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## Eschatological Thought and Religiosity Among Christians: Patterns And Relationships

Ingrid Emelia Hellstrom

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ESCHATOLOGICAL THOUGHT AND RELIGIOSITY AMONG CHRISTIANS:  
PATTERNS AND RELATIONSHIPS

by

INGRID E. HELLSTROM

(Under the Direction of Michael Nielsen)

ABSTRACT

In contrast to research on fundamentalism and death anxiety, there has been very little empirical research on the relationship between a person's eschatology, religious thought and behavior. This study attempts to identify associations between eschatology, religiosity, locus of control, death anxiety, and an individual's concept of God.

Respondents were 226 college students who completed a questionnaire designed to assess how religious, psychological, and demographic variables predict eschatological beliefs and attitudes. Most respondents were Christian, Caucasian, and female. Eschatological beliefs were directly associated with religious involvement, hope, a deistic and wrathful image of God, and death anxiety. These beliefs, along with eschatological repulsion, were also inversely associated with religious involvement. Consequently, eschatological beliefs appeared to be associated with an individual's religiosity.

INDEX WORDS: Eschatology, Religiosity, Religion, Apocalyptic, Apocalypse, God concept, Death anxiety, Locus of control, Fundamentalism, Fundamentalist, End times, End of the world

ESCHATOLOGY AND RELIGIOSITY AMONG CHRISTIANS: PATTERNS AND  
RELATIONSHIPS

by

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B.A., The Catholic University of America, 2005

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## DEDICATION

To my family and my Lord and Savior, Jesus the Christ, with love

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## CHAPTER 1

### INTRODUCTION

#### Eschatological Thought and Religiosity Among Christians: Patterns and Relationships

For the past couple decades, there has been an increase in the amount of attention and interest concerning eschatological topics; that is, beliefs pertaining to the end times, the end of the ages, or the end of the world. Examples of current events and subsequent news commentaries that demonstrate this concern include claims by Iranian President Maumoud Ahmadinejad that the Imam Mahdi will appear in two years (Esfandi, 2005); President George W. Bush's response to a question about the Apocalypse (Relyea, 2006), and concerns about record catastrophes such as Hurricane Katrina (Gray, 2005). A recent telephone poll surveying 1,000 adults, conducted by Ipsos (*Associated Press*, 2006), an international polling firm at the end of 2006, found that one out of four Americans predicted the return of Jesus Christ. Furthermore, the popularity of end-times books relating the current world environment to the eschatological beliefs of major religions including Hal Lindsey's *The Late Great Planet Earth*, Tim LaHaye's and Jerry B. Jenkins' *Left Behind* series, and the seemingly prophetic end-times thrillers (*The Last Jihad*, *The Last Days*, and *The Ezekiel Option*) by Joel Rosenberg (Kellner, 2005) suggest increasing interest in end-times thought, particularly in terms of a religious context.

Secular interest in thoughts about the end-times has also increased. Aside from universal concerns about the end of the world due to the Y2K scenario (McMinn, 2001), movies such as *Armageddon* (1998), *The Day After Tomorrow* (2004), and *Apocalypto* (2006) have all highlighted the interest in the subject. Additionally, secular sources also have contained articles and information about the end of the world. For example, The

*Observer Worldview*, a UK news source, contained information about a study by the World Wildlife Fund that says that the earth's resources will expire by the year 2050 (Burke & Townsend, 2002).

Considering the recent interest in eschatological and apocalyptic ideas, the question as to how one's eschatological thoughts relate to his or her religiosity is both relevant and significant. Eschatology plays an influential and important role in Western religions, and eschatological thought and religiosity are tied closely together as an integral part of Christian theology.

For the Christian church, eschatology, in its basic form, involves the return of Jesus, the establishment of a kingdom of God that will last for a thousand years over which Jesus will reign, and the defeat of evil and death forever. There are three major points of view in Christian eschatology centered on the millennial kingdom of Jesus (Revelation 20:1-6): amillennialism, postmillennialism, and premillennialism (Ariel, 1991). The amillennialist's position states that Jesus will not establish a literal kingdom but that any end-times prophecies have already been fulfilled historically or are simply allegorical or symbolic. The postmillennial position holds that the kingdom of God will be established through human efforts and that Jesus will only return when the kingdom of God is established on earth by humans. In the premillennial position (the most influential and popular position) Jesus' second coming will be preceded by a great apostasy and corruption, and that the spread of the Gospel and the establishment of the Kingdom will be completed supernaturally. According to the premillennium position, apocalyptic prophecies are taken as literal, future events that include a future and literal Gog/Magog invasion of Israel; a literal Temple that is desecrated in the future; a future, literal

restoration of a remnant of Israel separate from the Church, and a literal Rapture where the dead believers in Jesus will rise from the dead and the living ones will join with them in the air (Fruchtenbaum, 2004; LaHaye & Jenkins, 1999).

Divisions in eschatology among Christians have also arisen concerning viewpoints of the role of the Church during the Tribulation (a period of seven years of three stages of severe judgment, each increasing in intensity). That is, the post-tribulation viewpoint, the pre-wrath viewpoint, the mid-tribulation viewpoint, and the pre-tribulation viewpoint. Those who believe in the post-tribulation viewpoint believe that the Church will experience all of the judgment of the Tribulation. Believers in the pre-wrath viewpoint hold that the Church will experience most of the Tribulation except for the most severe portion. Believers in the mid-tribulation viewpoint believe the Church will experience half of the Tribulation. Believers in the pre-tribulation viewpoint, the most publicized viewpoint, believe the Church will experience none of the Tribulation, holding close to the analogy of the Church being the Bride of Christ, styled after a traditional Jewish wedding between Jesus and the Church (known as the Bride of Christ). This includes a payment (at the cross), fetching of the bride (commonly called the Rapture in English), a wedding ceremony (where only a few—the Church--would be invited), ceremonial cleansing (in the form of the judgment seat of Christ), a marriage feast lasting for a week, and a return for the marriage feast that friends of the bridegroom could attend (the actual Second Coming where the “wedding guests” (the Old Covenant and Tribulation believers in Jesus) would also be invited (Fruchtenbaum, 2004; LaHaye & Jenkins, 1999). Thus, there is considerable variation in regard to views concerning religiosity and eschatology.

For example, the question about the relationship between eschatology and religiosity is anything but conclusive if one examines Rick Warren's influence and compares it to the Jesus Movement. Rick Warren and his best-selling books *The Purpose-Driven Life*, *40 Days of Purpose*, and *The Purpose-Driven Church*, are widely used, read, and studied by many Christian churches and congregants (Gunther, 2005). More than 25 million copies of *The Purpose Driven Life* are in circulation and the book has become an international best seller. About 400,000 church leaders are reported to have undergone "purpose-driven" training (Driscoll, 2006). Warren's perspective has also influenced other religious communities; Rabbi Lawrence Hoffman of Hebrew Union College and Dr. Ron Wolfson of the University of Judaism have developed a program, *Synagogue 3000*, based on Warren's ideas (Stevens, 2005). Part of Warren's philosophy is that studying end-times prophecy or eschatology is a distraction away from worship or sharing the faith (Warren, 2002). Additionally, Warren's Saddleback Church has been named the fastest-growing and most influential church worldwide (Gunther, 2005). Therefore, looking at Rick Warren's example, it appears that a greater focus on eschatology is not necessarily correlated with more religious behaviors or involvement.

However, the late 1960s marked the development of the Jesus Movement, a national revival that was driven by end-times prophecy (DiSabatino, 1999). Many prominent figures of this time period, including Hal Lindsey (author of *The Late Great Planet Earth*), Chuck Smith (founder of the Calvary Chapel system), Larry Norman (father of Contemporary Christian Music), attracted people to churches with their immensely popular messages concerning the end of the world (DiSabatino, 1999). The Jesus Movement and its messages concerning the end-times continue to bring many

people into hundreds of Calvary Chapels and are influential in the development of many books, music, television series, broadcasts, as well as the establishment of some of the fastest-growing churches today. While there have always been wars, natural disasters, and particularly relevant sociological events both now and then, the Jesus Movement began an approach that emphasize these kinds of events in their messages. Many over the years have claimed to have been brought into the church because of these messages and this kind of material.

A similar movement has taken place in Judaism. There has been an increase in orthodoxy since the 1970s, which was not only a reaction against secular values but was associated with an increase in eschatology, which in turn went along with events that signaled the end-times such as the capturing and re-establishment of Jerusalem as Israel's capital and the re-establishment of Hebrew as the national language of Israel (Kress, 2005).

Furthermore, tension in the Middle East continues to be very high, and the results of such tension have enormous significance for the rest of the world in terms of national security, economics, and even the environment. Various parties whose spirituality or religiosity may be influenced by eschatology may also have significant effects in a global and significant way because of this spirituality or religiosity—and these effects may be either positive or negative. Extremists of any faith may go to their places of worship where they learn whether and how best to achieve what they believe must happen in order to bring about the best possible end. How eschatology psychologically influences cognition and behavior—particularly in terms of religion—is an intriguing but novel topic of study. In his book *Thy Kingdom Come*, Meissner (1995) examined, using a

psychoanalytic perspective, the relationship between a person's eschatology and how it relates to the person's religion. Meissner suggested that an individual's eschatology provides the basis and framework for the person's religion and that this person's eschatology is also tied to his or her need for identity, meaning, and purpose. This is accomplished when one's apocalyptic beliefs and expectations serve to act as motivation in the paranoid process, a process involving a mix of projection and interjection leading to the development of one's self-concept (Meissner, 1986). This drives one to act defensively on through the use of the cultic process, whereby a cult or new religion begins when a leader develops a worldview, seekers or individuals in crisis search for answers and find them as they are socialized into the cult or new religion, and family and friends hear about the new cult or religion and choose to either accept or reject it (Hexham, 2000). Meissner also adds that, particularly during periods characterized by deprivation and insecurity, eschatological beliefs have powerfully catalyzed religious belief and behavior. From Meissner's perspective, one's eschatology can provide a fantasy that may be used to relieve stress. However, Meissner's work and analysis was not an empirically tested study.

Previous research does show, however, that a person's eschatology is correlated with other positions and behavior. A meta-analysis was conducted based on results from national polls, first-hand journalistic accounts, and congressional records on how a person's eschatological identity is related to attitudes on nuclear warfare in a Christian context (Weigert, 1988). This study concluded that a traditional fundamentalist viewpoint (eschatological and otherwise) is correlated with a belief in the future

occurrence of a nuclear war, from which the fundamentalist will be protected as prophesized in Scripture.

Another study examined how churches' eschatology was related to their attitudes and responses towards the Y2K crisis in 2000 (McMinn, 2001). This study found that churches differed in what they emphasized (evangelism, stockpiling, etc.) based on their eschatological belief/identity and showed that the eschatology of the church or person may be correlated with how they act in a potential emergency situation. It was found that churches responded to this kind of threat using three basic responses that were found to correlate with particular eschatological viewpoints.

The first response was based on the account of the Good Samaritan saving and tending to a stranger (Luke 10:29-37), and was characterized by focusing more on solving current social problems. This response neither focused on the Y2K problem nor assigned it any particular significance. Churches that responded in this way tended to hold an amillennial or postmillennial eschatological viewpoint. Another response was based on the account of Joseph who interpreted Pharaoh's prophetic dreams and counseled him to prepare and heed God's warning of a severe famine (Genesis 40-47). This response was characterized by churches that emphasized spiritual preparation and making arrangements for people who did not spiritually prepare. This was mostly employed by churches having a premillennial eschatological viewpoint, especially those with a strong focus on evangelism and outreach. The third response was based on the account of Noah who, because of the Flood, escaped death by the use of an ark and repopulated the earth (Genesis 6-8). This response emphasized storing supplies and



making living arrangements in the wilderness rather than finding God in the midst of crisis. This response was found among a few marginal Christians.

Eschatology was also assessed in terms of its correlation with environmentalism (Green, Guth, Kellstedt, & Smith, 1995). Using a survey, these researchers found that conservative Protestants tended to be less favorable of supporting the environment than others. It was suggested that the Protestants' eschatological beliefs were correlated with a decrease in environmentalist attitudes. This can be explained by a belief that sin is the main cause of the world's deterioration, that heaven and earth will eventually give way to a new heaven and earth, and that strong, desperate attempts at saving the earth from environmental destruction will be futile.

An empirical study evaluating the relationship between eschatology and factors related to religion was conducted among the United States fundamentalists and Zionists (Mayer, 2004). Mayer conducted a study assessing people's religiosity, their beliefs and attitudes towards Israel and American foreign policy in the Middle East. Participants in the study were grouped based on religious affiliation: Christian Fundamentalists, other Protestants, Catholics, and those of other religions and non-religious individuals. Although Jews and Muslims were not further considered due to their low representation in the sample, Christian Fundamentalists (Christians who tended to hold a literal view of Scripture) were found to be significantly more Zionistic (characterized by support for Israel and the belief that Israel is God's chosen land given to the Jews) than any of the other groups. Mayer found that Christian Fundamentalists have greater sympathy for Israel, more support for exclusive Israeli (Jewish) control of settlements and Jerusalem,

and oppose policies against Israel. As part of his explanation for this result, Mayer suggested that the particular group's eschatology may have contributed to the result.

It is important to note, however, that many definitions of Fundamentalism have been developed. Whereas in some cases Fundamentalism has been used to describe Christians who believe in the five fundamentals of the Christian faith as prescribed in *The Fundamentals: A Testimony to Truth* written between 1910 and 1915 (Jones, 1998), the term has also been applied more generally (Hartz, Hood, & Kirkpatrick, 1991). Other definitions of fundamentalism have been more sociological (definitions based on function within society), cultural (characterized by a culture's resistance to change), personological (based on personality or cognitive style), and theological (based on belief content, although not belief statement itself) (Hartz et al., 1991). Some problems have also been identified in literature in terms of studying fundamentalism. One of the main problems has been that fundamentalist beliefs are seen to be a part of personality characteristics such as authoritarianism or conservatism and not independent of them (Hartz et al., 1991), therefore resulting in a lack of clarity regarding the construct. Rokeach (1954, 160 as cited in Hartz et al.) developed a view regarding open- vs. closed-mindedness that was independent of belief content. Rokeach's theory, however, has led many to conclude that fundamentalism is psychopathological and maladaptive because deconversion often correlates with mental trauma, and even reflects low levels of intelligence (Hartz et al., 1991; Moyers, 1990) although these negative effects have been debated.

A study of complex thinking and how complex responses may vary in terms of Christian fundamentalism was conducted by several investigators (Hunsberger, Lea,

McKenzie, Pancer, & Pratt, 1992). The researchers found that, contrary to previous research, there was no relationship between complex thinking, even when prodded, and Christian fundamentalism. However another study suggested that individuals who were stronger Christian fundamentalists engaged in less complex thought (Hunsberger, Pancer, Pratt, & Roth, 1992). One important factor affecting these relationships is the strong preference for belief-confirming information exhibited by fundamentalists (Altemeyer & Hunsberger, 2005).

Death anxiety may also have a significant influence on an individual's eschatological beliefs that may explicitly or implicitly involve thinking about death. The single most-replicated finding is that women are more likely than men to be anxious about death (Berman & Hayes, 1973; Costa et al., 2005; Franks, Ruff, & Templer, 1971; Tate, 1982). Factors about death that are particularly fearful to women include pain and decomposition (Powell & Thorson, 1988). Death anxiety is negatively correlated with education (Berman & Hayes, 1973; Tate, 1982), while poor health and a change in living conditions correlate positively with death anxiety. Age has sometimes been found to be correlated with death anxiety (Powell & Thorson, 1988) due to concerns about the afterlife and the loss of personal control. Race has shown an inconsistent relationship with death anxiety (Tate, 1982).

Numerous studies have been conducted on death anxiety and religion but they do not yield a single, consistent pattern of results. Some published studies have failed to find any significant relationship between the two areas (Downey, 1984; Templer, 1972). Some studies have reported a mixed pattern, including some curvilinear relationships (Barber, Kraft, & Litwin, 2001; Costa, Harding, Flannelly, & Weaver, 2005; Daniels & Young,

1981; Day & Maltby, 2000; Downey, 1984; Groelinger & Kierniesky, 1977; McMordie, 1981; Powell & Thorson, 1990; Scott & Wink, 2005; Templer, 1972). However, further analysis revealed that the nature of one's religious orientation was important. Intrinsic religiosity was more highly associated with lower death anxiety and a less threatening image of death compared to people that have an extrinsic orientation (Barber, Kraft, & Litwin, 2001; Costa, Harding, Flannelly, & Weaver, 2005; Day & Maltby, 2000; Downey, 1984; Groelinger & Kierniesky, 1977; McMordie, 1981; Powell & Thorson, 1990; Scott & Wink, 2005; Templer, 1972). This was particularly true when belief in an afterlife was assessed (Berman & Hays, 1973; Scott & Wink, 2005).

Research on death anxiety has also focused on the effects of being reminded about catastrophes such as the 9/11 terrorist attacks on the United States, stemming from Terror Management Theory (TMT). That is, that acculturation (including religion) comes about as a result of anxiety about one's mortality. In a study based on TMT, individuals who were unsure about their identity or were undergoing an identity crisis were found to experience more death anxiety when reminded about the terrorist attacks (Dunkel, 2002). This research study is particularly salient to consider in terms of assessing the relationship between eschatology and religiosity. Paying attention to media one considers to be related to the end of the world or the end of one's life as part of the end of the world, a correlation may easily be found between eschatology and anxiety about death. According to other research on death anxiety and religiosity, one's religion may also play into the equation (Dotson & Templer, 1970; Jacobs & Jones, 1984; McDonald, 1976).

In another study, Bassett (2005) examined whether cultural worldviews, which include religious beliefs, act as a barrier against death anxiety. Using an essay that

describes the transient nature of governments and threats to America's superpower status, the research found that threat to national identity had no effect on death anxiety although this was not the case when the investigator used a marriage threat (an essay describing marriage as an outdated institution). This research showed that a threat to identity-related personal beliefs can raise an individual's death anxiety.

In contrast to research on fundamentalism and death anxiety, however, there has been very little empirical research on the relationship between a person's eschatology and religious thought and behavior. The present study seeks to explore several relationships that have not yet been considered empirically. In particular, it considers the relationship between eschatology -- a person's specific beliefs on the end of the world, general attitude towards the subject of the end of the world, amount of exposure to the topic, and perception of the influence eschatological topics have on one's religiosity -- and religious hope, religious involvement, and religious influence. Because religiosity is multidimensional, a variety of variables are studied including prayer, attendance at religious services, specific apparel, food and drink, and general attitudes and beliefs. These are grouped into subcategories of religious involvement, and religious influence.

An empirical analysis examining the relationships between eschatology, religiosity, and demographic variables is important and beneficial in terms of understanding the psychology of religion, developmental psychology, and social psychology. In terms of developmental psychology, an analysis can illuminate why younger individuals may be less religious than older adults. In terms of social psychology, these analyses can easily relate to cognitive dissonance, where one would have a difficult time attending religious services if that person does not agree with what is

taught in terms of eschatology. Also, if an individual has a very strong belief in the imminent arrival of the end-times, and believes it to be soon, that person is more likely to use ambiguous news to quite easily confirm what he or she already believes.

Measures of eschatology assess a person's specific beliefs, general attitude, exposure and the reported influence or role eschatology plays in one's religiosity. In the present study, this is measured by an original scale made with questions designed to be grouped according to the above subcategories. The grouping of items will be confirmed first by principal components analysis, and then supplemented by item analysis.

It is expected that people who report greater exposure to eschatological subjects will also report religion as having greater influence on their lives, as well as report higher levels of religious involvement and religious hope. Consistent with research on the "mere exposure effect" (Bornstein, Galley & Leone, 1987; Gordon & Holyoak, 1983), individuals who have had more opportunities to hear about the end-times or end of the world may in turn think about it more, and perhaps report a stronger influence on their religiosity than those who rarely receive exposure to the topic. Those who seldom or never hear about the end times or the end of the world may not know what they think about the subject and therefore eschatology is not expected to influence their religious behavior. It is therefore predicted that the more religiosity an individual reports, the more influence eschatology will have on religiosity. Also, individuals scoring high in religious hope might also be more likely to view the end of the world or end times more positively than individuals who do not, particularly because for many, beliefs in the end times involve hope of a restored world where evil is defeated. Such relationships have not yet been examined and these are part of the current investigation.

The relationship of death anxiety with eschatological belief is also explored. Previous research has found that religiosity was correlated in a curvilinear fashion with death anxiety, and this correlation was particularly high when considering a belief in the afterlife (Thorson, 1991). It is therefore reasonable to expect that death anxiety may also play a role in how eschatology is related to a person's religious behavior. For instance, an individual who has a lower level of death anxiety may have a better attitude towards the end of the world and would report a greater level of eschatological influence.

The possible role that age and sex may play in eschatological belief is explored. Researchers find that religious thought changes with age (Elkind, 1970; Fowler, 2001) and one reason for this may be due to developing abilities for abstract thought. Because they have a limited ability to think abstractly (Fischer & Pruyne, 2003; Piaget, 1964), young people may avoid thinking about the end of the world. With increasing cognitive abilities, adults are able to think more abstractly and consider such topics as the end of the world. Similarly, given the consistent finding that women are more likely to be involved in religion than men (deVaus & McAllister, 1987; Hoffmann & Miller, 1995), this study explores the possibility that women and men differ in their thinking about eschatology.

Internal and external locus of control are also assessed to determine whether the relationship between an individual's eschatology and his or her spirituality is based on the person's sense of control—that is, whether the locus of control is more internally focused or externally focused. It is expected that responding to eschatology positively may also correlate with certain concepts of God (i.e. kingly, eternal, sovereign or timely) and also correlate with a sense of personal external control. An internal locus of control

may be correlated with a belief that the end of the world will not be controlled by a supernatural force. In this case, God may be seen as “distant” or “false.” In order to avoid cognitive dissonance, one holding such a viewpoint may have difficulty believing in a supernatural force that is involved in the end of the world, and also holding beliefs that humankind has little control or power in end-times events. If one perceives that he or she has little control in life events, he or she may also be more likely to project that feeling to the end of the world.

In this study, locus of control will be determined by two scales: the religious revision of the Internal vs. External Control scale by Gabbard, Howard, and Tageson (1968) and the Internal Control Index by Duttweiler (1984). It is predicted that locus of control will be correlated with eschatology. In particular, it is predicted that an internal locus of control will be correlated with reduced belief in and interest in the end of the world.

It is unclear whether specific correlations will either be positive or negative because this may vary with the specific dimension of eschatological belief, which will hinge on the principal components analysis to be conducted on the questionnaire items. Therefore, this study is largely exploratory. Nevertheless, a pilot study was conducted on 25 students in an undergraduate psychology course at Georgia Southern University to examine the feasibility of the study. The pilot sample was predominantly female (56%), 18 years of age (88.5%) and African-American (60%). All participants were unmarried, and tended to indicate their religious affiliation to be Baptist (46%) or non-denominational Christian (19%).



Pearson's correlations were calculated to determine any relationship between the predictor variables and the various eschatology dimensions. Eschatological scales were created conceptually, and confirmed by item analysis; items that limited coefficient alpha to less than .70 were discarded. This resulted in four eschatological scales: Positivity, Negativity, Frequency, and Effect. Noteworthy correlations found in the data included a significant relationship between a positive view on the end-times and how often one was exposed to the subject,  $r(23) = .48, p < .05$  as well as the reported influence eschatology had on one's religiosity,  $r(23) = .66, p < .001$ . A positive view on eschatology was also positively correlated with religious hope,  $r(23) = .44, p < .05$  and with religious influence,  $r(23) = .44, p < .05$ . How often one was exposed to eschatological topics was also correlated with reported influence of eschatology on religiosity,  $r(23) = .60, p \leq .01$ , religious involvement,  $r(23) = .41, p < .05$ , religious hope,  $r(23) = .45, p < .05$ , religious influence,  $r(23) = .49, p < .05$ , and deisticness (belief in a Creator who does not interfere with the natural laws of the universe),  $r(23) = -.49, p < .05$ . Reported influence of eschatology on one's religiosity was correlated with religious involvement,  $r(23) = .52, p < .01$ , religious hope,  $r(23) = .59, p < .01$ , religious influence,  $r(23) = .720, p < .001$ , and deisticness,  $r(23) = -.582, p < .001$ . Nothing else appeared to be correlated.

Given that this pilot study demonstrated that eschatological beliefs may relate in theoretically meaningful ways to relevant constructs, a decision was made to examine eschatology further. Specifically, the present study tests the following hypotheses: that demographic variables such as gender, race, and age will be predictive of eschatological beliefs; that internal locus of control and death anxiety will add predictive power to the model; and that God concept and religiosity will further predict eschatological beliefs.

## CHAPTER 2

### METHOD

#### *Participants*

In this study, 226 participants enrolled in Introduction to Psychology courses at Georgia Southern University completed the study for course credit. Participants had the opportunity to provide information on demographic variables of gender, age, level of education, race, marital status, current and background region, and current and background religious affiliation. The following table (Table 1) includes information on the number of participants and provides descriptive information of the sample for the primary demographic questions. Two hundred twelve participants provided a response to the question on gender. Of the 212 participants who responded to the question on age, participants' ages ranged from age 18 to age 65 ( $M = 21.46$ ,  $SD = 5.56$ ). Eighty nine percent of all respondents were between 18 and 26 years of age, and eleven people were older than 26 years. No subjects who could legally participate in this study were excluded, although this study was limited to those who were 18 years of age and older and who could independently and legally give consent.

*Table 1. Demographic Information of Participants*

		Number (N)	Percent (%)
Gender	Female	163	73.90
	Male	49	23.10
	Total Respondents	212	
Level of Education	Some College	174	82.10
	Associates' Degree	20	9.40
	High School/GED	12	5.70
	Bachelor's Degree	6	2.70
	Total Respondents	212	
Race	White	161	76.30
	Non-White	50	23.70
	Total Respondents	211	
Marital Status	Single	188	88.70
	Cohabiting	12	5.70
	Divorced	9	4.20
	Separated	3	1.40
	Total Respondents	212	
Current region of residence	South Atlantic	206	97.60
	Other	5	2.40
	Total Respondents	211	
Current religious affiliation	Christian	174	82.10
	Non-Christian	38	17.90
	Total Respondents	212	

### *Measures*

The questionnaire (see Appendix A) employed in this study consisted of questions in six basic areas including religiosity, one's concept of God, internal vs. external locus of control, death anxiety, eschatology and demographic characteristics. The questionnaire required about 50 minutes to complete.

*Religiosity.* The questionnaire begins with a modified version of Sethi and Seligman's (1993) Religiousness Measure. This part included 18 questions in multiple

choice format and 7-point response scales. Questions in this scale covered three different areas—religious hope (e.g. “Do you believe there is an afterlife,” “Do you believe your future life will be better?”), religious influence (e.g. “How much influence do your religious beliefs have on the important decisions in your life,” “How much influence do your religious beliefs have on whom you associate with?”), and religious involvement (e.g. “How often do you pray?”). Two questions on belief in God and interfaith marriage were also asked.

This scale was used due to its general nature of measuring religiosity with three potentially important aspects, and its relatively universal language. Although the validity of this scale was assumed by the authors of this questionnaire based on the presence of differences between religious groups, validity and reliability were not reported in any other way (Sethi & Seligman, 1993). Changes to this scale included the insertion of more options in order to make the scale more universal across different belief systems (i.e., the addition of “uncertain” or negative responses). Additionally, a question on the religious influence on choices of food and drink was also separated from an item on alcohol use, which was added as an additional question. The demographics questions were omitted in this section because these were asked in a later section of the questionnaire. The order of the questions were also changed in order to allow for more consistency in terms of the responses, and the term *heaven* was replaced with *afterlife* to make the questions more universal in terms of belief systems.

*God Concept.* Measures of God Concept were based on Gorsuch’s (1968) Conceptualization of God Scale and involved indicating how well a set of 91 attributes

(i.e. Blessed, Fast, Mythical) describes, describes well, or does not describe God using a three-point scale. Gorsuch (1968) reports that this scale is highly reliable.

*Locus Of Control.* Locus of control was measured using the religious locus of control scale (Gabbard, Howard & Tageson, 1986) that consists of 29 questions that measure level of internal control versus level of external control, in forced-choice format (e.g. either “Children get in trouble because their parents punish them too much” or “The trouble with most children nowadays is that their parents are too easy on them”). Although reliability has not previously been reported, the scale has been shown to be highly correlated with similar validated measures (Gabbard et al., 1986).

Because the pilot study showed inconclusive results with this measure, Duttweiler’s (1984) Internal Control Index was also included. This scale consisted of 28 questions that are averaged and are scored using a five-point response scale, similar to other scales used in the study (i.e. “When faced with a problem, I \_\_\_ try to forget it”, with options available for “Rarely,” “Occasionally,” “Sometimes,” “Frequently,” and “Usually”) (Duttweiler, 1984). Reliability and validity are reported to be good (Duttweiler, 1984) for this scale.

*Death Anxiety.* Death anxiety was measured using the Death Anxiety Scale (Templer, 1970). The Death Anxiety Scale includes 15 statements to be marked true or false that are summed in a single score (e.g. “The thought of death seldom enters my mind,” “I am very much afraid to die”). This scale has also been shown to possess face validity, construct validity, and internal consistency (Templer, 1970).

*Eschatology.* Forty items developed for this study were used to measure various aspects of eschatological belief. Items were developed to focus on respondents' general

belief about the end of the world, general attitude (positivity or negativity towards the end of the world), exposure to the subject of the end of the world, and the role eschatology plays in one's religiosity. Scales based on these items were developed by using principal components analysis in conjunction with item analysis, and they are described in the results section.

*Demographics.* The questionnaire ended with nine questions asking about gender, age, highest level of education, race, marital status, current and background geographical region, and current and background religious affiliation (see Appendix).

#### *Procedure*

Participants completed the study online. Upon visiting the questionnaire's web page, participants were presented with an online informed consent form whereby they clicked a button in order to indicate consent for participation in the experiment. Participants then filled out the online questionnaire. After completing the questionnaire, a "Thank You" and debriefing page was displayed for the participant to read. The participants were then able to either print out the "Thank You" page with his or her name on it and turn it in for credit, or select to receive credit through the online research pool system for introductory psychology students. No "cookies" or other technology were used that might identify participants or allow use of the information in any other way or by any other party. No names or other identifying information were included in the data file.

## CHAPTER 3

## RESULTS

Analysis began by calculating scale scores using the procedures outlined by the developers of those scales. Death anxiety scores were calculated following Templer's (1970) directions. The God concept scale (Gorsuch, 1968) yielded five subscales: Deisticness, traditional Christian, wrathfulness, omni-ness, and irrelevancy. Although two scales measuring locus of control were included in the questionnaire, it was decided to use only Duttweiler's (1984) because it demonstrated superior internal consistency. Descriptive statistics and the coefficient alphas are indicated in Table 2 below.

*Table 2.* Descriptive Statistics for Eschatological Attitudes and Beliefs, Exposure, Concept of God, Death Anxiety, and Locus of Control

	Mean	Range	SD	$\alpha$
Exposure	.01	4.32	1.00	.85
Eschatological Beliefs	-.01	4.14	1.00	.74
Dread	-.00	4.48	1.00	.77
Anticipation	-.00	4.53	1.00	.89
Interest	.01	4.63	.99	.82
Repulsion	.00	4.68	1.00	.75
Internal Locus of Control	103.05	114.00	11.40	.76
Death Anxiety	6.75	13.00	3.64	.76
Religious Hope	5.43	4.67	1.02	.71
Religious Involvement	4.13	5.00	1.27	.82
Religious Influence	3.61	6.00	1.55	.92
Irrelevancy	1.09	2.00	.24	.68
Omniness	2.28	2.00	.45	.86
Wrathfulness	1.62	1.92	.47	.88
Deisticness	1.38	2.00	.40	.57
Traditional Christian	2.46	2.00	.50	.71

Principal components analysis were conducted to determine what, if any, underlying structures existed for measures of the eschatological variables. Each principal components analysis was conducted utilizing an oblimin rotation. Eschatological beliefs and attitudes (Question 40) and eschatological exposure (Question 41) were analyzed separately, consistent with DiLalla and Dollinger's (2006) recommendation. The analysis revealed that eschatological exposure produced a single-component solution, questions relating to exposure, which accounted for 63.34% of the variance. Component loadings are shown in Table 3. Component scores were calculated using the regression method, and these were saved for later analysis.

*Table 3. Exposure Component Loadings*

	Loading
Component 1. Exposure	
I read or expose myself to material on the end of the world by myself, quietly, or in secret	.83
During the past month, my friends and I have discussed the end of the world...	.80
I am reminded about the end of the world when I watch/read the news...	.81
During the past month, my family and I have discussed the end of the world	.77
I am reminded about the end of the world through music or other entertainment	.77

A principal components analysis was also conducted for eschatological beliefs and attitudes. Both the scree plot and the eigenvalue  $> 1.0$  criteria indicated that a five-component solution was appropriate, which accounted for 59.46% of the variance. Table



4 shows the percent of variance accounted for by all five eschatological components. For ease of presentation, item loadings on components are shown only for the component on which the item loaded most strongly. The complete item loadings are shown in Table 11, Appendix B. Component scores were calculated using the regression method, and saved for later analysis.

*Table 4. Percents of Variance for Eschatological Beliefs and Attitudes*

	% Variance
Component 1. Supernatural Involvement and Religious Effect	28.05
Component 2. Dread	12.11
Component 3. Hopeful Anticipation	8.59
Component 4. Interest	6.65
Component 5. Repulsion	4.06

Stepwise multiple regression analyses were conducted to determine which independent variables (demographic variables, death anxiety and locus of control, religiosity, and God concept) predicted eschatological beliefs as measured by the six eschatological components (exposure, supernatural involvement and religious effect, dread, hopeful anticipation, interest, and repulsion) scales. For each of the eschatological components, three models were computed. Model 1 included only the demographic variables of gender, age, religious affiliation (Christian vs. non-Christian) and race (white vs. non-white). Model 2 adds the psychological constructs, Internal Control, and Death Anxiety. Model 3 adds the religiosity measures.

*Exposure.* A standard multiple regression was conducted to determine the ability of the independent variables to predict participants' exposure to the subject of the end of the world. Regression results indicated that the overall model significantly predicted eschatological exposure,  $R^2_{\text{adj}} = .274$ ,  $F(14, 193) = 6.575$ ,  $p < .05$ . This model accounted for 27.4% of variance in eschatological exposure. A summary of regression coefficients is presented in Table 5 indicates that gender, death anxiety, religious involvement, religious hope, and a concept of a wrathful God contributed to the model. Females were less likely to be exposed to the subject of the end of the world than males. Death anxiety was negatively associated with exposure to the subject of the end of the world, as was religious hope, but religious involvement and a wrathful view of God were positively associated with exposure.

Table 5. Demographic, Psychological and Religious Predictors of Exposure to Eschatology

	Model 1		Model 2		Model 3	
	$\beta$	Sig.	$\beta$	Sig.	$\beta$	Sig.
Female	-.11	.10	-.17	.01	-.21	.00
Age	-.12	.09	-.11	.10	-.12	.06
Christian	.14	.05	.09	.18	-.15	.06
White	.05	.49	.05	.44	.10	.11
Internal Control			-.03	.70	.04	.51
Death Anxiety			-.30	.00	-.40	.00
Irrelevancy					.04	.58
Traditional Christian					.11	.25
Omniness					-.06	.06
Deisticness					-.10	.16
Wrathfulness					.15	.04
Religious Hope					-.17	.03
Religious Influence					.06	.50
Religious Involvement					.41	.00
Constant	.55	.23	3.16	.00	2.87	.01
R	.21		.37		.57	
R <sup>2</sup>	.05		.14		.32	
R <sup>2</sup> adj.	.03		.11		.27	
F (4, 203), (6, 201), (14, 193)	F = 2.41	.05	F = 5.22	.00	F = 6.58	.00

*Eschatological Beliefs.* A standard multiple regression was conducted again to determine the role of the same variables in religious factors on eschatological belief. Regression results indicated that the overall model significantly predicted supernatural involvement and a religious effect,  $R^2_{adj.} = .617$ ,  $F(14, 165) = 21.603$ ,  $p < .05$ . This model accounted for 64.7% of the variance on opinions regarding supernatural involvement and eschatological effect. A summary of regression coefficients is presented in Table 6. These indicated that belief in supernatural involvement in the end of the world was

greater among people who were Christian, white, older, those who had an internal locus of control, religious involvement, and a traditionally Christian concept of God.

*Table 6. Demographic, Psychological and Religious Predictors of Eschatological Beliefs to Eschatology*

	Model 1		Model 2		Model 3	
	$\beta$	Sig.	$\beta$	Sig.	$\beta$	Sig.
Female	.10	.08	.10	.11	.04	.41
Age	-.12	.04	-.12	.04	-.12	.02
Christian	.57	.00	.57	.00	.19	.00
White	.13	.03	.15	.02	.20	.00
Internal Control			.06	.33	.12	.02
Death Anxiety			-.02	.72	-.09	.06
Irrelevancy					.03	.61
Traditional Christian					.21	.01
Omniness					-.12	.08
Deisticness					-.09	.10
Wrathfulness					.07	.24
Religious Hope					.10	.12
Religious Influence					.12	.11
Religious Involvement					.34	.00
Constant	-1.40	.00	-1.79	.03	-3.22	.00
R	.63		.63		.38	
R <sup>2</sup>	.39		.39		.37	
R <sup>2</sup> adj.	.80		.65		.62	
F (4, 175), (6, 173), (14, 165)	F = 27.99	.00	F = 18.72	.00	F = 21.60	.00

*Dread.* A standard multiple regression was next conducted to determine the accuracy of the independent variables predicting dread of the end of the world.

Regression results indicated that the overall model significantly predicted dread towards

the end of the world,  $R^2_{\text{adj.}} = .239$ ,  $F(14, 165) = 5.025$ ,  $p < .05$ . This model accounted for 23.9% of variance of dread towards the end of the world. A summary of regression coefficients is presented in Table 7. These indicate that gender, death anxiety, a deistic concept of God, and religious involvement contributed to this model. Results show that females were more likely to dread what they believed would happen at the end of the world than were males. Furthermore, individuals with a more deistic view of God were more likely to dread what they or others will go through at the end of the world. Death anxiety, however, was negatively associated with eschatological dread.

Table 7. Demographic, Psychological and Religious Predictors of Dread to

Eschatology

	Model 1		Model 2		Model 3	
	$\beta$	Sig.	$\beta$	Sig.	$\beta$	Sig.
Female	.21	.00	.14	.04	.18	.01
Age	-.02	.82	.00	1.00	.05	.51
Christian	.07	.38	.01	.87	.07	.44
White	.33	.03	-.03	.62	-.03	.64
Internal Control			.15	.03	.12	.08
Death Anxiety			-.43	.00	-.36	.00
Irrelevancy					-.02	.79
Traditional Christian					.10	.38
Omniness					-.05	.62
Deisticness					.18	.03
Wrathfulness					.00	.98
Religious Hope					.16	.07
Religious Influence					-.01	.90
Religious Involvement					-.24	.03
Constant	-.80	.13	1.12	.21	-.65	.56
R	.25		.48		.55	
R <sup>2</sup>	.06		.23		.30	
R <sup>2</sup> adj.	.04		.30		.24	
F (4, 175), (6, 173) (14, 165)	F = 2.91	.02	F = 8.71	.00	F = 5.03	.00

*Eager Anticipation/Hopefulness.* Hopefulness towards the end of the world was also analyzed using a standard multiple regression in order to determine the utility of the independent predictors. Regression results indicated that the overall model did not significantly predict hopefulness towards the end of the world,  $R^2_{adj.} = .050$ ,  $F(14, 165) = 1.673$ ,  $p > .05$ . A summary of regression coefficients is presented in Table 8.

*Table 8. Demographic, Psychological and Religious Predictors of Hopefulness to Eschatology*

	Model 1		Model 2		Model 3	
	$\beta$	Sig.	$\beta$	Sig.	$\beta$	Sig.
Female	.10	.19	.13	.10	.11	.17
Age	.08	.30	.08	.30	.06	.42
Christian	.15	.04	.16	.03	.03	.76
White	.08	.29	.05	.56	.07	.39
Internal Control			-.17	.03	-.15	.05
Death Anxiety			.11	.14	.10	.20
Irrelevancy					-.08	.33
Traditional Christian					.05	.68
Omniness					-.07	.52
Deisticness					.07	.46
Wrathfulness					-.10	.26
Religious Hope					.06	.55
Religious Influence					.12	.30
Religious Involvement					.12	.33
Constant	-1.24	.02	-.59	.55	-.69	.58
R	.21		.27		.35	
R <sup>2</sup>	.04		.08		.12	
R <sup>2</sup> adj.	.02		.12		.05	
F (4, 175), (6, 173), (14, 179)	F = 1.97	.10	F = 2.32	.04	F = 1.67	.07

*Interest.* A standard multiple regression was conducted to determine the accuracy of the variables predicting interest or attraction towards the eschatological subjects.

Regression results indicated that the overall model significantly predicted interest or attraction,  $R^2_{adj.} = .235$ ,  $F(14, 165) = 4.926$ ,  $p < .05$ . This model accounted for 29.5% of the variance for interest. A summary of regression coefficients is presented in Table 9 and indicates that, out of the 14 variables, an internal locus of control, death anxiety, a wrathful concept of God, and a deistic concept of God, significantly contributed to the

model. Internal locus of control death anxiety and a deistic concept of God were all positively associated with interest about the subject of the end of the world.

Wrathfulness, however, was negatively associated with an interest in the end of the world, meaning that those with a wrathful concept of God were less likely to display interest about the end of the world.

*Table 9. Demographic, Psychological and Religious Predictors of Interest to Eschatology*

	Model 1		Model 2		Model 3	
	$\beta$	Sig.	$\beta$	Sig.	$\beta$	Sig.
Female	.08	.27	.03	.71	.11	.14
Age	.04	.63	.02	.74	-.00	.96
Christian	-.25	.00	-.21	.00	.04	.63
White	-.01	.92	.03	.71	.00	.94
Internal Control			.22	.00	.19	.01
Death Anxiety			.00	.06	.19	.01
Irrelevancy					-.04	.56
Traditional Christian					-.11	.34
Omniness					-.09	.34
Deisticness					.16	.05
Wrathfulness					-.16	.05
Religious Hope					-.10	.26
Religious Influence					-.11	.29
Religious Involvement					-.05	.62
Constant	.05	.93	-2.98	.00	-1.58	.15
R	.25		.37		.54	
R <sup>2</sup>	.06		.13		.30	
R <sup>2</sup> adj.	.04		.29		.24	
F (4, 175) (6, 173) (14, 165)	F = 2.56	.02	F = 1.73	.00	F = 1.43	.00



*Repulsion.* Finally, a standard multiple regression was conducted to determine the accuracy of the independent variables predicting repulsion, in addition to interest, towards eschatological subjects. Regression results indicated that the overall model did not significantly predict repulsion towards the subject of the end of the world,  $R^2_{adj.} = .033$ ,  $F(14, 165) = 1.430$ ,  $p > .05$ . A summary of regression coefficients is presented in Table 10.

Table 10. Demographic, Psychological and Religious Predictors of Repulsion to Eschatology

	Model 1		Model 2		Model 3	
	$\beta$	Sig.	$\beta$	Sig.	$\beta$	Sig.
Female	-.03	.70	-.03	.69	-.07	.36
Age	-.06	.43	-.06	.42	-.10	.21
Christian	.22	.00	.23	.00	.14	.15
White	.03	.71	.03	.65	.04	.63
Internal Control			.04	.64	.07	.40
Death Anxiety			.01	.90	-.04	.58
Irrelevancy					.02	.80
Traditional Christian					-.03	.80
Omniness					.03	.79
Deisticness					-.08	.37
Wrathfulness					.03	.79
Religious Hope					-.10	.30
Religious Influence					.01	.94
Religious Involvement					.28	.02
Constant	-.16	.76	-.57	.57	.29	.82
R	.24		.24		.33	
R <sup>2</sup>	.06		.06		.11	
R <sup>2</sup> adj.	.03		.02		.03	
F (4, 175), (6, 173), (14, 165)	F = 2.56	.04	F = 1.73	.12	F = 1.43	.14

## CHAPTER 4

### DISCUSSION

The current study was designed to explore several relationships that have not yet been considered empirically, including the relationship between demographic variables, death anxiety and locus of control, various aspects of religiosity and an individual concept of God. Several aspects of eschatology considered were exposure to eschatological ideas, attitude (positive or negative) toward eschatology, basic belief systems such as supernatural involvement in the end of the world, and their reported effect on religiosity. Three aspects of religiosity were evaluated: religious hope, religious involvement, and religious influence.

It was hypothesized that people who reported greater exposure to eschatological subjects would report higher levels of religious involvement, religious influence, and religious hope, although the actual direction of the relationship was uncertain. The results showed that of the three aspects of religiosity evaluated, only religious involvement and religious hope were significant predictors of one's exposure to the subject of the end of the world. Those with less religious hope were significantly more likely to be exposed to the subject of the end of the world, but were also more likely to be involved with religion.

Although exposure to the end of the world concept may have given an individual a less than rosy theological picture, according to the results, individuals with more exposure to the subject of the end times were more likely to report greater religious involvement. There was no relationship between eschatology and religious influence, suggesting that the influence of religion on an individual's choice of clothing, relationships, alcohol, food or drink may relate more to other aspects of theology. For

example, a Catholic and a Baptist may both exhibit a high level of religious involvement, but the influence of religion on their consumption of alcohol could depend more on their belief (or lack thereof) in transubstantiation (where the bread and wine given at church actually becomes the body and blood of Jesus during Communion), a theological issue independent of an individual's eschatology. Those who consider wine given at Communion to be the actual blood of Christ and source of life would be more likely to view consumption of wine as very important as part of their religion, would be less likely to substitute something else such as grape juice in its place, and would consume it more often than those who only view the wine as a symbol.

The relationship between religiosity and belief in supernatural involvement and the reported religious effect on the end of the world were mixed. Religious hope and religious involvement, but not religious influence predicted belief in the involvement of the supernatural with the end of the world and the reported effect on religion. Mixed results were also found when examining dread of the end of the world. Religious involvement was shown to be a negative predictor of dread. This would seem to indicate that active participation in religious activities and practices may mitigate fears about the end of the world. As Meissner (1995) reported, eschatology is often a motivation for religious behavior. If an individual obeys the tenets of his or her religion, the person is more likely not to dread the end of the world but rather believe that they are on the "winning side" and experience joy, instead of judgment. Although none of the religious variables were indicators of attraction to the subject of the end of the world, religious involvement was a significant predictor of feelings of repulsion to the subject of the end of the world. This would seem to indicate that the greater one is involved in religion, the

more likely they are to be repulsed by the subject of the end of the world, most likely due to the warnings of perilous times for some and a change in the status quo, often considered very unpleasant. Religious involvement was negatively associated with dread but not with repulsion of eschatology. Those who have a higher level of exposure to the subject of the end of the world, therefore, are more likely to be religiously involved, are likely not to dread the end of the world, but also more likely to be repulsed by the subject. This could be because those that are actively involved in religious activities do not fear the end of the world as they are repulsed by the thought and therefore refuse to think about it.

The eschatological component concerning eschatological beliefs accounted for an unusually high level of variance, 63.4%. This could mean that what was assessed in that component, a belief in supernatural involvement and the level of perception one has that eschatology influences his or her religious activity, has a strong role in many of the variables. A belief in the supernatural involvement of God in the end of the world, for instance, is a traditional Christian God concept and viewpoint. Also, whether or not a person reports a greater perception that eschatological subjects play a role in their level of religious involvement plays into the actual level of religious involvement.

Tied in with religiosity, one's concept of God was also analyzed. Consistent with what was hypothesized, one's eschatology is related to the concept of God. Exposure to the subject of the end of the world was significantly predicted by a more wrathful view of God, but no significant relationship was found between exposure to the subject of the end of the world and any other concept of God. Belief in supernatural involvement of God with the end of the world and reported religious effect was only significantly predicted

for those who have a traditional Christian view of God. If one holds a deistic view or thinks God is irrelevant, than he or she is less likely to see the end of the world as being controlled by a supernatural being. A dread of the subject of the end of the world was associated with a deistic view of God. Perhaps individuals with this view are less likely to believe God will be directly involved with world affairs and may believe that the end of the world would be very quick and painful and occur naturally, with no divine rescue or intervention. Having a deistic and/or wrathful concept of God significantly predicted having an interest in the end of the world, possibly because of what it may mean, and also possibly because people may be more likely to be aware of circumstances surrounding the world's end (with a vested interest in it) if they believe less that God will supernaturally and directly intervene at that point in time. However, one's concept of God was not associated with repulsion of the subject of the end of the world, perhaps because the repulsion comes from the predictions of violence, bloodshed, and hard times for either the individual or loved ones, rather than God. Although one's concept of God was related to particular aspects of eschatology, the profiles of God that seemed to be the most relevant were the wrathful and deistic profiles of God.

These results could be explained by the fact that an individual's eschatology is only part of what is evaluated when developing a concept of God. Some components of eschatological thought may have contributed to a traditional Christian, wrathful, or deistic God concept. Regardless of how an individual's eschatology may have contributed to the formation of a concept of God, it was expected that eschatology may have had a greater role in the development of a God concept than what was evident from the results. These results could be explained by the fact that an individual's eschatology

is only part of what is evaluated when developing a concept of God. Some components of eschatological thought may have contributed a Traditional Christian, wrathful, or deistic God concept.

Locus of control was also analyzed. It was hypothesized that an external locus of control would be related to the various aspects of eschatology. An internal locus of control significantly predicted supernatural involvement and religious effect as well as interest, or attraction, but none of the others, a very surprising result. Perhaps having an internal locus of control contributes to the interest and religious effect that the subject of the end of the world has on the individual, because, much like having a deistic point of view, there is more of a vested interest in the end of the world, especially if there is little belief God would provide a supernatural rescue from disaster. It could also be that individuals with a strong locus of control project their sense of or need to control to their concept of God.

Death anxiety was also analyzed and expected to be related to the various aspects of eschatology, consistent with death anxiety research and research on TMT. Consistent with the previous research, death anxiety was found to be a significant negative predictor of exposure to the subject of the end of the world, as well as dread and interest. This could be due to the fact that if one believes the end is near and that the Messiah will soon cleanse the world of death while he or she is still alive, the person may hope to escape it. For the Christian, this hope may be rooted in 1 Thessalonians 4:16-17, indicating some will escape death in a manner considered similar to the Biblical figures of Enoch and Elijah.

Those already familiar with eschatological subjects and have taken to keeping them and their religion's viewpoint in mind, may be better mentally prepared for death as well, regardless of whether death is due to the end of the world or to the end of one's life. This indicates that the more one fears death, the more he or she also dreads the subject of the end of the world but yet at the same time is more interested in it, and are also more likely to be religiously involved even though he or she finds the subject repulsive.

Gender was also hypothesized to predict aspects of eschatology. In terms of exposure, males were more likely to be exposed to the subject of the end of the world than females, and less likely to dread the end of the world, perhaps because the end of the world is considered to be a more masculine, rather than feminine subject as wars and other eschatological themes have been seen as traditionally masculine.

Age was also expected to predict various aspects of eschatology. Results showed that, contrary to the hypothesis, younger people were more likely to believe in supernatural involvement with the end of the world, and also report a stronger perception that their eschatology influenced their religiosity. These results could either be due to the huge imbalance of younger individuals in the study compared to older individuals but it could also be the result of a kind of burnout to the subject of the end of the world, characterized by thoughts such as. "I have thought it was the end X number of times in my life, and it hasn't happened yet, so what makes now any different?" or simply the fact that death by old age simply becomes more likely in one's eyes than death as a result of anything that may occur during the end of the world. Finally only those who reported themselves as belonging to a Christian denomination were significantly more likely to

believe in supernatural involvement and report that eschatology affected his or her religious beliefs.

The results of this study provide insight and add to the previous work on the subject of eschatology. The findings on religion and eschatology are contrary to Rick Warren's philosophy, which says that eschatology is a distraction against religion (Warren, 2002) but may be an indication of religious resurgence like, the one which took place during the 1970s and which was likely a partial result of the increase in exposure to eschatological subjects (DiSabatino, 1999; Kress, 2005).

The results of this study on eschatology are consistent with the study of conservative Protestants and the environment (Green et al., 1995). According to that study, a belief that God actively influenced external affairs (as held by conservative Protestants) was negatively associated with taking a greater and more proactive interest in one's environment. Taking a proactive interest in the environment and in the end of the world is significantly related to a deistic concept of God, differentiated by a traditional Christian view usually held by conservative Protestants. The two are often related (Burke & Townsend, 2002).

These findings are also consistent with Meissner's (1995) work, which suggests that a person's religion is rooted in eschatological beliefs. As an individual is likely to be exposed to the subject of the end of the world, he or she is more likely to be motivated to engage in religious behaviors as a consequence of the cultic and paranoid processes. Behaviors, such as testifying to one's beliefs or wanting to serve God better, serve to develop a person's identity and purpose in life the individual to gain fulfillment through the cultic process through eschatology.



This seems to especially be the case when a person does not have as much of a mental framework for providing meaning and purpose already. Research has shown, in developmental psychology, that adolescents and young adults undergo an identity crisis where they question their sense of assurance and self-concept as they separate themselves from their parents (Marcia, 1966). In light of the current results, it was expected that age may be related to death anxiety, and would help to explain the relationship between age, death anxiety, and eschatology. A simple correlation was run to test this theory, but showed that there was no significant correlation between age and level of death anxiety,  $r(209) = .036, p > .05$ . The lack of significance may be because individuals solve their identity crisis at different times and in different ways.

Previous research on death anxiety is very consistent with the study's current findings, especially in terms of the sample demographics. According to previous research, women are more likely than men to be anxious about death (Berman & Hayes, 1973; Costa et al., 2005; Franks, Ruff, & Templer, 1971; Tate 1982). In the current study, death anxiety was positively associated with exposure to eschatology among males, and exposure to eschatology was negatively associated with both death anxiety and being female. Therefore, it makes sense that women's lack of exposure to eschatological subjects may explain the difference in death anxiety between males and females. Although older adults have been found to have more death anxiety than younger adults due to loss of control and belief in the afterlife (Powell & Thorson, 1998), the present study shows that older adults report less supernatural involvement in the end times and are less likely to report an effect of eschatology on their religion. Their lack of belief in supernatural involvement and reported influence of eschatological subjects on religion

may therefore contribute to the age difference on death anxiety. However, these results may be unreliable since older adults were under-represented in our study and because older adults who attend college courses are likely to differ from the population in terms of other noteworthy variables.

Additionally, the results of the current study showing that religious involvement is positively associated with exposure to eschatological subjects may also provide some insight into the relationship religion has with death anxiety. Exposure, interest, and a lack of dread on eschatological subjects is positively associated with low levels of death anxiety, which according to previous research is sometimes associated with religion, especially if belief in the afterlife is involved (Barber, Kraft, & Litwin, 2001; Costa, Harding, Flannelly, & Weaver, 2005; Day & Maltby, 2000; Downey, 1984; Groelinger & Kierniesky, 1977; McMordie, 1981; Powell & Thorson, 1990; Scott & Wink, 2005; Templer, 1972). Eschatological subjects, as part of religion, may also contribute to the low levels of death anxiety.

In the study on attitudes towards Israel and fundamentalism for example, Mayer (2004) speculated that eschatology may be the reason why Christian fundamentalists were found to be more Zionistic, with a greater sympathy for Israel and oppose policies against Israel. This study's findings seem to support that. Religious involvement (including reading of religious texts, going to worship, etc.) was found to be positively associated with exposure to eschatological subjects. Such exposure would probably come in the form of apocalyptic texts found in Christian Scripture, much of which is centered on Israel. A greater level of religious involvement (associated with a greater amount of exposure to eschatological subjects) would expose the individual to portions of

apocalyptic text such as those indicating that in the last days, God will judge those who seek to divide Israel's land (Joel 3:2), and will curse those who curse Israel (Genesis 12:3). An internalization of texts and theology such as this from exposure through increased religious involvement and/or exposure to eschatological subjects would most likely be associated with a greater sympathy for Israel and less agreement with U.S. policy decisions thought to be anti-Israel, particularly from literal interpreters of holy texts such as conservative Protestants and/or Fundamentalists.

However, support for the hypotheses was mixed in regard to demographics, religiosity, death anxiety, locus of control, and concept of God in that they were not wholly related to all the examined aspects of eschatology. Among those aspects, fewer significant predictors and relationships were found than expected. Out of those relationships there were some that went in the opposite direction as was expected. This could be due to issues with validity.

Reliabilities of all of the subscales were measured and found to be at appropriate levels, and all participants were treated with the same study in the same manner. However, it is plausible that different results would be found if the study were repeated. It is recommended that this study be repeated with different populations, to gain a better understanding of the topics researched. Also, a large number of variables were assessed in this study. The current study is one of the first that focused specifically on eschatology and attempted to capture information on a large number of factors. While it is important for a first study make a blueprint for future research, this can also impede its statistical validity. Research focusing on more specific areas should be conducted in order to reduce the number of analyses and to gain a better understanding on each of these topics.

Many participants did not complete the questionnaire and/or dropped out of the study before all questions were answered, and this also had a negative effect on its validity. Additionally, the sample of participants was very homogenous, and participants were not randomly selected to participate in the experiment but volunteered, out of a small, specific group of people. More research needs to be conducted to determine whether this study is ecologically valid.

Particularly relevant to a study such as this is the issue of current events. Situations in Asia, Europe, and especially the Middle East as well as changes in American policy and current events could also be problematic by causing changes in the sample during the course of the study. For example, a Middle Eastern war, a world leader's comments, an election, increasing tensions with Russia, and the likelihood of a major conflict happening quickly can cause current or future problems with internal validity and should be considered upon evaluation of these results and others relating to the topic.

Maturation may also affect the validity of the study. Participants may have reacted in an unexpected manner. For example, their thoughts or memory may have changed during the course of the questionnaire as a result of the questions asked and the order in which the questions were presented. Further research is recommended, therefore, to assess whether the order or content of the questions contributed to the results in this study.

The study would be improved by having a larger, more generalizable sample. This is most notable in terms of age and religious affiliation. Overall, however, this study provides a valuable first step in extending research in the social psychology of religion and other areas to the subject of eschatology, and is important for explaining how many

individuals interact with their beliefs and the world around them. In a world where eschatological topics continue to be brought to our attention, it is important to consider how people's attitudes and beliefs on the end of the world play into their decisions, fears, and thoughts and judgments about the environment. Such research can also be used to explain, evaluate, and contribute to much of the previous research that has been conducted on related topics and will continue to be an exciting topic of study in the future.

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APPENDIX A  
ESCHATOLOGICAL THOUGHT AND RELIGIOSITY: PATTERNS AND  
RELATIONSHIPS QUESTIONNAIRE

This questionnaire should take less than 50 minutes to complete. This questionnaire examines how a person's beliefs about the end of the world (eschatological beliefs) relate to his or her religious behavior, concept of God, locus of control, and other factors. Try to answer the following questions. Please keep in mind that you may skip any question which you find uncomfortable and you may stop the study at any time. In return for your contribution, we will be happy to provide you with the findings and results of the current study. The questionnaire contains the following sections: Religiosity, Concept of God, Internal vs. External Control, Death Anxiety, Eschatology and Demographics.

**All information here will be used ONLY for evaluating the results of the study. Personal information will not be provided to any other parties. Thank you for taking the time to complete this questionnaire!**

**A. Religiosity**

Please select the response that best represents your view.

1. Do you believe in God?  Yes  No  Uncertain

2. Would you marry someone of another religion?  Yes  No  Uncertain

3. How often do you read holy scriptures?

More than once a day

Once a day

More than once a week

Once a week

More than once a month

Less than once a month

I do not read holy scriptures

4. How often do you pray?

More than once a day

Once a day

More than once a week

More than once a month

Less than once a month

I do not pray

5. How often do you attend religious services or activities?

More than once a day

Once a day

More than once a week

- More than once a month
- Less than once a month
- Never or not currently attending

6. Please answer the following questions on religious influence on a scale of 1 to 7.

A. How important would you say religion is in your life?

1      2      3      4      5      6      7

Not at all Important

Extremely Important

B. How much influence do your religious beliefs have on the important decisions of your life?

1      2      3      4      5      6      7

Not at all Important

Extremely Important

C. How much influence do your religious beliefs have on what you wear?

1      2      3      4      5      6      7

Not at all Important

Extremely Important

D. How much do your religious beliefs have on what you eat and drink (excluding alcohol consumption)?

1      2      3      4      5      6      7

Not at all Important

Extremely Important

E. How much influence do your religious beliefs have on your alcohol consumption?

1      2      3      4      5      6      7

Not at all Important

Extremely Important



F. How much influence do your religious beliefs have on whom you associate with?

1      2      3      4      5      6      7

Not at all Important

Extremely Important

G. How much influence do your religious beliefs have on what social activities you undertake?

1      2      3      4      5      6      7

Not at all Important

Extremely Important

7. Please answer the following questions on religious hope on a scale of 1 to 7.

A. Do you believe there is an afterlife?

1      2      3      4      5      6      7

Definitely Not

Don't Know

Definitely

B. Do you believe it is possible for all humans to live in harmony together?

1      2      3      4      5      6      7

Definitely Not

Don't Know

Definitely

C. Do you believe there are miracles?

1      2      3      4      5      6      7

Definitely Not

Don't Know

Definitely

D. Do you believe your suffering in this life will be rewarded in the afterlife?

1      2      3      4      5      6      7

Definitely Not

Don't Know

Definitely

E. Do you believe that in the future your children will be able to lead a better life than yourself?

1	2	3	4	5	6	7
Definitely Not			Don't Know			Definitely

F. Do you believe your future life will be better?

1	2	3	4	5	6	7
Definitely Not			Don't Know			Definitely

## B. Concept of God

8. The following is a survey to determine what descriptive words apply to God. Please fill in the ①, the ②, or the ③ next to each word according to how well you think it describes what the term “God” means to you. There are no right or wrong answers; we are interested in what this concept means to each person. Use the following scale:

① The word does not describe “God”

② The word describes “God”

③ The word describes “God” particularly well.

- |                     |                      |                      |
|---------------------|----------------------|----------------------|
| A. ① ② ③ Absolute   | I. ① ② ③ Considerate | Q. ① ② ③ Democratic  |
| B. ① ② ③ Active     | J. ① ② ③ Controlling | R. ① ② ③ Distant     |
| C. ① ② ③ All-wise   | K. ① ② ③ Controlling | S. ① ② ③ Divine      |
| D. ① ② ③ Avenging   | L. ① ② ③ Critical    | T. ① ② ③ Eternal     |
| E. ① ② ③ Blessed    | M. ① ② ③ Cruel       | U. ① ② ③ Everlasting |
| F. ① ② ③ Blunt      | N. ① ② ③ Damning     | V. ① ② ③ Fair        |
| G. ① ② ③ Charitable | O. ① ② ③ Dangerous   | W. ① ② ③ Faithful    |
| H. ① ② ③ Comforting | P. ① ② ③ Demanding   | X. ① ② ③ False       |

Y. ① ② ③ Fast	AV. ① ② ③ Loving	BS. ① ② ③ Sharp
Z. ① ② ③ Fatherly	AW. ① ② ③ Majestic	BT. ① ② ③ Slow
AA. ① ② ③ Fearful	AX. ① ② ③ Matchless	BU. ① ② ③ Soft
AB. ① ② ③ Feeble	AY. ① ② ③ Meaningful	BV. ① ② ③ Sovereign
AC. ① ② ③ Firm	AZ. ① ② ③ Meek	BW. ① ② ③ Steadfast
AD. ① ② ③ Forgiving	BA. ① ② ③ Merciful	BX. ① ② ③ Stern
AE. ① ② ③ Formal	BB. ① ② ③ Moving	BY. ① ② ③ Still
AF. ① ② ③ Gentle	BC. ① ② ③ Mythical	BZ. ① ② ③ Strong
AG. ① ② ③ Glorious	BD. ① ② ③ Omnipotent	CA. ① ② ③ Supporting
AH. ① ② ③ Gracious	BE. ① ② ③ Omnipresent	CB. ① ② ③ Timely
AI. ① ② ③ Guiding	BF. ① ② ③ Omniscient	CC. ① ② ③ Tough
AJ. ① ② ③ Hard	BG. ① ② ③ Patient	CD. ① ② ③ True
AK. ① ② ③ Helpful	BH. ① ② ③ Passive	CE. ① ② ③ Unchanging
AL. ① ② ③ Holy	BI. ① ② ③ Permissive	CF. ① ② ③ Unyielding
AM. ① ② ③ Impersonal	BJ. ① ② ③ Powerful	CG. ① ② ③ Valuable
AN. ① ② ③ Important	BK. ① ② ③ Protective	CH. ① ② ③ Vigorous
AO. ① ② ③ Inaccessible	BL. ① ② ③ Punishing	CI. ① ② ③ Weak
AP. ① ② ③ Infinite	BM. ① ② ③ Real	CJ. ① ② ③ Warm
AQ. ① ② ③ Jealous	BN. ① ② ③ Redeeming	CK. ① ② ③ Worthless
AR. ① ② ③ Just	BO. ① ② ③ Restrictive	CL. ① ② ③ Wrathful
AS. ① ② ③ Kind	BP. ① ② ③ Righteous	CM. ① ② ③ Yielding
AT. ① ② ③ Kingly	BQ. ① ② ③ Safe	
AU. ① ② ③ Lenient	BR. ① ② ③ Severe	

### C. Internal vs. External Control

For each question, please select the statement with which you most likely agree.

9.  Children get into trouble because their parents punish them too much.
- The trouble with most children nowadays is that their parents are too easy on them.
10.  Many of the unhappy things in people's lives are partly due to forces of spiritual powers.
- People's misfortunes result from the mistakes they make.
11.  One of the major reasons why we have wars is because people don't take enough interest in politics.
- There will always be wars, no matter how hard people try to prevent them.
12.  In the long run people get the respect they deserve in this world.
- Unfortunately, an individual's worth often passes unrecognized no matter how hard he or she tries.
13.  The idea that teachers are unfair to students is nonsense.
- Most students don't realize the extent to which their grades are influenced by accidental happenings.
14.  Without God's help, one cannot be an effective leader.
- Capable people who fail to become leaders have not taken advantage of their opportunities.
15.  No matter how hard you try, some people just don't like you.
- People who can't get others to like them don't understand how to get along with others.

16.  Heredity plays the major role in determining one's personality.
- It is one's experiences in life which determine what one is like.
17.  I have often found that what is going to happen will happen.
- Trusting in spiritual assistance has never turned out as well for me as making a decision to take a definite course of action.
18.  In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.
- Many times we might just as well decide what to do by relying on powerful others.
19.  Becoming a success is a matter of hard work; no other powerful forces are at work.
- Getting a good job depends mainly on being in the right place at the right time.
20.  The average citizen can have an influence in government decisions.
- This world is run by the few people in power, and there is not much the little guy can do about it.
21.  When I make plans, I am almost certain that I can make them work.
- It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
22.  There are certain people who are just no good.
- There is some good in everybody.
23.  There are certain people who are just no good.
- There is some good in everybody.

24.  Who gets to be the boss often depends on who was fortunate enough or was chosen to be in the right place first.
- Getting people to do the right thing depends on ability; powerful spiritual forces have little or nothing to do with it.
25.  As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
- By taking an active part in political and social affairs, people can control world events.
26.  Most people can't realize the extent to which their lives are controlled by supernatural happenings which people can't understand.
- There really is no such thing as providence or fortune.
27.  One should always be willing to admit mistakes.
- It is usually best to cover up one's mistakes.
28.  It is hard to know whether or not a person really likes you.
- How many friends you have depends on how nice a person you are.
29.  In the long run the bad things that happen to us are balanced by the good ones.
- Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
30.  With enough effort we can wipe out political corruption.
- It is difficult for people to have much control over the things politicians do in office.
31.  Sometimes I can't understand how teachers arrive at the grades they give.
- There is a direct connection between how hard I study and the grades I get.

32.  A good leader expects people to decide for themselves what they should do.  
 A good leader makes it clear to everybody what their jobs are.
33.  Many times I feel that I have little influence over the things that happen to me.  
 It is impossible for me to believe that supernatural or spiritual forces play an important role in life.
34.  People are lonely because they don't try to be friendly.  
 There's not much use in trying too hard to please people; if they like you, they like you.
35.  There is too much emphasis on athletics in high school.  
 Team sports are an excellent way to build character.
36.  What happens to me is my own doing.  
 Sometimes I feel that I don't have enough control over the direction my life is taking.
37.  Most of the time I can't understand why politicians behave the way they do.  
 In the long run the people are responsible for bad government on a national as well as on a local level.

38. For the following questions, please read each statement. Where there is a blank \_\_\_\_, decide what your normal or usual attitude, feeling, or behavior would be. Of course, there are always unusual situations in which it would not be the case, but think of what you would do or feel in most normal situations.

A. When faced with a problem, I \_\_\_\_ try to forget it.

1	2	3	4	5
Rarely	Occasionally	Sometimes	Frequently	Usually

B. I \_\_\_ need frequent encouragement from others to keep working at a difficult task.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

C. I \_\_\_ like jobs where I can make decisions.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

D. I \_\_\_ change my opinion when someone I admire disagrees with me.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

E. If I want something, I \_\_\_ work hard to get it.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

F. I \_\_\_ prefer to learn the facts about something from someone else rather than have to dig them out for myself.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

G. I will \_\_\_ accept jobs that require me to supervise others.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually



H. I \_\_\_ have a hard time saying “no” when someone tries to sell me something I don’t want.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

I. I \_\_\_ like to have a say in any decisions made by any group I’m in.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

J. I \_\_\_ consider the different sides of an issue before making any decisions.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

K. What other people think \_\_\_ has a great influence on my behavior.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

L. Whenever something good happens to me I \_\_\_ feel it is because I’ve earned it.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

M. I \_\_\_ enjoy being in a position of leadership.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

N. I \_\_\_ need someone else to praise my work before I am satisfied with what I’ve done.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

- O. I am \_\_\_ sure enough of my opinions to try and influence others.
- 1            2            3            4            5
- Rarely    Occasionally    Sometimes    Frequently    Usually
- P. When something is going to affect me I \_\_\_ learn as much about it as I can.
- 1            2            3            4            5
- Rarely    Occasionally    Sometimes    Frequently    Usually
- Q. I \_\_\_ decide to do things on the spur of the moment.
- 1            2            3            4            5
- Rarely    Occasionally    Sometimes    Frequently    Usually
- R. For me, knowing I've done something well is \_\_\_ more important than being  
praised by someone else.
- 1            2            3            4            5
- Rarely    Occasionally    Sometimes    Frequently    Usually
- S. I \_\_\_ let other people's demands keep me from doing things I want to do.
- 1            2            3            4            5
- Rarely    Occasionally    Sometimes    Frequently    Usually
- T. I \_\_\_ stick to my opinions when someone disagrees with me.
- 1            2            3            4            5
- Rarely    Occasionally    Sometimes    Frequently    Usually
- U. I \_\_\_ do what I feel like doing, not what other people think I ought to do.
- 1            2            3            4            5
- Rarely    Occasionally    Sometimes    Frequently    Usually

V. I \_\_\_ get discouraged when doing something that takes a long time to achieve results.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

W. When part of a group, I \_\_\_ prefer to let other people make all the decisions.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

X. When I have a problem I \_\_\_ follow the advice of friends or relatives.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

Y. I \_\_\_ enjoy trying to do difficult tasks more than I enjoy trying to do easy tasks.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

Z. I \_\_\_ prefer situations where I can depend on someone else's ability rather than just my own.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

AA. Having someone important tell me I did a good job is \_\_\_ more important to me than feeling I've done a good job.

1            2            3            4            5

Rarely    Occasionally    Sometimes    Frequently    Usually

AB. When I'm involved in something I \_\_\_\_ try to find out all I can about what is going on even when someone else is in charge.

1                      2                      3                      4                      5  
Rarely    Occasionally    Sometimes    Frequently    Usually

#### **D. Death Anxiety**

39. Please indicate whether each statement is true or false to you.

- |   |   |   |
|---|---|---|
| A. I am very much afraid to die.                                | T | F |
| B. The thought of death seldom enters my mind.                  | T | F |
| C. It doesn't make me nervous when people talk about death.     | T | F |
| D. I dread to think about having to have an operation.          | T | F |
| E. I am not at all afraid to die                                | T | F |
| F. I am not particularly afraid of getting cancer               | T | F |
| G. The thought of death never bothers me.                       | T | F |
| H. I am often distressed by the way time flies so very rapidly. | T | F |
| I. I fear dying a painful death.                                | T | F |
| J. The subject of life after death troubles me greatly.         | T | F |
| K. I am really scared of having a heart attack.                 | T | F |
| L. I often think about how short life really is.                | T | F |
| M. I shudder when I hear people talking about a World War III.  | T | F |
| N. The sight of a dead body is horrifying to me.                | T | F |
| O. I feel that the future holds nothing for me to fear.         | T | F |

#### **E. Eschatology**

40. Please select the response that best represents your view.

A. I do not believe there will be a literal end of the world.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

B. I believe that the world will continue forever as it is now, slowly evolving over time.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

C. I believe that although life will become extinct the earth will simply be recycled and go on.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

D. Although there may be a literal end of the world, it will not be influenced by any supernatural force or higher power.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

E. The end times/end of the world will definitely have supernatural involvement.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

F. When the end of the world comes, I will be rescued and preserved somehow from impending judgment.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

G. I do not really like to think about the end of the world.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

H. When I think about the end of the world, I dread what I will have to go through.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

I. When I think about the end of the world, I look forward to what my family or friends will go through.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

J. When I think about the end of the world, I dread what others around me will go through.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

K. When I think about the end of the world, I look forward to what I will go through.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

L. When I think about the end of the world, I look forward to what my family or friends will go through.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

M. When I think about the end of the world, I look forward to what others around me in general will go through.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

N. Thinking about the end of the world makes it easier for me to be more spiritual or more observant of my religion.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

O. Reading or hearing discussions about the end of the world makes me want to pursue religious or spiritual opportunities to read or hear more on it.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

P. My faith is strengthened by religious teachings about the end of the world.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

Q. Religious teachings about the end of the world weaken my faith.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

R. I regularly encounter religious teachings about the end of the world.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

- S. I generally agree with religious teachings I experience about the end of the world.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

- T. I seek out discussions and conversations about the end of the world because I anticipate what will follow.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

- U. Hearing about the end of the world makes me want to serve a higher power better than what I usually do.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

- V. During the past month I have thought frequently about the end of the world or the end times.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree

- W. I wish that the end times/end of the world would be discussed more by people I know.

1      2      3      4      5      6      7

Strongly Disagree      Don't Know      Strongly Agree



X. I wish that I could receive more religious teachings on the end times/end of the world.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

Y. I am fascinated or drawn to articles or other media about the end times/end of the world.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

Z. I wish that the end times/end of the world would be discussed less by people I know.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

AA. I wish that I would receive fewer religious teachings on the end times/end of the world.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

AB. The end times can be easily defined as my "blessed hope."

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

AC. I am repulsed thinking about others who look forward to the end times.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

AD. The subject of the end of the world makes me feel guilty about behaviors I know are wrong but enjoy doing anyway.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

AE. I don't like to think about the end times because doing so makes me feel like I may have to give things up or miss out on a lot.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

AF. Hearing or thinking about the end times makes me want to testify for my beliefs.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

AG. I don't think about the end times because I've been taught and believe the subject is too difficult to understand.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

AH. I don't think about the end times because I've been taught and believe the subject is too scary.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

AI. Although a part of my theology, the subject of the end times is a distraction from most fully practicing my faith or religion.

1	2	3	4	5	6	7
Strongly Disagree			Don't Know		Strongly Agree	

41. Please select the response that best represents your view.

1	2	3	4	5	6	7
Never			Occasionally			All the Time

A. During the past month, my friends and I have discussed the end of the world...

1	2	3	4	5	6	7
Never			Occasionally			All the Time

B. During the past month, my family and I have discussed the end of the world...

1	2	3	4	5	6	7
Never			Occasionally			All the Time

C. I am reminded about the end of the world when I watch/read the news...

1	2	3	4	5	6	7
Never			Occasionally			All the Time

D. I am reminded about the end of the world through music or other  
entertainment...

1	2	3	4	5	6	7
Never			Occasionally			All the Time

E. I read or expose myself to material on the end of the world by myself, quietly, or  
in secret...

1	2	3	4	5	6	7
Never			Occasionally			All the Time

### F. Demographics

42. What is your gender?      Male      Female

43. What is your age? \_\_\_\_\_

44. What is the highest level of education you have completed?

- Less than high school
- High school/GED
- Some college or college student
- 2-year college degree (Associates)
- 4-year college degree (Bachelor's)
- Master's degree
- Doctoral degree
- Professional degree

45. What is your race?

- White
- Hispanic/Latino/Latina
- Black/African-American
- American Indian/Alaska Native
- Asian/Middle Eastern
- Native Hawaiian/Pacific Islander
- Two or more races
- Some other race (please specify)

46. What is your current marital status?

- Single
- Married
- Divorced
- Widowed
- Separated
- Cohabiting

47. Please indicate the region in which you currently live (for the student, permanent residence)

- New England (CT, ME, MA, NH, RI, VT)
- Middle Atlantic (PA, NY, NJ, MD, DE)
- E. N. Central (IL, IN, MI, OH, WI)
- W. N. Central (IA, KS, MN, MO, SD, ND, NE)
- S. Atlantic (FL, GA, NC, SC, VA, WV, DC)
- E. S. Central (AL, KY, MS, TN)
- W. S. Central (AR, LA, OK, TX)
- Mountain (AZ, CO, ID, MT, NV, NM, UT, WY)
- Pacific (AK, CA, HI, OR, WA)
- Other \_\_\_\_\_

48. Please indicate the most significant region of your background, or in which you grew up.

- New England (CT, ME, MA, NH, RI, VT)
- Middle Atlantic (PA, NY, NJ, MD, DE)
- E. N. Central (IL, IN, MI, OH, WI)
- W. N. Central (IA, KS, MN, MO, SD, ND, NE)
- S. Atlantic (FL, GA, NC, SC, VA, WV, DC)
- E. S. Central (AL, KY, MS, TN)
- W. S. Central (AR, LA, OK, TX)
- Mountain (AZ, CO, ID, MT, NV, NM, UT, WY)
- Pacific (AK, CA, HI, OR, WA)

Other \_\_\_\_\_

49. What is your current religious affiliation?

- |   |   |
|---|---|
| <input type="checkbox"/> Agnostic                           | <input type="checkbox"/> Christian – Wesleyan/Methodist |
| <input type="checkbox"/> Atheist                            | <input type="checkbox"/> Christian – Other              |
| <input type="checkbox"/> Buddhist                           | <input type="checkbox"/> Hindu                          |
| <input type="checkbox"/> Christian – Baptist                | <input type="checkbox"/> Jewish – Orthodox              |
| <input type="checkbox"/> Christian – Catholic               | <input type="checkbox"/> Jewish – Conservative          |
| <input type="checkbox"/> Christian – Church of the Nazarene | <input type="checkbox"/> Jewish – Messianic             |
| <input type="checkbox"/> Christian – Episcopal              | <input type="checkbox"/> Jewish – Reconstructionist     |
| <input type="checkbox"/> Christian – Evangelical            | <input type="checkbox"/> Jewish – Reform                |
| <input type="checkbox"/> Christian – Hebraic                | <input type="checkbox"/> Jewish – Other                 |
| <input type="checkbox"/> Christian – Orthodox               | <input type="checkbox"/> Muslim – Sunni                 |
| <input type="checkbox"/> Christian – Jehovah’s Witness      | <input type="checkbox"/> Muslim – Shi’i                 |
| <input type="checkbox"/> Christian – Latter-Day Saints      | <input type="checkbox"/> Muslim – Other                 |
| <input type="checkbox"/> Christian – Non-Denominational     | <input type="checkbox"/> Secular/Non-Religious          |
| <input type="checkbox"/> Christian – Presbyterian           | <input type="checkbox"/> Other (please specify) _____   |
| <input type="checkbox"/> Christian – Reformed               |   |

50. What is your background religious affiliation?

- |   |   |
|---|---|
| <input type="checkbox"/> Agnostic             | <input type="checkbox"/> Christian – Church of the Nazarene |
| <input type="checkbox"/> Atheist              | <input type="checkbox"/> Christian – Episcopal              |
| <input type="checkbox"/> Buddhist             | <input type="checkbox"/> Christian – Evangelical            |
| <input type="checkbox"/> Christian – Baptist  | <input type="checkbox"/> Christian – Hebraic                |
| <input type="checkbox"/> Christian – Catholic | <input type="checkbox"/> Christian – Orthodox               |

- |   |   |
|---|---|
| <input type="checkbox"/> Christian – Jehovah’s Witness  | <input type="checkbox"/> Jewish – Messianic           |
| <input type="checkbox"/> Christian – Latter-Day Saints  | <input type="checkbox"/> Jewish – Reconstructionist   |
| <input type="checkbox"/> Christian – Non-Denominational | <input type="checkbox"/> Jewish – Reform              |
| <input type="checkbox"/> Christian – Presbyterian       | <input type="checkbox"/> Jewish – Other               |
| <input type="checkbox"/> Christian – Reformed           | <input type="checkbox"/> Muslim – Sunni               |
| <input type="checkbox"/> Christian – Wesleyan/Methodist | <input type="checkbox"/> Muslim – Shi’i               |
| <input type="checkbox"/> Christian – Other              | <input type="checkbox"/> Muslim – Other               |
| <input type="checkbox"/> Hindu                          | <input type="checkbox"/> Secular/Non-Religious        |
| <input type="checkbox"/> Jewish – Orthodox              | <input type="checkbox"/> Other (please specify) _____ |
| <input type="checkbox"/> Jewish – Conservative          |   |

## APPENDIX B

TABLE 11. PRINCIPAL COMPONENTS LOADINGS OF ESCHATOLOGY

## ITEMS

Item	Component				
	Supernatural	Dread	Anticipation	Interest	Repulsion
40 E	<b>.80</b>	.05	.11	-.15	.24
40 N	<b>.78</b>	.04	.25	-.36	.11
40 P	<b>.77</b>	.14	.17	-.50	.23
40 D	<b>-.77</b>	.04	.01	.16	-.37
40 S	<b>.75</b>	-.02	.32	.18	.06
40 AF	<b>.73</b>	.10	.30	.44	.29
40 I	.10	<b>.82</b>	-.01	-.10	-.04
40 H	-.13	<b>.79</b>	-.13	-.06	-.18
40 L	.43	-.21	<b>.79</b>	-.18	.13
40 M	.22	-.07	<b>.79</b>	-.10	-.04
40 K	.43	.53	<b>.70</b>	-.24	.16
40 W	.37	.01	.10	<b>-.83</b>	.13
40 V	.20	.15	.09	<b>-.78</b>	-.03
40 X	-.50	.09	.08	<b>-.78</b>	.18
40 T	.26	-.09	.40	<b>-.71</b>	.12
40 AA	-.30	.06	.17	.20	<b>-.86</b>
40 Z	-.13	.08	.13	.08	<b>-.81</b>
40 AC	-.33	.36	-.10	.07	<b>-.70</b>



## APPENDIX C

## IRB APPROVAL LETTER

Georgia Southern University Office of Research Services & Sponsored Programs		
<b>Institutional Review Board (IRB)</b>		
Phone: 912-681-5465		Administrative Annex
Fax: 912-681-0719	Ovrsight@GeorgiaSouthern.edu	P.O. Box 8005
		Statesboro, GA 30460

**To:** Ingrid E. Hellstrom  
P.O. Box 22512

**CC:** Dr. Michael Nielsen, Faculty Advisor  
P. O. Box 8041

**From:** Office of Research Services and Sponsored Programs  
Administrative Support Office for Research Oversight Committees  
(IACUC/IBC/IRB)

**Date:** June 20, 2006

**Subject:** Status of Application for Approval to Utilize Human Subjects in Research

After a review of your proposed research project numbered: **H06222**, and titled **“Eschatological Thought, Spirituality, and Religiosity: Patterns and Relationships”**, it appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable.

**Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your proposed research.**

**This IRB approval is in effect for one year from the date of this letter.** If at the end of that time, there have been no changes to the research protocol, you may request an extension of the approval period for an additional year. In the interim, please provide the IRB with any information concerning any significant adverse event, **whether or not it is believed to be related to the study**, within five working days of the event. In addition, if a change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator **prior** to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a *Research Study Termination* form to notify the IRB Coordinator, so your file may be closed.

Sincerely,

Julie B. Cole  
Director of Research Services and Sponsored Programs

## APPENDIX D

## IRB MODIFICATION APPROVAL LETTER

Georgia Southern University Office of Research Services & Sponsored Programs		
<b>Institutional Review Board (IRB)</b>		
Phone: 912-681-5465		Administrative Annex
		P. O. Box 8005
Fax: 912-681-0719	Ovrsight@GeorgiaSouthern.edu	Statesboro, GA 30460-8005

**To:** Ingrid E. Hellstrom  
P.O. Box-22512  
Georgia Southern University  
Statesboro, GA-30460

**Cc:** Dr. Michael Nielsen, Faculty Advisor  
P. O. Box 8041

**From:** Office of Research Services and Sponsored Programs  
Administrative Support Office for Research Oversight Committees  
(IACUC/IBC/IRB)

**Date:** December 4, 2006

**Subject:** Status of Research Study Modification Request

After a review of your Research Study Modification Request on research project numbered: **"H06222"** and titled **"Eschatological Thought, Spirituality, and Religiosity: Patterns and Relationships"**, your request for modification appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable.

**Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your modification request.**

**The IRB approval is still in effect for one year from the date of your original application approval and NOT one year from the date of the modification approval.** If at the end of that time, there have been no further changes to the research protocol, you may request an extension of the approval period for an additional year. In the interim, please provide the IRB with any information concerning any significant adverse event, **whether or not it is believed to be related to the study**, within five working days of the event. In addition, another change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator **prior** to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a *Research Study Termination* form to notify the IRB Coordinator, so your file may be closed.

Sincerely,

Julie B. Cole  
Director of Research Services and Sponsored Programs