benefit to refining the explicit primes used here because, ultimately, this research will be most useful in understanding how religious leaders might tailor their sermons and teachings to effect the behavior of religious adherents. In regard to the

Authoritarian God prime, for example, reading scriptures explicitly portraying God as angry and wrathful did seem to have an effect inasmuch as scores on the two measures of AuthGod increased from pre-test to post-test in the Authoritarian God prime condition. However, because the randomization of participants by condition appears to have failed (participants in the AuthGod condition had lower scores on AuthGod on the pre-test), even after the prime, scores for AuthGod at post-test were equivalent across the four groups and not higher in the AuthGod condition.

Another possibility would be to use a shorter scale to measure concepts of God. It may be the case that asking participants to answer 30 questions about God's nature diminished whatever effects of the prime there might have been. A third possibility would be to more carefully evaluate the possibility of reactance to messages about God's authoritarian nature. For example, in pilot tests rating the primes, only about 69% of the students rated the AuthGod scriptures as authoritarian whereas 83% rated the BenGod scriptures as benevolent.

Activating thoughts of a Benevolent God appears to be more problematic because ratings for BenGod among Christians who believe in God were nearly at ceiling. This is consistent with results obtained by Froese and Bader (2010) who found that nearly 85% of Americans believe that God is loving, and that only estimations of God's punishing nature varied widely within religious groups.

This research was limited in several other ways as well. First, it will be important in future research to successfully include a behavioral measure of volunteerism. This may involve completing additional surveys without

compensation, taking information flyers to hand out, or staying for some additional amount of time to package school supplies rather than returning the following week.

Secondly, although it is useful and informative to understand the beliefs and volunteer behaviors of Christians – the dominant religious group in the U.S. – the findings presented here may not generalize to other religious groups or other measures of generosity. For example, Muslims or Jews may be more likely to cultivate a reverential fear of God and have a more powerful sense of religious obligation relative to Christians. In that case, the net positive indirect effect of belief in an Authoritarian God may be enhanced for Muslims and Jews. Moreover, Muslims and Jews may be less likely to volunteer yet more likely to donate financial resources due to differences in the religious culture (Benthall & Bellion-Jourdan, 2003; Rimor & Tobin, 1990).

Additionally, there are age differences in volunteer motivation (Okun & Schultz, 2003) and the findings obtained in college student samples may not generalize to other age groups.

Another important outcome of the present research was the preliminary effort to develop a measurement model of the concepts of Benevolent and Authoritarian God. As can be seen in this and previous research (e.g., Benson & Spilka, 1973; Froese & Bader, 2010; Rosmarin, et al., 2009), these concepts are differentially predictive of a number of beliefs, attitudes, emotions, and motivations; yet there is no generally accepted scale for measuring these different concepts of God.

Conclusion

Volunteerism benefits both the recipient and the benefactor; yet the religious beliefs and motivations underlying volunteerism have not been well understood. This research merges two disconnected literatures – the psychology of religion and the psychology of prosociality to suggest that varying concepts of God are associated with different beliefs that, in turn, undergird varying volunteer motivations.

It is my hope that the theoretical model investigated here can be useful to clinicians, volunteer organizations, and Christian religious leaders – and also potentially extended to non-Abrahamic and secularist traditions – whose members can choose to focus on the good, the benevolent, and not the judgmental, nature of their own human role models, saints, and deities. This can impel people to positively change their self-concept and sense of moral obligation, fostering helping motivations, and thus promoting universal compassion and prosociality.

REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage Publications.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ajzen, I., Czasch, C., & Flood, M. G. (2009). From intentions to behavior: Implementation, Intention, Commitment, and Conscientiousness. *Journal of Applied Social Psychology*, 39, 1356-1372.
- Allison, L. D., Okun, M. A., & Dutridge, K. S. (2002). Assessing volunteer motives: A comparison of an open-ended probe and Likert rating scales. *Journal of Community & Applied Social Psychology*, 12, 243-255.
- Altemeyer, B., & Hunsberger, B. (1992). Authoritarianism, religious fundamentalism, quest, and prejudice. *The International Journal for the Psychology of Religion*, 2, 113-133.
- Aquino, K., & Reed II, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83, 1423-1440.
- Aten, J. D., Moore, M., Denney, R. M., Bayne, T., Stagg, A., Owens, S., et al. (2008). God images following hurricane Katrina in south Mississippi: An exploratory study. *Journal of Psychology and Theology*, 36, 249-257.
- Atran, S., & Norenzayan, A. (2004). Religion's evolutionary landscape: Counterintuition, commitment, compassion, communion. *Behavioral and Brain Sciences*, 27, 713-779.
- Babb, L. A. (1975). *The divine hierarchy: Popular Hinduism in Central India*. New York, NY: Columbia University Press.
- Barrett, J. L. (1998). Cognitive constraints on Hindu concepts of the divine. *Journal for the Scientific Study of Religion*, 608-619.
- Barrett, J. L., & Keil, F. C. (1996). Conceptualizing a Nonnatural Entity: Anthropomorphism in God Concepts. *Cognitive Psychology*, 31, 219-247.

- Barrett, J. L., & VanOrman, B. (1996). The effects of image-use in worship on God concepts. *Journal of Psychology and Christianity, 15*, 38-45.
- Bassett, J. F., & Williams, J. E. (2003). Protestants' images of self, God, and Satan as seen in adjective check list descriptions. *The International Journal for the Psychology of Religion, 13*, 123-135.
- Batson, C. D., & Schoenrade, P. (1991). Measuring religion as quest: 2. Reliability concerns. *Journal for the Scientific Study of Religion, 30*, 430-447.
- Beck, R., & McDonald, A. (2004). Attachment to God: the attachment to God inventory, tests of working model correspondence, and an exploration of faith group differences. *Journal of Psychology and Theology, 32*, 92-103.
- Becker, P. E., & Dhingra, P. H. (2001). Religious involvement and volunteering: Implications for civil society. *Sociology of Religion, 62*, 315-335.
- Bekkers, R., & Schuyt, T. (2008). And who is your neighbor? Explaining denominational differences in charitable giving and volunteering in the Netherlands. *Review of Religious Research, 50*, 74-96.
- Benson, P., & Spilka, B. (1973). God image as a function of self-esteem and locus of control. *Journal for the Scientific Study of Religion, 12*, 297-310.
- Benthall, J., & Bellion-Jourdan, J. (2003). *The charitable crescent: Politics of aid in the Muslim world*. New York: NY: I. B. Tauris.
- Berger, I. E. (2006). The influence of religion on philanthropy in Canada. *Voluntas, 17*, 115-132.
- Berlin, A., Brettler, M. Z., & Fishbane, M. (Eds.). (2004). *The Jewish Study Bible* (TANAKH Translation ed.). (J. P. Society, Trans.) New York, NY: Oxford University Press.
- Boyer, P. (2001). *Religion Explained: The Evolutionary Origins of Religious Thought*. New York, NY: Basic Books.

- Bryan, A. D., Hammer, J. C., & Fisher, J. D. (2000). Whose hands reach out to the homeless? Patterns of helping among high and low communally oriented individuals. *Journal of Applied Social Psychology, 30*, 877-905.
- Budner, S. (1962). Intolerance of Ambiguity as a Personality Variable. *Journal of Personality, 29*-50.
- Bushman, B. J., Ridge, R. D., Das, E., Key, C. W., & Busath, G. L. (2007). When God sanctions killing: Effect of scriptural violence on aggression. *Psychological Science, 18*, 204-207.
- Byrne, B. M. (2012). *Structural equation modeling with MPlus: Basic concepts, applications, and programming*. New York: Routledge.
- Cabrera-Nguyen, P. (2010). Author guidelines for reporting scale development and validation results in the Journal of the Society for Social Work and Research. *Journal of the Society for Social Work and Research, 1*, 99-103.
- Callero, P. L., Howard, J. A., & Piliavin, J. A. (1987). Helping behavior as role behavior: Disclosing social structure and history in the analysis of prosocial action. *Social Psychology Quarterly, 50*, 247-256.
- Carlo, G., Okun, M., Knight, G. P., & Guzman, M. R. (2005). The interplay of traits and motives on volunteering: agreeableness, extraversion and prosocial value motivation. *Personality and Individual Differences, 38*, 1293-1305.
- Clary, E. G., & Snyder, M. (1999). The motivations to volunteer: Theoretical and practical considerations. *Current Directions in Psychological Science, 8*, 156-159.
- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. a., Haugen, J., et al. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology, 74*, 1516-1530.
- Cnaan, R. A., & Goldberg-Glen, R. S. (1991). Measuring motivation to volunteer in human services. *Journal of Applied Behavioral Science, 27*, 269-284.

- Cnaan, R. A., Kasternakis, A., & Wineburg, R. J. (1993). Religious people, religious congregations, and volunteerism in human services: Is there a link? *Nonprofit and Voluntary Sector Quarterly*, 22, 33-51.
- Cohen, A. B., Hall, D. E., Koenig, H. G., & Meador, K. G. (2005). Social versus individual motivation: Implications for normative definitions of religious orientation. *Personality and Social Psychology Review*, 9, 48-61.
- Crocker, J., & Canevello, A. (2008). Creating and undermining social support in communal relationships: The role of compassionate and self-image goals. *Journal of Personality and Social Psychology*, 95, 555-575.
- Dickie, J. R., Ajega, L. V., Kobylak, J. R., & Nixon, K. M. (2006). Mother, father, and self: Sources of young adults' God concepts. *Journal for the Scientific Study of Religion*, 45, 57-71.
- Dovidio, J. F. (1984). Helping behavior and altruism: An empirical and conceptual overview. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, 17 (pp. 361-427). New York: Academic Press.
- Dovidio, J. F., Piliavin, J. A., Schroeder, D. A., & Penner, L. A. (2006). *The Social Psychology of Prosocial Behavior*. Lawrence Erlbaum Associates .
- Driskell, R. L., Lyon, L., & Embry, E. (2008). Civic engagement and religious activities: Examining the influence of religious tradition and participation. *Sociological Spectrum*, 28, 578-601.
- Eidelson, R. J., & Eidelson, J. I. (2003). Danger ideas: Five beliefs that propel groups toward conflict. *American Psychologist*, 58(3), 182-192.
- Epley, N., Converse, B. A., Delbosc, A., Monteleone, G. A., & Cacioppo, J. T. (2009). Believers' estimates of God's beliefs are more egocentric than estimates of other people's beliefs. *PNAS*, 106, 21533-21538.
- Finkelstein, M. A. (2008). Predictors of volunteer time: The changing contributions of motive fulfillment and role identity. *Social Behavior and Personality*, 36, 1353-1364.
- Finkelstein, M. A., Penner, L. A., & Brannick, M. T. (2005). Motive, role identity, and prosocial personality as predictors of volunteer activity. *Social Behavior and Personality*, 33, 403-418.

- Flood, G. (1996). *An Introduction to Hinduism*. Cambridge: Cambridge University Press.
- Fowler, J. W. (1996). *Faithful change: The personal and public challenges of postmodern life*. Nashville, TN: Abingdon Press.
- Freud, S. (1961). *The future of an illusion*. (J. Strachey, Trans.) New York, NY: W. W. Norton & Company.
- Froese, P., & Bader, C. (2010). *America's four Gods: What we say about God - & what that says about us*. Oxford: Oxford University Press.
- Furnham, A. (2003). Belief in a just world: Research progress over the past decade. *Personality and Individual Differences, 34*, 795-817.
- Gagne, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion, 27*, 199-223.
- Garland, D. R., Myers, D. M., & Wolfer, T. A. (2008). Social work with religious volunteers: Activating and sustaining community involvement. *Social Work, 53*, 255-265.
- Gorsuch, R. L. (1968). The conceptualization of God as seen in adjective ratings. *Journal for the Scientific Study of Religion, 7*, 56-64.
- Gorsuch, R. L., & McPherson, S. E. (1989). Intrinsic/extrinsic measurement: I/E-Revised and single-item scales. *Journal for the Scientific Study of Religion, 28*, 348-354.
- Grano, C., Lucidi, F., Zelli, A., & Violani, C. (2008). Motives and determinants of volunteering in older adults: An integrated model. *International Journal of Aging and Human Development, 67*, 305-326.
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research, 20*, 98-116.
- Hill, P. C., & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health. *American Psychologist, 58*, 64-74.

- Hodgkinson, V. A., Weitzman, M. S., & Kirsch, A. D. (1990). From commitment to action: How religious involvement affects giving and volunteering. In R. Wuthnow, V. A. Hodgkinson, & Associates (Eds.), *Faith and philanthropy in America: Exploring the role of religion in America's voluntary sector* (pp. 93-114). San Francisco, CA: Jossey-Bass Publishers.
- Hoffman, L., Hoffman, J. L., Dillard, K., Clark, J., Acoba, R., Williams, F., et al. (2008). Diversity and the God image: Examining ethnic differences in the experience of God for a college-age population. *Journal of Psychology and Theology*, *36*, 26-41.
- Hopfe, L. M., & Woodward, M. R. (2004). *Religions of the World* (9th ed.). Upper Saddle River, NJ: Pearson.
- Hourani, A. (1991). *A history of the Arab peoples*. Cambridge, MA: The Belknap Press of Harvard University Press.
- Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1-55.
- Jackson, E. F., Bachmeier, M. D., Wood, J. R., & Craft, E. A. (1995). Volunteering and charitable giving: Do religious and associational ties promote helping behavior? *Nonprofit and Voluntary Sector Quarterly*, *24*, 59-78.
- James, W. (1902/2002). *The varieties of religious experience: A study in human nature*. New York: The Modern Library.
- Johnson, D., & Bering, J. (2009). Hand of God, mind of man: Punishment and cognition in the evolution of cooperation. In J. Schloss, & M. Murray (Eds.), *The believing primate: Scientific, philosophical, and theological reflections on the origin of religion* (pp. 26-43). Oxford: Oxford University Press.
- Johnson, K. A., Li, Y. J., Cohen, A. B., & Okun, M. A. (In press). Friends in high places: The influence of God-concepts on social attitudes and behaviors. *Psychology of Religion and Spirituality*.

- Johnson, K. A., Okun, M. A., & Cohen, A. B. (2010). A more nuanced look at the effects of intrinsic religiosity on volunteerism. *Unpublished data*.
- Johnson, K. A., Swail, A. N., Walters, R. B., Li, Y. J., & Cohen, A. B. (2011). Differential effects of God concepts on pro-social behavior. *Poster presented at the Society for Personality and Social Psychology, San Antonio, Texas. [Student Poster Award winner.]*
- Kirkpatrick, L. A., & Shaver, P. R. (1992). An attachment-theoretical approach to romantic love and religious belief. *Personality and Social Psychology Bulletin, 18*, 266-275.
- Krejci, M. J. (1998). Gender comparison of God schemas: A multidimensional scaling analysis. *The International Journal for the Psychology of Religion, 8*, 57-66.
- Kunkel, M. A., Cook, S., Meshel, D. S., Daughtry, D., & Hauenstein, A. (1999). God Images: A Concept Map. *Journal for the Scientific Study of Religion, 38*(2), 193-202.
- Lawrence, R. T. (1997). Measuring the image of God: The God image inventory and the God image scales. *Journal of Psychology and Theology, 25*, 214-226.
- Li, Y. J., Johnson, K. A., Cohen, A. B., Williams, M. J., Knowles, E. D., & Chen, Z. (2010). Fundamental(ist) Attribution Error: Protestants are Dispositionally Focused. *Manuscript submitted for publication*.
- Lipkus, I. M., Dalbert, C., & Siegler, I. C. (1996). The importance of distinguishing the belief in a just world for self versus for others: Implications for psychological well-being. *Personality and Social Psychology Bulletin, 22*, 666-677.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2001). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling: A Multidisciplinary Journal, 9*, 151-173.
- Meier, B. P., Hauser, D. J., Robinson, M. D., Friesen, C. K., & Schjeldahl, K. (2007). What's "up" with God? Vertical space as a representation of the divine. *Journal of Personality and Social Psychology, 93*, 699-710.

- Morewedge, C. K., & Clear, M. E. (2008). Anthropomorphic God concepts engender moral judgment. *Social Cognition, 26*(2), 182-189.
- Muthen, L., & Muthen, B. (1998-2010). *MPlus User's Guide. Sixth Edition*. Los Angeles, CA: Muthen & Muthen.
- Noffke, J. L., & McFadden, S. H. (2001). Denominational and age comparisons of God concepts. *Journal for the Scientific Study of Religion, 40*, 747-756.
- Okun, M. A., Pugliese, J., & Rook, K. S. (2007). Unpacking the relation between extraversion and volunteering in later life: The role of social capital. *Personality and Individual Differences, 42*, 1467-1477.
- Okun, M. A., & Schultz, A. (2003). Age and motives for volunteering: Testing hypotheses derived from socioemotional selectivity theory. *Psychology and Aging, 18*, 231-239.
- Osgood, C. E. (1962). Studies on the generality of affective meaning systems. *American Psychologist, 17*, 10-28; DOI: 10.1037/h0045146.
- Osgood, S. E., Suci, G. J., & Tannenbaum, P. H. (1957). *Measurement of meaning*. Urbana, IL: University of Illinois Press.
- Park, J. Z., & Smith, C. (2000). "To whom much has been given...": Religious capital and community voluntarism among churchgoing Protestants. *Journal for the Scientific Study of Religion, 39*, 272-286.
- Pearce, P., & Amato, P. R. (1980). A taxonomy of helping: a multidimensional scaling analysis. *Social Psychology Quarterly, 43*, 363-371.
- Penner, L. A., & Finkelstein, M. A. (1998). Dispositional and structural determinants of volunteerism. *Journal of Personality and Social Psychology, 74*, 525-537.
- Penner, L. A., Fritzsche, B. A., Craiger, J. P., & Freifeld, T. R. (1995). Measuring the prosocial personality. In J. Butcher, & C. D. Spielberger (Eds.), *Advances in personality assessment, 10* (pp. 147-163). Hillsdale, NJ: Lawrence Erlbaum Associates.

- Pew Forum on Religion & Public Life. (2008). *U.S. Religious Landscape Survey: Religious Beliefs and Practices: Diverse and Politically Relevant*. Washington, D.C.: Pew Research Center.
- Pichon, I., & Saroglou, V. (2009). Religion and helping: Impact of target thinking styles and just-world beliefs. *Archive for the Psychology of Religion, 35*, 215-236.
- Piliavin, J. A., & Siegl, E. (2007). Health benefits of volunteering in the Wisconsin Longitudinal Study. *Journal of Health and Social Behavior, 48*, 450-464.
- Putnam, R. D., & Campbell, D. E. (2010). *American grace: How religion divides and unites us*. New York: Simon & Schuster.
- Rambo, L. R. (1993). *Understanding religious conversion*. New Haven, CT: Yale University Press.
- Reed II, A., & Aquino, K. F. (2003). Moral identity and the expanding circle of moral regard toward out-groups. *Journal of Personality and Social Psychology, 84*, 1270-1286.
- Rimor, M., & Tobin, G. A. (1990). Jewish giving patterns to Jewish and non-Jewish philanthropy. In R. Wuthnow, V. A. Hodgkinson, & Associates (Eds.), *Faith and philanthropy in America: Exploring the role of religion in America's voluntary sector* (pp. 134-164). San Francisco, CA: Jossey-Bass Publishers.
- Rizzuto, A.-M. (1979). *The birth of the living God: A psychoanalytic study*. Chicago: University of Chicago Press.
- Roberts, C. W. (1989). Imagining God: Who is created in whose image? *Review of Religious Research, 30*, 375-386.
- Roes, F. L., & Raymond, M. (2003). Belief in moralizing gods. *Evolution and human behavior, 24*, 126-135.
- Rosmarin, D. H., Krumrei, E. J., & Andersson, G. (2009). Religion as a predictor of psychological distress in two religious communities. *Cognitive Behaviour Therapy, 38*, 54-64.

- Rosmarin, D. H., Pirutinsky, S., Pargament, K. I., & Krumrei, E. J. (2009). Are religious beliefs relevant to mental health among Jews? *Psychology of Religion and Spirituality, 1*, 180-190.
- Ruiter, S., & DeGraaf, N. D. (2006). National context, religiosity, and volunteering: Results from 53 countries. *American Sociological Review, 71*, 191-210.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68-78.
- Samuelson, N. M. (2003). *Jewish philosophy: An historical introduction*. New York, NY: Continuum.
- Saroglou, V. (2002). Religion and the five factors of personality: a meta-analytic review. *Personality and Individual Differences, 32*, 15-25.
- Saroglou, V., Delpierre, V., & Dernelle, R. (2004). Values and religiosity: a meta-analysis of studies using Schwartz's model. *Personality and Individual Differences, 37*, 721-734.
- Schwartz, S. (1968). Words, deeds, and the perception of consequences and responsibility in action situations. *Journal of Personality and Social Psychology, 10*, 232-242.
- Schwartz, S. H. (1973). Normative explanations of helping behavior: A critique, proposal, and empirical test. *Journal of Experimental Social Psychology, 9*, 349-364.
- Schwartz, S. H. (1974). Awareness of interpersonal consequences, responsibility denial, and volunteering. *Journal of Personality and Social Psychology, 30*, 57-63.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology, Vol. 25* (pp. 1-65).

- Schwartz, S. H., & Howard, J. A. (1980). Explanations for the moderating effect of responsibility denial on the personal norm-behavior relationship. *Social Psychology Quarterly*, *43*, 441-446.
- Schwartz, S. H., & Huismans, S. (1995). Value priorities and religiosity in four Western religions. *Social Psychology Quarterly*, *58*, 88-107.
- Schwartz, S., & Howard, J. A. (1981). A normative decision-making model of altruism. In J. P. Rushton, & R. M. Sorrentino (Eds.), *Altruism and helping behavior* (pp. 189-211). Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Shariff, A. F., & Norenzayan, A. (2011). Mean gods make good people: Different views of God predict cheating behavior. *The International Journal for the Psychology of Religion*, *21*, 85-96.
- Shariff, A. F., Norenzayan, A., & Henrich, J. (2009). High Gods: How the cultural evolution of supernatural policing influenced the emergence of complex, cooperative human societies, paving the way for civilization. In M. Schaller, A. Norenzayan, S. J. Heine, T. Yamagishi, & T. Kameda, *Evolution, Culture, and the Human Mind* (pp. 119-136). New York, NY: Psychology Press.
- Sharp, C., Gibson, N., & Johnson, K. (2011). *Measuring self/other overlap with God*. Poster presented at the Society of Personality and Social Psychology, San Antonio, TX.
- Simpson, D. B., Newman, J. L., & Fuqua, D. R. (2008). Understanding the role of relational factors in Christian spirituality. *Journal of Psychology and Theology*, *36*, 124-134.
- Snarey, J. (1996). The natural environment's impact upon religious ethics: A cross-cultural study. *Journal for the Scientific Study of Religion*, *35*, 85-96.
- Snyder, M., & Omoto, A. N. (2000). Doing good for self and society: Volunteerism and the psychology of citizen participation. In M. VanVugt, M. Snyder, T. R. Tyler, & A. Biel (Eds.), *Cooperation in modern society: promoting the welfare of communities, states and organizations* (pp. 127-141). New York, NY: Routledge.

- Sparks, P., & Shepherd, R. (1992). Self-identity and the theory of planned behavior: Assessing the role of identification with "green consumerism". *Social Psychology Quarterly*, *55*, 388-399.
- Spilka, B., Armatas, P., & Nussbaum, J. (1964). The concept of God: A factor-analytic approach. *Review of Religious Research*, *6*, 28-36.
- Steenwyk, S. A., Atkins, D. C., Bedics, J. D., & Whitley, J. B. (2010). Images of God as they relate to life satisfaction and hopelessness. *The international Journal for the Psychology of Religion*, *20*, 85-96.
- Stukas, A. A., Worth, K. A., Clary, E. G., & Snyder, M. (2009). The matching of motivations to affordances in the volunteer environment: An index for assessing the impact of multiple matches on volunteer outcomes. *Nonprofit and Voluntary Sector Quarterly*, *38*, 5-28.
- Swanson, G. E. (1968). *The birth of the gods: The origin of primitive beliefs*. Ann Arbor, Michigan: University of Michigan Press.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Pearson Education.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin, & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks-Cole.
- Taniguchi, H., & Thomas, L. D. (September 24, 2010). The influences of religious attitudes on volunteering. *Voluntas, Online First*, DOI 10.1007/s11266-010-9158-0.
- Terry, D. J., Hogg, M. A., & White, K. M. (1999). The theory of planned behavior: Self-identity, social identity and group norms. *British Journal of Social Psychology*, *38*, 225-244.
- Thompson, E. R. (2007). Development and validation of an internationally reliable short-form of the positive and negative affect schedule (PANAS). *Journal of Cross-cultural psychology*, *38*, 227-242. DOI: 10.1177/0022022106297301.

- Unger, M. F. (1988/1957). *The New Unger's Bible Dictionary* (Revised and updated ed.). (R. K. Harrison, Ed.) Chicago: Moody Press.
- Weber, M. (1958/1988). *The Protestant Ethic and the Spirit of Capitalism*. (T. Parsons, Trans.) Gloucester, Massachusetts: P. Smith.
- White, J. A., & Plous, S. (1995). Self-enhancement and social responsibility: On caring more, but doing less, than others. *Journal of Applied Social Psychology*, 25, 1297-1318.
- Wiegand, K. E., & Weiss, H. M. (2006). Affective reactions to the thought of "God": Moderating effects of image of God. *Journal of Happiness Studies*, 7, 23-40.
- Wilson, J. (2000). Volunteering. *Annual Review of Sociology*, 26, 215-240.

APPENDIX A
BELIEFS ABOUT GOD

God-concepts

There are many ways of thinking about God but some of God's traits seem more relevant to us than others. Using a wide range of the 1 to 7 point scale below, please rate how well each word describes God BASED UPON YOUR OWN, PERSONAL EXPERIENCE:

Benevolent items

Helping, Compassionate, Caring, Generous, Concerned, Forgiving, Gracious, Accepting, Merciful, Pardoning, Protecting, Shielding, Defending, Sheltering, Guarding

Authoritarian items

Commanding, Strict, Controlling, Restricting, Stern, Judging, Master, Angry, Wrathful, Critical, Punishing, Just, Fair-minded, Unbiased, Impartial

APPENDIX B

BELIEFS ABOUT THE SELF AND THE WORLD

Benevolent self (alpha = .79)

Listed below are some characteristics that may describe a person:

Caring, compassionate, accepting of others, generous, helpful

The person with these characteristics could be you or someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, answer the following questions on the 7 point scale from 1 (strongly disagree) to 7 (strongly agree). **TRY TO USE A WIDE RANGE OF THE SCALE.**

I am the sort of person who has these characteristics
It would make me feel good to be the kind of person who has these characteristics
Being someone who has these characteristics is an important part of who I am
I would be ashamed to be a person who has these characteristics (R)
Having these characteristics is not really that important to me (R)
I strongly desire to have these characteristics

Moral Obligation (alpha = .77)

I personally feel I have an absolute moral obligation to help others
Volunteering is an important moral activity
People have a moral obligation to help others
Helping is a matter of choice, not an obligation (Reverse keyed)

Religious Obligation (alpha = .81)

I have a religious obligation to help others
The scriptures command people to help others
God commands people to help one another
God expects people to obey the commandments

Belief in a Just World for Others (BJWO; alpha = .75)

The world treats people fairly
People get what they deserve
People earn the rewards and punishments they get
People get what they are entitled to have
A person's efforts are noticed and rewarded
When people meet with misfortune, they typically have brought it upon themselves

Personal Responsibility (alpha = .70)

No matter what a person has done to us, there is no excuse for taking advantage of them.

When people are nasty to me, I feel very little responsibility to treat them well. (R)

I would feel less bothered about leaving litter in a dirty park than a clean one. (R)

With the pressure for grades and the widespread cheating in school these days, the individual who cheats occasionally is not really as much at fault. (R)

It doesn't make much sense to be very concerned about how we act when we are sick and feeling miserable. (R)

When you have a job to do, it is impossible to look out for everybody's best interest. (R)

It is not up to me to take care of other people. (R)

You can't blame basically good people who are forced by a situation to be inconsiderate of others. (R) [item added to increase reliability; item was included in Schwartz's original scale (1968)]

APPENDIX C
VOLUNTEER MOTIVES

Volunteer motivations:

If you are currently volunteering, please indicate to what extent each of the following reasons is a personal motive for why you do volunteer. If you are not currently volunteering, there is a very good chance that you will be asked to do so in the future. Please indicate to what extent each of the following reasons would be a personal motive for why you volunteer. Use the 7-point scale provided below to make your ratings.

I do (would) volunteer...

Internal (alpha = .87)

- because it is one of the ways I live my life
- because helping others is an integral part of my life
- because volunteering is a part of who I am
- because it's something that is fulfilling for me as a person
- because it is a wise thing to do
- because volunteering is a suitable activity for me
- because it's a good way to contribute
- because it's something that contributes to my personal growth

Introjected (alpha = .78)

- because I would feel guilty if I did not volunteer
- because I would regret not doing volunteering
- because I would feel very bad if I did not help others
- because I would be ashamed if I did not volunteer

External (alpha = .72)

- because God rewards people who help others
- because I will earn rewards in the afterlife
- because God is pleased when I volunteer
- because I want to avoid being criticized by my religious group

Amotivation (alpha = .86)

- I don't know; I can't see how volunteering really helps
- I don't know; volunteering is just a waste of my time
- I don't know; I can't see what I'm getting out of it
- I don't know; I can't see how my efforts are helping others when I volunteer

APPENDIX D
INTENTIONS TO VOLUNTEER

Intentions to volunteer (alpha = .90)

Each year various volunteer activities are planned for student participation, and volunteer organizations are constantly reassessing the kinds of activities students are most interest in. Using the 7-point scale provided below, please take a moment and indicate how likely you would be to volunteer during the next 12 months if given the opportunity for the following activities:

Volunteer intentions for the benefit of U.S. (alpha = .83)

- Helping underprivileged youths learn to read
- Helping distribute food at a local food bank
- Helping build housing for poor families
- Delivering food to families whose husbands are in prison
- Distributing reading materials to hospice patients

Volunteer intentions for the benefit of those outside the U.S. (alpha = .96)

- Packaging hygiene items (e.g., toothbrushes, soap) to ship to natural disaster victims in Pakistan
- Packaging hygiene items (e.g., toothbrushes, soap) to ship to natural disaster victims in Israel
- Packaging hygiene items (e.g., toothbrushes, soap) to ship to natural disaster victims in Haiti

APPENDIX E
HUMAN SUBJECTS APPROVAL

To: Adam Cohen
PSYCHOLOGY

From: Mark Roosa, Chair
Soc Beh IRB

Date: 10/06/2011

Committee Action: Exemption Granted

IRB Action Date: 10/06/2011

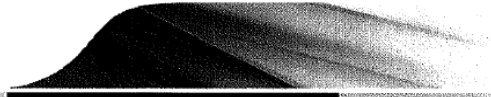
IRB Protocol #: 1110006937

Study Title: Religion and Volunteerism 3 (aka Study 1, Benevolence)

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(2).

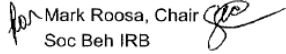
This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.



Office of Research Integrity and Assurance

To: Adam Cohen
PSYCHOLOGY

From:  Mark Roosa, Chair
Soc Beh IRB

Date: 07/21/2011

Committee Action: **Exemption Granted**

IRB Action Date: 07/21/2011

IRB Protocol #: 1107006656

Study Title: God concepts and volunteerism - Study 2 (aka Interference with Memory II)

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(2).

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.

