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The purpose of the current study was to examine relations among religiosity, moral obligation, and gratitude. Gratitude was conceptualized as a virtue and operationalized as connective gratitude; connective gratitude occurs when a benefactor freely gives a benefit to a beneficiary and the beneficiary, recognizing the good intentions of the benefactor, freely wishes to repay the benefactor if and when appropriate. Religiosity was examined on two dimensions: transcendence, defined as the extent of belief in God or a higher power, and interpretation, defined as the way religious content is processed from literal to symbolic.

Analysis of a religiosity measure (PCBS), an open-ended survey to assess the expression of gratitude, and a vignette to assess moral obligation showed that there were no significant associations between the interpretation dimension of religiosity and gratitude, but that interpretation was related to the type of moral obligation expressed. In addition, there were no significant relations between the transcendent dimension of religiosity and either gratitude as a virtue or moral obligation. However, a significant association was found between a different type of gratitude (measured with the GQ-6) and the transcendence dimension, suggesting an inconsistency between these two ways of defining and measuring gratitude.

RELIGIOSITY, MORAL OBLIGATION, AND THE MORAL VIRTUE OF GRATITUDE

by

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CHAPTER I

INTRODUCTION

Gratitude is often a focus of religious texts, prayers, and teachings. Gratitude is a central tenet in Judaism, as all things are thought to come from God. Aleinu, the concluding prayer, specifically thanks God for the destiny of the Jewish people (Emmons & Hill, 2001). Discussions of gratitude are also ubiquitous in both classical and modern Christian texts. Emmons and Hill (2001) posited that the first two commandments reflect two forms of gratitude: "…gratitude to our Creator and thankfulness to others demonstrated by our loving actions towards them" (p. 33). Similarly, gratitude is inherent in two of the pillars of the Islamic faith. During daily prayers, Muslims give praise and adoration to God for his gifts. Ramadan, a month of fasting, is intended to inculcate gratitude: "He wants you to complete the prescribed period and glorify him that He has guided you, and perchance ye shall be grateful" (Koran, 2:185, as quoted in Emmons & Hill, 2001, p. 35).

Social science research on relations between religiosity (i.e., a variable representing religious feeling or belief) and gratitude has been carried out by scholars in a number of different religious contexts. However, this body of literature is relatively small and weakened by theoretical and methodological inconsistencies. For example, no two studies have used the same definitions and measures of gratitude and religiosity. As a result, generalizations about how gratitude and religiosity might relate to one another

are highly speculative. To address this lacuna, I utilized specific and theoretically grounded definitions and measures of gratitude and religiosity in this study, as well as adding moral obligation to potentially explain relations between gratitude and religiosity. These three constructs are outlined briefly below, followed by a brief discussion of the central questions the current study attempts to address.

Religiosity

Religiosity has been examined from myriad angles in social science research, including religious belief, behavior, affiliation, friendship, ideology, and efficacy. Few of these approaches have been immune to criticism, largely because scholars place differing emphasis and importance on various aspects of religiosity. Most researchers have utilized an approach developed by Gordon Allport, which looks at religiosity from two facets: intrinsic belief and external behaviors (Wulff, 1991). While this approach may approximate the degree to which a person believes in God or higher power, it does little to tell you how or why a person engages with religion. The current study uses an alternate approach—Wulff's schema of religious attitudes—which examines religiosity from two dimensions: interpretation (i.e., How do people process religious texts, imagery, and teachings?) and transcendence (i.e., How strongly do people believe in God or a higher power?). This conceptualization of religiosity mirrors how moral obligation and gratitude are examined in this study, as all three approaches examine some element of *how* people think, as opposed to simply *what* they think.

Gratitude

On November 4, 1963 President John F. Kennedy released a Thanksgiving Proclamation to the nation in which he wrote "As we express our gratitude, we must never forget that the highest appreciation is not to utter words, but to live by them" (p. 1060). Amid an era of political and social divisions, Kennedy encouraged citizens to express gratitude not only through words, but through actions that would strengthen families, neighborhoods, cities, states, and the nation as a whole. The type of gratitude he described goes beyond a simple thank you—it requires that people respond to one another with thoughtful and kind reciprocal behavior. A similar construct of gratitude is the focus of the current study; gratitude is conceptualized as a virtue, a midpoint between ingratitude and obsequious gratitude, and as a skill that can develop across the life course through practice (Tudge & Freitas, 2018). As defined by Tudge and Freitas, gratitude is expressed *to* people, as opposed to *for* things. Gratitude begins when a benefactor altruistically gives a benefit to a beneficiary. To express gratitude to the benefactor, the beneficiary then "has to freely wish to repay the benefactor, if possible and when appropriate, with something deemed to be of value to the benefactor" (p. 4). Based on the work of previous scholars, Tudge and Freitas delineated this type of gratitude as connective gratitude. While connective gratitude is closest to gratitude as a virtue, Tudge and Freitas also described other types, including verbal and concrete gratitude. The conceptualization of gratitude as a virtue is one of a myriad currently being used in social science research. Other scholars have treated gratitude as an emotion, a disposition, a trait, or a combination of these factors.

Moral Obligation

Moral obligation was included as a third variable in this study because it helps to explain *why* people express different types of gratitude: Do people express gratitude because they freely wish to do so, or because an authority (e.g., a religious leader) told them it was the appropriate response? Piaget's (1932/1965) theory of moral reasoning was utilized to help analyze this complex dynamic. Piaget delineated two forms of moral reasoning: heteronomous and autonomous. Heteronomous moral reasoning relies upon rules and norms developed by authority figures, whereas autonomous moral reasoning relies upon rules and norms developed cooperatively with others. To be a virtuously grateful person one must have developed autonomous moral obligation, because, as defined above, one has to "freely wish" to repay the benefactor. The ability to "freely wish" to do something cannot be out of duty (i.e., heteronomous obligation), but out of intrinsic desire (i.e., autonomous obligation).

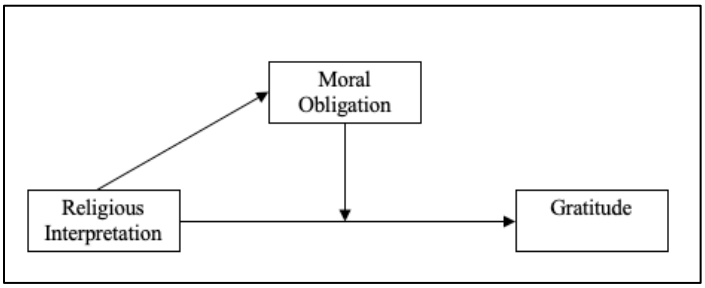
Central Questions

By examining religiosity, gratitude, and moral obligation from specific and theoretically-grounded perspectives I hope this study may be able to address key questions about these constructs: Are religiosity and gratitude linked? Are people who are highly religious more likely to be grateful? Are people who think about religious content as a symbol for how they should live their lives more likely to be grateful? The questions explored in this study can be placed into two groups, which are based on the two dimensions of religiosity in Wulff's schema: interpretation and transcendence.

Interpretation. The interpretation dimension of Wulff's (1991) schema represents how one interprets religious content (e.g., beliefs, images, scriptures, rituals) from literal to symbolic. Based on theory and the existing literature (each discussed at length in Chapters II and III), I hypothesize that interpretation relates to both moral obligation and gratitude (as shown in Figure 1). More specifically, I posited that people who process religious content more symbolically may be more likely to express autonomous moral obligation and connective gratitude. Further, I wondered to what extent moral obligation may moderate relations between interpretation and gratitude: Would having an autonomous moral obligation strengthen associations between symbolic processing and the expression of connective gratitude? Might the use of a heteronomous moral obligation have the opposite effect?

Figure 1

Interpretation Model

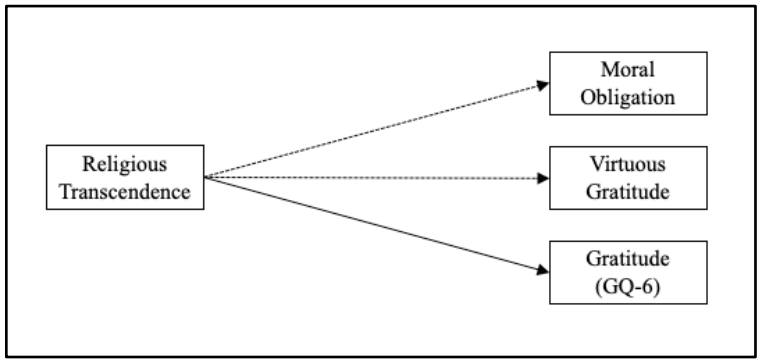


Transcendence. The transcendence dimension of Wulff's (1991) schema of religious attitudes describes the extent to which people believe in God or a higher power. Based upon previous findings that have shown few significant associations between

religious beliefs and moral reasoning, I hypothesize that transcendence will *not* relate to either moral obligation or gratitude as defined in this study (see Figure 2). However, based on previous studies using alternate definitions of gratitude, I do believe that transcendence will relate to dispositional gratitude (i.e., a tendency to be grateful for the good things in life) as measured by the Gratitude Questionnaire-6 (GQ-6; McCullough, Emmons, & Tsang, 2002.

Figure 2

Transcendence Model



CHAPTER II

THEORETICAL FRAMEWORKS

As discussed briefly in the introduction, this study utilizes three main constructs: religiosity, moral obligation, and gratitude. Each of these constructs has deep historical and theoretical foundations, albeit often contradictory and confusing. As previous research examining gratitude and religiosity is marred by inconsistency and opacity, I believe it is important to carefully examine each construct and to clearly define how each is used in the current study.

Religiosity

Religion is omnipresent across the globe; approximately 84% of the world's population identify with a religious group (Pew, 2012). In addition to this ubiquity, religion is integral to the fabric of human existence and human history. Durkheim (1915/2004) argued that religion helps humans to classify the world and unites them into a community. Durkheim postulated that religious beliefs of the sacred and the profane (i.e., the good and bad elements of life) help to organize both the knowable and unknowable world around us. Further, he argued that beyond a lexicon for understanding the world, religion is a communal institution, where beliefs belong to and unify the group. Durkheim defined religion as "…a unified system of beliefs and practices relativeto sacred things, that is to say, things set apart and forbidden–beliefs and practices which unite into one single moral community called a Church, all those who adhere to

them" (1915/2004, p. 78). Durkheim believed that religion offered a way of navigating the edges of understanding, by establishing cultural norms around the acceptable (or sacred) and the unacceptable (the profane). In this way, religions offer a cultural framework for decision making, including moral and ethical decisions.

Discussions of religion and psychology can be found throughout texts tracing back to antiquity, but contemporary theorists identify an 1882 address by G. Stanley Hall on moral and religious education as the beginning of modern studies of psychology and religion (Wulff, 1991). Since then a multitude of philosophers, psychologists, theologians, and social science researchers have proposed myriad ways to define and measure the construct of religiosity, including religious affiliation, religious behavior, religious knowledge, ideology, religious experiences and religious education (Getz, 1984).

Although the bulk of his writings focused on cognitive development, Jean Piaget published a few papers examining religiosity (Wulff, 1991). In these publications, Piaget delineated two religious attitudes: transcendence and immanence. Transcendence refers to the belief that God operates beyond the understanding of humans, while an attitude of immanence refers to the belief that God lies within people. Piaget posited that individuals fall into one of these attitudes based on their upbringing, including parental influence. Piaget (1932/1965) found that when children exemplified unilateral respect they tended to use heteronomous moral reasoning, and were more likely to have a transcendent perspective of religion. He also found that children who demonstrated mutual respect (developed through interactions with peers) tended to use autonomous

moral reasoning and were more likely to have an immanence attitude about religion (Wulff, 1991).

In the past century, one of the most prominent and influential scholars in the psychology of religion has been Gordon Allport (Wulff, 1991). Allport's constructs of religion and resulting operationalizations have been some of the most widely adopted and utilized conceptualizations (Donahue, 1985; Wulff, 1991). Allport believed that religion was not a single construct but composed of multiple factors as people are religious in different ways. Allport initially delineated a linear dimension with intrinsic and extrinsic religiosity at each pole. Allport defined an intrinsic orientation "as a meaning-endowing framework in terms of which all life is understood" and an extrinsic orientation as "comfort and social convention, a self-serving instrumental approach shaped to suit oneself" (Donahue, 1985, p. 400). However, Allport soon changed this to an orthogonal approach, with intrinsic and extrinsic religiosity no longer opposites of one another, but independent dimensions. This approach garnered more empirical support, as follow-up studies found no significant correlations between intrinsic and extrinsic religiosity. This orthogonal approach yielded 4 quadrants, or types of religious persons: intrinsic, extrinsic, indiscriminate, and non-religious (Donahue, 1985; Wulff, 1991). Along with his colleague Michael Ross, Allport created the 20-item Religious Orientation Scale (ROS), which is still one of the most common instruments used to measure religiosity (Wulff, 1991). However, Allport's intrinsic and extrinsic orientations have been the subject of significant criticism. As Wulff (1991) wrote in his book, *Psychology of Religion*, the available evidence did not support such a simplistic approach to a complex

phenomenon. Further, Wulff discussed widespread concern that this approach may instead reflect personality variables as opposed to religiosity itself.

Building upon the work of Allport and Ross, Daniel Batson added another dimension, quest (Sapp & Jones, 1986). Batson defined quest as "an open-ended response dialogue with existential questions raised by the contradictions and tragedies of life" (Batson & Ventis, 1982, p. 152, quoted in Sapp & Jones, 1986, p. 209). Batson developed a set of questions to assess this dimension and combined them with the intrinsic and extrinsic subscales of the ROS to create the Religious Life Inventory (RLI). Batson found that individuals with a quest orientation to religion were more likely to take into account the wishes of others and less likely to display prejudice than people with a predominantly intrinsic or extrinsic orientation (Wulff, 1991). Batson described the quest orientation as "…a more mature, flexible type of religiosity than the other two" (Batson, 1976, p. 207, quoted in Wulff, 1991, p. 237). However, Batson's concept and methodology have also come under considerable criticism, in part because his research was completed almost exclusively with college students, raising the concern that quest does not represent a religious orientation, but a developmental stage in faith development (Wulff, 1991). Regardless of these criticisms, the majority of contemporary research on religiosity and moral development focuses on these three components (intrinsic, extrinsic, and quest), and uses the related measures, Allport's Religious Orientation Scale (ROS) and Batson's Religious Life Inventory (RLI) (Donahue, 1985; Sapp & Jones, 1986).

David Wulff's Schema of Religious Attitudes. In response to the diversity of thought and lack of consensus about how to analyze and measure religion in social

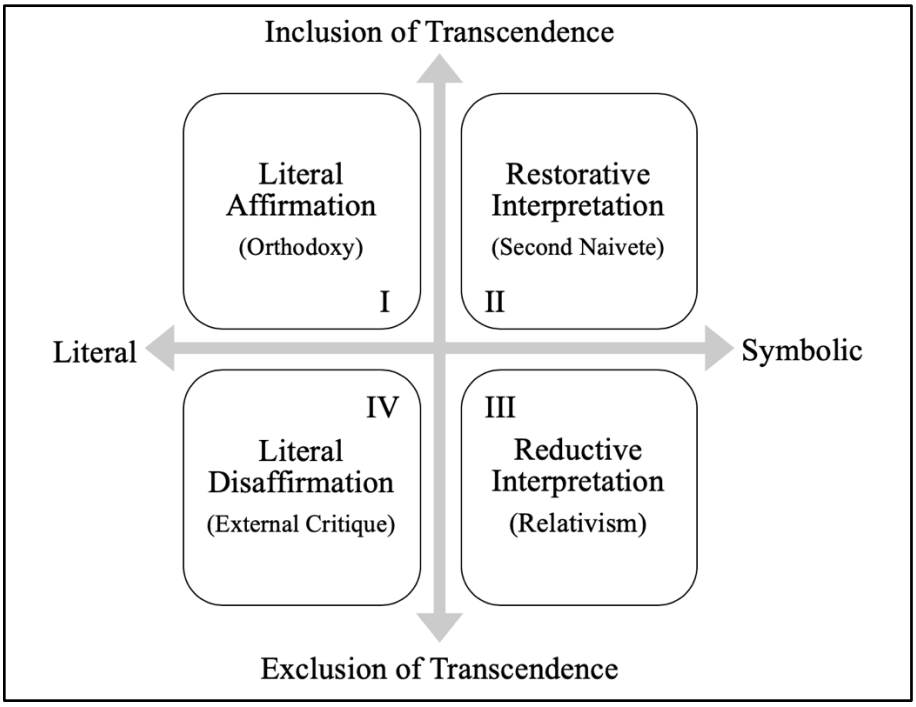
science, David Wulff (1991) argued that conceptualizations of religion must address two aims (i.e., to be both descriptive and explanatory) and to reflect the lived experiences of religious and non-religious individuals. To address these two aims, Wulff created a schema of religious attitudes with two dimensions: (1) inclusion vs. exclusion of transcendence (i.e., descriptive), and (2) literal vs. symbolic processing of religion (i.e., explanatory)(Duriez & Soenens, 2006; Wulff, 1991). These two dimensions can be plotted on a Euclidian plane to create four types or views of religion. This schema can be used to organize both psychological approaches to religion and individuals (Wulff, 1991).

The vertical axis (inclusion of transcendence vs. exclusion of transcendence) describes "…the degree to which the objects of religious interest are explicitly granted participation in a transcendent reality or, to the contrary, are limited to processes immanent within the mundane world" (Wulff, 1991, p. 630). It is interesting to note that Wulff uses similar terminology to Piaget; he describes the vertical axis using the same terms—transcendent and immanent. More simply, this dimension describes the extent to which individuals believe in God or another transcendent reality, thus delineating if individuals consider themselves to be religious (or spiritual) or not (Duriez & Soenens, 2006; Krysinska et al., 2014). The horizontal axis refers to the ways in which people process religious content. Wulff defined this bi-polar variable as "…how consistently the expressions of religious faith—whether beliefs, images, or rituals—are interpreted either literally or symbolically" (pp. 630-631). These two orthogonal dimensions create four distinct attitudes towards religion: literal affirmation (orthodoxy), literal disaffirmation (external critique), restorative interpretation (second naïveté), and reductive interpretation

(relativism) (Duriez & Soenens, 2006; Krysinska et al., 2014; Wulff, 1991). These attitudes are represented in Figure 3.

Figure 3

Wulff's Schema of Religious Attitudes (adapted from Wulff, 1991).



Literal affirmation (quadrant I) is marked by a belief in the transcendent, as well as a literal interpretation of religious beliefs, texts, and symbols. This quadrant frequently describes individuals who believe in orthodox or fundamentalist beliefs. Individuals who fall under restorative interpretation (quadrant II) believe in a religious or spiritual reality, but look for personal and symbolic meaning in religious content. Reductive interpretation (quadrant III) is demarcated by a rejection of a religious or spiritual reality, but in which an individual might still find symbolic or personal meaning

in religious or spiritual content. Literal disaffirmation (quadrant IV) also represents a rejection of a religious or spiritual reality, but where religion is interpreted in a literal way (Duriez & Soenens, 2006; Wulff, 1991). Since the origination of Wulff's schema, Dirk Hutsebaut developed a self-report questionnaire, the Post-Critical Belief Scale (PCBS), to measure where an individual might fall in this model (Duriez & Hutsebaut, 2002). This measure has since been validated and refined to represent all four quadrants, and is now comprised of 33 items (Fontaine, Duriez, Luyten, & Hutsebaut, 2003). While the PCBS is intended for use in a secular society, it was developed for Judeo-Christian populations, and validated in Belgium, a predominantly Catholic nation.

Moral Obligation

In the existing literature examining religiosity, gratitude and moral reasoning, morality is largely defined and operationalized using Kohlberg's stages of moral development. Myriad scholars have critiqued this singular focus on Kohlberg's work, largely because of concerns about generalizability as he used college-aged males to develop his stage theory (Wulff, 1991). Jean Piaget's theory of moral reasoning presents an alternative to this ubiquitous approach, as Piaget focused on feelings of obligation behind moral behavior (Piaget, 1932/1965). Moral obligation is central to examining the impact of religion on moral reasoning and behavior: *Why* do people act morally? Do they freely and willingly do the right thing? Or do they do the right thing because a higher power or religious leader told them to do so? The type of moral obligation used differentiates Piaget's constructs of heteronomous and autonomous moral reasoning.

Based on his studies of children playing marbles, Piaget (1932/1965) delineated moral reasoning into two main phases: heteronomous and autonomous. Children who demonstrated heteronomous judgement used rules imparted by adults and older children. In heteronomous reasoning, people with power (e.g., parents of a child) demand unilateral respect and determine what is right and wrong: "Right is to obey the will of the adult. Wrong is to have a will of one's own" (Piaget, 1932/1965, p. 195). According to Piaget, when obligation is based on duty (i.e., a duty to adhere to norms and rules established by others) moral decisions are heteronomous. Children who demonstrated autonomous reasoning played more co-operatively and developed rules and norms mutually with their peers. Piaget posited that when obligation is based on these types of mutually created rules and norms (i.e., desire to follow norms and rules established in cooperation with others), moral decisions are autonomous (Piaget, 1932/1965). This parallels Piaget's earlier work on religion, where he suggested that a transcendent religious attitude was the result of unilateral respect, whereas an immanent attitude was the result of mutual respect (Wulff, 1991). Although not directly addressed by Piaget, it could be inferred that an immanent religious attitude (i.e., a belief that God lies within people) and autonomous moral obligation are related to one another, as both are based on unilateral respect among peers.

This connection raises interesting questions: What type of respect exists between religious individuals and their Church or God? Is this respect unilateral (i.e., all rules are dictated hierarchically) or mutual (i.e., rules are created cooperatively), or dependent on the context? Previous research suggests that individuals subscribing to very orthodox or

fundamental religions may find it more difficult to employ autonomous moral reasoning. This hypothesis is supported by the work of Glover (1997) who found that conservative Christian groups in the southeast United States had lower levels of moral reasoning (i.e. more heteronomous) than did liberal or moderate groups. Conservative groups were more likely to rely upon church doctrine when making moral decisions.

Questions of unilateral and mutual respect are also relevant to research using Wulff's religious attitudes and the Post-Critical Belief Scale. Duriez (2004) found that how people process religion, as opposed to belief itself, is related to moral decision making. Participants who processed religion more symbolically reasoned at a higher level on Kohlberg's scale. This could be because the more symbolically-minded subjects did not unilaterally accept their Church's teachings and were able to place them into the context of the situation and autonomously reason through dilemmas.

Gratitude

Numerous definitions of gratitude have been used in social science research. Gratitude is most frequently conceptualized as a disposition or a positive emotion, and, less frequently, as an emotion that encourages reciprocity (Navarro & Morris, 2018). A grateful disposition has been defined as "a generalized tendency to recognize and respond with grateful emotion to the roles of other people's benevolence in the positive experiences and outcomes that one obtains" (McCullough, Emmons, & Tsang, 2002, p. 112). As an emotion, gratitude has been defined as a feeling that occurs after people receive aid which is perceived as costly, valuable, and altruistic (Wood, Maltby, Stewart, Linley, & Joseph, 2008). Gratitude has also been conceptualized as an emotion (such as

thankfulness or joy) triggered in response to receiving a gift, which can motivate individuals to help others and build social connections (Emmons & Shelton, 2002; McCullough et al., 2002).

In a recent qualitative analysis of peer-reviewed articles about gratitude in children and adolescents ($N = 53$), these common gratitude definitions were found (42% dispositional, 26% emotional) but additional facets also emerged (Navarro & Morris, 2018). Navarro and Morris identified multiple sub-themes when gratitude was defined as an emotion, including as general emotion (a positive feeling in response to benefit), as a social emotion (a positive feeling in response to a benefit from a benefactor), and as a relational emotion (a positive feeling in response to a benefit from a benefactor considering the intentions of and costs to the benefactor). In addition to the dispositional and emotional conceptions, Navarro and Morris identified a third definition present in the literature: reciprocal gratitude (7%). Reciprocal gratitude was defined as a positive feeling felt in response to a benefit from a benefactor and a desire to repay the benefactor. The disparate conceptualizations of gratitude used by social scientists present a significant problem for the validity of this field of research.

Of further concern is the inconsistency between the construct of gratitude and its operationalization. As has been elucidated previously (e.g., Gulliford, Morgan, & Kristjánsson, 2013; Tudge, Freitas, & O'Brien, 2015; Tudge & Freitas, 2018), most gratitude research uses the Gratitude Questionnaire-6 (GQ-6) (McCullough et al., 2002), which treats gratitude as a disposition and asks about gratitude *for* things. For example, the GQ-6 contains statements like: "I have so much in life to be thankful for" and "When

I look at the world, I don't see much to be grateful for." Navarro and Morris (2018) found that over half of the articles reviewed that defined gratitude as an emotion used the GQ-6—a theoretical and methodological mismatch. None of the commonly used scales, including the GQ-6 and the Gratitude Adjective Checklist (GAC), ask about reciprocity or the connection between the benefactor and beneficiary.

Gratitude as a virtue. Building upon the philosophical perspectives of Aristotle (1985) and Annas (2011), and previous research on gratitude by Baumgarten-Tramer (1938), Tudge and Freitas (2018) argued that gratitude is more than a positive feeling or an appreciation for the good things in life—gratitude is a moral virtue with specific attributes. A moral virtue guides one's choices and actions, helping one to avoid both excess and deficiency (Aristotle, 1985). Using this lens, gratitude is a disposition to live one's life as a virtuously grateful person, avoiding both excess (obsequious gratitude) and vice (ingratitude). Virtuous gratitude is not based on a heteronomous obligation or a duty to repay the benefactor, but an intrinsic motivation (or autonomous moral obligation) to reciprocate, therefore acting in accordance with one's moral framework. Further, both Aristotle and Annas posited that moral virtues are not innate but are learned through daily practice and virtuous "skills" can thus develop across the life-course. Gratitude researchers (e.g., Baumgarten-Tramer, 1938; Freitas et al., 2011; Navarro et al., 2018) have found that the virtue of gratitude is not inherent; it develops across time and this development can be augmented by regular practice.

An additional perspective may be helpful when thinking about gratitude as a virtue—ingratitude (Tudge, 2018). Ingratitude is not a feeling or disposition; it is

inaction in response to a benefit from a benefactor. Imagine a situation in which person A is given a lift home from work by person B because it is pouring rain. The beneficiary is very appreciative, thanks the benefactor profusely, and feels a genuine positive emotion. The next week person A is driving to work and sees person B stranded by the side of the road and needing a ride, but person A drives by without stopping. Would you consider person A to be grateful (they did say "thank you" and felt a warm positive emotion, after all), or ungrateful because they did not reciprocate the same benefit to person B when having a clear opportunity to do so? Tudge (2018) posited that person A displayed ingratitude by not stopping to help person B, regardless of his or her level or type of appreciation. This vignette underscores the polarity between these two constructs; gratitude (a virtue) is the inverse of ingratitude (a vice) (Emmons, 2016). Gratitude is reciprocal *action* to do the right thing based on a moral imperative.

In 1938, Franziska Baumgarten-Tramer wrote about gratitude based upon her extensive research with Swiss children and adolescents. Baumgarten-Tramer broadly defined gratitude as a "reactive sentiment" to an act of kindness or assistance, and delineated four components: (1) happiness or joy at the received gift, help, or kindness, (2) saying thank you to the benefactor to indicate the pleasure received, (3) a desire to repay the benefactor, and (4) a moral obligation to repay the benefactor. In sum, she articulated that gratitude goes beyond saying thank you: "…thanks should not be 'empty,' that is to say, should not consist of words only but take some concrete form" (1938, p. 55). Baumgarten-Tramer also described how gratitude developed in the children and adolescents in her study; they displayed different modes of gratitude based

on their cognitive and moral development, as well as the context in which they lived. She articulated four types of gratitude: verbal (i.e., saying thank you or other words to express gratefulness), concrete (i.e., an egocentric desire to reciprocate to the benefactor), connective (i.e., a desire to reciprocate, taking into account the wishes of the benefactor), and finalistic (i.e., a desire to reciprocate through contributions to society or their own personal development in the future) (Baumgarten-Tramer, 1938).

Combining the philosophical lens of Aristotle and Annas and the work of Baumgarten-Tramer, Tudge and Freitas (2018) have pioneered new research on the development of gratitude as a moral virtue. Tudge and Freitas conceptualize gratitude as benefit-triggered (similar to how other researchers have defined gratitude), but emphasize the altruistic intentions of the benefactor and added two additional layers: (1) gratitude is *to* a benefactor rather than *for* a benefit given by a benefactor, and (2) "the beneficiary has to freely wish to repay the benefactor, if possible and when appropriate, with something deemed to be of value to the benefactor" (p. 4).

Tudge and Freitas (2018) also utilized the different types of gratitude expression initially described by Baumgarten-Tramer: verbal, concrete, and connective gratitude. In addition to these typologies, Tudge and Freitas identified additional categories in their recent cross-cultural research with children and adolescents. These categories included: (a) no gratitude expressed or "don't know" (i.e., no gratitude expressed for a benefit received or lack of understanding about how to express gratitude), (b) self-sufficient (e.g., "*Nobody can help me get the things I want; only I can do that*"), and (c) other (i.e., any other responses that do not fit into other categories). Children and adolescents in Tudge

and Freitas' research also expressed combinations of these types of gratitude. For example, a child might express both verbal and concrete gratitude (e.g., *"I would thank them from the bottom of my heart and give them my favorite stuffed animal")* or verbal and connective gratitude (e.g., "*I would thank them and then help them with anything they needed"*).

As conceptualized by Tudge and Freitas (2018), the different expressions of gratitude are not hierarchical (i.e., concrete gratitude is not closer to a virtue than verbal gratitude or vice versa). However, they theorized connective gratitude as being the closest form of gratitude expression to gratitude as a *virtue*. This conceptualization and operationalization of gratitude will be used in the present study. To reduce confusion between the construct of gratitude as a virtue and other definitions, gratitude as a virtue will henceforth be written in plain text, while other definitions of gratitude will be demarcated as such: /gratitude/.

CHAPTER III

REVIEW OF THE LITERATURE

/Gratitude/ and Religion

As no research has yet been published examining gratitude as a virtue and religiosity, this section will focus on research completed with other definitions of /gratitude/. Recent research has identified many benefits of practicing /gratitude/ across personal, relational, and social domains (Tsang & Martin, 2016). Specifically, the practice of /gratitude/ has been associated with an increase in pro-social behaviors (Al-Seheel & Noor, 2016; Kraus, Desmond, & Palmer, 2015; Lambert, Fincham, Braithwaite, Graham, & Beach, 2009; Rosmarin, Pirutinsky, Cohen, Galler, & Krumrei, 2011), a reduction in symptoms of depression and anxiety (Al-Seheel & Noor, 2016; Lambert et al., 2009; Rosmarin et al., 2011), improved physical health (Rosmarin et al., 2011), higher life satisfaction (Kraus et al., 2015), reduced materialism (Al-Seheel & Noor, 2016; Lambert et al., 2009), and stronger social connections and community cohesion (Al-Seheel & Noor, 2016; Lambert et al., 2009). Religiosity has also been linked to a multitude of positive outcomes. Research suggests that religiosity is positively associated with emotional well-being, prosociality, physical health, moral reasoning and commitment, and negatively associated with risk taking behavior (Hardy, Skalski, & Melling, 2014; Tsang & Martin, 2016).

As discussed in the introduction, /gratitude/ is a key element of monotheistic religions and is the focus of multitudinous passages in sacred texts, prayers and beliefs; within these contexts, /gratitude/ to a higher power for life's gifts is ubiquitous (Emmons, 2005). Previous social science research on /gratitude/ and religiosity has found positive associations between the constructs, "such that religious people are more grateful (to God and significant others), forgiving, and less materialistic than those who are less predisposed to gratefulness" (Al-Seheel & Noor, 2016, p. 687). Further, research has indicated that /gratitude/ is positively associated with a belief in God, spirituality, and the frequency and quality of both worship and prayer (Rosmarin et al., 2011). In addition, prior research shows stronger correlations between /gratitude/ and intrinsic beliefs (i.e., a true faith in God) as opposed to extrinsic religiosity (e.g., church attendance) (Emmons, 2005).

Defining and operationalizing gratitude and religion. While an initial review of existing studies suggests a positive association between religiosity and /gratitude/, a closer examination reveals a clear limitation—each study defines and operationalizes these two constructs differently. Before stepping into a full analysis of the literature, I will first examine how both religion and /gratitude/ are defined, measured, and operationalized.

Defining religion. When explicitly defined by the authors, most of the studies reviewed utilized two main components of religion: intrinsic beliefs and extrinsic practices. While intrinsic and extrinsic religiosity were measured in most of the studies examined, several authors went beyond this simple duality. In their study of religion and

moral reasoning, Duriez and Soenens (2006) employed Wulff's (1991) schema of religious attitudes. Kraus et al. (2015) used another approach to conceptualize and operationalize religiosity. They examined eight different components: religious affiliation (e.g., Christianity, Judaism, Islam, etc.), religious participation (e.g., worship attendance), private devotion (e.g., prayer frequency), religious salience (i.e., intrinsic belief), religious efficacy (i.e., "experiencing an answer to one's prayers and/or a miracle from God" (p. 1333)), religious friends, otherworldly beliefs, and spiritual but not religious. As this study was part of a large nationwide survey on religion among youth, various measures were included to assess many facets of religiosity (Kraus et al., 2015). Lambert et al. (2009) also separated prayer (private devotion according to Kraus et al.) and worship frequency (religious participation according to Kraus et al.) in a similar approach, as they hypothesized that while highly correlated these two actions are separate constructs with different outcomes. Definitions of religiosity are compared in Table 1. Authors who did not define or measure religion explicitly are not included in Table 1 (e.g., Al-Seheel & Noor, 2016; Tsang & Martin, 2016).

Measuring religion. Paralleling the divergent definitions of religion used across studies of /gratitude/ and religion, many different measurement tools were also used. In fact, no two studies used the same measure, making comparisons difficult. As mentioned above, Duriez and Soenens (2006) used a previously developed measure, the PCBS, to measure religiosity across Wulff's dimensions. Li and Chow (2015) also used a previously developed measure, the Religiousness Scale, to examine intrinsic and extrinsic elements of religiosity. Tsang et al. (2012) utilized the Religious Orientation Scale,

developed by Allport and Ross. A couple of the authors stated that their measures had been previously validated, but failed to articulate the scale used (e.g., Kraus et al., 2015; Lambert, 2009). Three studies created original non-validated measures, citing concerns that existing scales did not reflect the constructs they were attempting to measure (e.g., Hardy & Carlo, 2005; Hardy et al., 2016; Rosmarin et al., 2011). Lambert et al. (2009) used a standardized measure of prayer, but also used their own measures for religious participation and religiosity (one item each).

Clearly, measurement of religiosity is wide-ranging and divergent, paralleling the different definitions previously articulated. The use of these different measures reflects discontent with current approaches, and theoretical concerns about trying to quantify religiosity. For example, Hardy and Carlo (2005) questioned how constructs of religiosity are measured and suggested they may be difficult to disentangle from prosociality. Further, Tsang and Martin (2016) expressed concerns about the social desirability bias inherent in self-report measures of religiosity. King and Crowther (2004) questioned the generalizability of current measures to non-Judeo-Christian populations, as most of the existing measures of religiosity were developed by Christian researchers working with majority Christian populations (King & Crowther, 2004).

Table 1

Definitions and Measures of Religiosity

Source	Definition	Measure
Duriez & Soenens, 2006	No concise definition; examined religion across two axes: exclusion vs. inclusion of transcendence, literal vs. symbolic.	PCBS
Hardy & Carlo, 2005	"commitment to, identification with and involvement in a religion or system of religious beliefs" (p. 231)	Novel measure to look at religious salience, involvement, and identity
Hardy et al., 2016	"beliefs and behaviors associated with a particular religion affiliation" (p. 339)	Novel measure – 16 items to assess type, frequency and quality of religious activities
King & Crowther, 2004	"Religion is an organized system of beliefs, practices, rituals and symbols designed (a) to facilitate closeness to the sacred or transcendent (God, higher power, or ultimate truth/reality), and (b) to foster an understanding of one's relation and responsibility to others in living together in a community" (p. 85)	N/A - secondary
Kraus et al., 2015	No concise definition; examined 8 dimensions of religiosity: • religious affiliation • religious participation • private devotion • religious salience • religious efficacy • religious friends	Multiple measures not named, part of NSYR

		• otherworldly beliefs • spiritual but not religious
Lambert et al., 2009	No explicit definition	Used measures of prayer (3-items previously validated), religious participation (1-item) and religiosity (1-item)
Li & Chow, 2015	"people's devotion to certain religious beliefs or practices" (p. 150)	12-item Religiousness Scale (Strayhorn, Weidman, & Larson, 1990) to measure intrinsic and extrinsic concepts
Rosmarin et al., 2011	Defined only as religious commitment	Multi-denominational measure of religious commitment: • degree of belief in God • importance of religion in general • importance of religious identity • extent to which religious beliefs lie behind approach to life • extent of carrying over religion into rest of life

Tsang et al., 2012	"intrinsically religious were described as secure individuals who develop a mature personality centered around their religious beliefs. These individuals allow religious teachings and religious compassion to motivate their entire lives" (p. 41)	Allport & Ross (1967) measure of intrinsic religiosity

Defining and measuring gratitude. As outlined in Chapter II, the construct of /gratitude/ has been defined in various ways. Of the articles that explicitly defined /gratitude/, reviewed by Navarro and Morris (2018), seven of nine defined the construct as benefit-triggered gratitude (e.g., Al-Seheel & Noor 2016; Emmons, 2005; Kraus et al., 2015; Li & Chow, 2015; Rosmarin et al., 2011; Tsang et al., 2012; Tsang & Martin, 2016). Emmons (2005), Kraus et al. (2015), Tsang et al. (2012), and Tsang and Martin (2016) added an additional layer to /gratitude/; they posited that the benefit must be given freely and altruistically by the benefactor. Tsang and Martin (2016) also conceived of /gratitude/ as positive reciprocity as opposed to thankfulness out of obligation or guilt. Lambert et al. (2009) defined /gratitude/ more broadly, as they included both benefit-triggered /gratitude/ and /gratitude/ as an emotion: "the emotion or state resulting from having an awareness and appreciation of that which is valuable and meaningful to oneself" (Lambert et al., 2009, p. 140). Beyond secular approaches to /gratitude/, Al-Seheel and Noor (2016) and Rosmarin et al. (2011) included religious elements in their definitions; both sets of authors included God as a benefactor.

Even though the examined studies defined /gratitude/ differently, almost all of them used the same measure, the Gratitude Questionnaire (GQ-6). As discussed in

Chapter II, the GQ-6 treats gratitude as a disposition and asks about gratitude *for* things. In keeping with their definition of /gratitude/, Rosmarin et al. (2011) modified the GQ-6 to reflect the inclusion of God (i.e., the Religious Gratitude Questionnaire or RGQ). When looking across this body of research, there is a clear incongruency between the conceptualizations of /gratitude/ and how they are operationalized. Table 2 delineates the /gratitude/ definitions used across the reviewed articles.

Table 2

Definitions and Measures of /Gratitude/

Source	Definition	Measure
Al-Seheel & Noor, 2016	"Gratitude is the ability to recognize and appreciate one's positive gain or benefit that is delivered by an external source whether via human or non-human agents (e.g., God)" (p. 687).	Do not have measure; use gratitude intervention
Emmons, 2005	"It is the appreciation felt after one has been the beneficiary of an altruistic act" (Emmons, 2005, p. 239)	N/A – secondary
Kraus et al., 2015	"We define gratitude as ''a positive emotional reaction to the receipt of a benefit that is perceived to have resulted from the good intentions of another'' (As cited in Tsang, 2006, p. 139)" (p. 1332).	Two items
Lambert et al., 2009	"We conceive of gratitude more broadly to include both the emotion resulting from a specific, conferred benefit (benefit-triggered gratitude), as well as acknowledging the value of another	GQ-6

	person's (or thing's) general attributes or being (generalized gratitude)" (p. 140).	
Li & Chow, 2015	"A generalized tendency to recognize and respond with grateful emotion to the roles of other people's benevolence in the positive experiences and outcomes that one obtains" (p. 152).	GQ-6
Rosmarin et al., 2011	"occurs exclusively in the context of perceiving benefit at the hands of an agent, such as a fellow human being or God" (p. 389).	GQ-6, RGQ (GQ-6 adapted to reflect religious gratitude)
Tsang et al., 2012; Tsang & Martin, 2016	"a positive emotional reaction to the receipt of a benefit that is perceived to have resulted from the good intentions of another" (p. 42).	GQ-6

Associations between religiosity and /gratitude/. Most studies reviewed found positive associations between religion and /gratitude/, although several of the studies found some ambiguity, particularly differences between grateful attitudes and grateful behaviors.

Cross-sectional studies. The associational studies demonstrated numerous correlations between /gratitude/ and religiosity. In their study of Catholic high school students in Hong Kong, Li and Chow (2015) found that religiosity and spirituality were associated with peer-helping prosocial behaviors (including /gratitude/), but not stranger-helping behaviors. They also found that religiosity had a curvilinear relation with peer-helping prosocial behaviors: moderately religious teens reported lower peer-helping prosociality than did teens who were slightly or highly religious (Li & Chow, 2015).

This finding supported their previous research which found that moderately religious believers showed the highest obedience than did the extremes of the continuum. Li and Chow (2015) hypothesized that moderately religious individuals may not act prosocially when prosociality is not a normative or supported part of their faith community.

Kraus et al. (2015) found that seven of the dimensions of religiosity they examined (except for spiritual not religious) were positively associated with /gratitude/. However, when all dimensions were included in the model, only religious efficacy and religious friends were significantly correlated with /gratitude/. Further, religious affiliation had no association with /gratitude/, suggesting that it is not specific affiliation (e.g., Catholicism, Judaism, etc.) that encourages /gratitude/, but other dimensions of religiosity.

Rosmarin et al. (2011) used a different approach; rather than studying the associations between religion and /gratitude/ they attempted to explore whether religious gratitude is a separate construct from secular gratitude. They found that while secular gratitude was tied to well-being regardless of religion, religious gratitude was additionally beneficial.

Experimental studies. Four studies used experimental designs to investigate the relationship between various aspects of religion and /gratitude/. In their study of Muslim college students in Malaysia, Al-Seheel and Noor (2016) used an experimental design to see whether religious and secular /gratitude/ interventions would improve happiness and well-being. As opposed to more secular research, this study focused on /gratitude/ to God. Muslim students in the Islamic-based /gratitude/ intervention group showed higher

levels of happiness over time than did the other conditions (Al-Seheel & Noor, 2016). Al-Seheel and Noor (2016) hypothesized this could be because /gratitude/ is very closely linked to Allah and an integral cultural practice. This has relevance for real-world applications, as it encourages /gratitude/ interventions to be culturally relevant: "This study argues that for Muslims an Islamic-based gratitude is more effective in increasing their happiness because this religious-based gratitude matches their beliefs and addresses their spiritual needs" (Al-Seheel & Noor, 2016, p. 698).

Tsang et al. (2012) used a quasi-experimental design to investigate how religiosity (made salient through priming) is associated with grateful attitudes and/or grateful behaviors in a distributive task. They found that participants who scored higher on intrinsic religiosity had higher self-reported /gratitude/, but did not behave more gratefully than did other participants. Lambert et al. (2009) found that prayer was associated with /gratitude/; participants in a prayer condition had higher gratitude scores than did those in a control condition.

Discussion of the existing literature examining /gratitude/ and religion. While most of the existing literature points to positive associations between these two constructs, more research is needed to confirm and further clarify this association. Further, as the current body of literature is mostly correlational and confounded by inconsistencies in construct definitions and measurement, it is difficult to disentangle what mechanisms might explain associations between /gratitude/ and religiosity.

However, the existing body of literature does offer several possible mechanisms. Hardy and Carol (2005) posited that growing up in a religious community may socialize

people to exhibit prosocial behaviors, with prosocial attitudes mediating the relationship between religiosity and prosocial behaviors. In other words, religion could increase prosocial values which in turn could increase prosocial actions. However, evidence does not necessarily support this hypothesis; Tsang et al. (2012) found that higher religiosity was not correlated with grateful behaviors.

In later work, Hardy and colleagues (2014) hypothesized that /gratitude/ itself could possibly mediate previously found positive associations between religion and prosocial behaviors. Alternatively, they also suggested that rather than altruistic /gratitude/, it could be that strong social norms obligate religious people to act prosocially. Further, they also speculated that intrinsic belief in the transcendent could mediate the relationship between religiosity and prosocial behaviors; that religious people's actual belief in a higher power inspires them to act prosocially.

Taking a different perspective, Tsang and Martin (2016) wrote that prayer itself may be one of the mediators between religiosity and /gratitude/. Prayer often serves as a avenue to give thanks, and this repeated everyday practice may help a person be grateful in other life domains. Further, they posited that religiosity may act cyclically to encourage prosocial behaviors; communal worship increases social bonds which reinforce participation in religious activities, which subsequently encourage increased prayer, and in turn fosters higher levels of /gratitude/. Lambert and colleagues (2009) also identified prayer as a key mechanism in this dynamic relationship. They suggested that prayer increases self-reflection about morality and increases time people are thinking

about gratefulness. These hypothesized pathways suggest a complex and deeply interconnected relationship between gratitude and religiosity.

Moral Reasoning and Religiosity

While philosophers and theologians often argue that morality and religiosity are inextricably linked, research in psychology and other social sciences has not found a lot of empirical support for this association (Sapp & Jones, 1986). In their 1981 treatise on religion and morality, Kohlberg and Power postulated that moral development and faith development serve different functions and are largely unrelated to one another (Glover, 1997; Kohlberg & Power, 1981; Sapp & Jones, 1986). Kohlberg and Power argued that religious reasoning is based on the rules and teachings of religious authority. They saw religion as a way of giving meaning to life, especially in the face of existential questions about the purpose of morality: "Religion helps us to accept our duty to be moral even in the face of evidence that acting morally will not lead to any tangible nonmoral rewards, such as pleasure" (Kolhberg & Power, 1981, p. 212). Kohlberg and Power argued that moral reasoning is based on cognitive development, issues of justice, and life experience.

Kohlberg and Power's (1981) perspective parallels the findings of many empirical studies which do not show positive correlations between moral reasoning and religiosity, regardless of the construct and operationalization of religiosity. In fact, some studies have suggested a negative correlation, where religious people are more likely to use conventional (as opposed to post-conventional) reasoning (Duriez & Soenens, 2006). Further, similar research suggests that religious people are more intolerant of other racial

and ethnic groups, and no more likely to engage in benevolent actions than non-religious people (Sapp & Jones, 1986).

Some studies have looked at the relationship between moral reasoning and religiosity by examining both religious beliefs and values (i.e., ideology), and religious affiliation (e.g., Christian, Jewish, Muslim, etc.) (Getz, 1984). Research in the late 1970s found that members of liberal churches were more likely to display post-conventional levels of moral reasoning (Getz, 1984). Further, this study found that in liberal churches, leaders were more likely to display post-conventional moral reasoning than were their parishioners, but among conservative churches leaders were more likely to display conventional levels of reasoning than their followers were. Getz (1984) also found that whereas some fundamentalist Christians understood complex moral dilemmas, many of them would ultimately follow the teachings of their church, regardless of their individual perspective. In their study of children and adolescents, Batson and Ventis found a curvilinear relationship; young children in Catholic schools displayed sophisticated moral reasoning earlier than their secularly schooled peers did, but as young adults they were more likely to operate at a conventional level of moral reasoning without the ability to use post-conventional reasoning (Sapp & Jones, 1986). Most research on affiliation (the vast majority of which has only been done with Judeo-Christian populations) has found no differences in the levels of moral reasoning between religions (Getz, 1984).

Rather than ideology or affiliation, most research examining religiosity and morality has used Gordon Allport's dimensions of intrinsic and extrinsic religiosity. However, this line of research has not found significant associations. Initially researchers

hypothesized that individuals high in intrinsic religiosity would also have higher levels of moral reasoning (Getz, 1984). However, no such correlations have been found (Duriez & Soenens, 2006; Getz, 1984; Sapp & Jones, 1986). Some research even suggests that higher levels of extrinsic religiosity are negatively associated with moral reasoning (Glover, 1997; Sapp & Jones, 1986).

However, Batson's quest dimension has been found to be correlated with higher levels of moral reasoning (Duriez & Soenens, 2006; Glover, 1997). Individuals who scored high on the quest dimension also tended to use more to use more complex mental processes when analyzing moral issues (Sapp & Jones, 1986). However, some theorists question whether quest is really a dimension of religiosity, or merely an indication of high cognitive functioning. If it is an indication of cognitive ability, in Kohlberg's view, it would have a positive correlation to moral reasoning, which is closely related to cognitive development (Kohlberg & Power, 1981).

Glover (1997) combined these two approaches and looked at the intrinsic, extrinsic, and quest dimensions across three different types of Christian ideology (liberal, moderate, and conservative denominations) in the southeast United States. Glover found that moral reasoning was unrelated to the intrinsic and extrinsic dimensions, but positively correlated with both the quest dimension and level of education. Glover also found a significant difference in the level of moral reasoning across all three groups, with significantly lower means for the conservative groups. Overall, she found higher levels of moral reasoning in liberal and moderate groups than in conservative groups, where people relied church doctrine for moral decision making. These findings echo Piaget's

theories of moral reasoning; the conservative groups were using heteronomous reasoning, where individual will yields to a higher authority to determine what is right and wrong (Piaget, 1932/1965).

Recent research on religiosity and moral reasoning has used Wulff's model of religious attitudes. Duriez and Soenens (2006) used the PCBS and Kohlberg's Moral Judgement Test to examine the relationship between Wulff's two dimensions of religiosity (i.e., inclusion vs. exclusion of transcendence and literal vs. symbolic interpretation) and moral reasoning. This study was completed with Flemish undergraduate students, adolescents and adults, most of whom were Catholic. Duriez and Soenens (2006) found that participants higher in symbolic interpretation were more likely to display higher stages of moral reasoning. These effects held even after controlling for level of education. Duriez and Soenens (2006) argued that how people process religion is more indicative of morality than religious belief itself: "The impact of the way people process religious contents… seems vitally important, with people processing religious contents in a literal way not only showing less advanced moral reasoning abilities but also less psychological well-being, less empathy and more prejudice" (p. 80).

While not directly measuring moral reasoning, Duriez and colleagues (2004) also examined associations between religiosity and empathy in another study of Flemish undergraduate students. Although the study explicitly addressed empathy, it does illuminate possible correlations between religiosity and the ability to take the perspective of others, a key component in the development of moral virtues like gratitude. Duriez (2004) used the PCBS and the Interpersonal Reactivity Index as a measure of empathy,

which includes a perspective-taking subscale. Duriez (2004) found no correlation between the transcendence dimension and empathy, but did find positive associations between symbolic interpretation and both empathy and perspective taking. These findings suggest that religious belief itself is not related to empathy or the likelihood to help someone in need, but that how people process religious information could be related to empathy and the ability to take the perspective of others. This has implications for character education, especially curricula and interventions intending to increase prosocial behaviors and moral virtues, as efforts focusing on symbolic processing could increase empathy and perspective taking.

CHAPTER IV

RESEARCH QUESTIONS AND HYPOTHESES

In this study I examined associations between gratitude as a virtue, moral obligation, and two dimensions of religiosity: interpretation and transcendence. Based on existing studies looking at religion, /gratitude/, and moral reasoning, I hypothesized that two components of connective gratitude, as conceptualized by Baumgarten-Tramer (1938) and Tudge and Freitas (2018), relate to religiosity.

The first component, the notion that the beneficiary should consider the benefactor's intentions, is impacted by the beneficiary's ability to perspective take. As discussed previously, Duriez (2004) found a positive association between the symbolic interpretation of religion and the ability to perspective take ($r = .24$, $p < .0001$). Applied to gratitude, people who more symbolically interpret religion may be more likely to be able to recognize the intentions of their benefactor, and thus be able to express connective gratitude more frequently.

The second component (i.e., the beneficiary should freely choose to repay the benefactor if given the chance) can also be related to previous research about religion and moral reasoning. As outlined by Tudge et al. (2015), the benefactor must *freely* choose to repay the benefactor. This implies that the benefactor feels *autonomous* moral obligation, not heteronomous obligation. Previous research has found that religious persons valued

tradition and conformity over self-direction (Fontaine et al., 2005; Schwartz & Huismans, 1995). Further, Glover (1997) found that followers of conservative Christian groups were less likely to use postconventional moral reasoning (where the "reasoner judges by principle than by convention" (Glover, 1997, p. 248)) than were people affiliated with liberal or moderate groups. Glover's use of Kohlberg's postconventional reasoning parallels the use of Piaget's autonomous moral obligation in this study; both ideas require the reasoner to rely on an internal sense of morality, as opposed to group rules or duty. As such, I hypothesized that individuals who process religion more symbolically will be more likely to demonstrate autonomous moral obligation than will individuals who process religion more literally. Applied to the virtue of gratitude, I hypothesized that individuals who process religion more symbolically will be more likely to demonstrate connective gratitude than will individuals who process religion more literally.

In addition to these questions related to the processing of religion, I examined associations among the transcendence dimension of religion, moral obligation, and gratitude. Does faith in a higher power relate to the expression of autonomous moral obligation and/or connective gratitude? As previous studies have found little support for relations between moral reasoning and belief in God (Glover, 1997; Kohlberg & Power, 1981; Sapp & Jones, 1986), I hypothesized that there would be no significant associations between transcendence and either moral obligation or connective gratitude.

Previous research has found positive associations between /gratitude/ and a belief in God, as well as the frequency and quality of both worship and prayer (Emmons, 2005; Rosmarin et al., 2011). In accordance with these findings, I hypothesized that individuals

who scored higher in the transcendence dimension (indicating a greater belief in the possibility of God or a higher power) were more likely to display /gratitude/ than those who scored lower in the transcendence dimension (indicating a greater exclusion of the possibility of a God or higher power). I tested this hypothesis using the GQ-6, the most commonly utilized measure of /gratitude/. As discussed in the literature review, the GQ-6 measures gratitude *for* things and focuses on appreciation as opposed to the virtue of gratitude (Tudge & Freitas, 2018). Any differences between the findings of how gratitude as a virtue (measured by the WAGS) and /gratitude/ (measured by the GQ-6) relate to transcendence could underscore the differences between these constructs of gratitude, and further call into question how gratitude is conceptualized and measured in the social sciences.

Interpretation

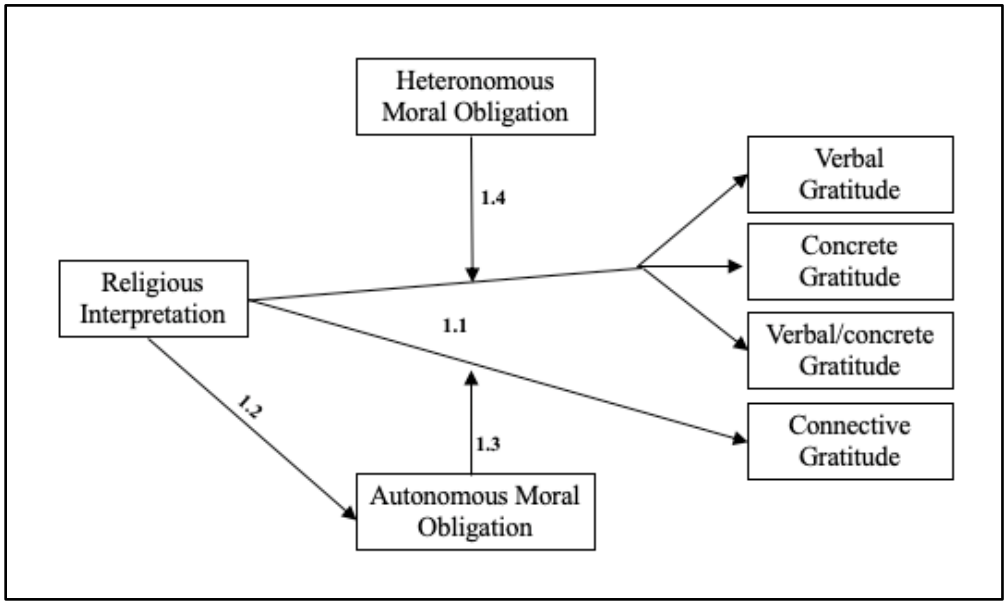
1. Is the interpretation and processing of religion associated with gratitude or moral obligation? Does moral obligation moderate any associations between the interpretation of religion and gratitude?
    1.1 Religious interpretation will be positively associated with the expression of connective gratitude, and negatively associated with the expression of other types of gratitude (i.e., verbal, concrete and verbal/concrete gratitude).
    1.2 Religious interpretation will be positively associated with the expression autonomous moral obligation.

1.3 Autonomous moral obligation will moderate relations between scores of religious interpretation and the expression of connective gratitude (i.e., the relation between religious interpretation and the expression of connective gratitude will be stronger when autonomous moral obligation is expressed).

1.4 Heteronomous moral obligation will moderate relations between scores of religious interpretation and the expression of other types of gratitude (i.e., the relation between religious interpretation and the expression of other types of gratitude [verbal, concrete and verbal/concrete] will be stronger when heteronomous moral obligation is expressed).

Figure 4

Interpretation of Religion Model with Hypotheses



Transcendence

2. Is the belief in a God or higher power associated with either moral obligation or the expression of gratitude?

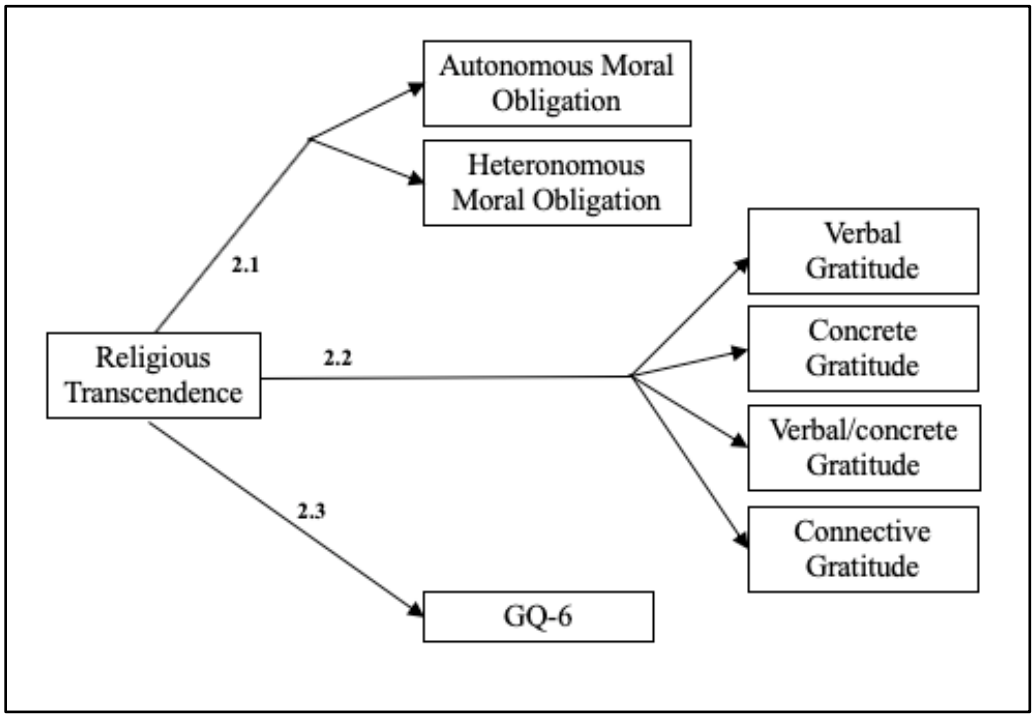
    2.1 Scores of transcendence will have no significant association with the expression of heteronomous or autonomous moral obligation.

    2.2 Scores of transcendence will have no significant association with the expression of verbal, concrete, verbal/concrete, or connective gratitude.

    2.3 Scores of transcendence will be positively associated with GQ-6 scores.

Figure 5

Transcendence Model with Hypotheses



CHAPTER V

METHODS

The research design for this study was correlational; I utilized a cross-sectional online survey with multiple measures of religiosity, gratitude, and moral obligation.

Participants

Participants were recruited from several large undergraduate classes on human development at a university in the Southeastern United States. Descriptive characteristics are presented in Table 3. The majority (92.6%) of the sample was aged between 18 and 22 and also largely female (92.7%). More than three-quarters (80.3%) of the respondents indicated they were of Christian faith, and of those, most did not indicate a specific denomination (71.1%). As the PCBS was designed for use in Christian and secular populations, the sample of the current study ($N = 698$) was narrowed to include only persons who indicated they were either Christian, Atheist/agnostic, or not religious ($n = 648$).

Table 3

Descriptive Characteristics of Sample

Variables (N = 698)	#	%
Age		
18-22	646	(92.6)
23-26	32	(4.6)
27-35	13	(1.9)
35 or above	7	(1.0)
Gender		
Female	647	(92.7)
Male	49	(7.0)
Other	2	(0.3)
Religion		
Atheist/Agnostic*	29	(4.2)
Christian*	550	(80.3)
Islam	19	(2.8)
Judaism	3	(0.4)
None/Not Religious*	69	(9.9)
Spiritual	11	(1.6)
Other	4	(0.5)
Christian sub-types		
Not specified	391	(71.1)
Baptist	54	(9.8)
Catholic	75	(13.6)
Other	30	(5.5)

Note. * groups included in final analyses (n = 648).

Procedure

Data were collected from students in the spring and fall of 2018, as well as the spring of 2019, using an online survey platform (Qualtrics). Students were offered extra credit points for their participation. Participants were required to read the informed consent information and consent to participate before being directed to the survey, which consisted of 43 questions.

Measures

Post-Critical Belief Scale. The PCBS (Hustebaut, 1996) was developed to measure Wulff's (1991) schema of religious attitudes. The PCBS has since been revised and the fourth version (Fontaine et al., 2005) was used in this study. The PCBS is a 33-item measure designed to assess religiosity across two dimensions (i.e., transcendence and interpretation) using items designed to measure four attitudes of religiosity (i.e., orthodoxy, second naïveté, relativism, and external critique). Each item was scored on a 7-point Likert scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*. Although previous studies using this measure have only been completed in Europe, reliability analysis on the present data set was excellent. The internal consistency (as measured by α) for the four attitudes (factors) ranged from .682 to .882, and the resulting transcendence and interpretation dimensions ranged from .755 to .853.

WAGS. The original version of the Wishes and Gratitude Survey (Freitas, Tudge, & McConnell, 2008) was developed based on the work of Baumgarten-Tramer (1938) to measure children's gratitude and has been previously utilized in a written format. The original measure contains four questions: "What is your greatest wish? What would you do for the person who granted you that wish? Is there anything else you would do for this person? Who is this person?"

As this study was completed online and with a different population (college students as opposed to children), a modified version of the WAGS was developed. In this study the participants were asked to type open-ended responses to the following three questions: "What is your greatest wish? Why is this your greatest wish? What would you

do for the person who granted you this wish?" The responses to the third question were then coded according to the type of gratitude expressed and in cases in which participants expressed different types of gratitude (e.g., verbal and concrete, verbal and connective, etc.) each type was coded.

In the final analyses, participants were categorized into eight groups: (a) no gratitude expressed or "don't know," (b) verbal gratitude, (b) concrete gratitude, (c) verbal & concrete gratitude, (d) connective gratitude, (e) self-sufficient, (f) finalistic gratitude, and (g) other. As discussed previously, Tudge and Freitas' (2018) conceptualization of gratitude is not hierarchical, although connective gratitude is considered to be closest to gratitude as a moral virtue. Categorizing participants' responses into the eight categories was completed to match this theoretical underpinning; participants who used connective gratitude at all were categorized as (d) connective gratitude, regardless of their expression of other types of gratitude. Participants who expressed verbal and/or concrete gratitude (but not connective gratitude) were categorized into verbal gratitude, concrete gratitude, and a third category (verbal/concrete) for those who expressed both (e.g., *"I'd thank them from the bottom of my heart and give them a million dollars"*). Logistic regressions were conducted, with each gratitude type dummy coded (1 = expressed; 0 = not expressed).

The second question ("Why is this your greatest wish?") was added to gain greater insight into the meaning of the wish, which in cases of uncertainty on the part of the coder can help inform the coding of the final question.

Vignette. To measure moral obligation in the tradition of Piaget (1932/1965), a vignette (Freitas, 2007) was modified to be used in a written (as opposed to interview) format. The vignette described an everyday example of a situation in which the protagonist of the story may feel a moral obligation to someone else. The vignette used in this study was modified to the following:

> Sam had a dog, and one afternoon the dog disappeared. Aunt Anne, who was visiting from out of town, was making dinner that night. Sam said, "Aunt Anne, can you help me find my dog?" Aunt Anne stopped what she was doing and said, "No problem. I'll help you find your dog, Sam." They spent a lot of time looking for the lost dog. When it was almost dark, they found him. Aunt Anne had to throw away dinner and start everything again.

This vignette was presented to the participants twice—once in an open-ended format and second in a check-list format. The open-ended version asked the respondents to think about the story and write responses to the following questions: (1) "How did Sam feel? Provide as much detail as you can." (2) "Why did Sam feel that way?" (3) "Did Sam feel anything about Aunt Anne? Provide as much detail as you can." (4) "Should Sam help Aunt Anne make another dinner? Why or why not?"

The checklist version asked similar questions, but instead of allowing open-ended responses, provided a list of possible responses for participants to select. In this study, only answers to the final question ("Should Sam help Aunt Anne make another dinner? Check just the most important one.") were coded. Participants could select from seven possible answers: (1) Yes, because otherwise Aunt Anne will be mad; (2) No, there's no reason to help; (3) Yes, because Sam feels that it's the good thing to do; (4) No, it was her decision to stop making dinner; (5) Yes, because the rule is to help those

who have helped us; (6) No, Sam isn't able to help make dinner; (7) Yes, because otherwise Aunt Anne will think Sam's not a very nice person. These options were coded as showing autonomous moral obligation (3), heteronomous moral obligation (1, 5, 7), or no obligation (2, 4, 6).

Logistic regressions were conducted using dummy variables of the moral obligation type categorical variable. For analyses in which autonomous obligation (1 = autonomous, 0 = heteronomous or "no obligation") was the dependent variable, all cases (including both heteronomous obligation and "no obligation" expressed) were included. For analyses in which heteronomous obligation was the dependent variable (1 = heteronomous, 0 = autonomous), "no obligation" cases were excluded as the comparison between autonomous and heteronomous obligation was the question of interest.

GQ-6. The 6-item Gratitude Questionnaire (McCullough et al., 2002) was used as a comparison measure to the WAGS, based on the theoretical critique that the GQ-6 does not measure gratitude but instead measures appreciation (Navarro & Morris, 2018; Tudge et al., 2015). This 6-item measure (see Appendix B) contains items such as "I have so much in life to be thankful for" and "When I look at the world, I don't see much to be grateful for" and was scored on a Likert scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*. After taking into account the reverse-coded items (items 3 and 6), these scores were then added to create a total GQ-6 score.

Analysis

I first examined whether relevant demographic variables (e.g., gender, belief in God) were significantly related to the variables of interest. They were not, and therefore were not included in subsequent analyses.

Binary logistic regression analyses were used to test all hypotheses except 2.3. For hypothesis 1.1, a dichotomous outcome variable was created from the type of gratitude expressed; participants either expressed or did not express connective gratitude, the type that is closest to gratitude as a virtue. Similarly, for hypothesis 1.2, a dichotomous outcome variable was created for whether or not autonomous moral obligation was expressed. Religious interpretation, the independent variable for these two hypotheses, was treated as a continuous variable, with higher scores indicating a more symbolic approach to the interpretation of religion.

Binary logistic regression analyses were also used to test whether moral obligation moderated relations between moral obligation and the type of gratitude expressed. Hypothesis 1.3 was tested to see whether autonomous moral obligation moderated relations between religious interpretation and connective gratitude, such that relations between scores of religious interpretation and connective gratitude would be stronger for people who expressed autonomous moral obligation. Connective gratitude, the dependent variable in this model, was again treated as a dichotomous variable; participants expressed or did not express connective gratitude on the WAGS. Autonomous moral obligation was also treated dichotomously; participants either

expressed this form of moral obligation or did not. Religious interpretation was a continuous variable.

Hypothesis 1.4 was tested to see whether heteronomous moral obligation moderated relations between religious interpretation and the expression of verbal, concrete, and verbal/concrete gratitude, such that relations between scores of religious interpretation and non-connective forms of gratitude would be stronger for people who expressed heteronomous moral obligation. Heteronomous moral obligation was also treated dichotomously, and religious interpretation was again treated as a continuous variable.

Hypotheses 2.1 and 2.2 were also examined using binary logistic regression. The independent variable for both hypotheses—the degree of transcendence (i.e., the belief in God or a higher power)—was a continuous variable, with higher scores indicating a greater belief in a transcendent reality. For hypothesis 2.1, autonomous and heteronomous moral obligation (the dependent variables) were dichotomous (i.e., participants either expressed or did not express autonomous or heteronomous moral obligation). Similarly, hypothesis 2.2 examined the relations between belief in a transcendent reality and verbal, concrete, verbal/concrete, and connective gratitude. All types of gratitude were treated as dichotomous dependent variables. As the dependent variable in hypothesis 2.3 was continuous, a simple linear regression analysis was utilized.

CHAPTER VI

RESULTS

Preliminary Findings

All analyses were performed using SPSS Version 25.0. Connective gratitude was the most frequently expressed form of gratitude (39.4%) (i.e., connective gratitude expressed solely and connective gratitude expressed in conjunction with other forms of gratitude; see Table 4 for a full breakdown of the typologies of connective gratitude), but many respondents also expressed concrete (9.9%), verbal (19.9%), or a combination of verbal and concrete (8.5%) gratitude. Similarly, the majority of respondents (52.2%) expressed autonomous moral obligation (unsurprising given the age of the sample), but many also expressed heteronomous obligation (30.7%).

Table 4

Frequency of Gratitude and Moral Obligation Types

Variables ($N = 648$)	#	%
Gratitude Types		
No gratitude expressed	18	(2.8)
Verbal	129	(19.9)
Concrete	64	(9.9)
Verbal & Concrete	55	(8.5)
Connective	255	(39.4)
Connective only	*199*	*(30.7)*
Connective & Verbal	*48*	*(7.4)*
Connective & Concrete	*3*	*(0.5)*
Connective, Concrete & Verbal	*4*	*(0.6)*
Connective & Self-sufficient	*1*	*(0.2)*
Finalistic	8	(1.2)
Self-sufficient	42	(6.5)
Other	18	(2.8)
Missing	59	(9.1)
Obligation Types		
No obligation expressed	31	(4.8)
Heteronomous obligation	199	(30.7)
Autonomous obligation	338	(52.2)
Missing	80	(12.3)
PCBS Score		
Interpretation	19.1	(15.1)*
Transcendence	10.0	(20.0)*

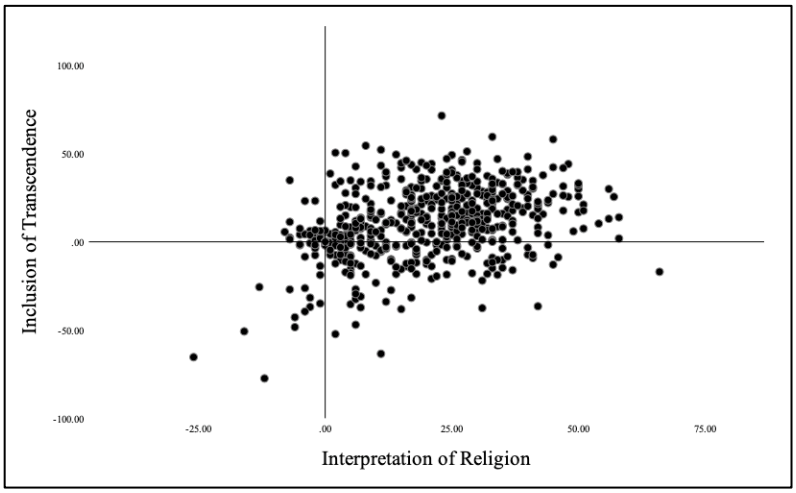
Note. *Means (Standard Deviation)

The PCBS scores for interpretation and transcendence are displayed orthogonally in Figure 6. This figure illustrates the distribution of PCBS scores across all four quadrants of Wolff's religious attitudes. Most scores fell in quadrants II (second naivëte) and III (relativism). Relatively few respondents fell into quadrants I (orthodoxy) or IV

(external critique). This distribution supports the use of the PCBS as two continuous variables, as compared to a categorical variable (quadrant I, II, III, or IV).

Figure 6

Graph of PCBS Scores



The Relation between Religiosity and Expression of Gratitude or Moral Obligation

Interpretation of religion. Binary logistic regression was used to test hypotheses 1.1 and 1.2 to determine whether religious interpretation could predict connective gratitude or autonomous obligation; results are summarized in Table 5 and visually represented in Figure 7. Hypothesis 1.1 was not supported, indicating that in this study religious processing was not a statistically significant predictor of connective gratitude. However, results for hypothesis 1.2 were significant; religious interpretation was significantly related to autonomous moral obligation ($\beta = 0.011,\ e^{\beta} = 1.012,\ p = 0.045$). That is, with each additional one point increase in religious interpretation

(indicating a more symbolic approach), participants were 1.012 more likely to express autonomous moral obligation.

Binary logistic regression analyses were also used to test whether moral obligation moderated relations between religious interpretation and the type of gratitude expressed. All interaction hypotheses (1.3, 1.4a, 1.4b, 1.4c) were non-significant, indicating that in this study moral obligation did not moderate relations between interpretation and gratitude type.

Table 5

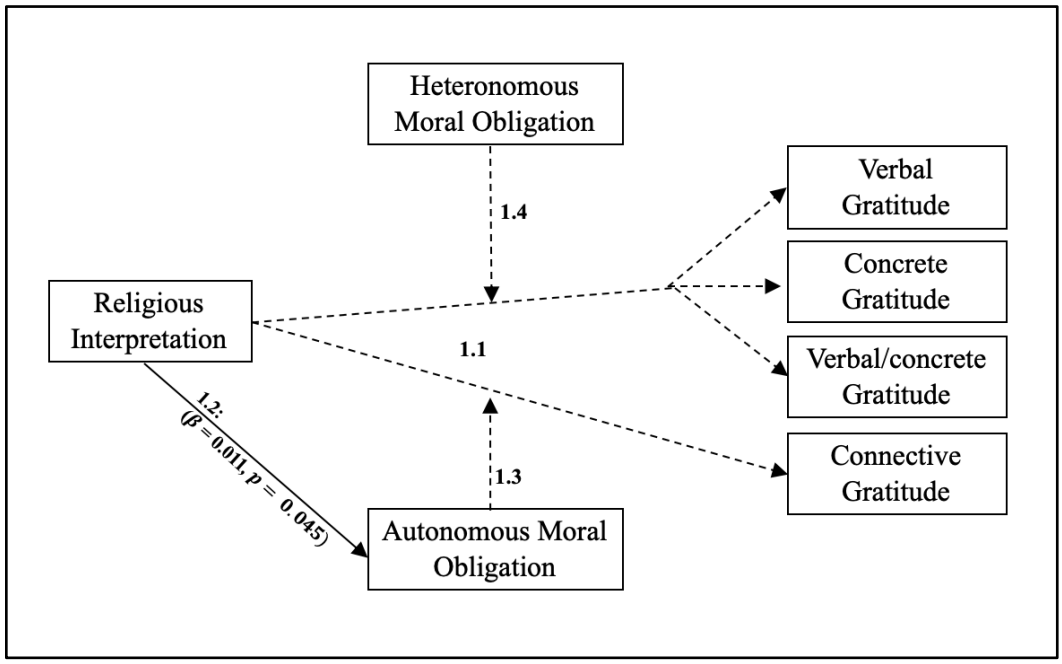
Logistic Regression Analyses of Models 1.1, 1.2, 1.3, 1.4

Model	Predictor Variable	Outcome Variable	β	Wald test	p	e^{β}
1.1	Religious interpretation	Connective gratitude	.005	.865	.352	1.005
1.2	Religious interpretation	Autonomous moral obligation	.011	4.025	.045	1.012
1.3	Religious interpretation x Autonomous moral obligation	Connective gratitude	.007	1.576	.209	1.007
1.4a	Religious interpretation x heteronomous moral obligation	Verbal gratitude	.002	.035	.851	1.002
1.4b	Religious interpretation x heteronomous moral obligation	Concrete gratitude	.008	.550	.458	1.008

1.4c	Religious interpretation x heteronomous moral obligation	Verbal & concrete gratitude	.006	.259	.611	6

Figure 7

Interpretation of Religion Model with Results



Transcendence. Binary logistic regression was also used to test hypotheses 2.1, and 2.2; results are summarized in Table 6. As hypothesized, the degree of transcendence was not a significant predictor of autonomous moral obligation, heteronomous moral obligation, or the type of gratitude expressed. A power analysis (*power* = .999) revealed compelling evidence that the lack of significant relations

between transcendence and (a) the two types of moral obligation and (g) the four types of gratitude could not be attributed to an insufficiency of participants.

Table 6

Binary Logistic Regression Analyses of Models 2.1, 2.2

Model	Predictor Variable	Outcome Variable	β	Wald test	p	e^{β}
2.1a	Transcendence	Autonomous moral obligation	-.003	.479	.489	.997
2.1b	Transcendence	Heteronomous moral obligation	.003	.588	.443	1.002
2.2a	Transcendence	Verbal gratitude	.004	.643	.423	1.004
2.2b	Transcendence	Concrete gratitude	-.007	1.206	.272	.993
2.2c	Transcendence	Verbal & concrete gratitude	-.004	.289	.591	.996
2.2d	Transcendence	Connective gratitude	-.001	.073	.787	.999

For hypothesis 2.3, a simple linear regression was calculated to predict GQ-6 scores based on degree of transcendence. A significant regression equation was found ($F[1, 570] = 65.585$, $p < .001$), with an adjusted R^2 of .102. Participants' GQ-6 scores increased .077 points for every point increase in degree of transcendence. Results are reported in Table 7 and displayed in Figure 8.

Table 7

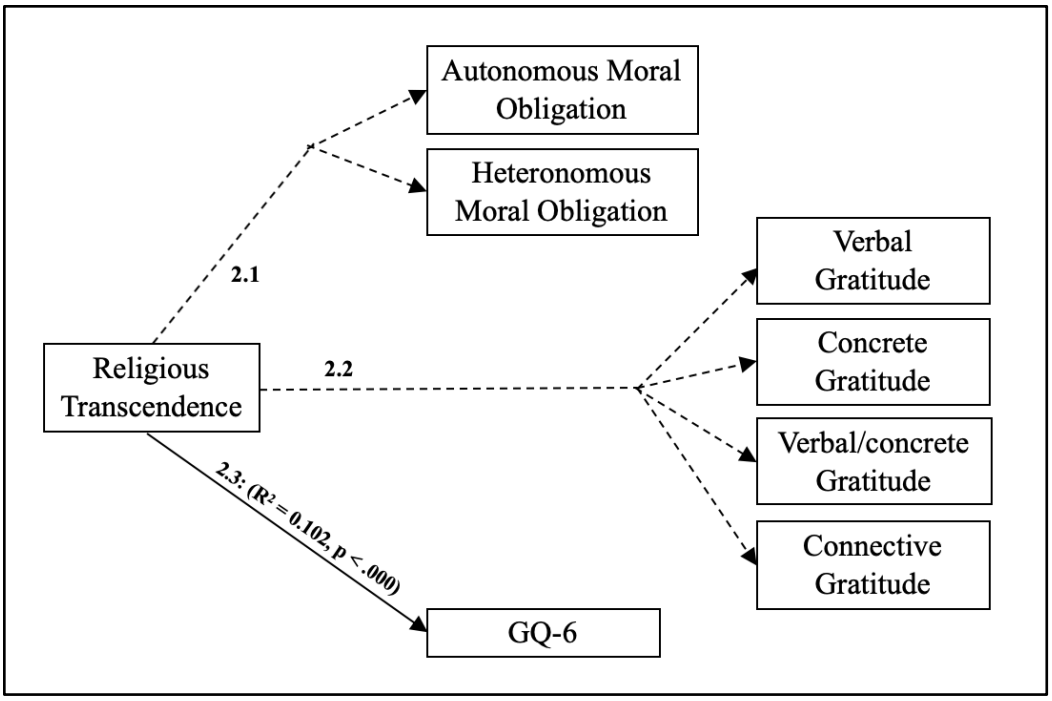
Linear Regression of Model 2.3 (Transcendence predicting GQ-6 scores)

Variable	B	SE	95% CI	*β*	t	*p*
(Constant)	36.095	.214	(35.674, 36.516)		168.503	.000
Transcendence	.077	.010	(.059, .096)	.321	8.068	.000

Note. R^2 adjusted = .103

Figure 8

Transcendence Model with Results



CHAPTER VII

DISCUSSION

/Gratitude/ and religiosity have been the focus of numerous studies (e.g., Al-Sehell & Noor, 2016; Hardy et al., 2014; Kraus et al., 2015; Lambert et al., 2009; Li & Chow, 105; Rosmarin et al., 2011; Tsang & Martin, 2016), but this literature is plagued by conceptual and methodological inconsistencies. One of the key concerns is that both /gratitude/ and religiosity are defined and measured differently in each study, making generalizations difficult. In response to these inconsistencies and confusion, I examined the relations between gratitude and religiosity by clearly defining both constructs, and using measures appropriate to each. Further, I included moral obligation as a variable in this study because it serves as a theoretical buttress to connective gratitude; obligation may help to explain why people express different types of gratitude.

Overall, the findings presented here suggest that gratitude, moral obligation, and religiosity are not related. These null findings are not a disappointment; in fact, these null findings (with considerable power) contradict most of the existing literature on gratitude and religiosity and serve to underscore the conceptual and operational problems in this field of research.

Moral Obligation

Moral obligation differentiates two forms of moral reasoning (i.e., heteronomous and autonomous moral reasoning) and helps to explain why people make the decisions

they do. People who use heteronomous moral reasoning make decisions based on norms and rules established by others, whereas people use autonomous moral reasoning base their decisions on cooperatively created rules and norms (Piaget, 1932/1965). Moral obligation describes the motivation behind decision-making: Are decisions motivated by an external (heteronomous) or internal (autonomous) sense of duty or obligation? In this study, moral obligation was measured using a vignette about a situation in which one person (a benefactor) does a kind deed for another (a beneficiary); subsequent questions assessed how and why the participants felt the beneficiary should respond to the benefactor.

Moral obligation was included as a variable in this study because I hypothesized that it might help to serve as a mechanism to explain relations between religiosity and gratitude. Although no associations were found between either dimension of religiosity and gratitude, this analysis of moral obligation does present interesting points for discussion. As discussed in the results, autonomous moral obligation was positively associated with how religious content is processed (interpretation) but neither autonomous nor heteronomous moral obligation were associated with belief in God or a higher power (transcendence). These results corroborate previous studies examining religiosity and moral reasoning (e.g., Duriez & Soenens, 2006; Getz, 1984; Sapp & Jones, 1986).

Interpretation. In this study, how people process religion (measured by the interpretation axis of the PCBS) significantly predicted the expression of autonomous moral obligation. In short, participants who processed religion more symbolically were

more likely to use autonomous moral reasoning. This finding supports the results of previous studies that have looked at *how* people think about religious content and moral reasoning.

For example, Duriez and Soenens (2006) found that participants who scored higher in symbolic interpretation (using the same PCBS measure as used in this study) were more likely to display higher stages of moral reasoning (using Kohlberg's Moral Judgement Test). In addition, previous studies have also found positive associations between moral reasoning and Batson's quest dimension of religiosity. The quest dimension, defined as an "openness, flexibility, and a willingness to deal with existential questions" (Sapp & Jones, 1986, p. 212), parallels Wulff's interpretation dimension as both examine how people "deal" with questions beyond reality. Both Glover (1997) and Duriez and Soenens (2006) found positive correlations with the quest dimension and higher stages of moral reasoning.

When looking at both previous results and the current findings, it is clear that how people process religious content is related to how they reason about moral decisions; those who interpret religion more symbolically are also more likely to make decisions based on their own moral compass. Future research should examine this association further to determine if these two processes are causally related to one another and/or to other variables that may impact both (e.g., education, cognitive development, parenting style, perceptions of self, context, etc.).

Transcendence. Wulff (1991) defined the transcendence axis of his schema as "…the degree to which the objects of religious interest are explicitly granted participation

in a transcendent reality or, to the contrary, are limited to processes immanent within the mundane world" (p. 630). This dimension is similar to Allport's intrinsic dimension of religiosity, which is defined as "as a meaning-endowing framework in terms of which all life is understood" (Donahue, 1985, p. 400). Both of these dimensions examine the extent to which people have an authentic and internal belief in God, and as such, comparisons can be made between the religious transcendence dimension used in this study and previous studies using Allport's framework.

Kohlberg and Power (1981) argued that moral development and faith development are independent; they believed that moral development was tied to cognitive development, justice, and context, not religious belief. Previous research using Allport's approach (e.g., Getz, 1984; Glover, 1997; Sapp & Jones, 1986) to measuring religiosity, as well as previous research using the PCBS (e.g. Duriez & Soenens, 2006), found no correlations between moral reasoning and a belief in God. The results of the current study support both theory and prior research; no significant associations were found between the transcendent dimension of Wulff's schema of religious attitudes and either autonomous or heteronomous moral reasoning.

Gratitude

While social scientists define /gratitude/ in a multitude of ways (e.g., as an emotion, trait, disposition, etc.), the current study conceptualized gratitude as a virtue (Tudge & Freitas, 2018). Based upon the work of Aristotle (1985), Annas (2011), and Baumgarten-Tramer (1938), Tudge and Freitas conceived of gratitude as more than a fleeting emotion or sense of appreciation; they assert that virtuous gratitude is a

disposition that can be cultivated across the life course. Tudge and Freitas posited that connective gratitude comes closest to gratitude as a virtue. In their model, connective gratitude is expressed *to* a benefactor rather than *for* a benefit and the beneficiary should freely wish to repay the benefactor. Tudge and Freitas also described other types of gratitude, including verbal (e.g., "Thank you") and concrete (i.e., self-oriented reciprocal behavior). /Gratitude/, defined as a disposition to appreciate the good things in life and measured as a continuous variable with the GQ-6 in this study, was also included to examine any differences between these two constructs of gratitude and their relations to religiosity. The current study did not find any relations between either dimension of religiosity and any type of gratitude but did find a highly significant association between transcendence and /gratitude/.

Interpretation. My hypotheses about gratitude and the interpretation of religion were not supported; there were no significant associations found between interpretation and any type of gratitude (i.e., verbal, concrete, verbal/concrete, or connective gratitude), even when moral obligation was added to the model as a moderator.

I initially hypothesized that connective gratitude would relate to how religion is interpreted because people who use connective gratitude should be able to: (a) take the perspective of the benefactor, and (b) *freely* choose to repay the benefactor (i.e., use of autonomous moral reasoning). The first component was supported by Duriez (2004), who found a positive association between the symbolic interpretation of religious content and the ability to perspective take. The second component was supported both by previous research (e.g., Duriez, 2006; Glover, 1997) and by the current study, all of

which found significant associations between symbolic processing and autonomous moral reasoning. However, gratitude was not related to the interpretation of religion in this study. Further, moral obligation did not moderate relations between scores of religious interpretation and the expression of any type of gratitude.

Transcendence. As hypothesized, transcendence (i.e., the belief in God or a higher power) was not related to the expression of any type of gratitude. This mirrors the current study's null findings related to moral obligation—transcendence was predictive of neither. The results of this study suggest that the level of religious belief is not related to how people reason through moral situations or how they express gratitude to other people.

However, in the current study, belief in God or a higher power (transcendence) was positively related to /gratitude/, as measured by the GQ-6. This association has also been found by other researchers looking at religiosity and /gratitude/ (e.g., Kraus et al., 2015; Li & Chow, 2015; Tsang et al., 2013). Li and Chow (2015) found that highly religious teens had higher scores of /gratitude/, which they defined as a disposition and measured using the GQ-6. Kraus et al. (2015) also found a positive relation between religious efficacy and gratitude, which they defined as an emotion. Tsang et al. (2013) found a strong association between Allport's intrinsic religiosity subscale and /gratitude/, which they defined as an emotion and measured with the GQ-6. Although they found a strong association between religiosity and /gratitude/, Tsang et al. (2013) found no significant association between religiosity and grateful *behavior*. These findings closely mirror those of the current study; those who scored higher in transcendence scored higher

on the GQ-6, but those who scored higher in transcendence were not more likely to express connective gratitude. Although the WAGS does not measure behavior itself, it does ask how someone might respond to a benefactor, including using reciprocal behaviors (i.e., connective gratitude).

Clearly there is a strong relation between the extent to which people believe in God or a higher power and /gratitude/, especially /gratitude/ measured using the GQ-6. And yet there is little evidence to suggest that belief in God is related to virtuous gratitude. This raises the questions: How can people be both /grateful/ and ungrateful at the same time? What is /gratitude/?

Tudge (2018) argued that ingratitude is the key to solving this conundrum. In his example, person A is given a lift home by person B. Person A said: "Thank you! I am so grateful to you for the ride." The next week person A is driving to work and sees person B stranded by the side of the road but person A drives by without stopping. On the GQ-6 (which measures gratitude for things and contains items like "I have so much in life to be thankful for"), person A might score high and be considered to be /grateful/. And yet person A is clearly ungrateful; failing to stop and help person B is a marker of ingratitude for the kind deed provided the previous week. However, if we conceive of the GQ-6 as measuring a different construct (e.g., appreciation), the situation does not seem as incongruous. For example, people who do not express their appreciation for their good fortune or a marvelous sunset would not be labelled "ungrateful." Ingratitude seems to be entirely related to a failure to *reciprocate* to a benefactor.

The results of this study are further evidence to support the arguments of scholars (e.g., Gulliford et al., 2013; Navarro & Morris, 2018; Tudge et al., 2015; Tudge & Freitas, 2018) who have suggested that conceptual and methodological difficulties exist in the field of gratitude research. Simply, /gratitude/ is not gratitude, but a separate construct entirely.

Although the GQ-6 may be measuring a related construct like appreciation, it may also be tapping into a religious construct. As suggested by Tsang and Martin (2016) and Lambert et al. (2009), GQ-6 scores may be higher among people with a strong faith in God because religious activities (e.g., prayer, religious services, reading holy scripture, etc.) offer daily opportunities for the development of a form of religious /gratitude/ or religious appreciation. This calls into question the validity of previous studies looking at relations between /gratitude/ and various other factors (e.g., pro-social behaviors, reductions in anxiety, stronger social connections, etc.). Perhaps previous positive findings between /gratitude/ and these variables are due in part to the religiosity of the sample, not gratitude itself. Future researchers should control for transcendence (or intrinsic religiosity) when using the GQ-6 to see how religiosity may influence their results.

Limitations and Future Directions

While the results of this study pose numerous interesting questions for future research, the study suffers from several limitations with regards to the sample, the study design, and the measures used.

The sample for this study was recruited from large undergraduate lecture classes in a department of Human Development and Family Studies in the southeastern United States. Classes in this department are predominately female, and the sample of this study reflects that trend—the sample was over ninety percent (92.7%) female. In addition, the sample was comprised largely of young adults (92.6% were between the ages of 18-22), of self-identified Christians (80.3%), and of people pursuing a college degree. Clearly, this sample is unique and not representative of the general population. As a result, these findings may have little generalizability to other groups. Previous research examining /gratitude/ and religiosity is also largely comprised of similar samples: Christian college students in the United States (Tsang & Martin, 2016). This sample homogeneity is a flaw not only with the current study, but also the field as a whole. Future research should be completed with more heterogenous populations to ascertain how these two constructs relate to one another in different contexts.

Similarly to previous studies looking at gratitude and religiosity (e.g., Duriez & Soenens, 2006; Hardy & Carlo, 2005; Hardy et al., 2014; Kraus et al., 2015; Li & Chow, 2015; Rosmarin et al., 2011), the current study was cross-sectional and little can be inferred about any causal relationships between the two constructs. Longitudinal research should be completed to examine how gratitude and religiosity interact across the life course: Does religiosity impact how gratitude develops? Does gratitude impact how religiosity develops? Do changes in religious belief, involvement or affiliation impact how gratitude is expressed?

In addition, the current study used self-report measures of both religiosity and gratitude. This overreliance on self-report measures is a limitation as participants may have exaggerated to seem "good" when asked questions about prosocial attitudes and behaviors (i.e., social desirability). This limitation has been noted in other studies of religiosity and gratitude (e.g., Lambert et al., 2009; Li & Chow, 2015; Tsang et al., 2012). In addition to concerns of social desirability, the self-report measures used in this study only assessed participants' perceptions of their values and behaviors, not their actual behaviors. Intending to do something and actually doing something are very different. As Gertrude Stein wrote: "Silent gratitude isn't very much use to anyone."

Conclusion

While null findings are often seen as a failure in social science research, I believe they simply offer a different perspective. I hope this study will make a number of contributions to the literature. First, to my knowledge, this is the first study to examine gratitude as a virtue and religiosity, and the first study to use the PCBS measure of religiosity in the United States. Second, this study both confirms previous moral reasoning research (i.e., autonomous moral obligation was related to the symbolic processing of religion and neither autonomous nor heteronomous moral obligation were related to the degree of transcendence) and contradicts previous /gratitude/ research (i.e., gratitude as a virtue was not related to either dimension of religiosity). Third, the results of this study highlight the need for clarity in the field of gratitude research. I found null findings related to gratitude and religiosity, but highly significant findings between /gratitude/ and religiosity. Clearly the incongruency between these results suggests that

they are separate constructs and should not both be labelled as gratitude. For this field of research to become stronger, future gratitude researchers should not vaguely or inconsistently define gratitude. Gratitude should be clearly conceptualized and operationalized accordingly. Further, researchers must also take similar caution when examining religiosity, and look beyond outdated methods of measurement. For research to contribute to a greater understanding of how gratitude and religiosity relate to one another we must compare apples to apples.

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APPENDIX A

WISHES AND GRATITUDE SURVEY

(WAGS: FREITAS, TUDGE & MCCONNELL, 2008)

1. What is your greatest wish?
2. Why is this your greatest wish?
3. What would you do for the person who granted you this wish?

APPENDIX B

GRATITUDE QUESTIONNAIRE 6-ITEM FORM

(GQ-6: MCCULLOUGH ET AL., 2002)

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

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

____1. I have so much in life to be thankful for.

____2. If I had to list everything that I felt grateful for, it would be a very long list.

____3. When I look at the world, I don't see much to be grateful for.*

____4. I am grateful to a wide variety of people.

____5. As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.

____6. Long amounts of time can go by before I feel grateful to something or someone.*

APPENDIX C

VIGNETTE

(FREITAS, 2007)

Sam had a dog, and one afternoon the dog disappeared. Aunt Anne, who was visiting from out of town, was making dinner that night. Sam said, "Aunt Anne, can you help me find my dog?" Aunt Anne stopped what she was doing and said, "No problem. I'll help you find your dog, Sam." They spent a lot of time looking for the lost dog. When it was almost dark, they found him. Aunt Anne had to throw away dinner and start everything again.

1. How did Sam feel? Provide as much detail as you can:
2. Why did Sam feel that way?
3. Did Sam feel anything about Aunt Anne? Provide as much detail as you can:
4. Should Sam help Aunt Anne make another dinner? Why or why not?
5. If Sam doesn't help Aunt Anne, is there a problem? If so, what's the problem? If it's not a problem, why not?

APPENDIX D

VIGNETTE CHECKLIST VERSION

(FREITAS, 2007)

Sam had a dog, and one afternoon the dog disappeared. Aunt Anne, who was visiting from out of town, was making dinner that night. Sam said, "Aunt Anne, can you help me find my dog?" Aunt Anne stopped what she was doing and said, "No problem. I'll help you find your dog, Sam." They spent a lot of time looking for the lost dog. When it was almost dark, they found him. Aunt Anne had to throw away dinner and start everything again.

How did Sam feel?
*(you can check with an **X** more than one if you want, but put **XX** by the answer you think was Sam's MAIN feeling)*
___Sad, because the dog had been lost.
___Happy, because the dog was found.
___Sad, because dinner was ruined.
___Happy, because Aunt Anne helped find the dog.

Did Sam feel anything about Aunt Anne?
*(you can check with an **X** more than one if you want, but put **XX** by the answer you think was Sam's MAIN feeling)*
___No, Sam was just happy about finding the dog.
___No, Sam was just sad about losing the dog.
___Yes, Sam was happy to have such a nice Aunt.
___Yes, Sam was sad that dinner was ruined.
___Yes, Sam was happy about the fact that she helped find the dog.
___Yes, Sam was sad that she had spent so much time helping to find the dog.

Should Sam help Aunt Anne make another dinner?
*(you can check with an **X** more than one if you want, but put **XX** by the answer you think was Sam's MAIN feeling)*
___Yes, because otherwise Aunt Anne will be mad.
___No, there's no reason to help.
___Yes, because Sam feels that it's the good thing to do.
___No, it was her decision to stop making dinner.
___Yes, because the rule is to help those who have helped us.
___No, Sam isn't able to help make dinner.
___Yes, because otherwise Aunt Anne will think Sam's not a very nice person.

APPENDIX E

POST-CRITICAL BELIEF SCALE

(PCBS: DURIEZ & HUSTEBAUT, 2002)

1. The Bible holds a deeper truth which can only be revealed by personal reflection.	1 2 3 4 5 6 7
2. If you want to understand the meaning of the miracle stories from the Bible, you should always place them in their historical context.	1 2 3 4 5 6 7
3. You can only live a meaningful life if you believe.	1 2 3 4 5 6 7
4. God has been defined for once and for all and therefore is unchangeable.	1 2 3 4 5 6 7
5. Faith is more of a dream which turns out to be an illusion when one is confronted with the harshness of life.	1 2 3 4 5 6 7
6. The Bible is a guide, full of signs in the search for God, and not a historical account.	1 2 3 4 5 6 7
7. Even though this goes against modern rationality, I believe Mary was truly a virgin when she gave birth to Jesus.	1 2 3 4 5 6 7
8. Too many people have been oppressed in the name of God to still make believing possible.	1 2 3 4 5 6 7
9. Each statement about God is a result of the time in which it is made.	1 2 3 4 5 6 7
10. Despite the fact that the Bible was written in a completely different historical context from ours, it retains a basic message.	1 2 3 4 5 6 7
11. Only the major religious traditions guarantee access to God.	1 2 3 4 5 6 7
12. Because Jesus is mainly a guiding principle for me, my faith in him would not be affected if it would appear that he never actually existed as a historical individual.	1 2 3 4 5 6 7
13. Ultimately, religion is a commitment without having absolute certainty.	1 2 3 4 5 6 7
14. Religion is the one thing that gives meaning to life in all its aspects.	1 2 3 4 5 6 7
15. The manner in which humans experience their relationship with God, is always colored by the times in which they live.	1 2 3 4 5 6 7
16. The historical accuracy of the stories from the Bible is irrelevant for my faith in God.	1 2 3 4 5 6 7
17. Ultimately, there is only one correct answer to each religious question.	1 2 3 4 5 6 7

18. God is only a name for the inexplicable.	1 2 3 4 5 6 7
19. Statements about the absolute, like dogma's, always remain relative since they are proclaimed by specific people and at specific moments in time.	1 2 3 4 5 6 7
20. The world of Bible stories is so far removed from us, that it has little relevance.	1 2 3 4 5 6 7
21. Only a priest can give an answer to important religious questions.	1 2 3 4 5 6 7
22. A scientific understanding of human life and the world makes a religious understanding obsolete.	1 2 3 4 5 6 7
23. God grows together with the history of humanity and therefore is changeable.	1 2 3 4 5 6 7
24. I am well aware that my beliefs are only one possibility among so many others.	1 2 3 4 5 6 7
25. I think that Bible stories should be taken literally, as they are written.	1 2 3 4 5 6 7
26. Despite the high number of injustices Christianity has caused people, the original message of Christ is still valuable to me.	1 2 3 4 5 6 7
27. In the end, faith is nothing more that a safety net for human fears.	1 2 3 4 5 6 7
28. Secular and religious conceptions of the world give valuable answers to important questions about life.	1 2 3 4 5 6 7
29. In order to fully understand what religion is all about, you have to be an outsider.	1 2 3 4 5 6 7
30. Faith is an expression of a weak personality.	1 2 3 4 5 6 7
31. There is no absolute meaning in life, only direction-giving, which is different for each one of us.	1 2 3 4 5 6 7
32. Religious faith often is an instrument for obtaining power, and that makes it suspect.	1 2 3 4 5 6 7
33. I still call myself a Christian, even though I do not agree with a lot of things that have happened in the past in the name of Christianity.	1 2 3 4 5 6 7