9-16-2011

A study in religious worldview and subjective well-being

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A STUDY IN RELIGIOUS WORLDVIEW AND SUBJECTIVE WELL-BEING

by
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A Thesis

Submitted to the
Department of Psychology
College of Liberal Arts and Sciences
In partial fulfillment of the requirement
For the degree of
Master of Arts in Clinical Mental Health Counseling
at
Rowan University
August 31, 2011

Thesis Chair: Matthew Miller, Psy.D.

Acknowledgments

I would like to express my appreciation to Dr. Miller and Dr. Sledjeski for their continued guidance and encouragement throughout this research project. I have learned much from both of them. I also want to thank all of the students from Dr. Miller's research lab who contributed to the research for this thesis.

Abstract

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This study examined the relationship between religious worldview and multiple measures of subjective well-being, including: the Unconditional Self-Acceptance Questionnaire (Chamberlain & Haaga, 2001a), the Orientations to Happiness Questionnaire (Peterson, Park, & Seligman, 2005), the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), the Purpose in Life Test (Crumbaugh & Maholick, 1964), and the Satisfaction with Life Scale (Diener, et al., 1985) among a sample of 272 college students. Participants were divided into six worldviews (Monotheism, Polytheism, Eastern Pantheism, Modern Humanism, Empiricism, and Naturalism) based on the factorial analysis computed by Spearman, the developer of the Personal Philosophical Belief Statements Scale (2006). The data suggest that one's worldview may have a significant relationship with their pursuit of happiness through a meaningful life and/or seeing purpose in one's life, but failed to reveal additional differences between worldviews across the other measures of happiness or satisfaction.

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Chapter I

Introduction

Background

For years, religion and spirituality have been avoided within the psychological realm; however, this is not how it began. In many ways, mental health care started in the religious world, with many psychiatric hospitals located in religious institutions that provided far more humane care for such individuals in comparison to the state-run facilities. Religion was even believed to have a valuable and civilizing influence on such residents. Even so, the late 19th century brought about the divergence of psychology and religion. The findings of Jean Charcot and Sigmund Freud were the catalyst for such change. These psychologists claimed that religion was a source of neurosis and psychosis in their clients and research subjects. This new belief dominated the psychological community for the next century (Koenig, 2009).

The negative bias within psychology towards religion was henceforward maintained due to a resistance to scientifically studying the subject. For some, this was due to a reverence of religion and a discomfort with the idea of evaluating faith or religious beliefs – "the assumption that spirituality *should not* be studied scientifically" (Miller & Thoresen, 2003, emphasis added). For most, it was a resistance to the idea of measuring something that was considered so unscientific, subjective, or intangible – "the assumption that spirituality *could not* be studied scientifically" (2003, emphasis added). However, in recent years, the field of psychology has become more open to studying this subjective realm and has begun to recognize the significant influence that religion and spirituality have on their adherents.

One of the first to venture into this discussion was William James, who emphasized that "to the psychologist, the religious propensities of man must be at least as interesting as any other of the facts pertaining to his mental constitution" (1958). Others have followed, but reviews of the literature show that the subject remains an understudied variable, with relatively few studies in the gamut of psychological research (Hill & Pargament, 2003).

A 2009 Gallup poll found that 56% of Americans consider religion to be "very important" in their lives and 25% consider religion to be "fairly important" (Gallup, 2009). Another poll in May of 2010 found that approximately 80% of the American population believes in God and 12% believes in the existence of some type of universal spirit (Gallup, 2010). Such statistics make it clear that religion is still a significant part of most Americans' daily lives and cannot be ignored; it influences their life decisions, dreams, goals, etc.

In the past, the relatively few studies that have examined the relationship between religion and mental health have provided some mixed results. Koenig's comprehensive review article summarizing the results of hundreds of studies on religion and mental health found that while the majority reported statistically significant beneficial relationships (476 of 724 quantitative studies), there were still a considerable amount that reported no association and a very small percentage that reported a detrimental relationship (2009).

Negative associations between religion and well-being have ranged from manifestations of religiously-based OCD (Abramowitz, Huppert, Cohen, Tolin, & Cahill, 2002) to harmful experiences within faith-based communities (Krause, 2004). One

construct that has been shown to have an adverse effect on individuals is "religious doubt," which one article termed the "dark side of religion" (Krause & Wulff, 2004). It was observed that religious doubt created psychological distress and was associated with increased depressive symptoms (Krause, 2004; Krause & Wulff, 2004). Even so, these findings tend to be infrequent.

More commonly, research has found either a mixed relationship or no association between religion and well-being. O'Connor, Cobb, and O'Connor's study of religion and stress in a college sample found no relationship (2003). The relationship between religion and happiness varies significantly throughout the literature, from a positive correlation to no relationship at all; some authors have suggested the discrepancy is a result of the different happiness instruments used (Lewis & Cruise, 2006; Lewis, Maltby, & Burkinshaw, 2000).

Even though studies continue to arise showing no relationship between religion and different aspects of well-being, the majority of research shows favorable correlations between the two. From prayer to church attendance, religious behaviors have been shown to have a positive relationship with well-being (Maltby, Lewis, & Day, 1999; Morris & McAdie, 2009). Other studies have found that religious individuals report greater degrees of happiness, satisfaction, and general well-being; less depressive and anxious symptoms; as well as a greater ability to cope with trauma (Ellison, 1991; Koenig, 2009; Krause, 2004; Morris & McAdie, 2009).

In addition to having mixed findings, the research tends to focus primarily on negative constructs (e.g., depression, hopelessness, anxiety, suicidality, etc.) and until recently, religion's relationship to positive psychology has received relatively little

attention. This pattern has been seen in most areas of psychology; however, it is particularly problematic in the arena of religion – something people often pursue in order to find meaning and contentment. For example, a recent study found that "meaning in life" mediated the relationship between religion and well-being (Steger & Frazier, 2005).

Within the past decade, positive psychology has gained much attention. Its proponents argue that the psychological community has greatly ignored large aspects of the human condition, focusing only on pathology and failing to ask the important questions regarding how to make life better (Seligman & Csikszentmihalyi, 2000; Sheldon & King, 2001). A problem-focused view of psychology is not capable of completely comprehending the complex human condition (Sheldon & King, 2001); thus, these researchers have begun to measure people's strengths, values, and positive attributes (e.g., happiness, hope, satisfaction, perseverance, healthy relationships, etc.). They have begun to ask questions such as: "how does a person thrive?", "why are people happy?", and "what makes life worth living?" Especially within the realm of religion, these are important questions that must be considered.

In a review of 100 studies comparing religion and life satisfaction, 80 reported a positive relationship, 13 showed no association, and 7 were considered to have mixed or complex results; only one of these studies reported any negative relationship (Koenig, McCullough, & Larson, 2001). Studies have found religion and/or spirituality to be related to multiple different positive psychology measures, including: life satisfaction, happiness, purpose in life, self-actualization, resiliency, positive affect, and cognitive well-being (Ellison, Gay, & Glass, 1989; French & Joseph, 1999; Galea, Ciarrocchi, Piedmont, & Wicks, 2007; Geary, Ciarrocchi, & Scheers, 2004; Kelley & Miller, 2007;

Mendonca, Oakes, Ciarrocchi, Sneck, & Gillespie, 2007). Even so, research has been limited by multiple other factors.

In the majority of research so far, the depth of understanding of the variables is lacking, with most research relying on brief, imprecise, and global indices of "religiosity" (Hill & Pargament, 2003). These global measures have included one-question scales and simplistic, presupposition-based questions such as, "How often do you go to church" (Faulkner & de Jong, 1966). In addition, the most recent research is only just beginning to recognize the difficulty in distinguishing between religion and spirituality and defining what aspect of religion/spirituality actually affects change, with many questions still left unanswered.

At the forefront of this confusion is the difficulty in defining and distinguishing between religion and spirituality. The terms themselves have been used inconsistently in the research literature and many researchers have noted the confusion and lack of consensus in any working definition. Due to its loose usage, spirituality in particular has been called a "fuzzy concept" that "embraces obscurity with passion" (Zinnbauer et al., 1997). Many have expressed the need for "empirical grounding and operationalization of these important constructs" (Hill & Pargament, 2003; Hood, Hill, & Spilka, 2009; Zinnbauer & Pargament, 2005; Zinnbauer, et al., 1997).

Religion & Spirituality

A century ago, one could not find separate definitions of religion and spirituality; (Hood, et al., 2009; Zinnbauer, et al., 1997) they were originally understood as complementary, if not synonymous, concepts. Spirituality was simply the goal or natural manifestation of true religion – the practical application and expression of religious belief

(Koenig, 2009). Pargament notes that 40 years ago, "the term 'religiousness' encompassed what many people today would define as 'spirituality' ", and that many people would accept William James' classic definition of religion – "the feelings, acts, and experiences of individual men in their solitude, so far as they apprehend themselves to stand in relation to whatever they may consider the divine" (James, 1958, p. 42) – as an appropriate definition of spirituality (Pargament, 2007, p. 30).

The distinction between religiousness and spirituality arose through the emergence of secularism and the culture's "disillusionment with religious institutions as a hindrance to personal experiences of the sacred" (Zinnbauer et al., 1997, p. 550; Turner et al., 1995). With the widespread embrace of postmodernism and each individual's right to pursue the Transcendent in whatever means seems right to him or her, society and researchers both have required an idea or construct that distinguishes itself from organized religion. Hence spirituality, previously understood as a construct subsumed under religion, has begun to be conceptualized as its own separate entity. Spirituality has gained in interest over the past decades as it has differentiated itself from religiousness, and the cohesive understanding of religion and spirituality has gradually eroded, replaced with a polarized simplification of the two.

Whereas religiousness was previously understood as constituting both organized religion and individual pursuits of the Transcendent, it is now frequently limited to institutionalized manifestations of beliefs, "connoting cathedrals, stained glass windows, and organ music" (Elkins, 1995, cited by; Zinnbauer, Pargament, & Scott, 1999, p. 902). It is often discussed in a light, seen as dogmatic, prescriptive, rigid, exclusive, and in opposition to the contemporary values of tolerance and individuality. Spirituality, on the

other hand, has been accorded all of the positive qualities connected to any individual's search for personal meaning in life without the negative qualities of hypocrisy, exclusivity, and judgmentalism. The most extreme polarization seems to classify religion as "substantive, static, institutional, objective, belief-based, and 'bad'… in opposition to a functional, dynamic, personal, subjective, experience-based, 'good' spirituality" (Zinnbauer & Pargament, 2005, p. 24).

Although many would agree that the above, polarized view of religion and spirituality has pervaded the present culture, it has not – as of yet – taken root as the accepted definition within the literature or society. Many argue that the present dichotomy fails to take into account the rich history and expressions of the different concepts. Furthermore, the litany of previous definitions (see Zinnbauer & Pargament, 2005; Zinnbauer, et al., 1999) must also be considered. Therefore, recent scholars have made an attempt to bring greater consensus to these two elusive constructs.

Recognizing the diversity of usage, in both the literature and the culture, theorists have attempted to develop more empirically-based and consistent definitions for these two constructs. Empirically-based attempts have been helpful but limited, as the participants in the studies had markedly different notions in regards to both constructs.

In 1958, Clark developed a survey to measure how 68 social scientists defined the term religion, only to conclude that social scientists "mean very different things by the term 'religion' " (1958). 40 years later, Zinnbauer et al. performed a similar study, measuring how individuals defined the terms religiousness and spirituality as well as how they defined their own religiousness and/or spirituality. They found that the terms reflected different nuances. Religiousness was associated with orthodoxy, intrinsic

religiousness, and church attendance; it was defined in terms of both personal and institutional beliefs. Spirituality was associated with mysticism and New Age beliefs and practices, "described in personal or experiential terms" (1997, p. 561). Even so, the terms were by no means independent. They showed significant overlap, with 74% of participants describing themselves as religious and spiritual – making polarized and mutually exclusive definitions untenable.

Recognizing the need for an operational definition that can be used by social scientists across theoretical landscapes and desiring to move away from the polarization of late, Zinnbauer and Pargament have offered two alternatives for defining these constructs. Zinnbauer, conceiving of spirituality as the broader construct, defines spirituality as "a personal or group search for the sacred. Religiousness is then defined as a personal or group search for the sacred *that unfolds within a traditional sacred context*" (Zinnbauer & Pargament, 2005, p. 35, emphasis added). Thus, the only difference between religion and spirituality is its context – specifically, whether or not one's pursuit of the sacred is within the framework of a traditional or organized religion.

This definition takes the contemporary distinction between organized religion and individual spirituality into account; however, it fails to recognize any functional differences between the two. Past definitions and empirical studies have consistently displayed fuller, more nuanced distinctions than simply the context of the belief.

Pargament, conceiving of religiousness as the broader construct, defines spirituality as "a search for the sacred," and religiousness as "a search for significance in ways related to the sacred" (Zinnbauer & Pargament, 2005, p. 36). Thus, he distinguishes the two by whether the Sacred is the means or ends of the individual's search. Religion is

thus concerned with both the Sacred and profane ("profane" is not intended to be used pejoratively here, but rather as "anything that is not sacred"); it would include any other pursuit that occurs within the context of the Sacred but is not in and of itself the pursuit of the Sacred – e.g. meditation; wisdom; community; institutionalized religious practices; psychological, emotional, and physical well-being; etc. (2005). Although the author does not by any means consider these secondary pursuits of religion to be intrinsically tawdry or undeserving, he does believe that spirituality – an actual connection with the Sacred – is the true "heart and soul of religiousness, the core function of religious life" (2005, p. 36).

As the authors acknowledge, both definitions have their strengths and weaknesses. While Zinnbauer's definition aligns itself with recent trends, Pargament's is more consistent with the history of research in the psychology of religion (2005). Although Pargament's definition may be more satisfactory in addressing ideas and definitions both past and present, no definition is fully able to encompass the broad range of meanings given to these terms. Furthermore, these definitions still do not define/establish what exactly is being measured when addressing cognitive beliefs about reality. Thus, an additional construct is necessary to discuss and measure religious beliefs.

Worldviews

Worldview is another construct that has been greatly neglected, and yet is vital to the contemporary understanding of religious beliefs. The word "worldview" originates from the German concept of *Weltanschauung*, a term from cognitive philosophy that refers to an individual's "wide world view" (overarching understanding/narrative) or their

perspective of the world "used to describe one's total outlook on life, society and its institutions" (Wolman, 1973, p. 406). One's worldview is "a set of interrelated assumptions about the nature of the world" (Overton, 1991, p. 269) – his underlying beliefs about what is and what ought to be. A postmodern perspective considers each individual's worldview as their lens by which they perceive/experience everything else.

Even before postmodernism was embraced by the culture, Anaïs Nin was known for her observation that "we don't see things as they are; we see them as we are." We cannot see "as is," but only "as we are;" thus our worldview is not simply shaped by our experiences, but in turn shapes how we experience our world – more accurately, shapes our perception of our experiences. One's worldview is not simply a conscious belief maintained about the world; rather, it is the unconscious, pervasive set of presuppositions that shape how we understand everything else. Thus, Koltko-Rivera claims that it may very well be "the most important construct that the typical psychologist has never heard of" (2004, p. 4).

Returning to religion in particular, Koltko-Rivera posits that "it may be said that any philosophical or religious system is itself a way of viewing the universe and hence is a worldview" (2004, p. 6). This nuance of studying religion as a worldview rather than the simplistic, dichotomous category of "religious or not religious" is an important distinction. The zeitgeist of our day might say that being an atheist means: "to lack religious belief." However, in considering beliefs in the form of worldviews (or religious worldviews), atheism no longer represents a dearth of religious belief; it is its own worldview, reflecting the individual's beliefs about what is real and how one should live.

This person does not lack a belief in god. Rather, he or she believes that there is no god, which has its own unique effect on how one understands and relates to his/her world.

Multiple studies within the realm of religion and spirituality can be interpreted through a worldview paradigm. Morris and McAdie observed in their study that Christians scored lower than non-religious individuals in death anxiety, but Muslims scored higher than the non-religious (2009). Another study found that religious beliefs were related to lower anxiety and depression in Orthodox Jews, but not in non-Orthodox Jews (Rosmarin, Pirutinsky, Pargament, & Krumrei, 2009). Schwab & Petersen, focusing on the concept of God, reported that a generic belief in God had a neutral correlation with loneliness; however, belief in a helpful God reveled a negative correlation with loneliness and belief in a wrathful god, a positive correlation (Schwab & Petersen, 1990). All of these studies point to the same idea: that it is not simply religious belief, but one's understanding of the world that affect's our psychological well-being. In looking at worldview in particular, another study found that individuals who endorsed worldviews that included the presence of a personal God had a greater sense of purpose in life (Molcar & Stuempfig, 1988).

Recognizing that the relationship of religion to well-being and other similar variables is dependent upon the type of religion and beliefs therein, it becomes necessary to consider the individual's system of (religious) beliefs in order to accurately measure religiousness and spirituality (Pargament, 1997; Zinnbauer, et al., 1997; Zinnbauer, et al., 1999). Therefore, this paper will focus on religious worldviews – meaning those beliefs which are metaphysical by nature (beliefs about the underlying nature of reality and how one should live) that shape how we see, perceive, understand, and respond to the world.

Present Study

In a recent study, Rosmarin, Pargament, and Mahoney found that global Jewish religiousness (measured in terms of global Jewish behaviors) was unrelated to the individual's mental-health functioning; however, higher levels of trust in God had a negative relationship with anxiety and depression, and positive relationship with personal happiness (2009). It can therefore be inferred that participants' cognitive thoughts and beliefs (worldviews) had a stronger association with their mental health than did their religious practices. This present study seeks to further assess the relationship of religious worldviews on subjective well-being.

The present study examines the relationship between religious worldview and multiple measures of subjective well-being among a sample of 272 college students. Based on prior research it was hypothesized that religious worldviews that embrace the existence of a benevolent, all-powerful being (and those most closely related) would be related to higher scores of subjective well-being. Additional analyses examining the moderating effects of gender and race/ethnicity will also be conducted.

Chapter II

Methods

Participants

Research participants were undergraduate students from Rowan University enrolled in an Essentials of Psychology class. A total of 303 students participated in the survey, of which only 272 provided usable data due to incomplete or patterned responses. 145 (53.3%) participants were male and 127 (46.7%) were female. Participants were required to be at least 18 years of age; they ranged from 18 to 44 years old with a mean age of 19.6 years (SD = 2.7). Further demographic characteristics for the sample are summarized in Table 1 below.

Table 1 - Demographics

Year in College	
Freshman	136 (50%)
Sophomore	68 (25%)
Junior	38 (14%)
Senior	29 (10.7%)

Race	
African American	26 (9.6%)
Asian	10 (3.7%)
Caucasian	199 (73.2%)
Latino	21 (7.7%)
Indian	3 (1.1%)
Middle Eastern	3 (1.1%)
Other	10 (3.7%)

Religion:	Raised	Present
Atheist		17 (6.3%)
Agnostic	1 (.4%)	23 (8.5%)
Buddhist	4 (1.5%)	5 (1.8%)
Christian – Catholic	168 (61.8%)	119 (43.8%)
Christian – Protestant	35 (12.9%)	31 (11.4%)
Christian – Orthodox	7 (2.6%)	6 (2.2%)
Muslim	6 (2.2%)	4 (1.5%)
Jewish – Conservative	7 (2.6%)	3 (1.1%)
Jewish – Reformed	4 (1.5%)	5 (1.8%)
New Age		1 (.4%)
None	16 (5.9%)	31 (11.4%)
Universalist	1 (.4%)	
Other	22 (8.1%)	27 (9.9%)

Procedures

The following procedures were approved by the Rowan University Institutional Review Board prior to data collection. Eligible students signed up to participate in this study through the university's online Sona System. Once signed up, the Sona System assigned them a unique ID code that linked their identity to their data. Next, participants were given a link to the web-based survey through SurveyMonkey. Eligible participants were first presented with a consent form in which the study was fully described. Once agreeing to participate, they were given several questionnaires to complete, including: general demographics, the Personal Philosophical Belief Statements Scale (Spearman, 2006), and multiple measures of subjective well-being and positive psychology, including: the Unconditional Self-Acceptance Questionnaire (Chamberlain & Haaga, 2001a), the Approaches to Happiness Questionnaire (Peterson, 2003), the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), the Purpose in Life Test (Crumbaugh & Maholick, 1964) and the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). Upon completion, they were presented with a debriefing form, describing the main purpose of the study as well as providing contact information should they have any questions. As compensation for participating, Rowan students received credits toward their psychology course.

Measures

Personal Philosophical Belief Statements Scale (Spearman, 2006)

The Personal Philosophical Belief Statements Scale (PPBSS) is "an inventory of beliefs that an individual holds concerning the essential questions of human existence

(i.e., metaphysics, epistemology, ethics, freedom, human nature, etc.)" (2006). The author consulted with philosophers, theologians, and psychologists to develop her 121 items. Participants respond using a 6-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree," based on how well each statement reflects their actual beliefs about the world. The author's exploratory factor analysis ended up distinguishing between six different subscales / worldviews: Monotheism, Polytheism, Eastern Pantheism, Modern Humanism, Empiricism, and Naturalism.

In this study, participants were categorized into separate worldviews by averaging the items in each subscale and computing their highest average score, which was required to be at least a four in value (equal to the response of "Somewhat Agree" on the scale).[1] The endorsed items for each worldview are included in Table 2 below.

Unconditional Self-Acceptance Questionnaire (Chamberlain & Haaga, 2001a)

The Unconditional Self-Acceptance Questionnaire (USAQ) is a 20-item scale derived from Rational Emotive Behavior Therapy, which asserts that instead of developing a higher sense of self-esteem, which requires conditions of worth, one should unconditionally accept oneself regardless of accomplishments or approval from others. The scale consists of items such as: "I believe that I am worthwhile simply because I am a human being" and "I feel that some people have more value than others." The questionnaire uses a 7-point Likert scale, and participants rate how often each statement is true about themselves, from 1 ("Almost Always Untrue") to 7 ("Almost Always True"). 11 items are reverse-keyed, and final scores are computed by summing all items. The

[1] Participants were categorized based on their highest mean of the different subscales. Had participants been required to positively endorse each item in order to be included in that subscale, there would have been a slight variance in the sorting.

Table 2 – Worldview Items

	Monotheism
1	My existence continues after death.
2	I believe in an afterlife.
3	I have a soul (spirit).
4	A supernatural power exists.
5	God exists.
6	I was created by God.
7	My values have a religious foundation.
8	Evil exists.
9	I anticipate something good that is not yet here.
10	I am free to choose within God's plan.

	Empiricism
1	Science is gradually discovering the truths about the physical world.
2	Truth can be objective.
3	Truth is found in nature.
4	The aim of life is to increase man's freedom.

	Naturalism
1	I am satisfied with life.
2	Only what I see, hear, touch, taste and smell exists.
3	I live in a world that is hopeless.
4	Meaning in life comes only from reason.

	Eastern Pantheism
1	New Age: Each person is a god.
2	Pantheism: God is the universe.
3	I believe there is a higher being, but that being is not necessarily God.
4	After death I will be reincarnated.
5	For me, meaning in life comes from participating in the unity of matter, life and energy.
6	There is more than one god.

	Modern Humanism
1	People are only what they describe themselves to be.
2	I have unlimited freedom.
3	I believe in the essential goodness of others.
4	What is pleasant is essentially good.
5	I have the ability to determine my destiny.
6	Personal suffering is the result of my free choice.

	Polytheism
1	Disobeying the gods and/or goddesses will result in judgment.
2	People are a creation of the gods and/or goddesses.
3	Obeying the gods and/or goddesses will result in prosperity.
4	Truth is discovered through someone who can speak about what the gods and/or goddesses are doing.
5	The meaning of life is dependent on the gods' and/or goddesses' activities.
6	Gods and/or goddesses create moral values.

questionnaire has been shown to possess a moderate degree of internal consistency (α = 0.72).

Orientations to Happiness Questionnaire (Peterson, Park, & Seligman, 2005)[2]

The Orientations to Happiness Questionnaire (OtHQ) is an 18-item scale utilizing 3 distinct subscales. The questionnaire is rooted in the premise that people pursue happiness by three distinguishable paths: pleasure, engagement (a.k.a. "flow"), and meaning. The full questionnaire includes 6 items for each subscale. Participants respond that previous measures of subjective well-being were often limited to single-item evaluations and/or failed to assess both components of well-being (affect and cognition). This scale consists of 4 items, each rated on a 7-point Likert scale continuum. The participant's score is computed by obtaining the mean of the four items (with the fourth reverse-scored). Scores range from 1.0 to 7.0, with higher scores indicating greater happiness. The SHS was tested in multiple samples, with Cronbach's α ranging from 0.79 to 0.94 (M = 0.86).

Purpose in Life Test (Crumbaugh & Maholick, 1964)

The Purpose in Life Test (PIL) is theoretically rooted in Frankl's existential logotherapy, in which he posits that one of the keys to overcoming any difficulty or hardship is to find purpose in life (Frankl, 1992). The test contains 20 items, each of which is rated on a 7-point Likert scale continuum, with polarized anchoring statements. An example of an item in the PIL is, "In thinking of my life, I:" with 1 labeled "often wonder why I exist" and 7 labeled "always see reasons for being here". Position 4 on the

[2] Called the "Approaches to Happiness Questionnaire" in the most recent online manifestations.

scale is labeled as neutral. The final score is computed by adding all of the items together, allowing for a range from 20 to 140. Schulenberg & Melton report "PIL scores are reliable, with internal consistency and split-half reliability coefficients commonly reported in the higher 0.70s to the lower 0.90s" (2010, pp. 96-97).

Satisfaction with Life Scale (Diener, et al., 1985)

The Satisfaction with Life Scale (SWLS) was developed in an attempt to provide a slightly more substantial, multi-item scale for measuring life satisfaction (previous scales had often relied on only one global question). The SWLS is made up of 5 statements in which the participants respond to each statement based on a 7-point Likert scale from 1 ("Strongly Disagree") to 7 ("Strongly Agree"). Items are summed to yield a total score, with 20 being the neutral point on the scale. Scores range from 5-35, divided into six 5-point increments, from Extremely Dissatisfied (5-9) to Extremely Satisfied (31-35). Additional research studies have reported coefficient alphas between .79 and .89 (Pavot & Diener, 1993).

Chapter III

Results

Demographic Analyses

Multiple analyses were conducted to examine any moderating influences of the participants' demographics on the positive psychology scales (unconditional self-acceptance, approaches to happiness, subjective happiness, purpose in life, and satisfaction with life). Independent T-tests were computed to compare means by gender, bivariate correlations were computed to compare means by the participants' ages, and one-way ANOVAs were computed to compare means according to ethnicity, present religion, and "religion raised." Tables 3a and 3b below present the mean scores and standard deviations for each of the scales.

Gender was not significantly associated with any of the well-being scales.

Age was significantly correlated with Unconditional Self-Acceptance ($r = .175$, $p = .006$) and Pursuit of Happiness through Pleasure ($r = -.145$, $p = .023$). Age was not significantly associated with Pursuit of Happiness through Meaning, Pursuit of Happiness through Engagement, Subjective Happiness, Purpose in Life, or Satisfaction with Life

Ethnicity was significantly associated with mean scores for Pursuit of Happiness through Engagement, $F(6,265) = 2.778$, $p = .012$; and Purpose in Life, $F(6,265) = 2.419$, $p = .027$. Ethnicity was not associated with Unconditional Self-Acceptance, Pursuit of Happiness through Meaning, Pursuit of Happiness through Pleasure, Subjective Happiness, or Satisfaction with Life.

Post-hoc Bonferroni mean comparisons found one significant ($p < .05$) difference in mean scores on the Purpose in Life test, with Latino / Hispanic participants ($M = 112.5$,

SD = 20.3) reporting significantly higher scores than Indian participants (M = 79.3, SD = 20.4), p = .045. Post-hoc analyses failed to reveal any significant differences between ethnic groups in their Pursuit of Happiness through Engagement.

Present religious denomination was significantly associated with Pursuit of Happiness through Meaning, $F(10,261) = 2.634$, $p = .005$; and Purpose in Life, $F(10,261) = 3.533$, $p = .000$. Present religious denomination was not associated with Unconditional Self-Acceptance, Pursuit of Happiness through Pleasure, Pursuit of Happiness through Engagement, Subjective Happiness, or Satisfaction with Life.

Bonferroni mean comparisons revealed a few significant ($p < .05$) differences across religious denominations. Catholics (M = 21.4, SD = 4.6) reported higher scores than Atheists (M = 16.0, SD = 4.6) in Pursuit of Happiness through Meaning, p = .001. On the Purpose in Life Test, Catholics (M = 105.1, SD = 15.9) and Protestants (M = 105.9, SD = 17.3) both reported higher scores than Atheists (M = 86.9, SD = 16.7), p = .002 and p = .013, respectively. Catholics also reported higher scores than participants from Other religions (M = 93.1, SD = 20.3) in the Purpose in Life Test, p = .048.

The religion with which participants were raised was not significantly associated with any of the subjective well-being scales.

Chi square analyses showed that there was no statistically significant difference in the relationships between gender and worldview ($\chi^2 = 7.345$, $p = .196$) or ethnicity and worldview ($\chi^2 = 28.533$, $p = .542$).

Worldview Comparisons

One-way between subjects ANOVAs were conducted to compare the relationship between the worldview subscales from the PPBSS and the subjective well-being scales. Table 4 below presents the mean scores and standard deviations. Worldview was significantly associated with mean scores across all scales: Unconditional Self-Acceptance, $F(5,266) = 2.864$, $p = .015$; Pursuit of Happiness through Meaning, $F(5,266) = 4.309$, $p = .001$; Pursuit of Happiness through Pleasure, $F(5,266) = 2.346$, $p = .042$; Pursuit of Happiness through Engagement, $F(5,266) = 2.942$, $p = .013$; Subjective Happiness, $F(5,266) = 3.315$, $p = .006$; Purpose in Life, $F(5,266) = 7.021$, $p = .000$; and Satisfaction with Life, $F(5,266) = 2.734$, $p = .020$.

Post-hoc Bonferroni mean comparisons revealed significant ($p < .05$) differences across worldviews. Humanists ($M = 89.7$, $SD = 10.7$) scored significantly higher than Empiricists ($M = 81.1$, $SD = 11.6$) on the Unconditional Self-Acceptance Questionnaire, $p = .040$. In regards to Pursuit of Happiness through Meaning, Monotheists ($M = 21.3$, $SD = 4.7$) reported scores significantly higher than Empiricists (18.7, $SD = 4.8$), $p = .006$. On the Purpose in Life Test, Monotheists ($M = 104.9$, $SD = 15.1$) scored significantly higher than Pantheists ($M = 81.4$, $SD = 20.7$), $p = .005$; Empiricists ($M = 94.8$, $SD = 16.4$), $p = .002$; and those who did not fit cleanly into any worldview ($M = 90.1$, $SD = 15.0$), $p = .002$.

Post-hoc analyses failed to reveal any significant differences between individual worldviews in Pursuit of Happiness through Pleasure, Pursuit of Happiness through Engagement, Subjective Happiness, or Satisfaction with Life.

Table 3a - Mean Scores and Analysis of Variance by Gender, Ethnicity, and Religion (Present)

	USAQ *M (SD)*	OtH-Mean *M (SD)*	OtH-Pleas *M (SD)*	OtH-Engag *M (SD)*	SHS *M (SD)*	PIL *M (SD)*	SWLS *M (SD)*
Gender							
Male	84.1 (10.4)	19.9 (5.0)	19.9 (4.5)	17.4 (3.9)	4.6 (0.8)	100.2 (17.1)	24.2 (6.2)
Female	84.8 (11.8)	20.64 (4.5)	20.0 (4.8)	17.0 (3.8)	4.5 (0.9)	101.7 (18.2)	24.7 (6.3)
T-Test (t)	**-.46**	**-1.16**	**-.08**	**.96**	**.96**	**-.69**	**-.71**
Ethnicity							
African American	85.9 (12.0)	21.4 (4.8)	19.1 (4.0)	18.5 (4.3)	4.5 (0.9)	100.2 (17.6)	23.3 (5.2)
Asian	80.5 (7.3)	20.4 (2.6)	18.6 (4.6)	19.0 (3.4)	4.5 (1.0)	99.5 (18.2)	25.4 (7.4)
Caucasian	84.8 (11.1)	20.0 (4.8)	20.1 (4.6)	16.7 (3.7)	4.5 (0.8)	100.3 (16.7)	24.5 (6.2)
Latino / Hispanic	84.4 (11.9)	21.7 (5.6)	21.1 (5.0)	19.1 (4.1)	5.0 (1.2)	112.5 (20.3)	26.0 (7.3)
Indian	76.7 (4.0)	18.0 (2.6)	15.3 (2.5)	16.3 (4.9)	4.2 (0.9)	79.3 (20.4)	24.0 (3.6)
Middle Eastern	74.3 (6.4)	20.0 (3.5)	19.7 (4.9)	15.0 (5.6)	5.0 (1.1)	98.3 (19.0)	26.7 (7.5)
Other	82.0 (11.4)	19.7 (4.7)	19.9 (5.4)	18.8 (3.3)	4.2 (0.8)	99.2 (20.1)	21.7 (7.5)
ANOVA (F)	**1.07**	**.78**	**1.05**	**2.78***	**1.93**	**2.42***	**.79**
Religion (Present)							
Atheist	84.5 (10.5)	16.0 (4.6)	19.1 (4.9)	15.1 (3.6)	4.2 (0.7)	86.9 (16.7)	22.4 (6.2)
Agnostic	81.9 (12.5)	18.9 (4.3)	21.0 (5.5)	16.1 (4.1)	4.3 (0.9)	96.2 (17.7)	22.2 (6.3)
Buddhist	79.4 (10.5)	21.6 (1.1)	21.8 (2.2)	17.6 (2.3)	4.8 (0.8)	102.0 (16.0)	26.8 (5.5)
Christian – Catholic	84.8 (10.1)	21.4 (4.6)	20.5 (4.6)	17.8 (3.4)	4.7 (0.8)	105.1 (15.9)	25.6 (5.9)
Christian – Protestant	88.0 (12.4)	20.2 (5.3)	18.1 (5.0)	16.7 (3.9)	4.8 (0.6)	105.9 (17.3)	25.7 (5.3)
Christian – Orthodox	80.7 (16.3)	19.8 (5.3)	19.3 (3.0)	18.7 (5.4)	3.8 (0.4)	91.2 (18.4)	25.5 (4.9)
Muslim	80.0 (11.5)	21.0 (1.8)	18.0 (2.9)	20.5 (4.7)	4.8 (1.1)	97.8 (30.6)	26.8 (6.2)
Jewish – Conservative	82.3 (29.9)	17.3 (8.5)	15.7 (7.5)	14.3 (6.0)	4.3 (0.8)	114.0 (14.2)	23.3 (5.8)
Jewish – Reformed	89.6 (10.4)	19.4 (3.8)	20.4 (6.5)	17.8 (2.8)	4.7 (0.8)	108.0 (7.0)	24.4 (6.1)
None	83.9 (10.3)	19.7 (4.8)	19.5 (4.0)	16.5 (3.9)	4.4 (0.8)	97.9 (14.9)	23.4 (7.4)
Other	83.2 (10.2)	19.9 (4.4)	20.3 (3.6)	17.6 (4.7)	4.4 (1.1)	93.1 (20.3)	21.8 (6.8)
ANOVA (F)	**.85**	**2.63****	**1.35**	**1.79**	**1.73**	**3.53*****	**1.77**

Note:
*p < .05; **p < .01; ***p < .001.

Table 3b - Mean Scores and Analysis of Variance by Religion (Raised)

	USAQ *M (SD)*	OtH-Mean *M (SD)*	OtH-Pleas *M (SD)*	OtH-Engag *M (SD)*	SHS *M (SD)*	PIL *M (SD)*	SWLS *M (SD)*
Religion (Raised)							
Buddhist	75.3 (5.7)	21.8 (1.3)	22.3 (2.2)	18.0 (2.4)	4.8 (0.9)	101.0 (18.3)	27.0 (6.3)
Christian – Catholic	84.3 (10.4)	20.5 (4.8)	20.3 (4.6)	17.2 (3.6)	4.6 (0.9)	101.1 (17.5)	24.6 (6.3)
Christian – Protestant	86.3 (12.2)	19.9 (4.6)	18.9 (4.2)	16.0 (4.1)	4.6 (0.7)	100.3 (18.5)	24.0 (6.3)
Christian – Orthodox	81.4 (15.0)	20.0 (4.9)	19.4 (2.8)	18.9 (5.0)	3.9 (0.5)	93.0 (17.4)	26.1 (4.8)
Muslim	84.2 (13.9)	22.7 (3.9)	18.8 (3.1)	19.5 (4.5)	4.8 (1.0)	100.8 (24.7)	25.7 (8.4)
Jewish – Conservative	82.3 (18.4)	19.0 (6.2)	19.7 (6.8)	16.0 (4.7)	4.6 (0.9)	107.6 (15.6)	23.4 (6.0)
Jewish – Reformed	91.8 (10.7)	19.5 (4.4)	18.0 (4.2)	18.5 (2.6)	4.9 (0.7)	108.5 (7.9)	25.8 (6.1)
None	83.4 (10.9)	19.5 (5.5)	18.7 (5.8)	16.4 (4.0)	4.6 (0.8)	104.0 (12.5)	24.3 (5.9)
Other	85.0 (10.8)	19.1 (4.5)	20.1 (5.0)	18.2 (4.6)	4.3 (0.8)	97.2 (20.6)	22.5 (6.9)
ANOVA (F)	**.81**	**.60**	**.77**	**1.31**	**1.05**	**.59**	**.53**

Note:
*p < .05; **p < .01; ***p < .001.

Table 4 - Mean Scores and Analysis of Variance by Worldview

		USAQ *M (SD)*	OtH-Mean *M (SD)*	OtH-Pleas *M (SD)*	OtH-Engag *M (SD)*	SHS *M (SD)*	PIL *M (SD)*	SWLS *M (SD)*
Worldview	**(n)**							
Monotheism	(155)	85.6 (11.0)	21.3 (4.7)	19.9 (4.7)	17.6 (3.8)	4.7 (0.7)	104.9 (15.1)	25.1 (6.0)
Pantheism	(7)	83.1 (12.0)	19.3 (3.2)	21.9 (2.0)	19.6 (2.7)	3.8 (1.1)	81.4 (20.7)	18.9 (8.5)
Humanism	(20)	89.7 (10.7)	20.5 (5.7)	21.3 (3.9)	18.6 (4.5)	4.5 (0.9)	102.9 (22.7)	25.9 (7.1)
Empiricism	(54)	81.1 (11.6)	18.7 (4.8)	20.5 (4.9)	16.1 (4.0)	4.3 (0.9)	94.8 (16.4)	23.2 (6.2)
Naturalism	(15)	80.6 (6.1)	18.3 (3.8)	19.9 (3.8)	16.8 (3.5)	4.9 (1.1)	103.2 (23.8)	25.5 (6.2)
None / Multiple	(21)	82.5 (10.0)	18.1 (3.9)	17.1 (3.9)	15.7 (2.9)	4.4 (0.8)	90.1 (15.0)	22.4 (5.8)
ANOVA (F)		**2.86***	**4.31****	**2.35***	**2.94***	**3.32****	**7.02*****	**2.73***

Note:
*p < .05; **p < .01; ***p < .001.

Chapter IV

General Discussion

The goal of this study was to explore the relationship between an individual's worldview and his or her subjective well-being. It was hypothesized that religious worldviews that embrace the existence of a benevolent, all-powerful being (and those most closely related) would be associated with higher scores of subjective well-being and positive psychology.

Demographic Analyses

There were no observed moderating effects of gender on well-being or worldview. Ethnicity's only effect was that Latinos scored higher than Indians on the Purpose in Life Test. This may be a reflection of the strong religious emphasis within the Hispanic community; however, with the small sample sizes (particularly of Indians, n = 3), generalizations should be minimal.

Age revealed an effect on USAQ scores and Pursuit of Happiness through Pleasure, with older participants showing higher degrees of self-acceptance and less pleasure-seeking. It would seem that as people age, they become more accepting of themselves and seek happiness in what Maslow and others would consider the higher endeavors.

Comparisons of self-endorsed religious denominations mirrored the findings comparing the PPBSS worldviews, with Catholics scoring significantly higher than atheists in Pursuit of Happiness through Meaning and on the Purpose in Life Test. On the

Purpose in Life Test, Catholics also scored higher than those in the "Other" category and Protestants scored higher than atheists.

It is interesting to take note that although there were clearly some differences in well-being across present religious denomination, there were no observed differences whatsoever in contrasting the religion with which the participants were raised. This seems to indicate that not only are we more greatly affected by our present beliefs, but that we are to some degree able to successfully reject and distance ourselves from the beliefs of our childhood – either that or we are unaffected because we never fully embraced them.

Comparison of Worldviews

Participants were divided into six worldviews (Monotheism, Polytheism, Eastern Pantheism, Modern Humanism, Empiricism, and Naturalism) based on the factorial analysis computed by Spearman, the developer of the Personal Philosophical Belief Statements Scale (2006). A seventh category, None/Other, was added for those who did not squarely fit into any worldview, and the subscale "Polytheism" was removed from the statistical analysis due to a lack of adherents.[3]

One-way ANOVA omnibus tests found significant differences between worldviews across all seven well-being scales (including the three subscales assessing approaches to happiness). Thus, there was a significantly greater difference in subjective well-being between worldviews than within them. Even so, post-hoc analyses found relatively few significant differences between individual group means.

[3] Only three participants fit into the subscale of Polytheism. All three were also high on the Monotheism subscale, and all three denied a belief in multiple gods (PPBSS item #93). Thus, they were categorized into the Monotheism worldview.

Most notable is that individuals in the Empiricism category scored significantly lower than other worldviews on multiple scales, including the Unconditional Self-Acceptance Questionnaire, the Pursuit of Happiness through Meaning subscale, and the Purpose in Life Test. This finding was consistent with the stated hypothesis, anticipating worldviews that reject the existence of a higher power to have lower scores. Empiricism is based on the belief that knowledge comes through experience (as opposed to rationalism or a priori reasoning) and is limited to our five senses. Empiricists tend to look at the world from a naturalist perspective, understanding the world through natural law and cause and effect. Although not necessarily atheistic in their metaphysical beliefs, empiricists often reject the notion of a higher power, or at least see such an entity as unnecessary in understanding the world around us.

It was interesting to note that empiricists did not score significantly lower in Subjective Happiness or Satisfaction with Life – an unanticipated result. However, this is consistent with the notion of happiness as a state of being pursued through multiple avenues. Although Empiricists scored lower in their Pursuit of Happiness through Meaning, their scores indicate that they were not in any way prevented from pursuing happiness through engagement and pleasure.

The second noticeable group was composed of Monotheists, who scored significantly higher than Empiricists on the Pursuit of Happiness through Meaning subscale and the Purpose in Life Test (as mentioned above). Monotheists also scored higher than Pantheists and those in the "None / Multiple" category on the Purpose in Life Test. This finding is not only consistent with the present hypothesis, but is also in

keeping with the literature, which has frequently found a relationship between religion and "meaning in life" (Steger & Frazier, 2005).

In regards to those who did not fit into any of the worldview subscales, it may be that the lack of an encompassing and cohesive worldview limits one's ability to see meaning or purpose in one's daily life. It might also be fair to say that an individual who does not take the time to formulate their personal worldview may not take the time to look for a "greater purpose," either. However, this is speculation. It may also be true that these individuals were categorized as "None/Multiple" because the present scale was not able to account for their particular worldviews. Nevertheless, as a group, they scored significantly lower on the Purpose in Life Test.

As for Eastern Pantheists, it may be that an all-powerful and benevolent God that promises eternal rewards to individual entities who serve him offers a greater sense of purpose than an impersonal force, the expectation of reincarnation, and participating in the "unity of matter, life and energy."

A final difference in worldviews was seen in the Unconditional Self-Acceptance Questionnaire, with Modern Humanists scoring significantly higher than Empiricists in self-acceptance. Although neither of these worldviews necessarily believe nor disbelieve in a god, this finding is logically consistent with the characterization of the worldviews themselves. Humanism generally asserts that people are basically good, and is logically more likely to have positive feelings about themselves and others.

Finally, one must take into account that there were many well-being scales that showed no individual differences between worldviews (Pursuit of Happiness through Pleasure, Pursuit of Happiness through Engagement, Subjective Happiness, and

Satisfaction with Life). It is possible that worldview may have little effect on these scales. Engagement and pleasure may be forms of happiness equally as common to all worldviews. Furthermore, recognizing happiness as a state of being achieved through multiple avenues, it may be equally accessible to all. And if happiness is found through different means, we may infer that satisfaction is likely achieved similarly. However, post-hoc analyses could also have been severely limited by sample size – particularly in the lack of diversity, resulting in Type II errors.

Limitations

One significant limitation of this study was the convenience sampling, which resulted in a very limited range of worldviews and beliefs. As can be seen in the demographics table, over half of the participants considered themselves to be Christian at the time of the study (57.4%) and over three-quarters were raised Christian (78.3%). Twelve more were Jewish or Muslim. Furthermore, of those who did not consider themselves Christian, 84.5% reported being Atheist, Agnostic, None, or Other (36.1% of the total sample size). Out of 272 participants, 168 embraced some form of monotheism and 71 were on the atheism spectrum. This allowed for very little diversity in the sample, limiting its generalizability in the population as a whole. In addition, there was very little variance in regards to race and age, both of which are demographic characteristics likely to have a relationship with worldview and/or subjective well-being.

Another form of sampling bias was present as the participants were essentially a "captive audience." Although they had the freedom to choose which surveys they would like to take, they were still required to fill out a certain number of hours worth of surveys

to satisfy the requirements for their class. This led to multiple responses having to be removed from the survey due to patterned answers, and of those that remained, it is possible that some may not have answered thoughtfully, instead filling in responses simply to get a grade.

Further limitations in this study pertained to the PPBSS in particular. Some of the questions in this worldview scale were poorly worded, vague, and/or confusing. For example, one item reads: "I am not essentially what I describe myself to be." This item is intended to assess beliefs common in humanism and existentialism about whether our identity or essence precedes our existence or vice versa. However, for individuals not familiar with the philosophy behind these ideas, this statement can be rather confusing. Another item states: "I anticipate something good that is not yet here." This is probably less confusing than the first, but still has the potential to be misunderstood by participants who do not see this as a statement about eschatological future events. Another frequent misinterpretation was seen in that many individuals who did not believe in multiple gods still endorsed statements like "Gods and/or goddesses create moral values," not realizing that these items were intended to be exclusive to polytheistic belief systems.

Another limitation of this study was related to the worldview divisions themselves. Using the previous researcher's factor analysis as a basis for subscales provided a sufficient starting point; however, as often can occur with factor analyses, the subscales were not always theoretically consistent. For example, the items included in the "Naturalism" subscale were: 1) "I am satisfied with life", 2) "Only what I see, hear, touch, taste and smell exists", 3) "I live in a world that is hopeless", and 4) "Meaning in life comes only from reason." Of these four statements, only one is necessarily a premise of a

naturalist worldview (2). Statements 3 & 4 may be commonly embraced by naturalists, but are not universal, and statement 1 has nothing to do with the other three other than the fact that it was highly correlated with them in the original study. It not only alters the definition of what it means to be a naturalist in this study, but it also affects the subscale's responses on the well-being scales.

According to the present hypothesis, it was anticipated that individuals who embraced a naturalist worldview (there is nothing besides that which can be experienced with the five senses) would have scored lower on the well-being scales than individuals who embraced other worldviews. This was clearly not the result, as "Naturalists" reported some of the highest mean scores on the Subjective Happiness Scale, the Purpose in Life Test, and the Satisfaction with Life Scale. However, it is nearly impossible to determine whether those scores are an accurate reflection of naturalists in general, or if (more likely than not) those scores were drastically altered by the inclusion of the first item. There were only 15 participants in the Naturalism subscale, which may be partially due to the seemingly inconsistent items: "I am satisfied with life" and "I live in a world that is hopeless."

All of the above may or may not have contributed to another difficulty in this study: the inconsistency of participants. Whether out of confusion, a lack of interest, or possibly a lack of an established worldview, respondents tended to show an inconsistency in their responses, not affirming certain beliefs that many would consider "logically consistent" with other responses given. For example, some participants endorsed mutually exclusive items such as "Only what I see, hear, touch, taste and smell exists" and "God exists." Others would endorse belief statements such as "The world was

created to run without God's interference" and "God made the world and lets it run on its own" and then deny the face valid question "Deism: God created the world but is not involved with it." This finding may be a result of the age of the participants who in college are often questioning and seeking to establish their own personal belief systems, or the contemporary generation that often embraces a postmodern perspective in regards to metaphysical reality. No matter the reason, this naturally must call into question the consistency of the results, or at least the relationship between beliefs and well-being. If certain individuals do not recognize the logical consequences of their beliefs/ideas, then it is unlikely that those beliefs can have much of an effect on other aspects of their life like well-being.

Furthermore, worldview in and of itself is not a rigid construct – at least not in its common manifestation. As observed in the data, relatively few people have rigidly consistent worldviews. Thus, it is very difficult – one might even call it unrealistic – to categorize individuals into only one cohesive belief system – especially in a culture that tends to reject institutionalized religion for individual pursuits of the Sacred. In addition, even those who approach such an ideal may still have doubts and questions of their own. Our worldview is a set of beliefs about metaphysics – the world we cannot really know for sure. Kant calls it the "noumenon," to which no one has direct access, and Voltaire makes the statement, "Doubt is not a pleasant condition, but certainty is absurd." Thus research in this field must develop a satisfactory means by which to understand, categorize, and differentiate individual beliefs – even amidst the confusion of personal variance.

Suggestions for Future Research

Future research should begin with a broader range of participants, from all different walks of life. Greater diversity in the sample will provide greater external validity and make any findings more relevant to the population.

Secondly, a finer tuned worldview measure, complete with simplified items understandable to the layperson, worldview indices, and theoretically consistent scales is necessary in order to more accurately measure the relationship between metaphysical beliefs and any other psychological construct. It would also be beneficial to add more questions about the nature of God in order to distinguish between the different monotheistic religions. As for the inconsistency of respondents – or to be politically correct – the more complex and individualistic worldviews, it would be beneficial to have an online questionnaire that alters the questions based on prior responses. That way, answers would build upon one another and develop into a cohesive worldview, as opposed to a simple list of beliefs.

Another option to address the "inconsistency" of the average individual would be to develop a scale that allows for comparisons based on particular beliefs instead of overarching worldviews. In this manner, people could be compared by multiple specific beliefs (e.g.: nature of god, nature of truth, presence of an afterlife, etc.) rather than assuming that a particular worldview will accurately and sufficiently encompass all underlying beliefs.

Finally, it would also be beneficial to include some sort of measure of commitment to one's belief system. The depth of conviction of an individual's beliefs

may also affect that belief's relationship to other aspects of psychological well-being, as we are generally more affected by that which we attribute greater value.

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Appendix A

Surveys

The Personal Philosophical Belief Statements Scale
By Michelle L. Spearman, Ph.D.

Instructions: Please indicate how much you agree or disagree with the following statements.

1 – Strongly Disagree
2 – Disagree
3 – Somewhat Disagree
4 – Somewhat Agree
5 – Agree
6 – Strongly Agree

1. Only what I see, hear, touch, taste and smell exists.
2. God exists.
3. Truth is within me.
4. My beliefs govern the way I live my life.
5. I am free to choose within God's plan.
6. For me, meaning in life comes from participating in the unity of matter, life and energy.
7. Science can eventually explain why I feel pleasure or pain.
8. Life has purpose.
9. I believe in an afterlife.
10. The only truth that can be known is discovered by science.
11. I am free to develop a higher self.
12. I know myself very well.
13. Moral values come only from God.
14. Sacred writings are not a source of truth.
15. All life, including human life is only a chemical process.
16. I have a soul (spirit).
17. My values are randomly chosen.
18. Human beings and Nature are One.
19. I am on my own in this world.
20. Truth is discovered only through nature.
21. The world was created to run without God's interference.
22. I believe in biological evolution.

23 Gods and/or goddesses create moral values.

24 Suffering for past sins is universal.

25 Meaning in life involves developing into oneness.

26 A supernatural power exists.

27 "All is One" (i.e., there is no real difference between humans, animals, rocks, or even God).

28 My existence continues after death.

29 I believe in the essential goodness of others.

30 Life is meaningless.

31 Suffering is permitted by God.

32 I was created by God.

33 Evil exists.

34 Death is an illusion.

35 People are a creation of the gods and/or goddesses.

36 I have the ability to determine my destiny.

37 Financial success is an important value in my life.

38 I am basically a highly evolved animal.

39 Truth is an experience of unity with "the oneness" of the universe.

40 Every culture constructs its own views on the meaning of life.

41 Meaning in life comes only from reason.

42 I have unlimited freedom.

43 Truth can be objective.

44 Science is gradually discovering the truths about the physical world.

45 God is pure energy.

46 God exists and there are absolute guidelines for what is right and wrong.

47 I am not defined by my actions.

48 There are some truths that are always true.

49 I should help someone in need.

50 I am satisfied with life.

51 Nothing can be known for sure.

52 Self-satisfaction should be a person's primary goal.

53 I anticipate something good that is not yet here.

54 Those whom God chooses will be saved.

55 There is something that shapes this world's existence.

56 God is all-powerful.

57 Reality does not have to be interpreted through language and culture.

58 Someone can be moral and not act according to their beliefs.

59 Personal suffering is the result of my free choice.

60 The universe is spiritual.

61 Reality is both physical and spiritual.

62 The universe has spirit beings.

63 What you do will come back to you.

64 My beliefs are similar to the views of most of the people I know.

65 Science can answer questions about morality.

66 I do not follow an organized religion.

67 The meaning of life is dependent on the gods' and/or goddesses' activities.

68 Suffering is one consequence of a cause and effect universe.

69 People could figure out my belief system from my behavior.

70 Morality is an invention of an individual's thinking.

71 What may be true for one person may not be true for another.

72 Truth is discovered through someone who can speak about what the gods and/or goddesses are doing.

73 People are only what they describe themselves to be.

74 Values involve enlightened behavior.

75 The aim in life is to increase man's freedom.

76 There are some values that everyone should agree with.

77 My values do not have a religious foundation.

78 My existence is not the most central focus of life.

79 Human freedom is not restricted by the gods and/or goddesses.

80 Values are not created by people.

81 The truth of each culture comes from the language of that culture.

82 The highest value in life is a person's well-being.

83 God made the world and lets it run on its own.

84 God and the universe are not identical.

85 After death, I will reside in a state that either rewards or punishes.

86 Obeying the gods and/or goddesses will result in prosperity.

87 God and the universe are one.

88 Narratives define truth.

89 God expects people to obey some moral laws that are found in nature.

90 People who believe that life has no purpose must be unhappy.

91 I believe there is a higher being, but that being is not necessarily God.

92 God exists relative to theists but does not exist relative to atheists.

93 There is more than one god.

94 People who believe that life has no purpose may be just as happy as those who see a purpose in life.

95 I am forced to define my own personal meaning.

96 Disobeying the gods and/or goddesses will result in judgment.

97 Values are created by people.

98 What happens after a person dies is related to their behavior when they were alive.

99 I believe in the superiority of my own ethnic group.

100 I am not essentially what I describe myself to be.

101 Even if God does exist, God is irrelevant.

102 Suffering occurs because all life consists of pain.

103 Human existence is the most central focus of life.

104 I believe in sin.

105 There is no essential meaning to my life.

106 The self is not God.

107 What is pleasant is essentially good.

108 I have a desire to be free of guilt feelings.

109 Life is a mystery that will never be understood by science alone.

110 Religious beliefs are stand-ins for the things that science has not yet explained.

111 Truth is found in nature.

112 After death I will be reincarnated.

113 I live in a world that is hopeless.

114 God does not determine the outcome of my life.

115 Each person has some god-like characteristics.

116 Right and wrong exist.

Question: How much do you identify with the following terms? Each term is followed by a brief description.

117 Naturalism: The world can be understood in scientific terms without spiritual or supernatural explanations.

118 Monotheism: Belief in a single God, characterized by Judaism, Christianity, or Islam.

119 Deism: God created the world but is not involved with it.

120 New Age: Each person is a god.

121 Pantheism: God is the universe.

122 Nihilism: There is no ultimate meaning to life.

123 Postmodernism: Meaning and purpose are derived from culture and language.

124 Existentialism: Meaning in life derives from human freedom.

125 Polytheism: Belief in multiple Gods.

Unconditional Self-Acceptance Questionnaire
By John Chamberlain, Ph.D. & David A. F. Haaga, Ph.D.

INSTRUCTIONS: Please indicate how often you feel each statement below is true or untrue of you. For each item, write the appropriate number (1 to 7) on the line to the left of the statement, using the following key:

1 – Almost Always Untrue
2 – Usually Untrue
3 – More Often Untrue Than True
4 – Equally Often True and Untrue
5 – More Often True Than Untrue
6 – Usually True
7 – Almost Always True

1 Being praised makes me feel more valuable as a person.

2 I feel worthwhile even if I am not successful in meeting certain goals that are important to me.

3 When I receive negative feedback, I take it as an opportunity to improve my behavior or performance.

4 I feel that some people have more value than others.

5 Making a big mistake may be disappointing, but it doesn't change how I feel about myself overall.

6 Sometimes I find myself thinking about whether I am a good or bad person.

7 To feel like a worthwhile person, I must be loved by the people who are important to me.

8 I set goals for myself with the hope that they will make me happy (or happier).

9 I think that being good at many things makes someone a good person overall.

10 My sense of self-worth depends a lot on how I compare with other people.

11 I believe that I am worthwhile simply because I am a human being.

12 When I receive negative feedback, I often find it hard to be open to what the person is saying about me.

13 I set goals for myself that I hope will prove my worth.

14 Being bad at certain things makes me value myself less.

15 I think that people who are successful in what they do are especially worthwhile people.

16 I feel that the best part about being praised is that it helps me to know what my strengths are.

17 I feel I am a valuable person even when other people disapprove of me.

18 I avoid comparing myself to others to decide if I am a worthwhile person.

19 When I am criticized or when I fail at something, I feel worse about myself as a person.

20 I don't think it's a good idea to judge my worth as a person.

Orientations to Happiness Questionnaire
By Chris Peterson, Ph.D.

DIRECTIONS: Below are 18 statements that many people would find desirable, but we want you to answer only in terms of whether the statement describes how you actually live your life. Read each one and then use the 1-5 scale below to determine your response. Please be honest and accurate!

1 = Not like me at all
2 = A little like me
3 = Somewhat like me
4 = Mostly like me
5 = Very much like me

1. Regardless of what I am doing, time passes very quickly.
2. My life serves a higher purpose.
3. Life is too short to postpone the pleasures it can provide.
4. I seek out situations that challenge my skills and abilities.
5. In choosing what to do, I always take into account whether it will benefit other people.
6. Whether at work or play, I am usually "in a zone" and not conscious of myself.
7. I am always very absorbed in what I do.
8. I go out of my way to feel euphoric.
9. In choosing what to do, I always take into account whether I can lose myself in it.
10. I am rarely distracted by what is going on around me.
11. I have a responsibility to make the world a better place.
12. My life has a lasting meaning.
13. In choosing what to do, I always take into account whether it will be pleasurable.
14. What I do matters to society.
15. I agree with this statement: "Life is short-eat dessert first."
16. I love to do things that excite my senses.
17. I have spent a lot of time thinking about what life means and how I fit into its big picture.
18. For me, the good life is the pleasurable life.

Subjective Happiness Scale
By Sonja Lyubomirsky, Ph.D.

For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you:

_____ (1) – (2) – (3) – (4) – (5) – (6) – (7) _____

1 In general, I consider myself:

"Not a very happy person" (1) ------- (7) "A very happy person"

2 Compared to most of my peers, I consider myself:

"Less happy" (1) ------- (7) "More happy"

3 Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?

"Not at all" (1) ------- (7) "A great deal"

4 Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?

"Not al all" (1) ------- (7) "A great deal"

Purpose in Life Test
By James C. Crumbaugh, Ph.D. & Leonard T. Maholick, Ph.D.

Instructions: Write the number (1 to 7) next to each statement that is most true for you right now.

_____ (1) – (2) – (3) – (4) – (5) – (6) – (7) _____

1 I am usually:

(1) "Bored"
(-)
(7) "Enthusiastic"

2 Life to me seems:

(1) "Completely routine"
(-)
(7) "Always Exciting

3 In life I have:

(1) "No goals or aims"
(-)
(7) "Clear goals and aims"

4 My personal existence is:

(1) "Utterly meaningless, without purpose"
(-)
(7) "Purposeful and meaningful"

5 Every day is:

(1) "Exactly the same"
(-)
(7) "Constantly new and different"

6 If I could choose, I would:

(1) "Prefer never to have been born"
(-)
(7) "Want 9 more lives just like this one"

7 After retiring, I would:

(1) “Loaf completely the rest of my life”
(-)
(7) “Do some of the exciting things I’ve always wanted to”

8 In achieving life goals I’ve:

(1) “Made no progress whatever”
(-)
(7) “Progressed to complete fulfillment”

9 My life is:

(1) “Empty, filled only with despair”
(-)
(7) “Running over with exciting things”

10 If I should die today, I’d feel that my life has been:

(1) “Completely worthless”
(-)
(7) “Very worthwhile”

11 In thinking of my life, I:

(1) “Often wonder why I exist”
(-)
(7) “Always see reasons for being here”

12 As I view the world in relation to my life, the world:

(1) “Completely confuses me”
(-)
(7) “Fits meaningfully with my life”

13 I am a:

(1) “Very irresponsible person”
(-)
(7) “Very responsible person”

14 Concerning freedom to choose, I believe humans are:

(1) “Completely bound by limitations of heredity and environment”
(-)
(7) “Totally free to make all life choices”

15 With regard to death, I am:

(1) “Unprepared and frightened”
(-)
(7) “Prepared and unafraid”

16 Regarding suicide, I have:

(1) “Thought of it seriously as a way out”
(-)
(7) “Never given it a second thought”

17 I regard my ability to find a purpose or mission in life as:

(1) “Practically none”
(-)
(7) “Very Great”

18 My life is:

(1) “Out of my hands and controlled by external factors”
(-)
(7) “In my hands and I’m in control of it”

19 Facing my daily tasks is:

(1) “A painful and boring experience”
(-)
(7) “A source of pleasure & satisfaction”

20 I have discovered:

(1) “No mission or purpose in life”
(-)
(7) “A satisfying life purpose”

Satisfaction with Life Scale
By Ed Diener, Ph.D.

DIRECTIONS: Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

1 – Strongly Disagree
2 – Disagree
3 – Somewhat Disagree
4 – Neither Agree or Disagree
5 – Somewhat Agree
6 – Agree
7 – Strongly Agree

1 In most ways my life is close to my ideal.

2 The conditions of my life are excellent.

3 I am satisfied with life.

4 So far I have gotten the important things I want in life.

5 If I could live my life over, I would change almost nothing.