

RELIGION AND ITS EFFECTS ON ORGAN DONATION INTENTIONS: DIVERSITY  
WITHIN NON-CATHOLIC CHRISTIANS

A Thesis  
by  
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## FOREWORD

This thesis is written in accordance with the style of the Publication Manual of the American Psychological Association (6th Edition) as required by the Department of Psychology at Appalachian State University.

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Religion and Its Effects on Organ Donation Intentions:

Diversity within Non-Catholic Christians

Rafaella Sale

## Abstract

In this study, the influences of Christian Absolutism and religious orientation were examined for their possible effect on organ donation intentions. Non-Catholic Christians comprise a large and diverse community and there may be important differences in individual members' beliefs that are not adequately characterized by the religious affiliation. The aim of the current study ( $n = 176$ ) was to distinguish between non-Catholic Fundamentalist Christians and non-Catholic Progressive Christians. The continuous effect of Christian Absolutism (i.e., Fundamentalist vs. Progressive) on the dependent variable of intentions to donate organs was examined and no relationship was found,  $p > .99$ . In addition, the effects of three religious orientations (i.e., Intrinsic, Extrinsic, or Quest) on this dependent measure were assessed. Intrinsic orientation was positively correlated with intentions to donate,  $p = .01$ , and remained positively associated with intentions when controlling for the other types of religious orientation,  $p = .001$ , or CA,  $p < .001$ . Neither the Extrinsic nor Quest orientations were correlated with intentions to donate,  $ps \geq .38$ , although Quest emerged as a significant positive predictor of intentions when the other religious orientations were controlled for,  $p = .05$ . Christian Absolutism was not significantly associated with intentions to donate, over and above religious orientation,  $p = .29$ ; however, it exhibited a significant negative relationship with intentions when Intrinsic and the Intrinsic by Absolutism interaction were controlled for,  $p = .04$ . Significant Quest by Absolutism and Extrinsic by Absolutism interactions were observed,  $ps \leq .01$ . Findings suggest that, within a non-Catholic Christian population, considering an individual's level of Christian Absolutism may provide additional insight into the donation decision-making process and suggests additional targets for future interventions.

*Keywords:* religious orientation, organ donation, Christianity, Christian Absolutism

### Religion and Its Effects on Organ Donation Intentions:

#### Diversity within Non-Catholic Christians

Every day, 19 individuals die waiting for an organ transplant due to the shortage of organs available in the United States (United Network for Organ Sharing [UNOS], 2012). In addition, many others on the waiting list progress to a point where an organ will no longer sustain them and are left without the choice. Currently, there are more than 113,000 patients on a waiting list for organ transplantation in the United States. The number of those on a donor waiting list has been steadily rising throughout the years, in contrast to the relatively stagnant number of transplants conducted each year, which hovers at around 28,000 annually. In North Carolina alone there is a crucial need for over 3,500 organs at this time (UNOS, 2012).

It is important to identify ways to increase the cadaveric donor pool because multiple organs can be procured from a single deceased donor, whereas a live donor can usually only donate a single organ (Rocheleau, 2001). Currently, there is not a national registry for expressing one's wishes concerning donation, and laws governing consent processes differ across the states. Some states provide a state-wide registry so an individual can endorse donation during his or her lifetime; other states require next-of-kin to provide consent. The denial of consent to donating organs after death is the largest single barrier to organ donation (Rocheleau, 2001), despite widespread support for donation among the general public (e.g., Gallup, 1993). It is crucial that psychological barriers behind denial to consent are assessed in order to understand how to increase the potential donor pool.

Hesitancy to endorse organ donation behavior is not because individuals do not know how critical the need is. Instead, it is largely due to myths and erroneously perceived risks of organ donation, such as race discrimination or misconceptions of medical brain death (Harris,

Jasper, Shanteau, & Smith, 1990). General attitudes towards living and nonliving organ transplantation have been found to be positive, especially thoughts involving posthumous donation (Browne & Desmond, 2008). Obtained via survey, the greatest factor leading people to donate is the general desire to help another individual (Morgan, Harrison, Afifi, Long, & Stephenson, 2008). However, the number of people that actually sign donor cards and the number that endorse the behavior verbally are mismatched greatly. When it comes to organ donation behavior, beliefs and actions are not equal entities.

### **The Role of Religion in Organ Donation**

A survey conducted in 2003 found that 95% of Americans professed a belief in a higher power, and it should be noted that the figure has not dropped below 90% in the last 50 years (Miller & Thoresen, 2003). The shared belief system of this large portion of the American public cannot be ignored when discussing health behavior. The relationship between religious beliefs and organ donation is a complicated one, but religious beliefs are often taken into consideration when thinking about organ donation (Bresnahan et al., 2007). Religious beliefs could be a significant barrier to endorsing the donation of one's organs. However, though religion is often identified as a reason for denying consent to donation, religion is also a primary reason individuals cite for deciding to *consent* to donate organs (Morgan et al., 2008). Given the central role religious beliefs play in the donation decision, examining the attitudes of organ donation in religious congregations is critical to understanding donation decision making.

Another reason why the religion domain is meaningful to investigate is that this is the context in which many people discuss end-of-life decisions, such as whether an individual would wish to donate his or her organs. In healthcare and psychotherapy, many people (42% of a group polled) reported that they turn to ministers for advice and counseling (Corrigan &

Hudson, 2004). Even though this is the context where conversations about death most likely arise, many people of faith do not know what their belief system says about transplantation, specifically (Morgan et al., 2008). According to one Christian church leader, more education on organ donation for he and other church leaders including the parish is needed desperately (Arriola, Perryman, Doldren, Warren, & Robinson, 2007).

Myriad studies have found conflicting results when it comes to religion and organ donation. Rumsey, Hurford, and Cole (2003) found that those individuals who rated themselves higher in religiousness were more likely to express attitudes that were less accepting of organ donation. This finding is surprising given that, despite individual expressions of dissent, no major religion is opposed to organ donation officially (UNOS, 2012). One study found that when religious leaders were asked how they felt about organ donation, the majority of leaders expressed support (Gallagher, 1997).

In order to develop more effective methods to promote informed decision making about donation in religious populations, investigations of the effects of specific belief systems on organ donation attitudes are warranted. Research examining Catholic, Muslim, and Jewish individuals and their views on organ donation revealed that Catholics reported more pro-donation attitudes, norms, and perceived behavioral control over organ donation compared to the other two affiliations (Rocheleau, 2005). As compared to Jewish and Muslim participants, Catholics were less likely to endorse specific religious beliefs that would preclude donation (e.g., belief that the body should be buried whole or that donation interferes with the afterlife). Consistent with these pro-donation beliefs, the Catholic group also reported more intentions to donate than non-Christians.

Although Rocheleau (2005) suggested that Christians may be more pro-donation than non-Christians, that study was limited in that only Catholic Christians were considered. The

majority of Americans self-identify as non-Catholic Christians, according to a poll collected in 2009 reporting that 78% of Americans identify as Christian with 56% of this sample describing their faith as “very important” to them (Gallup, 2009, p. 2). With such a large presence in American society, this is an important group to examine. In the current study, an attempt was made to divide and define the spectrum of Christians that are not of Catholic affiliation. This is an expansive group, and the potential information obtained would be paramount for future organ donation research. Within academia and the literature, there is strong acknowledgment of the differing groups of Christians within the United States (Corrigan & Hudson, 2004; Dougherty, Johnson, & Polson, 2007; Sweet, 1984). One dimension on which non-Catholic Christians may vary is the extent to which they take an Absolutist view of the Bible.

### **Christian Absolutism**

One possible source of differences among individual Christians is their most basic underpinnings of belief. Early in the 20th century, a divide was recognized in the United States when a group of Protestants began calling themselves “Liberals” or “Modernists,” seeking a more intellectual or analytic form of belief (Corrigan & Hudson, 2004). The more conservative Protestants that held a stricter faith and adhered to more traditional beliefs adopted the identity of “Fundamentalists.” In the 1970s and 1980s, a surge in Fundamentalism that grew out of the sect Evangelism transformed organized religion. One author called this new born-again movement “almost fashionable,” with 30 million Americans converted and referred to as “reborn” (Sweet, 1984, p. 292). Fundamentalists assumed a political identity, calling their identity the “the Evangelical right,” and began stating that biblical morals should govern the laws of society (p. 297).

This historical development has had implications for the measurement of differences in religious ideologies that make it difficult to assess religious beliefs in isolation. Current scales that attempt to describe the construct of religious and Christian Fundamentalism are confounded largely with political ideology, treating politics and religion as overlapping entities (e.g., Right Wing Authoritarianism; Altemeyer, 1981) or are outdated and no longer exhibit good psychometric properties (e.g., the Orthodoxy scale; Adorno, Frenkel-Brunswik, Levinson, & Stanford, 1950). Streib, Hood, Keller, Csoff, and Silver (2009) discovered that, within a population of American Christians, Altemeyer's scales (i.e., Religious Fundamentalism Scale and Right-Wing Authoritarianism Scale) were essentially redundant. The revised versions of the two scales continue to include the construct aggression in measurement with Fundamentalism (Altemeyer & Hunsberger, 2004). In the current study, a new scale was designed to assess differences in Christian Absolutism among American Christians, specifically, without the confounding interpretations of scripture with political beliefs or aggression (i.e., militant opposition).

This current study attempts to formalize differences among American non-Catholic Christians through a new measure, Christian Absolutism. Due to the political connotations, emotional reactivity, and disagreement that the terms "Fundamentalism" and "Progressive" or "Liberal" have evoked (Balmer, 1989; Dougherty et al., 2007), the more neutral term *Absolutism* was chosen for this new construct. In one study, most American Christians that were categorized as "Evangelical" or "Fundamentalist," according to their reported beliefs, did not acknowledge these identifiers as describing the true nature of their beliefs; instead these individuals preferred the label "born again," (Dougherty et al., 2007, p. 486). Describing the specific beliefs of one's congregation has been found to be more successful at

conceptualizing an individual's religious identity than religious affiliation or denomination (Dougherty et al., 2007).

Following the recommendations brought forth by Dougherty et al. (2007), Christian Absolutism is conceptualized as similar to, but distinct from, the historical distinctions of Fundamentalism and traditional affiliations. Those higher on Christian Absolutism are similar to Fundamentalists in that they are more likely to believe that sacred writings are divine revelations communicated directly to specifically chosen individuals, such as Moses (Rogerson, 2010). Christian Absolutism is similar to Fundamentalism in nature but different in that emphasis is placed more on a religious individual's interpretation of religious scripture (i.e., how "Absolutist" one is in his or her belief). A higher level of Christian Absolutism translates to a more literal interpretation and stricter adherence to the Bible.

An individual with a high degree of Christian Absolutism would agree with the following: the Bible is inerrant, Jesus was born from a virgin, the belief in substitutionary atonement (i.e., Jesus died for our sins), and that faith is preeminent over science (Strozier, 1994). Christian Absolutism is an approach to interpretation that has also been called "biblical literalism" in the past (Dougherty et al., 2007, p. 487). Those who are higher on biblical literalism have been found to be more orthodox and evangelical in their religious beliefs (Dougherty et al., 2007). In addition to taking the words in the Bible as concrete truths, those higher on Christian Absolutism are more likely to believe in the imperative rebirth in Christ, or conversion, and the duty of the "saved" to spread the word of Christ, an act referred to as Evangelism (Strozier, 1994). Lastly, those higher on Christian Absolutism are more likely to report a belief in apocalypticism, or endism, which is a belief in God's plan for the events that must come to pass, as detailed in the book of Revelation in the King James version of the Bible (Strozier, 1994).

American Christians who are lower on the dimensional construct of Christian Absolutism are conceptualized to be more spiritual in their application of the Bible to daily life (i.e., more “Progressive”). These individuals would endorse the concept that the Bible is a human document. Although viewed by many as inspirational in its teachings, those lower on Christian Absolutism believe the Bible is vulnerable to mistakes because it was written by fallible humans (Dougherty et al., 2007). Those lower on Christian Absolutism apply the teachings of the Bible to new situations, leading to the idea of a more contemporary approach. For example, the principle of natural selection within the theory of evolution may harmoniously coincide with religion, despite the contradictions between evolution by natural selection and creationism described in the Bible. In contrast, those higher on Christian Absolutism may find comfort and resolution in adhering to the literal words of the scripture.

**Christian Absolutism and organ donation.** When polled, some American Christians cited religion as the reason to not donate their organs. When questioned, these individuals reported that if organs were needed in the afterlife, then it is better to be “on the safe side” (Morgan et al., 2008, p. 26). A more Absolutist interpretation of the Bible could be facilitating thoughts such as these, including a belief in the resurrection of the physical body and the associated ascent of the physical body to heaven (Arriola et al., 2007). A passage from the King James version of the Bible, Matthew 28: 5-7, illustrates this viewpoint:

The angel said to the women, “Do not be afraid, for I know that you are looking for Jesus, who was crucified. He is not here; he has risen, just as he said. Come and see the place where he lay. Then go quickly and tell his disciples: He has risen from the dead and is going ahead of you into Galilee.  
(King James Version)

In addition, the physical resurrection of Jesus and his people has been described in 1 Corinthians 15: 20-22, 29-30, 42:

But Christ has indeed been raised from the dead, the firstfruits of those who have fallen asleep. For since death came through a man, *the resurrection of the dead comes also through a man*. For as in Adam all die, so in Christ all will be made alive... Now if there is no resurrection, what will those do who are baptized for the dead? If the dead are not raised at all, why are people baptized for them? ...So will it be with the resurrection of the dead. The body that is sown is perishable, it is raised imperishable. [emphasis added]

Lastly and most explicit in regards to physical resurrection, 1 Thessalonians 4: 13-17 states:

Brothers and sisters, we do not want you to be uninformed about those who sleep in death, so that you do not grieve like the rest of mankind, who have no hope. For we believe that Jesus died and rose again, and so we believe that God will bring with Jesus those who have fallen asleep in him. According to the Lord's word, we tell you that we who are still alive, who are left until the coming of the Lord, will certainly not precede those who have fallen asleep. For the Lord himself will come down from heaven, with a loud command, with the voice of the archangel and with the trumpet call of God, and the dead in Christ will rise first. After that, we who are still alive and are left will be caught up together with them in the clouds to meet the Lord in the air.

An individual who would believe and adhere to the explicit words of the scripture is conceptualized as taking an Absolutist interpretation to the Bible. This individual would be classified as high on the Christian Absolutism continuum.

Despite the potential that some Christian beliefs, such as those relating to physical resurrection, may make organ donation less likely, other Christian tenets may be interpreted as supporting donation. In a survey (Morgan et al., 2008), Christian beliefs were thought by some to be congruent with organ donation. Those that endorse this view may feel it is a Christian responsibility to donate in order to follow the teachings of Jesus Christ where the action of self-sacrifice was a central theme in the New Testament. This type of self-sacrifice is experienced in the practice of Holy Communion. Although this ceremony is of Catholic origin, it is still practiced in many non-Catholic Christian churches, such as in the Episcopalian and other Protestant denominations (e.g., United Methodist and Lutheran). Christians who focus on symbolism and the presence of metaphor in the scriptures are labeled as low on Christian Absolutism because they may believe in a more spiritual transformation and application, where, for example, missing organs would not interfere with the afterlife (Arriola et al., 2007).

The present study is an attempt to investigate the impact of Christian Absolutism on non-Catholic Christians' positions regarding organ donation. Note that Christian Absolutism is conceptualized as a continuum rather than a typology. An arbitrary line will not be drawn, and the two labels (i.e., high or low on Christian Absolutism) will be treated as continuous intervals. The first hypothesis established for the present study was that those higher in Christian Absolutism would be less likely to endorse organ donation intentions than those lower on Christian Absolutism.

### **Religious Orientation**

Religion refers to whatever individuals do in an attempt to discover the answers to the existential questions that confront them, driven by an awareness of human mortality (Batson, Schoenrade, & Ventis, 1993). Religious *affiliation* is the label that individuals use to describe

themselves (e.g., “Muslim”). The majority of individuals who have a strong identification with a particular affiliation have the label passed down from their parents (Batson et al., 1993). Similarly, most information that individuals do have concerning end-of-life decisions (e.g., whether to donate organs) originates from discussions with family members.

Religious *orientation* is different from affiliation in that it describes how individuals act through their religious affiliation. It is the “distinction that helps us separate churchgoers whose communal type of membership serves and supports other, nonreligious ends, from those where religion is an end in itself – a final, not instrumental, good” (Batson et al., 1993, p. 158). It is important to examine an individual’s actions within an affiliation, in addition to where he or she falls on the scale of Christian Absolutism. Christian Absolutism considers the belief structure of a religious individual; religious orientation considers his or her motivation to partake in religious practices. There are three widely accepted and well-researched dimensions of religious orientation: Intrinsic, Extrinsic, and Quest (Allport & Ross, 1967; Batson et al., 1993).

Although religious orientation was first conceptualized using Christianity as its structural foundation, it has been applied to other religious affiliations in the literature and not exclusively with Christianity (Batson et al., 1993). In contrast, Christian Absolutism was constructed with the intention of application within Christian populations only. First described by Allport and Ross (1967), Intrinsic orientation has been defined as the embodiment of true religion, the true Christian. When confronted with existential questions, the Intrinsically oriented believer most likely believes the religious doctrine to be the ultimate and only truth.

Extrinsic believers observe religion as a social outlet or use attendance at the designated place of worship to appear as good members of a community (Batson et al.,

1993). This group is likely to turn to religion during an emotional hardship but maintain a wavering relationship with their religious affiliation. Extrinsic believers used to be defined as the false believer. More recently, the term Extrinsic has been used in a less pejorative way. Intrinsic and Extrinsic orientation were initially conceptualized as opposite poles on a single dimension. However, these constructs appear to be largely independent of each other. One's religious involvement may be motivated by both internal, faith-related benefits (i.e., Intrinsic orientation), *and* external benefits, such as community and social involvement (i.e., Extrinsic orientation; Batson et al., 1993).

The Quest dimension was created several years after the first two dimensions. It was created in continuance of Allport's concept (1950) of the mature, or true, believer. An individual who approaches religion this way admits to not knowing the complete picture or that he or she may never know the final truth in a lifetime. Quest oriented individuals refuse to accept clear-cut, seemingly packaged answers to existential questions. These individuals value religious doubts. Quest oriented individuals consider faith to be an open-ended journey and to be complex. This type of religious orientation adopts a proactive interpretation to religion and has been associated with humanistic qualities (Batson et al., 1993).

**Intrinsic orientation and Christian Absolutism.** Both Intrinsic orientation and Christian Absolutism have to do with a strict adoption and internalization of religious doctrine. Because of this, these constructs should be strongly related. However, these constructs are conceptualized here as overlapping, but distinct, dimensions of belief.

To illustrate the integration of religious orientation and characteristics of Christian Absolutism in research, Kirkpatrick (1993) found evidence to support differences among Fundamentalism, Christian Orthodoxy, and Intrinsic orientation. The scale used to measure Fundamentalism reflected belief in the absolute authority of the Bible (e.g. "I am sure the

Bible contains no errors or contradictions” (McFarland, 1989), somewhat similar to what is being referred to here as a high degree of Christian Absolutism.

Fundamentalism and Intrinsic orientation were highly correlated ( $r = .61, p < .01$ ), but exhibited notable differences (Kirkpatrick, 1993). Fundamentalism, as it was measured, was found to be more positively associated with discriminatory attitudes towards African Americans, communists, homosexuals, women, and all four targets combined. In a multiple regression analysis, Intrinsic orientation was more erratically associated with these outcomes, but included a negative association with discrimination towards African Americans when Fundamentalism and Christian Orthodoxy were held constant. Christian Orthodoxy was negatively associated with discriminatory attitudes towards women, suggesting those who were more orthodox in their beliefs were less biased towards women. Kirkpatrick's (1993) findings highlighted that Intrinsic orientation and Fundamentalism are different constructs, although the two scales correlated more with each other than with Christian Orthodoxy (Intrinsic:  $r = .50, p < .01$ ; Fundamentalism:  $r = .38, p < .01$ ).

**Religious orientation and pro-social behavior.** There has been substantial examination of the relationship between religious orientation and the likelihood of engaging in pro-social behaviors. Initially, Allport and Ross (1967) expected that an Intrinsic religious orientation would be associated with more pro-social behavior, due to the facts that Intrinsic believers are assumed to internalize the teachings of their religion and that involvement in charity plays a central role in many religious traditions. Instead, the evidence regarding Intrinsic orientation and pro-social behavior has been mixed.

In Batson et al. (1993), a meta-analysis that examined helping behavior in Intrinsic and highly religious individuals suggested that, despite Allport and Ross' (1967) initial conceptualization of Intrinsic orientation as reflecting more genuine religious commitment,

the rigidly religious do not show more active concern for others in need than do the non-religious. The staunchly religious are only more likely to help others when their behavior runs the likelihood of being noticed, or in the presence of other religious followers. Instead of real concern, they appear to *present* themselves as more concerned as an impression management strategy (Batson et al., 1993).

In some studies, those high in Intrinsic orientation are more likely to report more pro-social behaviors (Batson et al., 1993). Despite this, Rocheleau (2005) found no relationship between Intrinsic orientation and organ donation, although such a relationship was predicted. Given the mixed evidence regarding the relationship between Intrinsic orientation and pro-social behavior, the effects of Intrinsic orientation on intentions to donate were examined for exploratory reasons in this study, and no specific directional prediction regarding its effects was made.

The evidence regarding a relationship between Extrinsic orientation and pro-social behavior has been mixed also. Kirkpatrick (1993) reported that a subscale of Extrinsic orientation, relating to social gains, was found to correlate positively with discrimination (i.e., less pro-social beliefs). This finding was interpreted as meaning that those with this form of Extrinsic orientation saw outsiders as competition for social rewards. In addition, Rodriguez and Henderson (2010) found evidence that Extrinsic orientation was associated with increased risk for perpetrating child abuse, but only if moderated by social conformity. Extrinsic orientation was generally defined as using religion for personal and social benefits in the current study. In addition, Extrinsic orientation has been found to be associated with pro-social behaviors and attitudes as well, but inconsistently (Batson et al, 1993; Rocheleau, 2005). Given the inconsistent findings regarding Extrinsic orientation and pro-social

behavior, no directional hypothesis regarding Extrinsic orientation was made in the current study.

Quest orientation has been consistently and positively associated with pro-social behavior in the literature (Batson et al., 1993). For example, Rocheleau (2005) found direct effects of Quest orientation on the pro-social behavior of organ donation. Specifically, Quest orientation was positively associated with greater intentions to engage in organ donation behaviors, more so than those of Intrinsic or Extrinsic orientation. As noted above, the Rocheleau (2005) study is limited in its generalizability, as the sample included only Muslim, Catholic, and Jewish affiliations. The non-Catholic Christian demographic was neglected, therefore presenting the opportunity for the present study. In light of the religious orientation findings (Batson et al., 1993; Harris et al., 1990; Rocheleau, 2005), the second hypothesis for the current study was that Quest orientation would be positively associated with organ donation intentions.

### **Current Study**

The main intent of the present study was to examine the potential relationships between the interactions of Christian Absolutism and religious orientation on intentions to donate organs and tissues. As mentioned above, high Christian Absolutism was expected to be negatively related to donation intentions and Quest orientation was expected to be positively related to donation intentions. However, the effects of religious orientation on organ donation intentions were expected to depend on an individual's level of Christian Absolutism. Specifically, the positive relationship between Quest orientation and donation intentions was expected to be especially strong among those who were lower on Christian Absolutism.

It was unclear how Intrinsic orientation would relate to donation intentions. However, it was expected that the effects of Christian Absolutism would depend on the level of Intrinsic orientation. Intrinsic orientation has been found to be congruent, and convergent, with most measures of religiosity (Donahue, 1985). Given that the construct of Christian Absolutism is focused on a literal interpretation of the Bible and, in general, a strong adherence to scripture, which is generally associated with a high degree of religiosity, it was hypothesized that a higher level of Christian Absolutism would exhibit a stronger (i.e., negative) relationship to donation intentions when high on Intrinsic orientation. Lastly, it was expected that the effects of Christian Absolutism would depend on the level of Extrinsic orientation. Since Extrinsic orientation has been found to be associated with prejudice and a lack of pro-social behavior in general (Allport & Ross, 1967), it was predicted that, when Christian Absolutism and Extrinsic orientation were both high, participants would express the least intention to donate.

In summary, there are six hypotheses for this study and they are as follows:

1. Christian Absolutism would be negatively associated with intentions to donate.
2. Quest orientation would be positively associated with intentions to donate.
3. Christian Absolutism would account for additional variance in intentions, controlling for the three types of religious orientation.
4. The effects of Christian Absolutism on intentions would depend on Intrinsic orientation, such that the effects of Christian Absolutism would be more strongly negative for those high in Intrinsic orientation.
5. The effects of Christian Absolutism on intentions would depend on Extrinsic orientation, such that the negative effect of Christian Absolutism would be stronger for those high in Extrinsic orientation.

6. The effects of Christian Absolutism on intentions would depend on Quest orientation, such that the negative effect of Christian Absolutism would be weaker for those high in Quest orientation.

In addition, while no a priori directional hypotheses regarding the main effects of Intrinsic and Extrinsic orientation and donation intentions were made, these relationships were examined on an exploratory basis.

## **Method**

### **Participants**

Participants ( $n = 176$ ) were undergraduate students from a southeastern university in a rural setting in the United States who self-identified as non-Catholic Christians. The most commonly reported affiliations were Baptist (32%), non-denominational (26%), Methodist (13%), Presbyterian (11%), and Lutheran (5%). The rest identified as Episcopalian, Church of Christ, Pentecostal, or Moravian. The majority of the participants were Caucasian (92%), with 8% reporting ethnicity as Asian, Latino(a), or other. The majority of the participants were female (80%).

Undergraduate students volunteered via the Department of Psychology participant pool. In return for completing the study, students were rewarded partial course credit. In the general description section for the study that was presented before participation, the non-Catholic Christian affiliation requirement was stated explicitly and paired with a detailed explanation. A demographics portion was presented at the beginning of the questionnaire, and included an inquiry of religious affiliation to insure that all participants self-identified as non-Catholic Christian.

**Procedure**

Participants completed the study questionnaire online. Before beginning the questionnaire, an informed consent was presented stating the risks, the benefits, and the intent of the study (see Appendix A). Participants were instructed to complete the questionnaire alone in a quiet environment in order to encourage honest responding. Before beginning, participants were told that participation was voluntary and that they could withdraw their consent at any time without penalty. The questionnaire was estimated to take approximately 45 minutes to complete.

Some of the questions discussed death and after-life decisions, as well as religious beliefs and political opinions. These questions could have caused mild discomfort for some individuals. In the informed consent section, contact information was provided for the campus Counseling Center if the student would prefer to process reactions further in a more secure environment. All procedures for this study were approved by the Institutional Review Board at Appalachian State University on March 22, 2011 (see Appendix B) and expired March 7, 2012.

**Measures**

The two predictor variables (i.e., Christian Absolutism and religion orientation) and the outcome variable (i.e., intentions to donate) were dimensional and continuous. Self-identified non-Catholic Christians were placed on a continuous dimension with high Christian Absolutism at one end of a pole and low Christian Absolutism at the other. Christian Absolutism is a continuous construct and was treated as so. The second predictor variable was religious orientation: Intrinsic, Extrinsic, and Quest. These scales are largely independent; therefore, one is able to score high or low on all three. The criterion variable

was intentions to donate organs. Intentions to donate is a continuous variable. Accordingly, the study utilized a bivariate correlation and multiple regression design.

After completing the informed consent, participants completed a series of measures (see Appendix C). First, demographic information about participants was collected. This included gender, age, religious affiliation, income (including parents' income for students who receive support from their parents), and engagement in three past donation behaviors. These behaviors included discussing the issue with a family member(s), having donated a relative's organs or tissues in the past, and identifying oneself as an organ donor on a driver's license. Participants completed an assessment of their own organ donation attitudes, perceptions of the social attitude and behavior towards donation, perceptions of control, and intentions to engage in future organ donation behavior. These measures pertained to the theory of planned behavior (Ajzen & Madden, 1986) and were collected but not used in the current analyses.

In addition to demographics, intentions to donate were measured using a 5-item scale (Rocheleau, in press) on a 7-point Likert-type format. A sample item from this scale is: "How likely are you to have a discussion with your family members about your wishes regarding donation in the next two months?" A two-month timeframe was used with all items concerning intentions to donate. The scale has shown sound psychometric properties in the past including good internal reliability ( $\alpha = .90$ ; Rocheleau, in press). The scale has been established as a direct significant predictor of organ donation behavior, measured prospectively, in an ordinal logistic regression ( $OR = 2.86$ , 95% CI [2.00 to 4.08];  $p < .001$ ). Findings suggested that more intentions to donate were found to be related to engagement in more organ donation behaviors two months later (Rocheleau, in press). Results from the past study provide evidence of the 5-item scale's predictive validity.

A new measure, the Christian Absolutism Scale, was constructed for this study and is comprised of 19 items. The scale was created to measure potential differences in interpretative approaches to the Bible between Christians who were more Fundamentalist or more Progressive in their beliefs (i.e., how “Absolutist” in interpretation of religious scripture). Those taking a more literal approach to interpreting the Bible were defined as being high on Christian Absolutism (i.e., more Absolutist in belief), and those taking a more metaphorical interpretation of the Bible were defined as being low on Christian Absolutism (i.e., less Absolutist in belief). An item from the scale is: “I believe Jesus Christ died for my sins.” Pilot testing of this scale took place prior to the current study, and used a participant sample similar to that which was used in the current study. In the pilot testing, a 12-item scale derived from the original 14-item pool exhibited good internal consistency ( $\alpha = .90$ ). Refinements to the measure were made as necessary based on those data, and new items were added, making up the 19-item scale used for the current study.

The Intrinsic and Extrinsic subscales of the Religious Orientation Scale (adapted from Allport & Ross, 1967) together comprise a 20-item scale. An example item from the Intrinsic subscale is: “If I were to join a religious group I would prefer to join a Bible or Quran study group rather than a social fellowship.” An example item from the Extrinsic subscale is: “The place of worship is most important as a place to formulate good social relationships.” The Quest subscale of the Religious Life Inventory (adapted from Batson et al., 1993) was presented intermixed within the Intrinsic and Extrinsic subscales. The Quest subscale is a 12-item scale, and an example item is: “I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in relation to my world.” In the pilot testing, all three scales exhibited adequate to good internal consistency ( $\alpha = .91$  for the Intrinsic subscale;  $\alpha = .72$  for the Extrinsic subscale;  $\alpha = .81$  for the Quest subscale).

The order of the scales (i.e., whether a participant was exposed to religious items or organ donation items first) was counterbalanced in administration. Participants were randomly assigned to the two questionnaire versions in order to examine the potential effects of one preceding the other. It is possible that the content in each scale could be laden with factors that could alter the participants' response style on the other measure.

## **Results**

### **Preliminary Analyses**

The psychometric properties of each scale were examined using Cronbach's alpha (see Table 1). Evidence of skewness and kurtosis was also examined. All measures were found to exhibit adequate internal consistency and no scale exhibited significant skew or kurtosis. There was sporadic missing data on several of the measures. The descriptive statistics, including the effective sample size for each of the major variables of interest, are reported in Table 1.

The effect of order of presentation on the study constructs was assessed through a series of independent-samples *t*-tests. Order effects were found within the participants depending on the sequence of measures. Those participants who were administered the organ donation items first were more likely to score slightly higher on Intrinsic orientation,  $t(161) = 2.09, p = .04$ , and Christian Absolutism,  $t(154) = .217, p = .03$ . When controlling for order in the main analyses, the same pattern of results and nature of findings emerged, including the interaction effects, as when order was omitted from the analyses. Therefore, and for the sake of simplicity, the results have been presented without controlling for the order effect.

### **Main Analyses**

Bivariate correlations were executed for Christian Absolutism, the three orientation dimensions (i.e., Intrinsic, Extrinsic, and Quest), and donation intentions (see Table 2).

Hypothesis 1 stated that Christian Absolutism would be negatively associated with intentions to donate. Hypothesis 1 was not supported, and no evidence of a relationship was found,  $r = .00, p > .99$ . Hypothesis 2 stated that Quest orientation and intentions to donate would be positively associated. However, the current findings suggest no relationship between Quest and intentions to donate,  $r = .07, p = .36$ . Correlations between Intrinsic and Extrinsic orientation and intentions to donate were examined for exploratory purposes. Intrinsic orientation and intentions were positively correlated, ( $r = .20, p = .01$ ), and Extrinsic orientation and intentions to donate were not correlated, ( $r = -.00, p = .97$ ).

Hypothesis 3 was tested using a multiple regression to examine whether the new Christian Absolutism Scale accounted for additional variance in intentions to donate, over and above the religious orientation scales (see Table 3). In this analysis, intentions to donate were regressed onto the three orientation subscales and the new Christian Absolutism scale. Together, the three orientations and Christian Absolutism were significantly related to intentions,  $F(4, 129) = 3.87, p = .005, R^2 = .11$ . Intrinsic orientation was significantly associated with intentions,  $t(129) = 3.50, p = .001$ , over and above the other predictors, while Quest orientation,  $t(129) = 1.41, p = .16$ , and Extrinsic orientation,  $t(130) = .47, p = .64$ , were not significantly associated with intentions. Christian Absolutism did not account for unique variance in intentions to donate,  $t(129) = 1.07, p = .29$ , over and above the other constructs, so Hypothesis 3 was not supported.

To test Hypotheses 4 through 6, a series of multiple regressions was used in which organ donation intentions were regressed onto Christian Absolutism, orientation (i.e., Intrinsic, Extrinsic, or Quest), and each orientation by Christian Absolutism interaction. A separate regression was executed for each of the orientations (see Tables 4, 5, and 6, respectively). In these analyses, if the coefficient for the interaction term was significantly

different from zero, then that would provide evidence for the interactions predicted in Hypotheses 4 through 6. All predictor variables were mean-deviated to ensure that the tests of the interaction effects would be independent of the main effects. The process of mean-deviating the variables allowed for the interaction findings to be non-redundant.

Hypothesis 4 stated that the effects of Christian Absolutism on intentions would depend on Intrinsic orientation, such that the effects of Christian Absolutism would be stronger for those high in Intrinsic orientation. When controlling for Christian Absolutism, Intrinsic orientation was significantly associated with intentions,  $t(138) = 3.62, p < .001$ , such that those higher on Intrinsic orientation were more likely to intend to donate their organs. When controlling for Intrinsic orientation, there was a significant main effect for Christian Absolutism on intentions,  $t(138) = -2.08, p = .04$ , such that those higher on Christian Absolutism were less likely to intend to donate their organs. However, contrary to Hypothesis 4, no evidence was found for an interaction between Intrinsic and Christian Absolutism in relation to intentions to donate,  $t(138) = 1.20, p = .23$ .

Hypothesis 5 stated that the effects of Christian Absolutism on intentions to donate would depend on Extrinsic orientation, such that the effects of Christian Absolutism would be more strongly negative for those high in Extrinsic orientation. Overall, this hypothesis was supported. When intentions were regressed onto Extrinsic, Christian Absolutism, and their interaction, there was no evidence for a main effect of Extrinsic orientation on intentions,  $t(142) = .89, p = .37$ . In addition, there was no main effect of Christian Absolutism on intentions,  $t(142) = .69, p = .49$ . The effect of Extrinsic orientation depended on the level of Christian Absolutism,  $t(142) = -3.46, p = .001$ , supporting Hypothesis 5. Results suggest that, as expected, Christian Absolutism had a stronger negative effect on intentions to donate organs when participants exhibited a high degree of Extrinsic orientation. Christian

Absolutism had a positive effect on intentions to donate among participants who scored lower on Extrinsic orientation (see Figure 1).

Hypothesis 6 stated that the effects of Christian Absolutism on intentions to donate would depend on Quest orientation, such that the effects of Christian Absolutism would be weaker for those higher on Quest orientation. Overall, this hypothesis was supported. There was no evidence for a main effect of Christian Absolutism on intentions,  $t(144) = 1.21, p = .23$ . A trend appeared for those higher on Quest orientation to report more intentions to donate,  $t(144) = 1.67, p = .10$ . This effect depended on the level of Christian Absolutism,  $t(144) = -2.66, p = .01$ . Findings suggest that, at low levels of Quest orientation, Christian Absolutism had a positive effect on intentions to donate. At high levels of Quest orientation, Christian Absolutism had a small negative effect on intentions to donate (see Figure 2).

### **Discussion**

Within this sample of participants, Christian Absolutism was found to be uncorrelated to intentions to donate at the simple, bivariate level. Quest and Extrinsic religious orientations were also uncorrelated to intentions to donate. Contrary to previous research (e.g., Rocheleau, 2005), but consistent with Allport and Ross's (1967) conceptualization of Intrinsic religious orientation, those who were highly Intrinsically motivated to engage in religion were more likely to report that they intended to donate their organs. When all three of the orientations and Christian Absolutism were evaluated with intentions, Christian Absolutism did not provide additional information concerning the effects of religion on organ donation intentions.

While these results suggest that Absolutism is not related to intentions to donate in the expected manner, there is some evidence that one's level of Absolutism affects willingness to donate. When Intrinsic orientation was controlled for, those who were high on

Christian Absolutism displayed less intention to donate. Secondly, Christian Absolutism exhibited a stronger, negative effect on intentions for individuals high in Extrinsic orientation. Similarly, Christian Absolutism moderated the effects of Quest orientation, so that Christian Absolutism had a weaker effect on intentions to donate among those who were high on Quest orientation.

### **Intrinsic Orientation and Christian Absolutism**

In the current study, Intrinsic religious orientation and Christian Absolutism were highly correlated. The evidence of such a strong association might raise concerns about the presence of multicollinearity. Despite this association, Christian Absolutism and Intrinsic orientation displayed quite different relationships with intentions to donate. Were these two scales measuring the same psychological construct, the same pattern of results would be expected for the two constructs' relationships to other constructs within the study. Christian Absolutism was not found to be associated with intentions at the bivariate level, but Intrinsic orientation was positively related. Different patterns suggest different operations working within each of these constructs. Intrinsic orientation and Christian Absolutism accounted for unique variance in intentions to donate, when controlling for the other variable's effects, providing further evidence that these constructs are distinct. Further, when in the same regression model, the two variables had opposite effects on intentions, with Intrinsic positively associated, and Christian Absolutism negatively associated, with intentions to donate. Most convincingly, the low Variance Inflation Factors (VIFs) for the two constructs when they were included in the same model provide strong evidence that, while related, these are distinct constructs.

Fundamentally, the central purpose of the current study was not to test the construct validity of the Christian Absolutism scale, but rather to test the effects of Christian

Absolutism on organ donation intentions. Further research, specifically designed to test the construct validity of Christian Absolutism, is requested. It would be important to conduct such a study in a population that is expected to be heterogeneous in terms of level of Christian Absolutism and religious orientation. Doing so would establish whether Christian Absolutism is, as is argued here, a distinct construct from Intrinsic orientation, or whether they are overlapping constructs. Additional convergent and divergent validity could be examined with established scales that measure specific personality traits that appear similar in nature to Christian Absolutism. Since Christian Absolutism involves a rigid adherence to scripture, the following traits could be targeted for exploratory comparison: obsessive-compulsive, neuroticism, flexibility, adaptation to new situations. A more rounded profile of the prototypical Christian Absolutist could emerge with further validation trials.

Within this study and past literature there have been evidence that Intrinsic orientation and Christian Absolutism, or similar concepts (e.g., Fundamentalism), are distinct, although strongly related, constructs. Orientation is the motivation fueling an individual's adherence to religious belief, and Christian Absolutism is a construct to describe an individual's belief in the religious doctrine's infallibility and literalism (Batson et al., 1993). It is possible for an individual to be high on Christian Absolutism and low on Intrinsic motivation. This profile characterizes an individual who has rigid beliefs concerning the religious text, yet does not practice currently. Similarly, someone could view religion as a master motive in his or her life, but believe that the Bible should be interpreted flexibly, and viewed metaphorically; this individual would score high on Intrinsic orientation, but low on Christian Absolutism.

Christian Absolutism is similar to Fundamentalism conceptually. Kirkpatrick (1993) displayed evidence of some differences underlying Fundamentalism, Christian Orthodoxy,

and Intrinsic religious orientation. Fundamentalism was found to be associated with discriminatory attitudes while Intrinsic religiosity was erratically related to different types of discrimination (e.g. negatively associated with discriminatory attitudes toward African Americans). The sample Kirkpatrick (1993) used was an undergraduate student population, such as in the current study, but employed dubious and perhaps outdated measures for Fundamentalism and Christian Orthodoxy (Kirkpatrick, 1993). Differences between the study at hand and Kirkpatrick's (1993) could be attributed partly to choice and availability of measurement.

### **Importance of Christian Absolutism**

The majority of Americans subscribe to the religious beliefs of non-Catholic Christianity (Corrigan & Hudson, 2004). In fact, one-third of the United States population recognizes membership within an evangelical Protestant affiliation (Dougherty et al., 2007). The most dominant presence of non-Catholic Christians includes Southern Baptists, Assemblies of God, and relatively new branches derived from these labels. The more traditional Protestant affiliations make up 22% of the American religious population. Within the Southern and more rural areas of the United States, 77% of the population assumes the Protestant affiliation. Of these Southern non-Catholic Christians, 55% refer to themselves as "born-again" (Dillon & Savage, 2006).

Importantly, Dougherty et al. (2007) found that the majority of American Christians are less likely to assume a specific denomination label. These individuals are more likely to select "Bible-believing" or "born-again" as important descriptors of identity rather than specifications to an established affiliation (p. 494). These individuals are more likely to identify with a local congregation, or community, instead of a national religious organization (Dougherty et al., 2007). From these findings, the importance of how "absolute" an

individual is in his or her Christian beliefs (i.e., interpretation of religious scripture) is obvious in delineating this diverse group of religious individuals.

Other researchers have recognized the importance of differentiating the level of Fundamentalism within a group of religious individuals. One scale that has recently been published within the religious psychology literature is the Intratextual Fundamentalism Scale (IFS; Williamson, Hood, Ahmad, Sadiq, & Hill, 2010). The measure has been shown to exhibit good psychometric properties ( $\alpha = .83$ ) and correlate highly with Altemeyer's Right-Wing Fundamentalism Scale ( $r = .75$ ). Williamson et al. (2010) defined those high on Fundamentalism as "intratextual" in their interpretation to religious scripture (p. 723), in that revelation of truth only comes through the sacred text. An *intratextual* stance, as opposed to *intertextual* (i.e., truth can be discovered through other texts, such as scientific ones), adheres to the belief that the sacred text is divine, inerrant, self-interpretive, privileged, authoritative, and unchanging with time, similar to a high degree of Christian Absolutism.

The main difference between the IFS and the Christian Absolutism Scale constructed for this study is that the former was designed to be used in other religious populations, such as with Muslim individuals (Williamson et al., 2010). The IFS was intended to measure Fundamentalism as a construct within all religious affiliations and was not targeted specifically to American Christians, as is the case with the Christian Absolutism Scale. The Christian Absolutism Scale has been tailored to the non-Catholic Christian population in the United States. It has high face validity and is preferable in application because it may be more sensitive to the differences within the American Christian population (e.g., Jesus as the son of the virgin Mary). The Christian Absolutism Scale includes items that discuss stories within the Bible, specifically. The IFS is more ambiguous and uses the term "Sacred Writing" to describe all religious texts. An example item of the scale is, "The Sacred Writing

should never be doubted, even when scientific or historical evidence outright disagrees with it,” (Williamson et al., 2010; p. 727). In generalizing the responses to a wide range of traditional religious affiliations and associated newer sects, an amount of applicability could be lost. Inferential data could be lost especially when using the IFS scale to examine differences within specified and distinct subpopulations, such as non-Catholic Christians. Ultimately, the degree of empirical similarity or distinctiveness can only be established in future studies that include both measures simultaneously.

Williamson et al. (2010) found that those scoring high in Fundamentalism were also more likely to be highly Intrinsic in their beliefs, as well as highly Extrinsically-personal. Extrinsic-personal is a factor discovered through a past exploratory factor analysis to be theoretically distinct from two other sub-factors that loaded onto the Extrinsic construct and distinctively characterizes an individual who finds comfort and relief from participation in religious practice, such as prayer (e.g., Rocheleau, 2005). Williamson et al. (2010) suggested that an individual who is more Fundamentalist is more likely to be Intrinsically motivated to find personal comfort in strict adherence to the designated doctrine. In the current study, Christian Absolutism had a negative association with Extrinsic orientation, and a positive one with Intrinsic orientation. Also in the current study, Extrinsic orientation was used as a single scale, rather than broken down into subscales, as in Williamson et al. (2010); in the current study, the overall single-factor Extrinsic scale evidenced good internal consistency. Nonetheless, the findings in the current study are similar to those reported by Williamson et al. (2010). Since Extrinsic orientation related differently with Christian Absolutism and Williamson’s construct of Fundamentalism, this is evidence that additional analyses into the subscales of these components are warranted. Further studies that compare the IFS and the

Christian Absolutism Scale, alone and in addition to the subscales of religious orientation, would be helpful in pinpointing convergences and divergences within the scales.

### **Religious Beliefs and Pro-Social Behavior**

Although not expected, the current study found that those who are highly Intrinsically motivated in their religious beliefs are more likely to report donation intentions. These findings confirm Allport and Ross's (1967) conceptualization that highly Intrinsic individuals are more likely to be pro-social in nature. In the past, Batson et al. (1993) found inconsistent associations between Intrinsic and altruistic behavior. Rocheleau (2005) hypothesized a relationship between Intrinsic orientation and organ donation but did not find a significant association between the two constructs.

Extrinsic orientation was examined with intentions to donate for exploratory purposes, and no relationship was found. In the past, Extrinsic orientation has been found to be associated with discrimination towards minorities and child abuse when moderated by social conformity (Kirkpatrick, 1993; Rodriguez & Henderson, 2010). Rocheleau (2005) did not find evidence for a relationship between Extrinsic orientation and organ donation behaviors. Within the current study, Extrinsic orientation was treated as one factor and was not separated into sub-factors, such as researchers have done in the past to assess Extrinsic orientation (Rocheleau, 2005; Williamson et al., 2010). Since sub-factors such as Extrinsic-Personal and Extrinsic-Social could be variable and may represent different constructs, the examination of these sub-factors related to other health behaviors may be helpful in discerning outcomes, especially among a college population.

Quest orientation has consistently been found to be positively associated with humanistic behaviors, such as donating blood, and contributing directly to intentions for organ donation behavior (Batson et al., 1993; Rocheleau, 2005). The current study did not

find an association between Quest orientation and organ donation intentions. A positive trend emerged within the multiple regression analyses, but the effect became nonsignificant when Christian Absolutism was added. When participants were low in Quest orientation, Christian Absolutism had a positive effect on intentions to donate. This is an unexpected finding and appears to contradict the literature concerning Quest orientation up to this point and to the knowledge of the researchers. From these findings, it can be concluded that religious orientation alone may not reveal the whole picture with regard to pro-social behavior.

### **Limitations and Future Research**

The presence of order effects on response style was detected in this study. After thinking about organ donation, participants reported higher levels of Christian Absolutism and Intrinsic motivation. Although this bias was present, the same pattern of results remained after controlling for order. These data lead to the assumption that contemplating organ donation may motivate individuals to exaggerate the conservative nature of their religious beliefs. Considering a health outcome that is not addressed explicitly in the Bible may lead to a feeling of discomfort and uncertainty. One way to resolve such uncertainty may be to endorse more certainty in and devotion to one's religion, causing higher reports of Christian Absolutism and Intrinsic orientation, respectively. This possibility is an area for future research.

Self-reported intentions to donate organs were very high in this study,  $M = 6.06$  (on a 7-point scale),  $SD = 1.10$ . The population sampled appeared to have preexisting positive attitudes and intentions to engage in organ donation behavior. There is also the possibility of the presence of demand characteristics in the form of social desirability. Although the data were reported anonymously, social norms affecting general injunctive attitudes towards organ donation may have lead to exaggerated reports of personal intentions to donate.

Nonetheless, the lack of variance and restriction in range in this sample impedes the process of analyzing differences within the sample and likely underestimates the effects of Christian Absolutism and religious orientation on willingness to engage in donation in the broader population. The differences within the collected data were smaller in magnitude, yet still important for hypothesizing and leading further research trajectories.

In addition to data collection done through surveys within different populations, ideas for further study include in vivo studies to sidestep demand characteristics commonly faced in survey procedures. Examples include eliciting individual and family attitudes towards organ donation within local congregations, perhaps using a drop-box method to secure anonymity, or interviews with congregation leaders and members of the church, individually or in focus groups. An assumption within these examples is that church members are less likely to succumb to response biases within a comfortable and familiar context. In addition, when collecting data in the future concerning organ donation intentions, the inclusion of a valid and reliable social desirability measure, such as the Marlowe-Crowne social desirability scale (Crowne & Marlowe, 1960), would be a wise choice.

The sample collected was made up of a large majority of Caucasian females (i.e., 92% Caucasian and 80% female). Although this sample is not representative of the general population, the ethnicity profile is indicative of the rural area in which the sample was collected. The study aimed to capture the religious beliefs of American non-Catholic Christians in a rural area, and that goal was accomplished. Once the scale has been further validated, it would be interesting to examine a subpopulation of African American non-Catholic Christians in a rural area or in a more urban area. Beliefs about, and intentions to engage in, organ donation may differ by gender and ethnicity. For example among the African American community, reported myths associated with the differential treatment and

organ procurement from African Americans compared to Caucasians in the US have been detected in the past (Harris et al., 1990). African Americans tend to report less willingness to engage in donation and to report more distrust of the medical community (Rocheleau, 2001). Understanding potential differences and beliefs regarding organ donation procedures would be helpful in fine tuning future interventions and to help erode such myths.

A potential impediment to generalizability to other populations is the use of a convenience sample of undergraduate students. Batson et al. (1993) mention the possibility of a developmental sequence for the different types of religious orientation. Extrinsic orientation may develop first, followed by an Intrinsic orientation to religion in adulthood, and finally reaching a Quest type of belief towards religion later in life (Hood, 1985). This theory begs the question of whether some type of time-sensitive sequence is also apparent for Christian Absolutism. Non-Catholic Christians may interact differently with religious orientations as they age. It would be useful to replicate the Christian Absolutism scale in other populations, especially community samples in rural areas of America, since this is the area in which non-Catholic Christians are most prevalent and have the most influence (Dillon & Savage, 2006).

Nonetheless, college populations offer a different perspective when examining religious psychology that may not be generalizable to other age groups (Kirkpatrick, 1993). Examining the college population is helpful to examine religion in conjunction with health behaviors since many decisions that these individuals make have long-term consequences. With regard to organ donation specifically, college students are young, relatively healthy, and tend to engage in higher risk behaviors, putting them at greater risk of becoming organ donors themselves. These individuals are also more likely to be in the position to make decisions concerning donation for family members, such as their parents and grandparents,

and to influence the decisions of their children. In one study, it was found that college students were more likely to honor and respect the donation wishes of a deceased family member, even if beliefs of the family member and of the individual were conflicting (cf. Rocheleau, 2001).

Caution should be exercised when applying the current study's findings to actual organ donation behavior, as behavior was not directly assessed in this study. Intentions to donate were measured by a 5-item scale that discussed organ donor identification and conversations with family members. Although the act of deducing behavior from intentions is imperfect, Rocheleau (in press) found that intentions were a significant predictor of behavior in a two-month time interval. Rocheleau (in press) examined organ donation intentions through the theory of planned behavior, the model that was used in the present study. Indeed, intentions to donate were found to fully mediate the effects of other determinants to behavior (i.e., past behavior, attitudes, norms, and perceived behavioral control). These findings provide evidence that supports drawing inferences about the behavior of the sample participants from organ donation intentions.

Rocheleau (2005) examined organ donation intentions of Catholic Christians in comparison to Jewish individuals and Muslims. The hypothesis that Christians would report the most pro-donation attitudes was supported. Rocheleau's (2005) collected sample included only Christians with a Catholic affiliation and did not sample those who identified as non-Catholic Christians. Overall, the present study found that this sample of college-aged non-Catholic Christians exhibited positive intentions toward organ donation. These findings are congruent with the existing literature that posits that college students have positive attitudes toward organ and tissue donation (Feely, 2007). The present study did not examine knowledge concerning organ donation, which has been found to be skewed or unsubstantial

within the college population in making an informed decision (Feely, 2007). Future studies that examine organ donation intentions would benefit from including items that assess general knowledge and the presence of myths surrounding donation in any population. This inclusion would better inform and strengthen findings, providing additional context regarding the manner in which religion affects college students' donation intentions.

### **Applied Implications**

There is no doubt that organ donation is crucial in saving lives (UNOS, 2012). Further progress in understanding the barriers to organ donation is integral to increasing the cadaveric donor pool. Because in many states an individual's wishes can be overridden by a next-of-kin's final decision, religious beliefs are an important component to examine as they are likely to influence a family's decision about whether to consent to organ donation (Rocheleau, 2001). Even in a population of college students, spiritual beliefs have been found to be precursors to forming attitudes on organ donation (Bresnahan et al., 2007).

Acknowledging that religion must be addressed in the health domain is imperative to health psychology. Seventy-nine percent of religious Americans believe prayer helps in the healing process to cure chronic diseases (Idler et al., 2003). The lack of progress made in the area of health and religion has stymied the growth of an effective and valid measurement for assessing religious status. More research must be done to examine what these individuals believe in reference to controversial health behaviors (e.g., women's health and pregnancy issues). Religiosity, or how Absolutist one is in approaching scripture, must be measured systematically before researchers or those working within the health domain can make concrete inferences on the behavior of religious Americans (Idler et al., 2003).

In the context of organ donation, including information about the religious beliefs that support organ donation could be used by donation campaigns for billboards or pamphlets

(Rocheleau, 2005). In addition, locations to intervene in health behavior could be in local churches, with open-minded pastors and religious leaders acting as knowledge gate-keepers for large congregations. Religious leaders have reported in the past that information and education concerning organ donation would benefit them in aiding congregation members that come to them for advice (Rocheleau, 2001). Manualized interventions within predominantly African-American churches have shown success in increasing readiness to discuss organ donation wishes with family members (Arriola, Robinson, Thompson, & Perryman, 2010). Intervening within the religious context and with religious leaders has critical potential to bring forth the most change in social norms and acceptance towards organ donation (Arriola et al., 2007). Information concerning organ donation should target disconfirming myths and encourage discussion of afterlife wishes among family members.

The Christian Absolutism Scale may also have important implications for application within the therapeutic setting. The scale could be given to individuals seeking mental health services as a screening instrument. Especially in rural locations, it would be helpful for the therapist to assess where an individual falls on a continuum of Christian Absolutism, and how this individual approaches the Christian faith. The therapist could then make an informed decision on goodness of fit, perhaps deciding that the best option may be to make a referral if beliefs regarding the importance of religion in the therapeutic context do not match. In addition, the scale could be used to explicitly normalize and encourage the discussion of religious beliefs within the context of the therapeutic environment. Religious beliefs make up a considerable portion of an individual's identity; therefore, it *cannot* be ignored, especially within the therapist-client relationship and therapeutic context.

**Conclusion**

The attempt to understand and erode barriers to organ donation is within reach. The present research and review of the religious literature has provided evidence that assessment of religious beliefs within any health domain is critical. Most importantly, researchers should continue the attempt to measure non-Catholic Christians on the basis of their fundamental and underlying beliefs, rather than focusing solely on religious affiliation. Once researchers can determine what a large group of individuals in America believes in the context of organ donation in relation to religious beliefs, only then should time and resources be allocated to constructing effective interventions.

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Table 1

*Independent Variables (IV), Number of Participants (n), Number of Items (k), Means (M), Standard Deviations (SD), Possible Ranges, Observed Ranges, and Reliability of Study Measures ( $\alpha$ )*

<i>IV</i>	<i>n</i>	<i>k</i>	<i>M</i>	<i>SD</i>	Possible Range	Observed Range	$\alpha$
Christian Absolutism	156	19	4.19	0.86	1.00-6.00	2.00-5.89	.84
Intrinsic	163	9	5.20	1.20	1.00-7.00	1.00-7.00	.88
Extrinsic	167	11	3.35	1.17	1.00-7.00	1.00-7.00	.86
Quest	170	12	4.36	1.00	1.00-7.00	1.92-6.92	.79
Intentions	173	5	6.06	1.10	1.00-7.00	1.00-7.00	.81

Table 2

*Bivariate Correlations of Scale Scores (n = 176)*

<i>Independent Variable</i>	Quest	Intrinsic	Extrinsic	Intentions
Absolutism	-.58***	.69***	-.50***	.00
Quest		-.35***	.50***	.07
Intrinsic			-.32***	.20*
Extrinsic				-.00

Note: \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 3

*Independent Variables (IV), Regression Coefficient (b), Standard Error (SE), Beta Coefficient ( $\beta$ ), T-statistic (t), P-value (p), Partial Correlation ( $r_{\text{partial}}$ ), and Variance Inflation Factors (VIF) of a Multiple Regression of Religious Orientation and Christian Absolutism on Intentions to Donate*

<i>IV</i>	<i>b</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	<i>r<sub>partial</sub></i>	<i>VIF</i>
Intrinsic	.38	.11	.39	3.50	.001	.30	1.78
Extrinsic	.02	.10	.02	.21	.84	.02	1.46
Quest	.17	.12	.15	1.41	.16	.12	1.64
Absolutism	-.19	.18	-.14	-1.07	.29	-.09	2.45

Table 4

*Independent Variables (IV), Regression Coefficient (b), Standard Error (SE), Beta Coefficient ( $\beta$ ), T-statistic (t), P-value (p), Partial Correlation ( $r_{\text{partial}}$ ), and Variance Inflation Factors (VIF) for the Effects of Intrinsic Orientation, Christian Absolutism, and the Interaction of Both Variables on Intentions to Donate*

<i>IV</i>	<i>b</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	<i>r<sub>partial</sub></i>	<i>VIF</i>
Intrinsic	.40	.11	.43	3.62	< .001	.29	2.15
Absolutism	-.30	.15	-.24	-2.08	.04	-.17	1.95
Intrinsic x Absolutism	.10	.08	.12	1.20	.23	.10	1.40

*Note.* Model accounted for 8% of the variance in intentions.

Table 5

*Independent Variables (IV), Regression Coefficient (b), Standard Error (SE), Beta Coefficient ( $\beta$ ), T-statistic (t), P-value (p), Partial Correlation ( $r_{\text{partial}}$ ), and Variance Inflation Factors (VIF) for the Effects of Extrinsic Orientation, Christian Absolutism, and the Interaction of Both Variables on Intentions to Donate*

<i>IV</i>	<i>b</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	<i>r<sub>partial</sub></i>	<i>VIF</i>
Extrinsic	.08	.08	.08	.89	.37	.08	1.34
Absolutism	.09	.09	.06	.69	.49	.06	1.34
Extrinsic x Absolutism	-3.47	.10	-.28	-3.46	.001	-.28	1.00

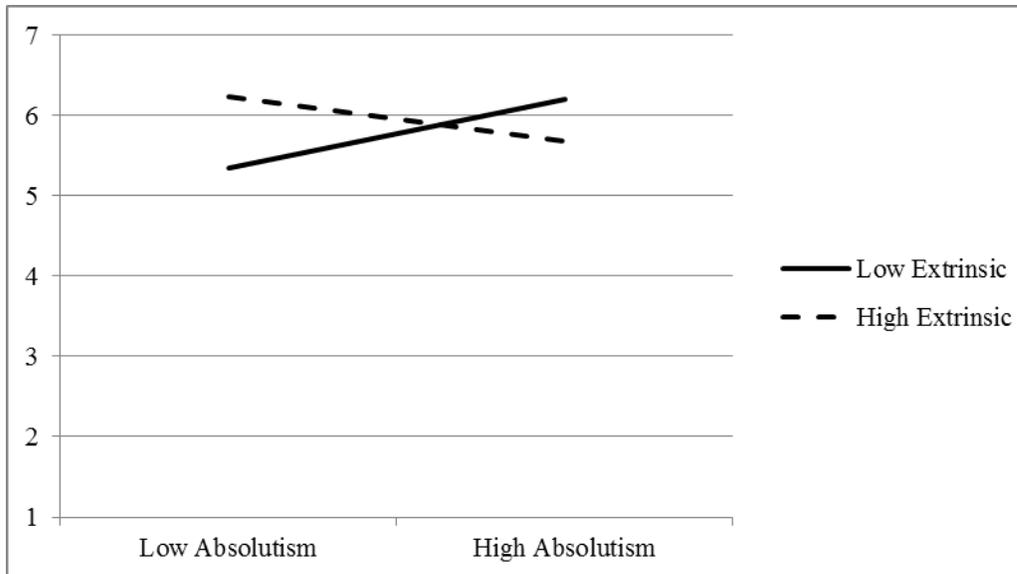
*Note.* Model accounted for 8% of the variance in intentions.

Table 6

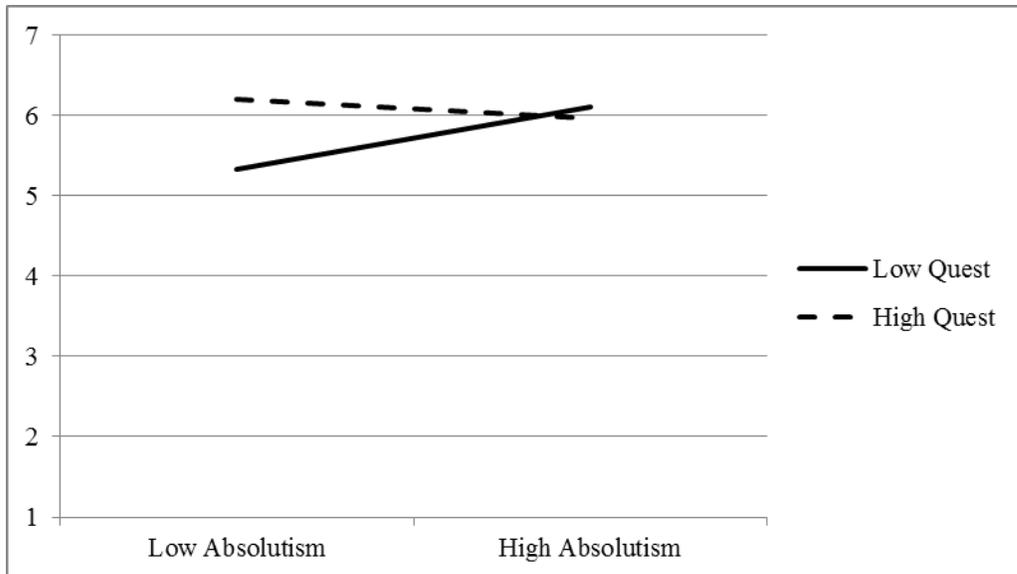
*Independent Variables (IV), Regression Coefficient (b), Standard Error (SE), Beta Coefficient ( $\beta$ ), T-statistic (t), P-value (p), Partial Correlation ( $r_{\text{partial}}$ ), and Variance Inflation Factors (VIF) for the Effects of Quest Orientation, Christian Absolutism, and the Interaction of Both Variables on Intentions to Donate*

<i>IV</i>	<i>b</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	<i>r<sub>partial</sub></i>	<i>VIF</i>
Quest	.18	.11	.17	1.67	.10	.14	1.52
Absolutism	.16	.13	.12	1.21	.23	.10	1.54
Quest x Absolutism	-.30	.11	-.22	-2.67	.009	-.22	1.03

*Note.* Model accounted for 6% of the variance in intentions.



*Figure 1.* Intentions to donate are graphed as a function of Extrinsic orientation and Christian Absolutism. The scores 1 standard deviation above and below the mean on each construct are plotted. The effect of Christian Absolutism on intentions to donate depended on levels of Extrinsic orientation. For individuals who are low in Extrinsic orientation, Christian Absolutism had a positive effect on intentions to donate overall. Consistent with Hypothesis 5, for individuals who are high in Extrinsic orientation, Christian Absolutism had a negative effect on intentions to donate overall.



*Figure 2.* Intentions to donate are graphed as a function of Quest orientation and Christian Absolutism. The scores 1 standard deviation above and below the mean on each construct are plotted. The effect of Christian Absolutism on intentions to donate depended on the level of Quest orientation. For individuals who are low in Quest orientation, Christian Absolutism had a positive effect on intentions to donate overall. For individuals who are high in Quest orientation, Christian Absolutism had little effect on intentions to donate.

## Appendix A

**Consent to Participate in Research**

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**Religion and Organ Donation**

Principal Investigator: Rafaella Sale  
Department: Psychology

Contact Information:  
828.262.2732, Courtney Rocheleau, Ph. D., Faculty Advisor  
P.O. Box 32109  
222 Joyce Lawrence Lane  
Boone, NC 28608

**What is the purpose of this research?**

You are being invited to take part in a research study about organ donation. If you take part in this study, you will be one of about 200 people to do so. By doing this study we hope to learn the possible effects that religion has on your attitudes about organ donation.

**What will I be asked to do?**

This is an on-line survey and it is estimated to take approximately 30 minutes to complete. You will be asked to answer questions pertaining to your own religious beliefs and your beliefs about organ donation. Some questions may be difficult to answer or items that you have never thought about previously, but please just answer them as truthfully and the best you can.

**What are possible harms or discomforts that I might experience during the research?**

To the best of our knowledge, the risk of harm for participating in this research study is no more than you would experience in everyday life. You may feel some mild discomfort since these questions discuss issues related to religion and choices after death that may be uncomfortable for some. If these feelings are overwhelming, you are invited to contact the ASU Counseling Center at (828)262-3180. They are willing to assist in discussing these matters thoroughly in a secure and confidential environment.

**What are the possible benefits of this research?**

There may be no personal benefit from your participation (other than participation credit) but the information gained by doing this research may help others in the future. This study may help us discover and find new ways to help people make informed decisions about organ donation.

**Will I be paid for taking part in the research?**

If you decide to participate, you will be compensated with 1 Experiential Learning Credit (ELC). No other compensation will be provided.

**How will you keep my private information confidential?**

Your name and Banner ID will be combined with information from other people taking part in the study, and recorded in order to receive ELC credit. The researchers will not have access to your identifiable information. You will never be identified in any published or presented materials. The data will be kept indefinitely, but your name will never be connected to the provided information.

**Who can I contact if I have questions?**

The people conducting this study will be available to answer any questions concerning this research, now or in the future. You may contact the study's faculty supervisor, Dr. Rocheleau, at 828.262.2732. If you have questions about your rights as someone taking part in research, contact the Appalachian Institutional Review Board Administrator at 828-262-2130 (M-F), through email at [irb@appstate.edu](mailto:irb@appstate.edu) or at Appalachian State University, Office of Research and Sponsored Programs, IRB Administrator, Boone, NC 28608.

**Do I have to participate? What else should I know?**

Your participation in this research is completely voluntary. If you choose not to volunteer, there will be no penalty and you will not lose any benefits or rights you would normally have. If you decide to take part in the study you still have the right to decide at any time that you no longer want to continue.

This research project has been approved, as required, by the Institutional Review Board of Appalachian State University. This study was approved on 3/22/11. This approval will expire on 3/20/12, unless the IRB renews the approval of this research.

**I have decided I want to take part in this research. What should I do now?**

Please read the following and if you agree, you should indicate your agreement:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I understand that I can stop taking part in this study at any time.
- I understand I am not giving up any of my rights.
- I have been offered a copy of this consent document to keep.
- I affirm that I am at least 18 years of age.
- I agree not to discuss this study with other potential participants until all data collection for the study has been entirely completed.

## Appendix B

**To:** Raffaella Sale  
Psychology Clinic  
CAMPUS MAIL

**From:** Dr. Timothy Ludwig, Institutional Review Board

**Date:** 3/22/2011

**RE:** Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)

**Study #:** 11-0220 **Study Title:** Religion and Its Effects on Organ Donation Behavior: Diversity within Non-Catholic Christians

**Submission Type:** Initial

**Expedited Category:** (7) Research on Group Characteristics or Behavior, or Surveys, Interviews, etc.

**Approval Date:** 3/22/2011

**Expiration Date of Approval:** 3/20/2012

This submission has been approved by the Institutional Review Board for the period indicated. It has been determined that the risk involved in this research is no more than minimal.

Investigator's Responsibilities:

Federal regulations require that all research be reviewed at least annually. It is the Principal Investigator's responsibility to submit for renewal and obtain approval before the expiration date. You may not continue any research activity beyond the expiration date without IRB approval. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.

You are required to obtain IRB approval for any changes to any aspect of this study before they can be implemented. Should any adverse event or unanticipated problem involving risks to subjects occur it must be reported immediately to the IRB. Best wishes with your research!

CC:

Courtney Rocheleau, Psychology  
Erin Dobbins, Art

## Appendix C

**Demographics**

1. Gender: \_\_\_\_\_

2. Age: \_\_\_\_\_

3. Ethnicity: (Check one)

- Caucasian or White  
 Hispanic/Latino(a)  
 African-American  
 Asian/Pacific Islander  
 Native American  
 Other (please specify): \_\_\_\_\_

4. What is your religion? Please select the major category as well as the subgroup affiliation as appropriate.

- |  |  |  |  |  |
|--|--|--|--|--|
| <input type="checkbox"/> <b>Catholic</b> | <input type="checkbox"/> <b>Protestant/<br/>non-Catholic<br/>Christian</b> | <input type="checkbox"/> <b>Jewish</b>                       | <input type="checkbox"/> <b>Muslim</b> | <input type="checkbox"/> <b>Other (please specify):</b><br>_____ |
|  | <input type="checkbox"/> Lutheran  | <input type="checkbox"/> Reform                              | <input type="checkbox"/> Shiite        |  |
|  | <input type="checkbox"/> Unitarian<br>Universalist                         | <input type="checkbox"/> Conservative                        | <input type="checkbox"/> Sunni         |  |
|  | <input type="checkbox"/> Methodist   | <input type="checkbox"/> Orthodox                            |  |  |
|  | <input type="checkbox"/> Non-<br>denominational                            | <input type="checkbox"/> Renewal                             |  |  |
|  | <input type="checkbox"/> Baptist   | <input type="checkbox"/> Other<br>(please specify):<br>_____ |  |  |
|  | <input type="checkbox"/> Congregational                                    |  |  |  |
|  | <input type="checkbox"/> Episcopal   |  |  |  |
|  | <input type="checkbox"/> Presbyterian                                      |  |  |  |
|  | <input type="checkbox"/> Church of<br>Christ                               |  |  |  |
|  | <input type="checkbox"/> Other<br>(please<br>designate):<br>_____          |  |  |  |

5. What is your annual household income? (If you are a student, and receive money from your parents, please include their income in your estimate).

- \$10,000 or less  
 \$10,001 - \$20,000  
 \$20,001 - \$40,000  
 \$40,001 - \$60,000  
 \$60,001 - \$80,000  
 \$80,001 - \$100,000  
 \$100,001 - \$120,000  
 \$120,001 - \$140,000  
 \$140,001 or more

6. Are you identified as a donor on your driver's license?

- Yes  
 No, but I would be willing identify myself as a donor if asked  
 No, I am undecided about whether I want to be a donor  
 No, I thought about it and decided not to identify myself as a donor  
 No, I didn't even know about it

7. Have you ever discussed your wishes regarding organ/tissue donation with your family?

- Yes, I initiated a conversation  
 Yes, a family member initiated the conversation  
 No If no, why not? \_\_\_\_\_

8. Have you or your family ever donated a loved one's tissues or organs?

- No, we have never been approached about donation.  
 No, we were approached and declined consent to donation.  
 Yes, we were approached and consented to donation.

9. Are you an organ or tissue transplant recipient?

- Yes  
 No

10. Would you consider yourself a more conservative or progressive Christian? Check one.

- Conservative  
 Progressive  
 Neither  
 Other Please list: \_\_\_\_\_

11. What is your political affiliation?

- Democrat  
 Republican  
 Independent  
 Other Please list: \_\_\_\_\_

**Christian Absolutism Scale**

Please circle one number to indicate how much you agree or disagree with each of the following statements. Even if you have never thought about these issues, please answer to the best of your ability.

1. I believe that Mary, mother of Jesus Christ, was a virgin.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

2. I believe in Darwin's theory of evolution by means of natural selection.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

3. I believe in miracles.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

4. I believe that it is necessary for the lessons in the Bible to be applied current day dilemmas without changing them.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

5. I believe Jesus Christ died for my sins.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

6. I think that religious beliefs should be more flexible to the current world we live in.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

7. I believe that faith is more important than scientific findings.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

8. I believe Jesus Christ's teachings would be different if he lived today.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

9. I believe that my body will be physically resurrected after I die.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

10. I believe that, since times are changing, it's acceptable to take a more progressive view of religion.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

11. I believe the Bible should be read and interpreted literally.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

12. I consider my religious beliefs to be more traditional.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

13. I believe that some stories in the Bible are symbolic and not that they actually happened.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

14. I believe that many religions may be true or have truth in them.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

15. I believe there are multiple paths to salvation.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

16. I believe in a spiritual resurrection after I die.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

17. I believe in the second coming of Jesus Christ.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

18. I do believe that the world will come to an end.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

19. I believe my body should be kept whole after I die.

1	2	3	4	5	6
Absolutely do not agree	I disagree	I don't think so	I think so	I agree	Absolutely agree

### Organ Donation Intentions

Please circle one response to indicate how likely you are to do each of the following.

1. How likely are you to say "yes" to being a donor if asked to do so at a driver's license office in the next two months?

*If you are already identified as a donor on your driver's license, please circle "7"*

Not at all Likely			Neither Likely nor Unlikely			Very Likely
1	2	3	4	5	6	7

2. How likely are you to sign the back of your driver's license to identify yourself as an organ and tissue donor in the next two months?

Not at all Likely			Neither Likely nor Unlikely			Very Likely
1	2	3	4	5	6	7

3. How likely are you to carry a driver's license that identifies you as a donor with you at all times in the next two months?

Not at all Likely			Neither Likely nor Unlikely			Very Likely
1	2	3	4	5	6	7

4. How likely are you to have a discussion with your family members about your wishes regarding donation in the next two months?

Not at all Likely			Neither Likely nor Unlikely			Very Likely
1	2	3	4	5	6	7

5. In the event of a family member's death in the next two months, how likely are you to consent to donate his or her organs/tissues if asked to give permission?

Not at all Likely			Neither Likely nor Unlikely			Very Likely
1	2	3	4	5	6	7

**Religious Orientation Scale & Religious Life Inventory**

Please circle one number to indicate how much you agree or disagree with each of the following statements.

1. The place of worship is most important as a place to formulate good social relationships.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

2. As I grow and change, I expect my religion also to grow and change.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

3. Questions are far more central to my religious experience than are answers.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

4. There are many religious issues on which my views are still changing.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

5. I try hard to carry my religion over into all my other dealings in life.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

6. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

7. Religion is especially important to me because it answers many questions about the meaning of life.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

8. My religious beliefs are what really lie behind my whole approach to life.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

9. The purpose of prayer is to secure a happy and peaceful life.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

10. For me, doubting is an important part of what it means to be religious.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

11. God wasn't very important for me until I began to ask questions about the meaning of my own life.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

12. It might be said that I value my religious doubts and uncertainties.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

13. I read literature about my faith (or religion).

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

14. It is important for me to spend periods of time in private religious thought and meditation.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

15. Although I am a religious person I refuse to let religious considerations influence my everyday affairs.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

16. One reason for my being a member of my religion is that such membership helps to establish a person in the community.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

17. I am constantly questioning my religious beliefs.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

18. The primary purpose of prayer is to gain relief and protection.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

19. I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in relation to my world.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

20. I do not expect my religious convictions to change in the next few years.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

21. If I were to join a religious group I would prefer to join a Bible or Quran study group rather than a social fellowship.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

22. It doesn't matter so much what I believe so long as I lead a moral life.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

23. I find religious doubts upsetting.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

24. What religion offers me most is comfort when sorrows and misfortune strike.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

25. I pray chiefly because I have been taught to pray.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

26. Quite often I have been keenly aware of the presence of God or the Divine Being.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

27. Although I believe in my religion, I feel there are many more important things in my life.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

28. I was not very interested in religion until I began to ask questions about the meaning and purpose of my life.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

29. My life experiences have led me to rethink my religious convictions.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

30. A primary reason for my interest in religion is that it is a congenial social activity.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

31. If not prevented by unavoidable circumstances, I attend religious services.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

32. The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during services.

Strongly Disagree				Neither Agree nor Disagree				Strongly Agree
1	2	3	4	5	6	7	8	9

## VITA

Rafaella Sale was born in Kinston, North Carolina, on August 25, 1987. She attended elementary, middle, and high school in that region and graduated from Arendell Parrott Academy in June 2005. The following autumn, she entered University of North Carolina Wilmington and double majored in Psychology and Communication Studies. In December 2009, she was awarded two Bachelor of Arts degrees. In the fall of 2010, Ms. Sale began study toward a Master of Arts degree in Clinical Health Psychology at Appalachian State University. Ms. Sale's home address is 1547 Big Hill Road, Boone, North Carolina, 28607. Her parents are Daniel and Catherine Sale.