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THE RELATIONSHIP OF MOOD AND SPIRITUALITY TO STATE HOPE AND
DISPOSITIONAL FORGIVENESS

by

Russell Ellis Lark

A Dissertation
Submitted to the Graduate Studies Office
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

Approved:

May 2007
The University of Southern Mississippi

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Russell Ellis Lark

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ABSTRACT

THE RELATIONSHIP OF MOOD AND SPIRITUALITY TO STATE HOPE AND DISPOSITIONAL FORGIVENESS

by Russell Ellis Lark

May 2007

Hope and forgiveness have historically been considered as theological constructs which have received empirical study in the past two decades. Many of the studies on the two constructs have either examined their relationship to personality, spirituality, or mood. None of the studies, however, have examined the relationship of personality, spirituality, and mood in the same study to better understand the relationship between all three constructs and hope and forgiveness. A mood induction procedure was used to determine whether altering mood resulted in a significant change in hope and forgiveness. Additionally, this study attempted to determine whether spirituality, as measured by the Assessment of Spirituality and Religious Sentiments Scale and the Spiritual Well-Being Scale, accounted for significant variance above and beyond that explained by personality and mood, both of which have shown significant relationships to hope and forgiveness. Finally, the role of spirituality regarding hope and forgiveness in depressed, neutral (control) and elated moods was examined.

Results using a mixed analysis of variance (ANOVA) indicated that altering mood significantly changed hope but not forgiveness. Results using multiple regression models indicated that spirituality, explained a significant amount of variance in both hope and forgiveness above and beyond that explained by personality alone. With respect to hope, four significant factors were found while only one spirituality factor, existential well-being, explained the variance in forgiveness. Finally, spirituality played
more of a role in hope in a depressed state than it did in neutral or elated states. Results are discussed in terms of their use for researchers and clinicians.
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CHAPTER I
INTRODUCTION

Religion and spirituality have long been at odds with psychiatry and psychology – a rift that began with Sigmund Freud. Freud believed that many religious beliefs were pathological and that God was a projection of one’s neuroses (Freud, 1927/1961). Carl Jung disagreed with Freud’s view and saw spirituality as an essential component of psychological functioning (Jung, 1938). The differing views on religion/spirituality were one of the factors that precipitated the rift between the two. Other psychologists have also debated the issue of whether religion is helpful or harmful for the psyche. Ellis’ (1980) view is similar to that of Freud’s, as Ellis believes that religion hinders the struggle for growth, freedom, and actualization (Pargament & Brant, 1998). Bergin (1983) found mixed results regarding the relationship between religion and mental health, but, in general, does not see religion as a hindrance to psychological growth.

The alienation between mental health professions and religion, however, appears to be coming to an end, creating an opportunity for researchers to study religion and psychology together (Richards & Bergin, 2000). Hope and forgiveness, because of their history rooted in religion and the current trend to study the constructs more scientifically, are two arenas where the gap between religion and psychology is closing. It has been only recently that these constructs have been subjected to scientific scrutiny. As such, both are relatively new topics of study within the field of psychology with most scientific research being conducted during the past two decades.

Forgiveness, though long discussed by philosophers and theologians, has not been studied empirically until relatively recently (Enright, Santos, & Al-Mabuk, 1989). McCullough (2000) conducted a review of the empirical literature on forgiveness and
found that most forgiveness research has focused on either specific offenses or on specific dyadic relationships. Forgiveness theorists, however, have encouraged that forgiveness research examine dispositional forgiveness (McCullough 2000; Worthington & Wade, 1999). Relatively little research to date, however, has focused on forgiveness at the dispositional level – across situations and relationships (Brown, 2003).

Definitions of forgiveness have varied from author to author, and individual researchers’ conceptualizations of forgiveness are diverse. Worthington (1998) suggested that no consensual definition of forgiveness exists, though most researchers today agree with Enright and Coyle (1998) that forgiveness should be differentiated from “pardonning”, “condoning”, “excusing”, “forgetting”, “denying”, and to a lesser extent “reconciliation.” Researchers tend to agree more on what forgiveness is not than on what forgiveness is.

Like forgiveness, hope is a construct that has traditional religious roots that has recently received the attention of the psychological community. Though similar to learned optimism, optimism, self-efficacy, and problem-solving, hope theory (Snyder, Irving, & Anderson, 1991) represents a distinct construct. Hope has been discussed in the psychiatric and psychological communities for some time. For example, Menninger (1959) discussed hope as a creative drive against destructiveness and suggested that scientists needed to study and understand hope, while Frankl (1963) gave attention to hope as a variable that helped him survive Auschwitz. Others (Stotland, 1969) have similar definitional perspectives that describe hope as a positive expectation for reaching goals (Snyder, Irving, & Anderson, 1991).

Hope, a cognitive construct which focuses on goal attainment, has received increased empirical attention since the early 1990’s (Snyder, 2000). Snyder, Irving, &
Anderson (1991) defined hope as “a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy) and (b) pathways (planning to meet goals)” (p.287). Snyder et al.'s definition of hope involves three components. Goals are the targets of mental action sequences and represent the cognitive component which anchors hope theory. Pathways thought refers to an appraisal of capabilities for finding effective routes to the desired goal. Agency thought refers to the perceived ability to begin and continue along the envisioned pathways to a desired goal. All three components must be present to lead to hope as conceptualized by Snyder et al. (1991).

Recent research on hope and forgiveness has indicated their relationship to personality and spirituality. According to Piedmont (1998) personality is “the intrinsic organization of an individual’s mental world that is stable over time and consistent over situations” (p.2). Piedmont noted that personality represents a structured system located within the individual, which one uses to organize and orient to the world around oneself. Spirituality refers to one’s sense of ultimate meaning and one’s place in the world. However, many studies which look at the relationship between spirituality variables and hope and forgiveness do so without taking personality into account, and it remains unclear as to whether spiritual constructs represent a separate domain of individual differences.

Hope and forgiveness are considered positive psychological constructs that are related to mood. Both high-hope people and forgiving people reported less depression, anxiety, and hostility than those with lower levels of hope and forgiveness (Tierney, 1994; Mauger, Saxon, Hamill, & Pannell, 1996; Snyder, Cheavens, & Sympson, 1997).
Therefore, one goal of clinicians should be to increase levels of hope and forgiveness in clients with whom they work.

Over the last two decades there has been a growing interest in the psychology of emotion and its influence on other psychological processes. As a result, researchers have utilized techniques to induce specific mood states. Mood states are experimentally induced using special mood induction procedures (MIP's). One type of MIP is the Film/Story MIP, which assumes that one's mood can change according to the emotional quality of a film one views or a story one reads. Though several other MIP's exist, the Film/Story MIP has been shown to be the best procedure for inducing both elation and depression (Gerrards-Hesse, Spies, & Hesse, 1994).

No studies to date have examined the role of spirituality regarding hope and forgiveness during mood states. This research accomplished this task by (1) determining whether mood induction procedures can alter hope and forgiveness and (2) determining the variance explained by spiritual variables (Spiritual Well-Being and Spiritual Transcendence) over and above that explained by personality variables with regard to hope and forgiveness during specific mood states.

A Review of the Literature

This study examined the role of spirituality with regards to hope and forgiveness across three mood states – depressed, neutral, and elated. The following is a review of empirical and theoretical research on personality, spirituality, hope, forgiveness, and mood as well as the relationship between those constructs. In addition, the review contains a section on mood induction and the procedures for inducing mood states.
**Personality**

Piedmont (1998) defined personality as a construct that is both stable over time and consistent over situations. Though he admits that environment plays a role in shaping one’s personality, he asserted that “there lies within us some kind of psychological ‘stuff’ which provides the basis for needs that we have, the ways in which we perceive and interpret the outer world, and the goals we ultimately pursue in our lives” (p. 2). Personality is viewed from a trait perspective as opposed to a state perspective, and is used to describe a person’s fundamental temperaments (Piedmont, 1998). Similarly, Burger (1997) defined personality as “consistent behavior patterns and intrapersonal processes originating within the individual” (p. 4). Both definitions emphasize that personality is fairly consistent and that it lies within the individual.

Personality psychologists are concerned with sources of these consistent behavioral patterns and intrapersonal processes. As a result, different models of personality have been developed over the past century and can be traced back to the work of Sigmund Freud, who identified two major personality dimensions – Eros (life instinct) and Thanatos (death instinct) (Piedmont, 1998). Since Freud, researchers have attempted to develop a framework for understanding personality, culminating in what researchers now call the five-factor model of personality (FFM). Following is a brief history of events that led to the development of the FFM.

Systematic efforts to organize the language of personality are likely linked to two German psychologists, Klages and Baumgarten. Klages (1926) suggested that a careful analysis of language would aid in understanding personality and Baumgarten (1933) examined personality terms found in the German language. This influenced Allport & Odbert (1936) to examine natural English language to understand personality. Allport
and Odbert's work had a direct effect on the systematic work of Cattell (1943, 1946, 1947, 1948). Cattell’s system, which was largely based on factor analytic studies of peer ratings of college students, was an objective approach to the organization of the thousands of terms in the English language used to describe individual differences (Digman, 1990). Cattell’s model of personality was composed of 16 primary factors and 8 second-order factors.

Subsequently, other researchers built on Cattell’s work and most found that Cattell’s model was too complex and that a five-factor solution was sufficient to explain individual differences (Fiske, 1949; Smith, 1967; Tupes & Christal, 1961). Tupes and Christal appear to be the first to present an outline of a trait taxonomy delegating five factors. They designated the five factors as Surgency, Agreeableness, Dependability, Emotional Stability, and Culture. Norman (1963) heralded Tupes and Christal’s five-factor model as an “adequate taxonomy of personality attributes” (p. 574). Norman’s statement is considered by many researchers to be the formal beginning of the five-factor model (McCrae & John, 1992). Norman numbered and named his own factors, based on the work of Tupes and Christal (1961) Smith (1967), and Borgatta (1964) as follows - I: Extraversion or Surgency; II: Agreeableness; III: Conscientiousness; IV: Emotional Stability and V: Culture. However, the model gained little support throughout the 1960’s and 1970’s and it was not until the 1980’s that many researchers began to conclude that these factors were common dimensions of personality (McCrae & John, 1992).

In addition to natural language examination (adjective studies), another tradition that led to the modern FFM was questionnaire analysis. For example, H. J. Eysenck (Eysenck & Eysenck, 1964) identified Extraversion and Neuroticism as two components
of psychological tests (labeled later by Wiggins as the “Big Two” which eventually lead to Goldberg’s 1981 designation of the FFM as the “Big Five”). Eysenck & Eysenck (1976) later added a third dimension, Psychoticism, to his instrument and model.

Tellegen and Atkinson (1974), and Costa and McCrae (1980) independently proposed a third dimension of personality. Tellegen and Atkinson referred to the third dimension as Openness to Absorbing and Self-Altering Experience (Absorption) while Costa and McCrae referred to their third dimension as Openness to Experience. Finally, McCrae and Costa (1987) developed questionnaire scales to measure agreeableness and conscientiousness dimensions against other adjective factor and self and peer rating scales.

McCrae and Costa (1985) developed a conceptual framework for understanding personality at the trait level. Their framework, the *Five-Factor Model of Personality* (FFM; McCrae & Costa, 1985), allows one to better understand the stability and heritability of traits. Personality traits can be understood as dispositions which lead to and account for patterns of thoughts, feelings and actions, but are not summaries of behavior (McCrae & Costa, 1995). Their model appears more often in the literature than other variations with similar five factors (see Digman & Takemoto-Chock 1981; Goldberg 1981; and Hogan 1983 for variations on the FFM).

The FFM has been validated across self-report instruments and from observer ratings. For example, McCrae and Costa (1985, 1987) found convergent and discriminant cross-observer and cross-instrument validation for all five factors when comparing several adjective check lists and self and other report inventories. Peabody and Goldberg (1989) and Trapnell and Wiggins (1990) have found similar results. Additionally, the five factors have been found in children, college students, older adults,
Based on its long history, cross-cultural replication, and empirical validation the five-factor model of trait appears to represent universal constructs (McCrae & John, 1992).

Though there is still some debate, according to Wiggins and Trapnell (1997) the FFM is currently the most widely used model in personality assessment. A series of studies conducted from the 1950’s through the late 1980’s have shown that most trait adjectives found in natural languages can be understood from a FFM perspective. That is, the “Big Five” likely account for most of the variance in almost all personality traits (Costa, 1996). The FFM represents decades of research, is currently the preeminent measurement paradigm for personality in a variety of contexts in the United States, and represents a recurrent and comprehensive taxonomy of personality traits. (Costa, 1996; McCrae & Costa, 1987). The FFM contains the domains of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness, which represent genotypic tendencies of individuals to think, act, and feel in consistent ways (McCrae & Costa, 1995).

Central to Neuroticism is a predisposition to experience negative affect as well as the disturbed thoughts and behaviors that accompany emotional distress (McCrae & Costa, 1987). As such, Neuroticism can be thought of as a continuum of emotional stability, such that lower scores represent higher levels of emotional stability (Costa & Widiger, 1994). Neuroticism is described by terms such as worrying, insecure, self-conscious, and temperamental. Individuals who score high in neuroticism are prone to experience psychological distress, excessive cravings or urges, unrealistic ideas, and maladaptive coping responses (Piedmont, 1998). For example, Watson & Clark (1992) found that high Neuroticism scores are moderately to highly correlated with all of the markers of negative affect that are measured by the Positive and Negative Affect...
Schedule (PANAS; Watson, Clark, & Tellegen, 1988), including afraid, ashamed, distressed, guilty, hostile, irritable, jittery, nervous, scared, and upset. With regard to mental health, Neuroticism is the most pervasive personality domain and is comprised of facets of anxiety, angry hostility, depression, self-consciousness, vulnerability, and impulsiveness (Costa & McCrae, 1992; Piedmont, 1998).

Extraversion, an interpersonal domain, which explains the quantity and intensity of interpersonal interaction, the need for stimulation, and the capacity for joy represents a second domain of the FFM. Within the FFM structure Extraversion is placed on a continuum with introversion. For the past half century, Extraversion has been included as a significant domain in every major taxonomic scheme of personality (Watson & Clark, 1997). Extraversion contrasts sociable, active, people-oriented individuals with those who are more reserved, sober, and quiet. (Piedmont, 1998). McCrae and Costa (1987) found that variables such as sociable, fun-loving, affectionate, friendly, and talkative all load highly on the Extraversion factor. Eysenck's (Eysenck & Eysenck, 1964) view is similar in that his model identifies Extraversion with lively sociability. Just as Neuroticism is related to negative affect, Extraversion is related to positive affect. For example, Watson & Clark (1992) found that Extraversion is significantly associated with all of the markers of positive affect (again, as measured by the PANAS) including active, alert, attentive, determined, enthusiastic, excited, inspired, interested, proud, and strong. Positive affect forms the core of the Extraversion dimension of personality (Watson & Clark, 1997).

A third domain of the FFM is Openness to Experience, which is defined as the proactive seeking and appreciation of experience for its own sake, and as toleration for and exploration of the unfamiliar (Piedmont, 1998). McCrae and Costa (1987) found
that adjective-factor results indicate that Openness is best characterized by original, imaginative, broad interests, and daring. Those who score high on Openness are sensitive, passionate, adventurous, bored by familiar sights, unorthodox, free-thinking, and stifled by routine. For example, McCrae and Costa (1997) found that open people are likely to be particularly reflective and thoughtful about ideas they encounter. Furthermore they are higher in intellectual curiosity and are more likely to try new things, such as ethnic foods. According to Piedmont (1998), Openness is the most controversial domain because it is the least developed, least explored, and has the fewest number of adjective descriptors in terms of its representativeness in the English language.

According to Costa and Widiger (2002), Agreeableness represents an interpersonal dimension of personality along a continuum from compassion to antagonism. People who score high on Agreeableness are eager to help others and tend to be responsive and empathic. Furthermore, they believe that other people will behave in the same manner (Costa & Widiger, 2002). High scorers on Agreeableness tend to be compassionate, trusting, forgiving, and soft-hearted (Piedmont, 1998). At the other end of the Agreeableness pole is antagonism. Antagonistic people (those who score low in Agreeableness) set themselves against other people. For example, McCrae and Costa (1987) found that people scoring low in Agreeableness are defined by such adjectives as selfish, uncooperative, critical, cynical, and vengeful. Though high scores on Agreeableness usually bodes well for mental health, extremely high scorers on Agreeableness may also exhibit maladaptive traits such as being dependent and fawning (McCrae & Costa, 1987).
The final domain of the FFM is Conscientiousness. This domain assesses an individual’s degree of organization, persistence, and motivation in goal-directed behavior (Piedmont, 1998). Conscientiousness also appears to contain the components of orderliness, tidiness, compulsiveness, hard work and perseverance (Hogan & Ones, 1997). As a trait, Conscientiousness concerns a lack of impulsiveness and spontaneity and a disposition toward cautiousness and criticality. McCrae and Costa (1987) found that adjectives such as careful, well-organized, reliable, self-disciplined and persevering are related to Conscientiousness. Conscientiousness, then, can be thought of as a dimension of personality that both holds one’s impulsive behavior in check and organizes and directs behavior (McCrae & John, 1992).

Though the FFM has gained extensive empirical support some researchers have suggested a sixth dimension (e.g. Goldberg 1990; Saucier & Goldberg, 1998; Piedmont, 1999). Piedmont (1999) argued that spiritual transcendence represents something distinct from the dimensions captured by the FFM and should not be ignored when assessing personality. In order to demonstrate that spiritual variables represent a dimension distinct from the FFM, Piedmont thought that three criteria needed to be met. First, the new dimension would have to be shown empirically to be independent of the existing five. Second, it would have to subsume several smaller facets similar to the existing five. For example, a Neuroticism score is composed of several facet scores including anxiety, depression, hostility, vulnerability, impulsiveness, and self-consciousness. Finally, the new dimension would have to be recoverable over multiple sources of information (e.g. across ratings and measures) (McCrae & Costa 1987; Piedmont, 1999). Piedmont (1999) found that Spiritual Transcendence met all three criteria. Piedmont’s final conclusion in his 1999 article is that no FFM profile exists for
Spiritual Transcendence because it cuts across the domains of Extraversion, Openness, and Agreeableness. For the above reason, Piedmont (1999) suggested that Spiritual Transcendence should be considered as a distinct psychological dimension and potentially represents a sixth factor of personality.

**Personality and Mood**

Research findings have supported the conclusion that high Neuroticism and low Extraversion are related to depressed mood. In a series of three studies Costa and McCrae (1980) assessed the relationship between personality and happiness (subjective-well being). They found that Extraversion is strongly positively correlated with positive affect and that Neuroticism is positively correlated with negative affect. Additionally, they found that positive affect is positively related to happiness whereas negative affect is negatively related to happiness. Velting (1999) also found a positive relationship between neuroticism and negative affectivity. Specifically, he found that high scores on neuroticism were related to greater likelihood of suicidal ideations.

Similarly, Watson and Clark (1992) found positive relationships between Neuroticism and negative affect, and Extraversion and positive affect, replicating other studies in this area (Emmons & Diener, 1985; Watson & Clark, 1984). Their study consisted of university students from Southern Methodist University and the University of Texas at Dallas. Participants were divided into four samples with ns ranging from 225-532. The weighted mean of the Neuroticism scores of the negative affect subscale of the Positive Affect Negative Affect Scale (PANAS) yielded a simple correlation of .58. Similarly, the weighted mean of the Extraversion scores correlated .58 with the positive affect subscale of the PANAS. Both correlations are significant and quite strong. Multiple regression analyses revealed that only Neuroticism made a substantial
contribution to Negative Affect while Extraversion was the strongest predictor of Positive Affect.

Hirschfeld and Klerman (1979) found similar results. They found that depressed patients scored significantly higher on Neuroticism and lower on Extroversion than did those in published norms and a comparison group of manic patients. Similarly, Sacher (2003), in a study of 31 patients diagnosed with Bipolar I or Bipolar II Disorder, found that patients with higher Neuroticism scores and lower scores on Extraversion had more severe depressive symptoms. Additionally, she found that those with higher extraversion scores had more severe manic symptoms. Taken together these results indicate that Neuroticism and Extraversion are related to depression, but only the Extraversion factor is related to mania. Based on the studies reviewed, the relationship between mood and the five-factor model is contained on two factors, Neuroticism and Extraversion.

Though there appears to be a relationship between mood and the neuroticism and extraversion factors, research suggests that moods produced by mood induction procedures have little effect on personality. For example, Larsen and Ketelaar (1989) used a guided imagery mood induction procedure (false feedback technique) in an attempt to manipulate positive and negative affect. The participants were 67 college undergraduates in introductory psychology classes. Participants completed the Eysenck Personality Inventory (EPI; Eysenck and Eysenck, 1964) followed by the mood induction procedure. Finally, participants completed a mood adjective rating task to determine if the mood induction had been successful. They then correlated post-exposure mood ratings with neuroticism and extraversion scores. When the positive affect induction condition was compared to the negative affect induction condition,
results showed that the moods produced by the affect induction procedures were rather weak and did not result in a significant main effect. However, there was an interaction between the type of mood induced and participant’s personality characteristics prior to the mood induction. For example, those high in Neuroticism showed a positive relationship to affect induction only when negative affect was manipulated whereas those high on Extraversion showed a positive relationship with affect induction only when the positive affect was manipulated. Overall their findings suggested that extraverted people were more susceptible to positive affect while those scoring higher on neuroticism are more susceptible to negative affect.

Bradley, Mogg, Perrett & Galbraith (1993) tested how the effects of a music mood induction procedure would influence scores on the Eysenck Personality Inventory. They predicted that depression would elevate Neuroticism scores. Participants were 39 undergraduate students who scored less than 11 on the Beck Depression Inventory. This helped ensure the researchers that the 39 participants were only experiencing minimal depressive symptomatology (i.e., the participants were not even considered mildly depressed). Prior to the mood induction each participant completed visual analogue scales to rate “depressed” or “happy”. Participants were then divided roughly in half and placed into either a neutral or depressed mood induction. Following the mood induction procedure each participant completed another visual analogue scale, the Eysenck Personality Inventory, and the Profile of Mood States scale. Five weeks later, participants were placed in the alternate mood induction group. Results indicated that the mood induction procedure had the desired effect and that mild levels of depression were induced. However, Neuroticism scores, as well as Extraversion and Lie scale scores, were stable across both mood conditions. That is, moods produced by mood induction
procedures did not alter personality scores. Similarly, Lewis & Harder (1988) found that Velten's MIP, a MIP where participants read positive and negative statements, works independently of personality attributes.

Given the above data, it is not likely that a mood that is induced by a MIP will significantly alter personality. Therefore, for the purposes of the current study, measures of personality will be taken prior to the mood induction procedure, but will not be taken following the MIP. It has been suggested by some researchers that spirituality may comprise a distinct dimension of personality. As such, spirituality will be discussed in detail in the following section.

**Spirituality**

According to Emmons (1998) contemporary academic personality psychology has only recently acknowledged the spiritual reality of the person. Emmons suggested that to fully understand one's personality, psychologists should understand the religious/spiritual side of a person's life. As a result, in the last decade and a half, the psychology of religion has experienced a renaissance. Obviously, there are similarities between religion and spirituality, but the two are different constructs. That is, one can be very spiritual without being religious (Hatch, Bury, Naberhaus & Hellmich, 1998).

Religion and spirituality are not synonymous and definitions of each are abundant. Spirit, as defined by The Merriam-Webster dictionary, is an “animating or vital principle held to give life to physical organisms.” Thomason & Brody (1999) described a broader and deeper understanding of spirituality. They defined spirituality as that which gives meaning to life and draws one to transcendence, to whatever goes beyond the limits of the individual human lifetime. People may, therefore, have a spiritual dimension to their lives without espousing any religion (Breakey, 2001). That is, one may believe that
there are spiritual realities underlying the material universe, without accepting any particular system of religious beliefs, dogma, or creed. At the most fundamental level, spirituality gives an individual a sense of ultimate meaning (Breakey, 2001).

Religion, on the other hand, encourages people to higher levels of spirituality through individual and communal participation in worship and practice and is often defined in terms of adherence to a system of particular spiritual beliefs and/or participation in a fellowship of faith and practice. When one says, “I am Muslim,” or “I am Christian,” or “I am Hindu,” he or she is espousing to the basic tenets of a particular religion as well as the behavior, motivations, and values that the religion encourages. Clearly, however, different people who profess membership of the same religious group have different degrees of spirituality and/or religiosity (Breakey, 2001).

Spirituality has been defined as the search for the sacred (Hill et al. 1999; Pargament, 1999). Pargament’s view is one in which religion subsumes spirituality. Another prominent theorist, Emmons, believes that spirituality encompasses religion (Emmons, 1999). Piedmont (1999) suggested that all religious traditions encourage individuals to recognize that their perspective is limited because it is anchored in a specific time and place. Therefore individuals should consider a broader vision of life that satisfies our desire to be connected with something larger. Piedmont described this theme as Spiritual Transcendence. Piedmont refers to Spiritual Transcendence as the capacity for individuals to stand outside of their immediate sense of time and place and to view life from a larger more objective perspective. Spiritual Transcendence emphasizes the personal search for connection with a larger sacredness (see McAdams 1995, and Emmons 1998 for cross reference). Like Emmons, Piedmont’s view of
spirituality encompasses religion. In this study, Piedmont's and Emmons' views of spirituality as a broad construct that encompasses religion will be used.

In this study, spirituality was measured with two scales: The Assessment of Spirituality and Religious Sentiments Scale (ASPIRES) and the Spiritual Well-Being Scale (SWB). For Piedmont, Spiritual Transcendence, represented by three factors on the ASPIRES, represents a broad domain of motivation that underlies strivings in both religious and secular contexts. (The other two domains that are measured by the ASPIRES – religiosity and religious sentiments – represent the value that one places on involvement in specific, ritual oriented, religious activities and will not be examined directly in the current study). According to Piedmont several components comprise Spiritual Transcendence, which make it a more encompassing construct than religiousness. These components are a sense of connectedness, universality, and prayer fulfillment.

Spiritual well-being appears similar to Spiritual Transcendence, but the two are not overlapping constructs (Leach & Lark, 2004). Ellison (1983) asserted that humans also have a need for transcendence, or the sense of well-being one experiences in finding purposes to commit oneself to which involve ultimate meaning for life. According to Ellison, this need refers to a non-physical dimension of experience and awareness which can best be termed spiritual. In addition to spiritual well-being, Campbell (1981) suggested that there are three other basic needs and that well-being depends on ones satisfaction of each need. Campbell listed these as the need for having (acquisition of material necessities), need for relating (patterns of interpersonal relationships), and the need for being (sense of satisfaction with one’s self). Well-being has been explained by such constructs as positive and negative affect (Bradburn, 1969) and life satisfaction.
(Campbell et al., 1976). Spiritual well-being, obviously, incorporates a spiritual component as a measure of one's quality of life and involves a religious component as well as a social-psychological component.

Moberg and Brusek (1978) conceptualized spiritual well-being as having a vertical and a horizontal component referring to (1) a sense of well-being in relation to God, which Paloutzian and Ellison (1982) operationalized as Religious Well-Being (RWB) and (2) a sense of life purpose and satisfaction, with no reference to anything specifically religious, which they operationalized as Existential Well-Being (EWB), respectively. The sum of the RWB and the EWB represent the total well-being of both the vertical and horizontal dimensions, or Spiritual Well-Being (SWB).

All items on the SWB scale deal with transcendent concerns (aspects of experience that involve meaning, ideals, faith, commitment, life purpose, and relationship to God) (Ellison, 1983). Spiritual Well-Being has shown positive relationships with measures of self-esteem and negative relationships with loneliness (Ellison, 1983). Similarly, SWB has been shown to be positively related to having purpose in life and intrinsic religious orientation (Ellison, 1983). Ellison and Economos (1981) found that those with a more intrinsic and faith oriented relationship with God, have higher RWB and overall SWB. Similarly, they found that those with more intimate relationships with God and their church have higher SWB.

Mickley, Soeken, and Belcher (1992) examined the role of spiritual well-being (SWB), hope, and religiousness in relation to spiritual health. Specifically, they posed three questions: (1) How is spiritual health, as measured by the SWB Scale, related to religion, as measured by the Feagin Intrinsic/Extrinsic Religiousness Scale? (2) What is the relationship between spiritual health and psychological health as measured by the
Nowotny Hope Scale? (3) What role does spiritual health play in the coping responses of women with cancer? Women (N = 175) with breast cancer were chosen as their target population as the role of SWB had not been described in cancer patients. They found that women who scored higher on intrinsic religiosity tended to have higher SWB (both RWB and EWB) than those characterized as extrinsically religious. With regard to hope, SWB explained 54.9 percent of the variance with 53.6 percent of the variance coming from the EWB scale. These results suggest that EWB and SWB are highly related to hope, and RWB is a less significant predictor. However, Mickley et al. did not use a measure of personality when examining the explained variance in hope. The relationship between personality and spirituality has been shown in several research studies. (These studies will be reviewed in a later section). Therefore, it is important to use a measure of personality when studying spirituality in order to understand better the role of spirituality. The current study expanded on Mickley et al. by using measures of personality and spirituality to explain variance in hope and forgiveness.

Spiritual transcendence and spiritual-well being are two constructs that have been utilized in research to better understand the spiritual components of individuals. This spiritual dimension, according to Piedmont, Emmons, and McAdams, cannot be captured by viewing a person from a trait personality perspective alone. However, few studies to date have examined the role of spiritual constructs to determine if they show incremental significance over existing personality constructs (i.e. the five-factor model).

Religion/Spirituality and Mood

Hodges (2002) argued that spirituality is related to emotional well-being during adulthood. This argument is based partially on her review of the literature that illustrates how spirituality is positively related to overall well-being (Chandler, Holden, &
Koelander, 1992; Witmer & Sweeney, 1992). She concluded her theoretical article by suggesting that emotionally healthy individuals have active spiritual lives, are able to find meaning in life, and are likely to have an intrinsic value system that guides their decisions. Her theoretical argument appears to be in agreement with existing empirical literature that has examined the relationship between spirituality and mood.

Fehring, Brennan, and Keller (1987) found results indicating that spirituality and mood are positively related. The authors used two separate studies to test the hypothesis that depression in response to a life change is mediated by an individual’s sense of Spiritual Well-Being. In study 1, participants were 95 freshman nursing students. Results indicated that SWB and EWB scores were negatively related to depression, and most of variance can be attributed to the EWB scale. In study 2, participants were 75 randomly selected students form the entire student population. Results of study 2 supported a significant inverse relationship between depression (as measured by the BDI) and the spiritual variables SWB and EWB. Again, the inverse relationship with depression was primarily due to EWB. These results support the idea that spiritual variables influence psychological well-being. Specifically, their study revealed that depression in response to life change was mediated by SWB, and the mediation was related to a purpose and satisfaction in life (EWB) and not to a relationship with God (RWB).

Hughes and Peake (2002) conducted a similar study with senior adults. They predicted that there would be a significant inverse relationship between depression and spiritual well-being, and they used the Geriatric Depression Scale and the SWB scale to test their hypothesis. Participants were 78 senior adults from various locations in Florida. Using stepwise multiple regression they found results similar to Fehring,
Brennan, and Keller (1987). Specifically, they found a significant inverse relationship between SWB and depression. A second multiple-regression was conducted to understand better the role of spiritual well-being in preventing depression. Hughes and Peake found that EWB was the strongest predictor of depression. Specifically, older adults with a sense of spiritual well-being, especially existential well-being, were less likely to experience depressive symptoms.

McClain, Rosenfeld, and Breitbart (2003) assessed the importance of spirituality in coping with a terminal illness. Participants in their study were 160 terminally-ill cancer patients who were given less than three months to live. Results indicated that spiritual well-being as measured by the Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale (FACIT-SWB), was inversely related to the outcome variables of end-of-life despair, hopelessness, desire for hastened death, and suicidal ideation. Additionally, spiritual well-being provided a stronger contribution to each outcome variable than did depressive symptoms.

In another study of the terminally ill Nelson, Rosenfeld, Breitbart, & Galietta (2002) found similar results in a sample of 162 patients with cancer (84) and AIDS (78). The authors used the FACIT-SWB scale and the Hamilton Depression Rating Scale (HDRS) to test their hypothesis that more “spiritual” individuals would report lower levels of depression. Multiple regression analysis revealed significant negative relationships between spiritual well-being, specifically the meaning/peace subscale, and depression. Their findings also suggest that more “spiritual” individuals demonstrated lower levels of depression. In a surprising finding, they found that religiosity (a subscale of the FACIT-SWB) was positively related to depression, which is inconsistent
with the majority of prior research regarding health and well-being (e.g. George, Larson, Koenig, & McCullough, 2000; Richards & Bergin, 1997).

Young, Cashwell, and Shcherbakova (2000) predicted that spirituality might moderate the relationship between negative life experiences and depression. They predicted that spirituality, as measured by the Human Spirituality Scale (HSS) would reduce the impact of negative life events on depression. Their study consisted of 303 undergraduates enrolled in psychology classes. They found a statistically significant negative correlation between Spirituality and Depression, as measured by the Beck Depression Inventory-II. Results suggest that higher levels of spirituality weaken the impact of negative life events on depressive symptoms. Similar to other studies comparing mood and spirituality, their study did not include a measure of personality, a construct considered increasingly critical when determining the strength of spirituality within multiple psychological domains. Also, the HSS is a relatively untested instrument. The current study used spirituality instruments which have been used extensively in research and which have been shown to explain unique variance of other variables such as forgiveness and mood. In addition, this study used a measure of personality, so that unique variance in hope and forgiveness accounted for by spirituality can be ascertained.

Relationship between Personality and Religion/Spirituality

Results of studies examining the relationship between personality and religiosity have shown that religiosity corresponds to individual differences (Saroglou, 2002). Based on Eysenck’s P-E-N (Psychoticism – solitary, troublesome, cruel; Neuroticism – anxious, moody, depressive personality traits; Extraversion – sociable, carefree and optimistic) model, several studies (e.g., Francis, 1997; Francis & Bolger, 1997; Lewis &
Maltby, 1996; Maltby, Talley, Cooper, & Leslie, 1995; Smith, 1996) have shown that religiousness, as measured by several indicators including frequency of attending worship services, frequency of private prayer, and positive attitudes toward religion, is inversely related to Psychoticism (McCullough, Tsang, & Brion, 2003). The same studies also revealed that the other two factors (E, N) are either inconsistent or unrelated to religion (Saroglou, 2002).

Maltby and Day (2001) showed that religion and spirituality are two different constructs. They compared spiritual involvement and beliefs with Eysenck’s three-factor model in a sample of 300 undergraduate students. Results showed that spirituality is most associated with extraversion. Specifically, they found that extraversion accounts for between 9% and 14% of the variance in spirituality scores. This contrasts with findings showing that low psychoticism scores are fundamental to religiosity and hence, implies that religiosity and spirituality are not identical constructs.

Results are similar when viewing personality from a five-factor structure. Saroglou (2002) conducted four distinct meta-analyses of several studies which investigated the relationship between personality and religiosity/spirituality by classifying religious measures into four categories: Religiosity (intrinsic/general), open and mature religiosity and spirituality, religious fundamentalism, and extrinsic religiosity. As expected, he found that general or intrinsic religiosity was correlated mostly with A and C and weakly correlated with E. Additionally, he found that along with A, C, and E that O is related to the open and mature religiosity and spirituality group. Furthermore, people in the open and mature group seem to be high in emotional stability (low N). He also found that religious fundamentalism is associated with low Openness and Neuroticism and has a positive relationship with Agreeableness.
Extrinsic religiosity was significantly correlated with only one factor, N. Based on Saroglou’s study, the relationship between personality and religion/spirituality appears to be dependent on what type of religiosity/spirituality is being measured.

McCrae and Costa suggested that Openness to Experience may be the most relevant dimension of the FFM to the study of spirituality/religion (McCrae, 1996; McCrae & Costa, 1997). Openness represents a broad factor including need for variety, aesthetic sensitivity, and non-authoritarian values (McCrae, 1999). Openness is often associated with spirituality whereas low-openness is often associated with religion. For example, Streyffeler and McNally (1998) compared liberal and fundamentalist protestant Christians and found no statistical differences on Neuroticism, Extraversion, Agreeableness, or Conscientiousness using the NEO Five-Factor Inventory. However, they found a large (>1 SD) difference on Openness, with fundamentalists scoring significantly lower on all 12 items in the Openness scale such as claiming to be less affected by poetry, lower in intellectual curiosity, and less likely to try new and ethnic foods. These results appear to be consistent with Maltby and Day (2001) and support the view that spirituality and religion are different constructs.

Taylor and MacDonald (1999) found both Agreeableness and Conscientiousness were positively correlated with Intrinsic religiosity but not related to Extrinsic religiosity. According to Allport (1955) religion as a means to an end is considered extrinsic whereas religion as a way of life is referred to as intrinsic. Taylor and McDonald also found that Openness to Experience was mostly unrelated to religion as defined in their study. Their results are inconsistent with McCrae and Costa’s suggestion and Streyffeler and McNally’s results.
Golden, Piedmont, Ciarrocchi, and Rodgerson (2004) attempted to extend spirituality research by examining the incremental validity in predicting clergy burnout over and above the contributions of personality and work environment. They used a sample of 700 United Methodist clergy. Using hierarchical multiple regression, they found that spiritual transcendence as measured by the Spiritual Transcendence scale, accounts for a significant 2% of clergy burnout when controlling for personality and work environment. Further analysis showed that Prayer Fulfillment was the only subscale that was a significant predictor of burnout when controlling for all other variables (demographics, personality, and work environment). Interestingly, all five personality dimensions only uniquely added 4% of the variance, suggesting that the single dimension of spirituality added 50% as much as the five-factors of personality.

Overall, these results indicate that spirituality/religiosity are related to personality, but the direction and strength of the relationship depends on what aspect of spirituality or religiosity are being measured. Also, results provide evidence that religiosity and spirituality are similar but distinct constructs. Additionally, results provide support that spirituality adds to personality when studying other variables such as clergy burnout. The relationship between spirituality and personality with forgiveness has been shown and will be discussed in the following section.

Forgiveness

Enright, Freedman, and Rique (1998) defined forgiveness as abandoning one’s right to resentment, negative judgment, and indifferent behavior toward one who unjustly harmed us, while fostering the undeserved qualities of compassion, generosity, and possibly love toward him or her. Rye et al. (2001) conceptualized forgiveness as a response toward an offender that involves reducing negative affect (e.g., hostility),
cognitions (e.g., thoughts of revenge) and behavior (e.g., verbal aggression) and may even involve positive responses toward an offender (e.g., compassion). Both definitions explain the heart of forgiveness. When someone forgives a person it is the forgiver – specifically in her or his thoughts, feelings, motivations, or behaviors – who changes. That is, when people forgive others their responses toward them become less negative and more positive (McCullough et al., 2000). In this respect, forgiveness is an intrapersonal process.

Recently, psychologists from different disciplines have begun to explore empirically several aspects of forgiveness – how it occurs, under what conditions it tends to be granted, and its mental health correlates and consequences. McCullough and Worthington (1999) suggested that forgiveness is both spiritual and psychological in nature and is possibly linked to measures of well-being and human health. As such the concept of forgiveness is common ground for research on the interface of religion and psychology (McCullough & Worthington, 1999). However, most of the empirical studies of forgiveness have overlooked deep religious roots associated with it. Research on forgiveness would be enriched considerably by examining how religious traditions, beliefs, and rituals – one’s psychological connection to the transcendent element of forgiveness – influence her or his thoughts, feelings, behaviors and personality processes (McCullough & Worthington, 1999).

The construct of forgiveness is no longer the sole province of theologians (Brown, 2003). Scientific studies that examined the connection between religion and forgiveness have suggested that people who are more religious value forgiveness more than less religious people, however, it is unclear whether or not religious people are actually more forgiving than those who are less religious (McCullough & Worthington, 1999).
Nevertheless, the world’s preeminent religions (Judaism, Islam, Hinduism, Christianity, and Buddhism) all speak to the importance of forgiveness (See Rye et al., 2000).

 Forgiveness and Personality

According to Thompson and Snyder (2003), measures of dispositional forgiveness are useful for assessing psychological correlates of forgiveness. Mauger et al. (1992) measured dispositional forgiveness with a measure that they developed, which measured both self and other forgiveness. Their study revealed that those who have problems forgiving others and forgiving oneself are more likely to have significant psychopathology as measured by the MMPI. Specifically, they found that problems in forgiving oneself are more related to depression, anxiety, anger/distrust, and negative self-esteem than are problems in forgiving others.

Maltby, Macaskill, and Day (2001), used Mauger et al.’s Forgiveness Scales and the abbreviated form of the Revised Eyesenck Personality Questionnaire and the General Health Questionnaire to determine the relationship between forgiveness of self and others and personality. Using 324 undergraduate students, they found that failure to forgive oneself is positively related to neuroticism. Results also indicated that failure to forgive others is negatively related to extraversion, and among women, failure to forgive others was positively related to psychoticism. Their results support Mauger et al.’s (1992) findings which indicated that failure to forgive others is extra-punitive and failure to forgive self is intra-punitive.

Walker and Gorsuch (2002) compared four dimensions of dispositional forgiveness – Forgiveness of Others (FOO), Forgiveness of Self (FOS), Receiving Others’ Forgiveness (ROF), and Receiving God’s Forgiveness (RGF) – with the 5 factors of personality. They found that Neuroticism, which has been consistently shown
to be associated with avoidance behavior and negative affect, was a negative predictor of 
FOO and RGF and that Agreeableness is a significant predictor of ROF. The remaining 
three personality factors, Extraversion, Conscientiousness, and Openness to Experience, 
failed to predict forgiveness.

Berry, Worthington, O'Connor, Parrott and Wade (2005) examined the 
relationship between the five-factor model of personality and trait forgiveness. They 
found that trait forgiveness was negatively related to neuroticism and was positively 
correlated to agreeableness, extraversion, and conscientiousness. Though studies 
depicting a negative relationship between forgiveness and neuroticism and a positive 
relationship between forgiveness and agreeableness have been replicated often, studies 
indicating a positive relationship between forgiveness and both extraversion and 
conscientiousness are inconclusive. For example only 18% of studies report the 
relationship between forgiveness and conscientiousness and only 25% reported the 
positive relationship between forgiveness and extraversion.

Ross, Kendall, Matters, Wrobel, and Rye (2004) examined the convergent and 
discriminant validity of self- and other-forgiveness in the Five-factor model of 
personality (FFM). Their sample consisted of 147 undergraduate students, and found 
that self-forgiveness was negatively related to Neuroticism. Additionally, they found 
that forgiveness of others was positively related to Agreeableness, suggesting that 
forgiveness of self and forgiveness of others are orthogonal constructs that may have 
very different motivation underpinnings.

Similarly, Leach & Lark (2004) compared dispositional forgiveness to the FFM 
by using Mauger et al.'s Forgiveness Scales and the Bipolar Adjective Rating Scale 
(BARS; McCrae and Costa, 1985, 1987), a FFM measure that has demonstrated
adequate psychometric properties with a college population. With regard to forgiveness of others, their data indicated a negative correlation between forgiveness and neuroticism, and positive correlations with Extraversion, Agreeableness and Conscientiousness. Additionally, they found a negative relationship between neuroticism and forgiveness of self, and positive relationships between forgiveness of self and Openness, Agreeableness, and Conscientiousness. In their multiple regression analysis, they found that neuroticism is the only significant predictor of self-forgiveness, while agreeableness was the primary predictor of forgiveness of others. These findings were consistent with recent research suggesting that personality plays a considerable role in trait forgiveness.

In one unpublished study, Kashdan and Fincham (2002) (as cited in Thompson et al. 2005) examined the relationship of dispositional forgiveness, as measured by the HFS, and the five-factor model of personality. They found that forgiveness is negatively correlated with neuroticism and positively correlated with Openness to Experience. Additionally, they found that the five factors combined accounted for 43% of the variance in dispositional forgiveness, suggesting that a large variance in forgiveness remained unexplained by the five-factor model. Thompson et al. concluded that dispositional forgiveness represents an important individual difference domain, and the HFS contributes to the current understanding of it.

Berry, Worthington, Parrott, O'Connor, and Wade (2001) examined the relationship between dispositional forgiveness and personality. They reported that scores on the Transgression Narrative Test of Forgiveness (TNTF; Berry et al., 2001) are positively correlated to agreeableness, extraversion, and conscientiousness and negatively associated with neuroticism, anger, and hostility. The TNTF appears to have
similar characteristics to Mauger et al.’s Forgiveness Scales as it correlates with personality in a similar fashion.

Brown (2003) compared personality and dispositional forgiveness using two different measures. He found that forgiveness, as measured by both the Tendency to Forgive Scale (TTF; Brown, 2003) and the TNTF was not significantly correlated with either conscientiousness or openness. Additionally, he found that the forgiveness, as measured by the TTF was positively correlated with agreeableness, negatively correlated with neuroticism, and not significantly correlated with extraversion. In contrast, he found that forgiveness, as measured by the TNTF, was positively correlated with agreeableness and extroversion but was not significantly correlated with neuroticism (Brown, 2003). Brown’s results are inconsistent with most findings that show a negative relationship between forgiveness and neuroticism. Otherwise, they are similar to the results reported by Berry et al. and other studies reviewed here.

Forgiveness and Spirituality

Mullet et al. (2003) described several ways that religion and spirituality can contribute to forgiveness, and the link between dispositional forgiveness and religious involvement has been examined. Evidence exists for a religion-forgiveness relationship. For example, Rokeach (1969), found positive relationships between religious involvement and the value people ascribed to being forgiving. His study had participants from a national area probability sample and a sample of students rank a set of values according to their value system. He found that forgiving was the 5th (out of 18) most important instrumental value as measured by the Rokeach Value Survey. This was especially true among Christians, both Protestant and Catholic, as forgiving was ranked 4th. Among Jewish and non-religious people forgiving was ranked 15th and 16th,
respectively. Rokeach also found significant differences when examining forgiveness within various Protestant denominations: Lutherans ranked it third, while Episcopalians ranked it 8th. Among those who attended services weekly, forgiving ranked 2nd, while it ranked only 11th for those who never attended (Mullet et al., 2003). Finally, Rokeach found that people who were high in church attendance, high in self-rated religiousness and who were intrinsically religious placed being “forgiving” higher in their rankings than those who attended church less frequently, considered themselves less religious, or who were categorized as extrinsically religious.

Other research results have indicated similar findings. Shoemaker and Bolt (1977) examined highly religious people's ideal values. In their study 51 Christian students rated “forgiving” second to “loving” as an ideal value that Christians should espouse. These results indicate that religious students claim to value forgiving more than less religious people and that highly religious people “should” value forgiveness highly. Similarly, Subkoviak, Enright, Wu, and Gassin (1995) measured forgiveness and religiosity in a group consisting of 197 college students. The authors did not find a significant relationship between forgiveness and religiosity, but did find a significant positive relationship between the positive aspects of forgiveness and the positive aspects of religion.

Mullet, Barros, Frongia, Usai, Neto, and Shafighi (2003) found similar results. Their study examined the interrelationships between personal characteristics, religious involvement, and forgivingness. Results of their study indicated that those who attend church regularly stated more willingness to forgive than those who did not attend church or did not believe in God. Additionally, they found that the relationship between church
attendance and willingness to forgive increased as a function of age, suggesting the idea that forgiveness has a developmental quality.

Poloma and Gallup (1991) showed that religious involvement (prayer, church membership, importance of religion, and frequency of religious attendance) were positively related to people's attitudes toward forgiveness. Mauger et al. (1996) found that people higher in religiousness place a high value on forgiveness, believe that they need to be forgiving, believe that people should forgive as a result of recognizing the common worth of all persons, and claim to be highly forgiving people.

Edwards et al. (2002) examined the relationship between forgiveness and religious faith. Participants (196) completed the Santa Clara Strength of Religious Faith Questionnaire-SCSORF) and the Heartland Forgiveness Scale. In their sample 50% indicated that they were Protestant, 35% indicated that they were Catholic, and 15% described themselves as "other". Results indicated a positive relationship between religious faith and forgiveness. More specifically, they found a significant positive relationship between forgiveness of others and strength of religious faith. However, relationships between forgiveness of both self and situations with religious faith, while positive, were not significant. The authors supposed that strong religious faith may lead to forgiveness of others, but not necessarily forgiveness of self and situations.

Leach and Lark (2004) found that spirituality may play a larger role in forgiving others than it does in forgiving oneself. They used two spirituality instruments in their study, which tapped five dimensions of spirituality (universality, prayer fulfillment, connectedness, existential well-being and religious well being), and found significant positive correlations between all spirituality dimensions and forgiveness of others. Additionally, for forgiveness of others, they found that spirituality provided additional
explained variance above and beyond personality and with the existential well-being scale accounting for most of the explained variance. Spirituality did not provide additional explained variance beyond personality with respect to forgiveness of self. However, existential well-being was positively correlated to forgiveness of self, indicating a relationship between finding meaning and purpose in life and self-forgiveness. Their study lends support that spirituality might be a significant factor in the study of trait forgiveness.

 Forgiveness and Mood

Maltby, Macaskill, and Day (2001) also examined the relationship between forgiveness and depression, using a sample of 324 college students. They found that men and women who had a difficult time forgiving self and others scored higher on depression as measured by the General Health Questionnaire. Specifically, results indicated that failure to forgive oneself is positively related to anxiety and depression and failure to forgive others is positively related to depression. Their study extends Mauger et al.'s (1992) findings by suggesting that failure to forgive self and others is related to negative mood states.

Subkoviak et al. (1995), in the same study that was cited earlier, administered measures of forgiveness and depression to 197 participants. Though the results were difficult to interpret due to little variability in the depression measure, there was a positive correlation between the negative affect subscale of the forgiveness measure and the depression measure. Their results supply a link between negative affect, depression, and forgiveness.

Brown (2003) also assessed the relationship between depression and dispositional forgiveness. His study consisted of 70 students from an introductory management
course at a large Midwestern university. He found that forgiveness, as measured by the Tendency to Forgive Scale (TTF) was inversely related to depression. He also found that non-forgiving individuals were more likely to be depressed if they highly valued forgiveness. Similarly, Brown and Phillips (2005) assessed the relationship between depression dispositional forgiveness, using three measures of forgiveness. Results indicated that forgiveness was negatively related to depression on all three measures of forgiveness.

Yamhure Thompson et al. (2005) examined the extent to which forgiveness of self, others, and situations, as measured by the Heartland Forgiveness Scale (HFS; Yamhure Thompson & Snyder, 2003), were predictive of depression. Participants were 504 students at a large, public, Midwestern university. They found significant inverse relationships between HFS Self and HFS Situations and depressive symptoms, indicating that self- and situational-forgiveness are more related to depression than is forgiveness of others. Additionally, they found that forgiveness predicted several other aspects of psychological well-being including anger, anxiety, and life satisfaction. Specifically, they found positive relationships between forgiveness and life satisfaction and negative relationships between forgiveness and anger and anxiety. Results of their study also suggested that forgiveness of situations is able to predict measures of psychological well-being even after being entered into the regression model after forgiveness of self and forgiveness of others. Other researchers (i.e. Enright and Zell, 1989), however, have stated that people forgive only other people, not situations such as natural disasters or specific illnesses. Thompson and Snyder’s results refute Enright and Zell’s statement.

Overall, findings from the literature reviewed above consistently showed positive relationships between forgiveness and measures of religiosity and spirituality, negative
relationships between neuroticism and forgiveness, a positive relationship between 
agreeableness and forgiveness, and inverse relationships between forgiveness and 
depression. This study used measures of personality and spirituality to explain variance 
in forgiveness in depressed, elated, and “neutral” states. Furthermore, by altering mood 
states, this study determined if forgiveness across situations and relationships changes 
based on mood.

Hope

Hope is related to, but different from, several other positive psychological 
theories such as optimism and self-efficacy. For example, Bryant and Cvengros (2004) 
suggested that hope focuses more on personal attainment of very specific goals, while 
optimism focuses on the expected quality of future outcomes. This supports Carver and 
Scheier’s (2002) view of optimism as a general expectation that something good will 
happen. Similarly, Bryant and Cvengros found that self-efficacy is more accurately 
conceptualized as a separate, correlated construct in relation to hope and optimism rather 
than as a construct that overlaps conceptually. Bandura (1994) defined self-efficacy as 
people’s ability to “produce designated levels of performance that exercise influence 
over events that affect their lives” (p.71). As such, self-efficacy is constrained to 
specific abilities in particular areas or circumstances, whereas hope is a more general 
disposition (Arnau et al., in press).

Though Snyder’s theory of hope is cognitive in nature, it also takes into 
consideration emotions and individual differences (Tierney, 1994). Snyder (2000b) 
explained how hope develops throughout childhood and adolescence, emphasizing 
agency and pathway thoughts from a developmental perspective. As such, hope, by late
adolescence and early adulthood, is well established and can be viewed from a trait perspective. Thus, the relationship between hope and personality shows promise.

Arnaud, Rosen, and Green (2003) found that a strong relationship exists between trait hope and the FFM constructs. Specifically, they found that higher hope was negatively related Neuroticism, and positively related to Extraversion, Agreeableness, and Openness to experience. Based on this research, they concluded that hope can be viewed as a personality trait. In the only other empirical study related to the FFM and hope, Moran and Shakespeare-Finch (2003) discussed hope as a personality trait. They suggested that personality variables related to posttraumatic growth indirectly through coping process factors like positive appraisals and activities. Of these two studies, only Arnaud et al.'s study examined the correlation between factors of the FFM and trait hope.

Snyder et al. (1991) developed the Trait Hope Scale which requires respondents to think across time and situational contexts. This scale taps both agency and pathway components. Similarly, Snyder et al., (1996) developed the State Hope Scale. This scale asks respondents to describe themselves in terms of how they are “right now.” Like the Trait Hope Scale, the State Hope Scale measures both agency and pathways components. This research project examined state hope as opposed to trait hope, because state hope is more likely to be altered following a mood induction procedure.

In sum, unlike forgiveness, hope has received little attention from personality researchers. This study expanded the research in this area by examining the relationship between state hope and personality. Additionally, the relationship between state hope and spirituality was examined to determine if spirituality variables affect hope following a mood induction.
Hope and Spirituality

Hope is not only related to personality, but also to spirituality. Snyder, Sigmon and Feldman (2002) suggested that researchers examine spirituality/religion’s effect on hope. For example, relationships between hope and Spiritual Well-Being (SWB) have been found in a number of studies. Coleman (1997), in a study of 117 African-Americans affected with the Human Immunodeficiency Virus, examined the effect of religious attributes on anxiety, hope, and depression. He found a significant positive relationship between existential well-being (EWB - a component of the SWB) and hope.

Other researchers have found similar results. Mickley, Soeken, and Belcher (1992) conducted a study with a sample of 175 women diagnosed with breast cancer. Results of their study indicated that hope is positively correlated with SWB, and that EWB was the primary predictor of hope. RWB, on the other hand, was not predictive of hope in their study.

Zorn & Johnson (1997) examined the relationship between hope and religious well-being (RWB – a component of the SWB) in a sample of 114 non-institutionalized elderly women. They found a moderate positive relationship between hope and religious well-being. Additionally, by using a stepwise multiple regression analysis they found that hope was the only significant predictor of RWB (i.e. age, social support, education, and health were not significant predictors). Zorn & Johnson did not use the EWB component of the SWB scale in their study, which is unusual given that EWB has been shown to be more predictive of hope than RWB.

Gibson (2000) examined the relationship between “spiritual perspective” and hope in a study of 162 African-American breast cancer survivors. She found a significant positive correlation between spiritual perspective and hope. Additionally, she
found a significant positive relationship between hope and psychological well-being. Using path analysis, her study found some evidence that spirituality variables are likely to contribute to hope. This study will build on her study by using personality variables and more tested spirituality variables in an attempt to explain hope.

Mascaro, Rosen, and Morey (2004) used a measure of spiritual meaning, which they described as the extent to which an individual believes that life or some life-guiding force has a purpose or will in which individuals participate, to compare spirituality to personality. They used a sample of 465 undergraduates enrolled in introductory psychology classes. They predicted that spiritual meaning variables would be negatively related to depression and that the meaning measures would explain additional variance in hope and depression beyond that explained by the Big Five. They found that hope, as measured by Snyder’s Hope Scale, had a positive relationship with Conscientiousness and a negative relationship with Neuroticism. Additionally, they found that spiritual meaning was able to predict variance in hope and depression in addition to that explained by the Big Five. Their spiritual meaning scale, however, has been relatively untested. This study used more widely used instruments that measure spirituality to predict variance in hope in addition to the variance explained by the five-factor model.

Hope and Mood

The negative correlation between hope and depression is well known. A sense of hopelessness (which is not the polar opposite of hope but is related to hope), one of the characteristics often associated with depression, predicts suicide better than depression (Minkoff et al., 1974). Coleman (1997), in a study reviewed earlier in this manuscript, found that those who scored higher on hope exhibited less depression and reported fewer symptoms of HIV.
Arnaud, Rosen, Finch, Rhudy, and Fortunato (in press) also found a relationship between hope and depression and hope and anxiety using a longitudinal design in a group of non-clinical participants. Specifically, they found a relationship between hope and depression such that hope at time 1 (T-1) was related to a lower level of depression at time 2 (T-2) and depression at T-1 decreased hope at T-2. In other words, hope and depression have longitudinal influences on each other (Arnaud et al.). Regarding anxiety, they found that hope at T-1 was related to lower levels of panic-related anxiety at T-2, but unlike depression, the relationship was not reciprocal.

In a pilot study that explored the links between hope and depression in the elderly, Chimich and Nekolaichuk (2004) used a sample of 35 participants. They used the Geriatric Depression Scale Short Form, the Hope Differential-Short, and the Hope Numerical Rating Scale as their measures. They found that patients with depression had significantly lower levels of hope. The authors suggested that hope may serve as a protective factor against meaningless, depressive illness and suicide. This is consistent with other studies cited above that show an inverse relationship between levels of hope and depression.

Chang and DeSimone (2001) examined the influence of Snyder's hope theory on dysphoria using a path analysis model. Their sample included 341 college students enrolled in introductory psychology courses. They used the Snyder's Hope Scale and the Beck Depression Inventory as their measures. They predicted that hope would emerge as an important predictor of dysphoria and found that hope was negatively related to dysphoria. Additionally, they found that hope had a direct negative influence on dysphoria after accounting for the mediating influences of both primary and secondary appraisals as well as engaged and disengaged coping. Their results suggest
that more hopeful individuals are less likely to experience dysphoria, that hope has both a direct and indirect influence on dysphoria and is the second strongest predictor of dysphoria following disengaged coping. Results also suggest that increasing individual’s hope might be beneficial for decreasing symptoms of dysphoria.

Overall, the reviewed studies showed a negative relationship between hope and dysphoria or depression. Furthermore, hope has in general been shown to be positively related to spirituality. With regard to personality, research has supported that hope is negatively related to Neuroticism, and positively related to Extraversion, Openness, and Agreeableness. The current study measured hope in individuals in varying mood states to determine if hope changes as a result of one’s current mood. Additionally, this study examined the relationship between state hope and spirituality.

Mood Induction

Laboratory induction of moods has become an established procedure that has a number of advantages over studying individuals with naturally occurring depression. For example, MIP’s allow the researcher to maximize the likelihood of identifying mood-related effects that can be attributed to the current mood state as opposed to dispositional traits (Martin, 1990). Additionally, confounding variables such as medication, psychotherapy, and institutionalization are more likely to be found in clinical versus non-clinical samples in which moods are induced (Martin, 1990).

Similarly, group MIP’s have been shown to be as effective as individual MIP’s for inducing depressed mood (Bates et al., 1999) and more effective for inducing an elated mood (Oaksford, Morris, Grainger, & Williams, 1996). Threats to validity associated with demand characteristics should be taken into account however, as the unit of analysis, mood, is an individual unit of study, and not a group characteristic. That is,
mood induction procedures work at the individual level, and problems arise when one induces mood in a group of participants, because it is the individual, not the group that is the unit of study. Sinclair et al. (1994) argued that for this reason, Type I error is likely to be inflated.

Nevertheless, the benefits of using a group mood induction procedure often outweigh the criticism. For example, group mood inductions allow for homogeneity of conditions across participants (Bates et al., 1999). Additionally, the use of group mood induction is less time consuming for the researcher, thus offering greater convenience and more efficient data collection than individual mood inductions. Furthermore, group MIPS have been used successfully in previous research for inducing both positive and negative moods (Baker & Gutterfreund, 1993; Bates et al., 1999; Oaksford et al., 1996; Sinclair et al., 1994).

Manipulation of mood or mood induction was pioneered by Velten (1968). He developed a systematized procedure, the Velten Mood Induction Procedure (VMIP), in which participants repeated elated, depressed, or neutral statements that are read to them, with the expectation that they would become elated, depressed, or experience no mood change. His procedure was the first systematized mood induction procedure (MIP) and has been shown to be relatively effective for inducing both positive and negative moods. However, moods were not induced in approximately 50% of participants using Velten’s technique (Martin, 1990).

Since Velten introduced the MIP, however, various other MIPs have been used in research, including MIPs based on the free mental generation of emotional states (Hypnosis MIP and Imagination MIP), on the guided mental generation of emotional states (Film/Story + MIP and Music + MIP, where the “+” stands for the explicit
instruction to get into the suggested mood state), on the presentation of emotion-inducing material (Film/Story MIP, Music MIP, and Gift MIP), on the presentation of need-related emotional situations (Success/Failure MIP and the Social Interaction MIP), and MIPs aiming at the generation of emotionally relevant physiological states (Facial Expression MIP) (Gerrards-Hesse et al., 1994).

The Film/Story MIP makes use of the phenomena that a person’s mood can change according to the emotional quality of a film he or she sees or a story she or he reads (Gerrards-Hesse et al., 1994). In a review of approximately 250 studies conducted from the mid-eighties through 1994 concerning all types of MIPs, Gerrards-Hesse et al. (1994) concluded with the following statement, “If the same procedure is to be used for both elation and depression induction, the Film/Story MIP should be the first choice” (p. 70). Finally, the Film MIP has one of the highest success rates of all MIPs. In her summary of success rates of various MIPs, Martin (1990) indicated that the Film MIP induces the desired mood in > 75% of cases.

Radenhausen (1989) used the Film MIP to induce depression and neutral mood states. In his study, depressed affect was induced as participants viewed the film, Death of a Gandy Dancer, depicting a grandfather’s death to cancer and the emotional impact of his death on the family. Control subjects viewed the film, To a Good, Long Life, a film consisting of interviews with senior citizens that have dealt successfully with the transition to old age. In his study, Radenhausen (1989) instructed his students to not expect to feel any particular way and that their mood might increase, decrease, or remain unchanged. He used this instruction to reduce demand characteristics associated with mood induction. Participant’s mood rating scores indicated that the Film MIP was effective in inducing the desired state with mood scores for depressed and control
subjects equivalent prior to the mood induction and statistically different following the MIP.

Similarly Forgas (1990) used the Film MIP. He suggested that the Film MIP allows for the induction of both positive and negative moods without major ethical problems and that the method is suitable for group administration. In his study, participants who saw a happy film rated their overall mood as significantly better on a seven-point scale ($M = 2.15$) than people who saw a sad film ($M = 4.46$), and both groups were statistically different from the control group ($M = 3.31$), $F(2, 141) = 10.67$, $p < 0.01$. These findings are consistent with previous data, which demonstrates the effectiveness of the Film MIP (Forgas and Bower, 1988; Radenhausen, 1989).

Vilaythong, Arnau, Rosen, and Mascaro (2003) examined the relationship between humor and state hope using a Film MIP. Their study consisted of 180 undergraduate students. Using a pre-post design, they found that state hopefulness increased following exposure to a humorous video relative to the control group that viewed a neutral video. Their study provided further evidence for the effectiveness of the film MIP. Furthermore, their study showed that levels of state hope can be altered by using a film MIP.

Statement of the Problem

Though research supports that lower levels of hope and forgiveness are found in respondents who are depressed, little empirical research exists on whether inducing moods can change one’s level of hope and forgiveness. By using a MIP to induce elation and depression, the researcher will be able to determine if altering mood changes one’s level of hope and forgiveness, thus understanding better the role of a person’s mood state in relation to both hope and forgiveness. Additionally, although personality
and spirituality/religion have been shown to be related to hope and forgiveness, little research has been conducted to determine what role, if any, spiritual/religious variables play in leading to hope and forgiveness during specific mood states. The research showed the relationship of spirituality to hope and forgiveness during the specified mood states. Finally, many studies have used single measures of religion/spirituality when relating the constructs to personality, hope, and forgiveness. This study is unique in that various measures of religion/spirituality were used to determine which religious/spiritual constructs account for variance in hope and forgiveness, if any, beyond personality.

Rationale and Purpose of the Study

Researchers have studied the relationship of hope and forgiveness to personality, but have for the most part ignored the religious/spiritual roots of both constructs. This study will determine if altering mood states can change one's state hope and propensity to forgive in a variety of situations. Furthermore, this study will explore the spiritual variables that explain potential variance beyond personality with respect to hope and forgiveness during neutral, elated, and depressed moods.

Due to the rift between psychology and religion/spirituality many psychologists are uncomfortable discussing religious or spiritual matters with their clients. Studying the relationship of hope and forgiveness, two constructs which have been studied scientifically during the last 20 years, to religion and spirituality may give psychologists and therapists an avenue to discuss religious or spiritual concerns more freely. That is, researchers and psychologists may be able to discuss the spiritual components of hope and forgiveness as a means of improving client's psychological well-being.
CHAPTER II

METHODOLOGY

This chapter consists of a listing of the sample, instruments, procedure, research questions and hypotheses, and statistical analyses for the pilot study and the main study. The research involved an experimental design to determine if altering mood can change state hope and forgiveness. Additionally, the study used a correlational design to examine the relationship between spirituality and hope and forgiveness.

Participants

Participants in the pilot study were 59 undergraduate students in psychology courses at a university in the southeastern United States. Participants were assigned to six groups to test six different film mood induction procedures. Participants viewed film clips from Titanic (n = 8) and Schindler’s List (n = 12) in an attempt to induce a depressed mood, while stand-up comedy routines by Seinfeld (n = 10) and Chris Rock (n = 8) were used to try and induce an elated mood. A land surveying clip (n = 9) and a 15 minute clip from a Civil War documentary depicting the warships, The Monitor vs. The CSS Virginia (n = 12) were used to try and “induce” the neutral mood.

Participants in the main study were 225 undergraduate students in psychology courses at a school in the southeastern United States. The participants were assigned into three groups (approximately 75 per group) for induction of one of the following moods: depressed, elated, neutral (control). Participants in the depressed condition (n = 76) viewed a clip from Titanic. Participants in the neutral condition (n = 75) viewed a land surveying video, and participants in the elated condition (n = 74) viewed a clip from a Chris Rock stand-up comedy routine. The videos used in the main study were based on results of the pilot study which will be reviewed in Chapter III. The students were
given extra credit for their participation in the study and $10 for their time. Gender, age, racial/ethnic background, and religious affiliation were recorded as demographic data. Participants ranged in age from 18 – 49 with 90.6 % of participants falling in the 18 – 22 range (See Table 1). For the entire study 73.3% (n = 165) were female and 26.7% (n = 60) were male (See Table 2). In terms of ethnicity 50.4% (n = 113) were African American, 46.4% (n = 104) were Caucasian. The remaining 3.1% considered themselves to be of either Asian (n = 5) or Hispanic (n = 2) origin (See Table 3).

Of the 225 participants, 33.8% (n = 76) were assigned to the depressed condition. Within the depressed condition 61.8% (n = 47) were female and 38.2% (n = 29) were male (See Table 3). Similarly, 50% (n = 38) were Caucasian, 44.7% (n = 34) were African American, and 5.2% (n = 4) were Asian or Hispanic. The neutral group contained 33.3% (n = 75) of all participants. Of those 78.7% (n = 59) were female and 21.3% (n = 16) were male. Within the neutral condition, 36.5% (n = 27) were Caucasian, 59.5% (n = 44) were African American, and 4.1% (n = 3) were Asian or Hispanic. The elated condition contained 32.9% (n = 74) of all participants. Within the elated group 79.7% (n = 59) were female and 20.3% (n = 15) were male. The elated group contained 52.7% Caucasians (n = 39) and 47.3% (n = 35) African Americans.
Table 1

Number of participants divided by Group and Age

<table>
<thead>
<tr>
<th>Group</th>
<th>18 - 22</th>
<th>23 - 26</th>
<th>27 - 30</th>
<th>&gt;30</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Depressed</td>
<td>85.6 65</td>
<td>7.8 6</td>
<td>3.9 3</td>
<td>2.6 2</td>
</tr>
<tr>
<td>Neutral</td>
<td>90.6 67</td>
<td>8.2 6</td>
<td>0.0 0</td>
<td>1.4 1</td>
</tr>
<tr>
<td>Elated</td>
<td>96.0 71</td>
<td>2.7 2</td>
<td>1.4 1</td>
<td>0.0 0</td>
</tr>
<tr>
<td>Total</td>
<td>90.6 203</td>
<td>6.2 14</td>
<td>1.8 4</td>
<td>1.3 3</td>
</tr>
</tbody>
</table>

Table 2

Number of Participants divided by Group and Gender

<table>
<thead>
<tr>
<th>Group</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Depressed</td>
<td>38.2 29</td>
<td>61.8 47</td>
</tr>
<tr>
<td>Neutral</td>
<td>21.3 16</td>
<td>78.7 59</td>
</tr>
<tr>
<td>Elated</td>
<td>20.3 15</td>
<td>79.7 59</td>
</tr>
<tr>
<td>Total</td>
<td>26.6 60</td>
<td>73.4 165</td>
</tr>
</tbody>
</table>
Table 3

*Number of participants divided by Group and Race*

<table>
<thead>
<tr>
<th>Group</th>
<th>Caucasian</th>
<th>African American</th>
<th>Asian</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Depressed</td>
<td>50.0</td>
<td>38</td>
<td>44.7</td>
<td>34</td>
</tr>
<tr>
<td>Neutral</td>
<td>36.5</td>
<td>27</td>
<td>59.5</td>
<td>44</td>
</tr>
<tr>
<td>Elated</td>
<td>52.7</td>
<td>39</td>
<td>47.3</td>
<td>35</td>
</tr>
</tbody>
</table>

Instruments

*Bipolar Adjective Rating Scale* (BARS; Appendix A; McCrae and Costa, 1985, 1987). The BARS is an 80-item instrument that was designed to measure the five major dimensions of personality contained in the five-factor model (FFM): neuroticism, extraversion, openness, agreeableness, and conscientiousness. Research has shown that the BARS adequately measures established dimensions of personality and has good cross-instrument validity (Piedmont, 1999). The BARS lists two adjectives which are opposite of one another (e.g. outgoing and reserved) and responses are measured on a 7-point Likert-type scale. Piedmont (1995) showed that the BARS is structurally valid and reliable with a college population. The scales of the BARS are relatively orthogonal as the average interscale correlation is 0.10, with alpha reliabilities of 0.80 (Neuroticism), 0.83 (Extraversion), 0.71 (Openness), 0.83 (Agreeableness), and 0.81 (Conscientiousness). Alpha reliabilities for the current study were 0.81, 0.80, 0.66, 0.82,
and 0.87 for Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness, respectively.

*Spiritual Well-Being Scale* (SWB; Appendix B; Paloutzian & Ellison, 1982; Ellison, 1983). The SWB, developed as a measure of subjective quality of life, includes both a religious and psychosocial dimension. The SWB is a 20-item self-report instrument containing two subscales. The religious well-being subscale (RWB) focuses on how one views his or her well-being in relation to God while the existential well-being subscale (EWB) or psychosocial component measures how well adjusted the person is to self, community, and surroundings. Additionally, the SWB is designed to measure psychological as opposed to theological dimensions of spirituality. Internal consistency reliability coefficients ranged from 0.82 to 0.94 for RWB, 0.78 to 0.86 for EWB, and 0.89 to 0.94 for SWB. Test-retest reliability coefficients for 1, 4, 6, and 10 weeks ranged from 0.88 to 0.99 for RWB, 0.73 to 0.98 for EWB, and 0.82 to 0.99 for SWB. Leach and Lark (2004) found alpha reliabilities of 0.91 (RWB) and 0.75 (EWB) in their study with a college population. Alpha reliabilities for the current study were 0.95 (RWB) and 0.86 (EWB).

*Assessment of Spirituality and Religious Sentiments – Self-Report Form* (ASPIRES; Appendix C; Piedmont, 1999, 2003). The ASPIRES is divided into two sections and is composed of five subscales: *Universality, Connectedness,* and *Prayer Fulfillment* make up the Spiritual Transcendence (ST) dimension and *Religiosity* and *Religious Crisis* comprise the Religious Sentiments (RS) dimension. The first twelve items assess RS and will not be directly examined in this study. Section II of the ASPIRES is composed of 23 five-point Likert type statements which comprise the ST dimensions. Reliabilities of the three ST dimensions have been found to be adequate. In
the initial evaluation of the instrument’s psychometric properties, Piedmont found alpha reliabilities of 0.94, 0.78, 0.49, and 0.89 for prayer fulfillment, universality, connectedness and total scale score, respectively. In the current study, alpha reliabilities were 0.93, 0.70, 0.40, and 0.87 for prayer fulfillment, universality, connectedness and total score, respectively.

Heartland Forgiveness Scale (HFS; Appendix D; Yamhure Thompson et al., 2003). The HFS is an 18-item measure that assesses dispositional forgiveness and is composed of three six-item subscales to measure forgiveness of self, others, and situations. Half of the items are worded positively so that they assess forgiveness. The other nine items are worded negatively to assess unforgiveness. Items are endorsed using a 7-point scale from “almost always false of me” to “almost always true of me”. Internal consistency reliabilities for the HFS have ranged from .84 to .87 with the alphas for self, other, and situational forgiveness ranging from .71 to .83. In a student sample, three week test-retest reliability for the HFS was .83 and ranged from .72 to .77 for the subscales. Additionally, the HFS has been correlated with other measures of dispositional forgiveness (Yamhure Thompson & Snyder, 2003). Alpha reliabilities in the current study were 0.90, 0.79, 0.84, and 0.78 for total forgiveness, forgiveness of self, forgiveness of others, and situational forgiveness, respectively.

The State Hope Scale (SHS; Appendix E; Snyder et al., 1996). The SHS is a 6 item measure containing 3 agency and 3 pathway items which measure hope “right now.” Snyder et al.’s 1996 study found the scale to be internally reliable with alphas ranging from .82 to .95 exceeding the benchmark of .70 to .80 expected for research instruments. Furthermore, SHS was shown to vary over several days thus exhibiting temporal variability. Test-retest correlations ranged from .48 to .93 suggesting that the
scores are malleable (Snyder et al., 1996). Cronbach’s alpha for hope in the current study was 0.80.

*Mood Induction Procedures* (MIPs) – Film/Story MIPs were used to induce one of the following moods in participants: neutral (control), elated, and depressed. The specific MIP’s were selected based on the results of a pilot study.

*The Visual Analogue Mood Scale* (VAMS; Appendix F; Teasdale & Dent, 1987). The VAMS is used to detect mood manipulation. Participants rate their mood by placing an X on a 100-point scale prior to and after mood inductions. The scale is anchored with “I do not feel depressed at all. I feel very happy” at one end and “I feel very depressed, I do not feel happy at all” at the other end, and “neither” as the midpoint. Lower scores on the VAMS would indicate “happy” while higher scores would indicate “sad”. Martin (1990) indicated that changes in VAMS scores of 10 points or greater could be considered effective. Bates et al. (1999), suggests at least a 10 point shift would help “to ensure that findings are not distorted by the inclusion of individuals who either have not achieved a sufficiently negative mood or who have developed a negative rather than a neutral mood” (p. 249).

**Procedure**

Participants were recruited through experimetrix – an online scheduling system in the Department of Psychology. After receiving permission from the Human Subjects Protection Review Committee (Appendix G), a consent form (Appendix H) was signed by each participant prior to their participation. Immediately after reading, signing, and dating the informed consent form, each participant was given $10 compensation for their time. The research project was conducted in two stages. In stage one a pilot study was used to determine which film MIP induces the desired moods most effectively.
attempt to induce an elated mood, 18 participants viewed one of two stand-up comedy routines. Similar clips have been used successfully in prior research (Arnau et al., unpublished manuscript; Vilaythong, Arnau, & Rosen, 2003). For neutral mood, 21 participants either viewed a 15 minute clip on the basics of land surveying or a 15 minute segment from a Civil War Documentary (depicting The Monitor vs. The CSS Virginia). To induce a depressed mood, 20 participants watched either a 15 minute clip from Schindler’s List or a 15 minute clip from Titanic. Immediately, prior to and following each 15 minute video clip, participants completed a Visual Analogue Mood Scale, a linear measure of mood that requires participants to rate their current mood on a 100 point scale. T-tests for independent samples were performed to evaluate the means of the two video clips from all three groups to determine which were to be used in the main study.

In stage two or the main study, the most effective film mood induction procedures were used based on the results of the pilot study. Titanic, land surveying, and Chris Rock video clips were used for the depressed, neutral, and elated groups, respectively. Prior to the film mood induction procedure participants completed the following instruments; a demographic questionnaire, Visual Analogue Mood Scale (VAMS), Bipolar Adjectives Rating Scale (BARS), State Hope Scale (SHS), Heartland Forgiveness Scale (HFS), Assessment of Spirituality and Religious Sentiments Scale (ASPIRES) and the Spiritual Well-Being Scale (SWB). Following the film MIP, participants completed the VAMS, SHS, and HFS.

Research Questions and Hypotheses

The specific research questions and hypotheses were as follows:

Question 1. Does altering mood change state hope?
Hypothesis 1. Elated people are more likely to show an increase in hope and depressed people are more likely to show a decrease in hope.

Question 2: Does altering mood change propensity to forgive?

Hypothesis 2. Elated people are more likely to show an increase in propensity to forgive and depressed people are more likely to show a decrease in propensity to forgive.

Question 3. Does spirituality explain significant variance above and beyond personality with respect to hope?

Hypothesis 3. Spirituality explains significant additional variance beyond personality with respect to hope.

Question 4. Does spirituality explain significant variance above and beyond personality with respect to forgiveness?

Hypothesis 4. Spirituality explains significant additional variance beyond personality with respect to forgiveness.

Question 5. Assuming hypothesis one is true, does the spirituality/mood interaction explain additional variance in hope beyond that explained by mood alone?

Hypothesis 5. The spirituality/mood interaction explains additional variance in hope during both depressed and elated mood states.

Question 6. Assuming hypothesis two is true, does the spirituality/mood interaction explain additional variance in forgiveness beyond that explained by mood alone?

Hypothesis 6. The spirituality/mood interaction explains additional variance in forgiveness during both depressed and elated mood states.
Question 7. With personality held constant, does spirituality explain variance above and beyond that explained by mood with respect to hope during depressed, neutral, and elated mood states?

Hypothesis 7. With personality held constant, spirituality explains additional variance with respect to hope beyond that explained by mood during depressed, neutral, and elated mood states.

Question 8. With personality held constant, does spirituality explain variance above and beyond that explained by mood with respect to forgiveness during depressed, neutral, and elated mood states?

Hypothesis 8. With personality held constant, spirituality explains additional variance with respect to forgiveness beyond that explained by mood during depressed, neutral, and elated mood states.
CHAPTER III

RESULTS

Pilot Study

Participants in the pilot study were 59 undergraduate students who were asked to watch one of six video clips. Twelve viewed a clip from Schindler's List and eight viewed a clip from Titanic in an attempt to induce a depressed mood. Additionally, twelve participants viewed a civil war clip and nine viewed a land surveying clip in an attempt to “induce” a neutral mood. Finally, ten participants viewed a Seinfeld video clip and eight viewed a clip of Chris Rock that attempted to induce an elated mood. Demographic information was not collected on participants in the pilot study.

A t-test comparing means yielded significant results in the expected direction for the Titanic ($t = -3.42, p = .005$) and Chris Rock ($t = 2.13, p = .036$) clips. That is, after viewing Titanic participants reported feeling significantly more depressed than before viewing the clip. Similarly, after viewing Chris Rock participants reported feeling significantly more elated than before viewing the clip. Additionally, a t-test found no significant difference for the land surveying ($t = -1.31, p = .225$) video clip indicating that the land surveying video clip achieved the goal of not changing participant’s moods. The civil war video clip produced significant depressive effects, though the effects were not as strong as those produced by Titanic. For this reason the following three clips (Titanic, land surveying, and Chris Rock) were used to induce depressed, neutral, and elated moods, respectively, in the main study. Pre/post means, standard deviations and ranges for each of these groups along with the $t$-score and significance level can be seen in Table 4.
Table 4

Pre/Post Mood Means, Standard Deviations, and Ranges for Pilot Study

<table>
<thead>
<tr>
<th>Film Clip</th>
<th>n</th>
<th>Pre M (SD)</th>
<th>Pre Range</th>
<th>Post M (SD)</th>
<th>Post Range</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schindler</td>
<td>12</td>
<td>31.67 (28.63)</td>
<td>0 - 80</td>
<td>40.50 (22.87)</td>
<td>0 - 75</td>
<td>-1.614</td>
<td>.068</td>
</tr>
<tr>
<td>Titanic</td>
<td>8</td>
<td>30.38 (23.00)</td>
<td>1 - 60</td>
<td>50.13 (25.60)</td>
<td>10 - 80</td>
<td>-3.422</td>
<td>.005*</td>
</tr>
<tr>
<td>Civil War</td>
<td>12</td>
<td>24.58 (16.86)</td>
<td>0 - 50</td>
<td>36.50 (17.92)</td>
<td>0 - 55</td>
<td>-2.527</td>
<td>.028*</td>
</tr>
<tr>
<td>Land</td>
<td>9</td>
<td>33.00 (28.34)</td>
<td>0 - 83</td>
<td>39.33 (28.55)</td>
<td>0 - 78</td>
<td>-1.313</td>
<td>.225</td>
</tr>
<tr>
<td>Seinfeld</td>
<td>10</td>
<td>40.50 (23.85)</td>
<td>0 - 90</td>
<td>36.10 (23.74)</td>
<td>5 - 90</td>
<td>0.942</td>
<td>.186</td>
</tr>
<tr>
<td>Chris Rock</td>
<td>8</td>
<td>36.38 (25.09)</td>
<td>10 - 88</td>
<td>15.63 (9.33)</td>
<td>7 - 35</td>
<td>2.125</td>
<td>.036*</td>
</tr>
</tbody>
</table>

Note: Total N = 59, Possible Range 0 - 100 (0 - Elated, 100 - Depressed), M = Mean, S. D. = Standard Deviation
* p < 0.05 level

Statistical Analyses

Manipulation Checks

The results for each research hypothesis are presented in the following section.

To examine the first two hypotheses a mixed analysis of variance was conducted. To examine hypotheses 3 through 8 multiple regression analyses were used. Pre/post Visual Analogue Mood Scale (VAMS) means changed significantly for the depressed and elated groups and did not change significantly for the neutral group (See Table 5). A 2 X 3 (T1, T2 X depressed, neutral, elated) repeated measures mixed analysis of variance was conducted on the VAMS ratings with mood group (depressed vs. neutral vs. elated) as the between group factor and time of mood rating (pre-induction vs. post-induction) as a repeated within-subject factor. On the VAMS there was a significant main effect
for time of measurement, $F(1, 218) = 8.11, p = .005$, and for mood induction, $F(2, 218) = 17.73, p < .005$. There were also a significant interaction between time of measurement and mood induction, $F(2, 218) = 27.43, p < .001$. To clarify the nature of these interactions separate analyses were carried out for each measurement time using a Bonferroni corrected alpha of .016. As expected, the analysis of variance on the pretest scores failed to reveal any significant effects. That is, there were no initial differences in mood between the groups. The analysis of the pre/post-induction means of the depressed group revealed a significant difference ($t = -5.73, p < .016$). Analysis of the pre/post induction means of the neutral group yielded no significant results ($t = -2.00, p = .049$). Finally, analysis of the pre/post induction means of the elated group yielded significant results ($t = 4.37, p < .016$). These results are also shown in Table 5.

Table 5

Pre/Post Mood Means, Standard Deviations, and Ranges for Main Study

<table>
<thead>
<tr>
<th>Group</th>
<th>$n$</th>
<th>Pre $M$ (SD)</th>
<th>Pre Range$^*$</th>
<th>Post $M$ (SD)</th>
<th>Post Range$^*$</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depressed</td>
<td>76</td>
<td>35.76 (25.11)</td>
<td>0 - 92</td>
<td>52.46 (23.53)</td>
<td>3 - 100</td>
<td>-5.73*</td>
</tr>
<tr>
<td>Neutral</td>
<td>72</td>
<td>27.60 (22.00)</td>
<td>0 - 91</td>
<td>32.24 (20.48)</td>
<td>0 - 95</td>
<td>-2.00</td>
</tr>
<tr>
<td>Elated</td>
<td>73</td>
<td>30.40 (23.36)</td>
<td>0 - 85</td>
<td>21.29 (19.11)</td>
<td>0 - 85</td>
<td>4.37*</td>
</tr>
</tbody>
</table>

Note: Total $N = 221$, $^*$Possible Range 0 – 100 (0 - Elated, 100 - Depressed) $M =$ Mean, SD = Standard Deviation
* $p < 0.016$ level

Hypothesis 1. Elated people are more likely to show an increase in hope and depressed people are more likely to show a decrease in hope.

The results provided support for Hypothesis 1, with elated people showing an increase in hope and depressed people showing a decrease in hope. A mixed ANOVA
revealed that there was an interaction between group and time, $F(2, 222) = 12.01, p < .05)$. When pre-hope ($M = 6.24$) and post-hope ($M = 5.93$) means for the depressed condition were compared there was a statistically significant difference ($t = 3.45, p < .016)$. Similarly, pre-hope ($M = 6.32$) and post-hope ($M = 6.53$) means differed significantly for the elated group ($t = -2.79, p < .016)$. Additionally, pre-hope ($M = 6.45$) and post-hope ($M = 6.51$) means did not differ significantly ($t = -0.94, p = .35$) for the neutral group. These results are summarized in Table 6. In sum, these results support the hypothesis that elated people showed an increase in state hope and depressed people showed a decrease in state hope.

Table 6

**Pre and Post Hope Means, Standard Deviations and Significance Level**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-hope Mean (Standard Deviation)</th>
<th>Post-hope Mean (Standard Deviation)</th>
<th>$t$-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depressed</td>
<td>6.24 (1.15)</td>
<td>5.93 (1.19)</td>
<td>3.45*</td>
</tr>
<tr>
<td>Neutral</td>
<td>6.45 (0.95)</td>
<td>6.51 (0.97)</td>
<td>-0.94</td>
</tr>
<tr>
<td>Elated</td>
<td>6.31 (1.31)</td>
<td>6.53 (1.29)</td>
<td>-2.79*</td>
</tr>
</tbody>
</table>

* $p < .016$

**Hypothesis 2.** Elated people are more likely to show an increase in propensity to forgive and depressed people are more likely to show a decrease in propensity to forgive.

Results did not support hypothesis two. A mixed ANOVA did not reveal a significant interaction between group and time for forgiveness, Pillai’s Trace = .01, $F(2, 222) = .24, p = .96$.

**Hypothesis 3.** Spirituality explains significant additional variance beyond personality with respect to hope.
Analyses for this hypothesis were conducted on participant's hope scores prior to the mood induction procedure. The means and standard deviations for pre mood induction hope, personality, and spirituality scores can be seen in Table 7.

Results indicated that spirituality does add significant variance above and beyond personality with respect to hope. In the first step, personality accounted for a significant proportion of variance in hope ($R^2 = .26$, $F(5, 215) = 14.77, p < .001$). This variance was explained primarily by two factors, Neuroticism and Extraversion. In the second step, spirituality accounted for a significant amount of additional variance in hope after controlling the variance explained by personality ($R^2 = .43$, $\Delta R^2 = .18$, $F(9, 209) = 14.48, p < .001$ (See Table 8). That is, spirituality predicted approximately 18% of variance in hope above and beyond that explained by personality alone. Furthermore, after spirituality variables were added to the model, personality variables became insignificant. That is, only spirituality variables were significant in the final step of the regression. Upon further examination results indicated that prayer fulfillment, universality, connectedness, and existential well-being explained this additional variance while religious well-being did not contribute to the additional explained variance (See Table 9).
Table 7

*Means and Standard Deviations for personality and spirituality variables related to pre-mood induction state hope*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Pearson Correlation with Pre-Hope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-hope</td>
<td>38.01</td>
<td>6.89</td>
<td>-------</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>48.66</td>
<td>10.92</td>
<td>-0.40</td>
</tr>
<tr>
<td>Extraversion</td>
<td>49.44</td>
<td>11.01</td>
<td>0.36</td>
</tr>
<tr>
<td>Openness</td>
<td>50.18</td>
<td>11.11</td>
<td>0.14</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>50.50</td>
<td>11.45</td>
<td>0.34</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>50.04</td>
<td>12.87</td>
<td>0.40</td>
</tr>
<tr>
<td>Prayer Fulfillment</td>
<td>57.02</td>
<td>10.10</td>
<td>0.22</td>
</tr>
<tr>
<td>Universality</td>
<td>53.58</td>
<td>10.49</td>
<td>0.30</td>
</tr>
<tr>
<td>Connectedness</td>
<td>51.31</td>
<td>9.75</td>
<td>0.13</td>
</tr>
<tr>
<td>Spiritual Transcendence</td>
<td>59.80</td>
<td>10.77</td>
<td>0.28</td>
</tr>
<tr>
<td>Religious Well-Being</td>
<td>49.02</td>
<td>11.71</td>
<td>0.28</td>
</tr>
<tr>
<td>Existential Well-Being</td>
<td>48.80</td>
<td>8.05</td>
<td>0.59</td>
</tr>
</tbody>
</table>

\[ N = 221 \]
Table 8

Hierarchical regression analysis showing amount of unique variance in hope accounted for by personality and spirituality

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$F$ Change</th>
<th>df</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personality</td>
<td>.26</td>
<td>.26</td>
<td>14.77</td>
<td>5,215</td>
<td>14.77*</td>
</tr>
<tr>
<td>2</td>
<td>Spirituality</td>
<td>.43</td>
<td>.18</td>
<td>10.86</td>
<td>9,209</td>
<td>14.48*</td>
</tr>
</tbody>
</table>

Note: N = 221, *p<.001.

Table 9

Hierarchical regression analysis showing amount of variance in hope accounted for by personality and spirituality in the final model

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Neuroticism</td>
<td>-0.13</td>
<td>-1.84</td>
</tr>
<tr>
<td></td>
<td>Extraversion</td>
<td>0.09</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td>Openness</td>
<td>0.05</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td>Agreeableness</td>
<td>-0.02</td>
<td>-0.28</td>
</tr>
<tr>
<td></td>
<td>Conscientiousness</td>
<td>0.07</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td>Prayer fulfillment</td>
<td>1.37</td>
<td>2.00*</td>
</tr>
<tr>
<td></td>
<td>Universality</td>
<td>0.84</td>
<td>2.54*</td>
</tr>
<tr>
<td></td>
<td>Connectedness</td>
<td>0.54</td>
<td>2.08*</td>
</tr>
<tr>
<td></td>
<td>Religious Well-Being</td>
<td>-0.11</td>
<td>-1.09</td>
</tr>
<tr>
<td></td>
<td>Existential Well-Being</td>
<td>.520</td>
<td>6.65**</td>
</tr>
</tbody>
</table>

*p<.05, **p<.001.
Hypothesis 4. Spirituality explains significant additional variance beyond personality with respect to forgiveness.

Analyses for this hypothesis were conducted on participant’s pre-mood induction forgiveness scores. Results indicated that spirituality does add significant variance above and beyond personality with respect to forgiveness. The means and standard deviations for personality and spirituality variables as they relate to total forgiveness are reported in Table 10. In the first step, personality accounted for significant variance in total dispositional forgiveness ($R^2 = .45$, $F (5,215) = 34.48$, $p < .001$). This variance was explained by three factors – Neuroticism, Agreeableness, and Conscientiousness. In the second step, spirituality accounted for a significant amount of additional variance in forgiveness after controlling the variance explained by personality ($R^2 = .53$, $\Delta R^2 = .08$, $F (6, 209) = 21.21$, $p < .001$). That is, spirituality explained 8% of variance in dispositional forgiveness above and beyond that explained by personality alone (See Table 11). Upon further examination, all of explained variance can be attributed to the Existential Well-Being (EWB) subscale of the Spiritual Well Being (SWB) Scale as all other spirituality variables were not significant (See Table 12).

When total forgiveness is segmented into the three components (forgiveness of self, forgiveness of others, and situational forgiveness) similar results can be seen. When examining forgiveness of self, spirituality explained 7.6% of the variance above and beyond personality ($R^2 = .41$, $F (11,209) = 13.41$, $p < .001$). When examining forgiveness of others, spirituality explained 4.5% of the variance above and beyond personality ($R^2 = .37$, $F (11,209) = 11.00$, $p < .05$). Finally, upon further examination of situational forgiveness, spirituality explained 7.2% of the variance above and beyond
personality ($R^2 = .48, F (11,209) = 17.25, p < .001$). In all three cases the additional explained variance can be attributed to the Existential Well Being subscale of the Spiritual Well Being Scale. These results are shown in Table 13.

Table 10

*Means and Standard Deviations for personality and spirituality variables related to total dispositional forgiveness*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Pearson Correlation with Total Forgiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forgiveness</td>
<td>91.84</td>
<td>17.75</td>
<td>-----</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>48.66</td>
<td>10.92</td>
<td>-0.55</td>
</tr>
<tr>
<td>Extraversion</td>
<td>49.44</td>
<td>11.01</td>
<td>0.38</td>
</tr>
<tr>
<td>Openness</td>
<td>50.18</td>
<td>11.11</td>
<td>0.10</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>50.50</td>
<td>11.45</td>
<td>0.52</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>50.04</td>
<td>12.87</td>
<td>0.32</td>
</tr>
<tr>
<td>Prayer Fulfillment</td>
<td>57.02</td>
<td>10.10</td>
<td>0.22</td>
</tr>
<tr>
<td>Universality</td>
<td>53.58</td>
<td>10.49</td>
<td>0.18</td>
</tr>
<tr>
<td>Connectedness</td>
<td>51.31</td>
<td>9.75</td>
<td>0.02</td>
</tr>
<tr>
<td>Religious Well-Being</td>
<td>49.02</td>
<td>11.71</td>
<td>0.30</td>
</tr>
<tr>
<td>Existential Well-Being</td>
<td>48.80</td>
<td>8.05</td>
<td>0.59</td>
</tr>
</tbody>
</table>

$N = 221$
Table 11

*Hierarchical regression analysis showing amount of unique variance in forgiveness accounted for by personality and spirituality*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>R^2</th>
<th>ΔR^2</th>
<th>F Change</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personality</td>
<td>.45</td>
<td>.45</td>
<td>34.48</td>
<td>5,215</td>
<td>34.48*</td>
</tr>
<tr>
<td>2</td>
<td>Spirituality</td>
<td>.53</td>
<td>.08</td>
<td>6.08</td>
<td>6,209</td>
<td>21.21*</td>
</tr>
</tbody>
</table>

Note: N = 221. *p<.001

Table 12

*Hierarchical regression analysis showing amount of variance in total dispositional forgiveness accounted for by personality and spirituality in the final model*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Neuroticism</td>
<td>-0.32</td>
<td>-5.09***</td>
</tr>
<tr>
<td></td>
<td>Extraversion</td>
<td>0.11</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>Openness</td>
<td>0.08</td>
<td>1.43</td>
</tr>
<tr>
<td></td>
<td>Agreeableness</td>
<td>0.32</td>
<td>4.95***</td>
</tr>
<tr>
<td></td>
<td>Conscientiousness</td>
<td>-0.24</td>
<td>-3.58***</td>
</tr>
<tr>
<td></td>
<td>Prayer fulfillment</td>
<td>-0.03</td>
<td>-0.04</td>
</tr>
<tr>
<td></td>
<td>Universality</td>
<td>0.08</td>
<td>0.267</td>
</tr>
<tr>
<td></td>
<td>Connectedness</td>
<td>-0.07</td>
<td>-0.30</td>
</tr>
<tr>
<td></td>
<td>Religious Well-Being</td>
<td>-0.05</td>
<td>-0.55</td>
</tr>
<tr>
<td></td>
<td>Existential Well-Being</td>
<td>0.38</td>
<td>5.26***</td>
</tr>
</tbody>
</table>

*p<.05, **p<.005, *** p<.001
Table 13

Hierarchical regression analysis showing amount of variance in pre-FS, FO, and Situation accounted for by personality and spirituality in the final model

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>FS</th>
<th></th>
<th></th>
<th>FO</th>
<th></th>
<th></th>
<th>Situation</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ΔR²</td>
<td>B</td>
<td>t</td>
<td>ΔR²</td>
<td>B</td>
<td>t</td>
<td>ΔR²</td>
<td>B</td>
<td>t</td>
</tr>
<tr>
<td>2</td>
<td>Personality</td>
<td>0.34^</td>
<td>0.32^</td>
<td>0.40^</td>
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<tr>
<td></td>
<td>N</td>
<td>-.38</td>
<td>-5.38***</td>
<td>-.07</td>
<td>-1.00</td>
<td>-.38</td>
<td>-5.70***</td>
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<td></td>
<td>E</td>
<td>.23</td>
<td>3.30***</td>
<td>-.00</td>
<td>-.01</td>
<td>.06</td>
<td>.94</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>O</td>
<td>.07</td>
<td>1.16</td>
<td>.07</td>
<td>1.16</td>
<td>.05</td>
<td>.90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>.03</td>
<td>.36</td>
<td>.54</td>
<td>7.16***</td>
<td>.22</td>
<td>3.17**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>-.19</td>
<td>-2.53*</td>
<td>-.24</td>
<td>-3.15**</td>
<td>-.16</td>
<td>-2.34*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spirituality</td>
<td>0.08^</td>
<td>0.05^</td>
<td>0.07^</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>P.F.</td>
<td>.47</td>
<td>.67</td>
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<td>-.26</td>
<td>-.34</td>
<td>-.52</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Univ.</td>
<td>.29</td>
<td>.87</td>
<td>.02</td>
<td>.05</td>
<td>-.11</td>
<td>-.34</td>
<td></td>
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<tr>
<td></td>
<td>Connect.</td>
<td>.07</td>
<td>.25</td>
<td>-.12</td>
<td>-.42</td>
<td>-.13</td>
<td>-.50</td>
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</tr>
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<td></td>
<td>STS Total</td>
<td>-.76</td>
<td>-.76</td>
<td>.18</td>
<td>.17</td>
<td>.49</td>
<td>.52</td>
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<tr>
<td></td>
<td>RWB</td>
<td>-.01</td>
<td>-.08</td>
<td>.01</td>
<td>.09</td>
<td>-.14</td>
<td>-1.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EWB</td>
<td>.33</td>
<td>4.11***</td>
<td>.25</td>
<td>3.01**</td>
<td>.38</td>
<td>5.00***</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


*p<.05, **p<.005, ***p<.001, ^ = ΔR² is significant
Hypothesis 5. The spirituality/mood interaction explains additional variance in hope during both depressed and elated mood states.

Results indicated that the spirituality/mood interaction did not explain additional variance in the pre/post hope change scores above and beyond that explained by the main effects. In the first step, mood and spirituality accounted for a significant variance in state hope ($R^2 = .13, F(7, 214) = 4.47, p < .001$). In the second step, the spirituality/mood interaction did not account for a significant amount of additional variance in pre/post state hope change scores after controlling the variance explained by mood and spirituality ($R^2 = .13, \Delta R^2 = .004, F(12, 209) = 2.64, p = 0.97$). That is, mood and spirituality explained 12.8% of variance in the pre/post hope change score. The spirituality/mood interaction, however, only contributed and additional 0.4% of the variance in the pre/post hope change score. These results are shown in Table 14. All significant explained variance in the pre/post hope change score can be attributed to Existential Well-Being (See Table 15).

Table 14

*Hierarchical regression analysis showing amount of unique variance in the pre/post hope change scores accounted for by mood, spirituality, and the interaction of mood/spirituality*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$F$ Change</th>
<th>df</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mood + Spirituality</td>
<td>.13</td>
<td>.13</td>
<td>4.47</td>
<td>7, 214</td>
<td>4.47*</td>
</tr>
<tr>
<td>2</td>
<td>Interaction</td>
<td>.13</td>
<td>.004</td>
<td>0.18</td>
<td>12, 209</td>
<td>2.64</td>
</tr>
</tbody>
</table>

Note: N = 150. *$p<.001$*
Table 15

Hierarchical regression analysis showing amount of variance in pre/post hope change scores accounted for by mood, spirituality, and the interaction of mood and spirituality in the final model

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Prayer fulfillment</td>
<td>0.26</td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td>Universality</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Connectedness</td>
<td>0.01</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Religious Well-Being</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>Existential Well-Being</td>
<td>-0.18</td>
<td>-2.17*</td>
</tr>
<tr>
<td></td>
<td>Mood/group</td>
<td>0.56</td>
<td>1.13</td>
</tr>
<tr>
<td></td>
<td>Prayer fulfillment/Mood</td>
<td>-0.13</td>
<td>-0.19</td>
</tr>
<tr>
<td></td>
<td>Universality/Mood</td>
<td>0.20</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>Connectedness/Mood</td>
<td>-0.30</td>
<td>-0.78</td>
</tr>
<tr>
<td></td>
<td>Religious Well-Being/Mood</td>
<td>0.14</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>Existential Well-Being/Mood</td>
<td>-0.17</td>
<td>-.34</td>
</tr>
</tbody>
</table>

Note: N = 150, *p < .05

Hypothesis 6. The spirituality/mood interaction explains additional variance in forgiveness during both depressed and elated mood states.

Because hypothesis 2 was not supported hypothesis 6 was not tested.

Hypothesis 7. With personality held constant, spirituality explains additional variance with respect to hope beyond that explained by mood during depressed, neutral, and elated mood states.
Results indicated that with personality held constant, spirituality explained additional variance with respect to hope beyond that explained by mood during depressed and elated mood states. In step one, personality accounted for a significant variance in the variance of hope ($R^2 = .202, F(5, 215) = 10.886, p < .001$). In step two, mood accounted for a significant amount of additional variance in hope after controlling the variance explained by personality ($R^2 = .261, \Delta R^2 = .059, F(7, 213) = 10.765, p = .001$). This variance, however, can only be attributed to the depressed condition. In step three, spirituality accounted for a significant amount of additional variance in hope after controlling the variance explained by personality and mood ($R^2 = .382, \Delta R^2 = .120, F(13, 207) = 9.823, p < .001$). These results are also shown in Table 16.

Table 16

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$F$ change</th>
<th>$df$</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personality</td>
<td>.20</td>
<td>.20</td>
<td>10.89</td>
<td>5,215</td>
<td>10.89*</td>
</tr>
<tr>
<td>2</td>
<td>Mood</td>
<td>.26</td>
<td>.06</td>
<td>8.55</td>
<td>7,213</td>
<td>10.77*</td>
</tr>
<tr>
<td>3</td>
<td>Spirituality</td>
<td>.38</td>
<td>.12</td>
<td>6.71</td>
<td>13,207</td>
<td>9.82*</td>
</tr>
</tbody>
</table>

Note, $N = 225$, *$p<.001$.

Upon further examination, results indicated that the variance in hope attributed to spirituality can be explained by four of the five spirituality factors. As before, RWB was the only spirituality factor that did not contribute to the additional explained variance. These results are shown in Table 17.
Table 17

Hierarchical regression analysis showing amount of variance in post-hope accounted for by personality, mood and spirituality in the final model

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Neuroticism</td>
<td>-0.16</td>
<td>-2.24*</td>
</tr>
<tr>
<td></td>
<td>Extraversion</td>
<td>0.10</td>
<td>1.33</td>
</tr>
<tr>
<td></td>
<td>Openness</td>
<td>0.00</td>
<td>-0.00</td>
</tr>
<tr>
<td></td>
<td>Agreeableness</td>
<td>-0.08</td>
<td>-1.12</td>
</tr>
<tr>
<td></td>
<td>Conscientiousness</td>
<td>0.10</td>
<td>1.35</td>
</tr>
<tr>
<td></td>
<td>Depressed</td>
<td>-0.23</td>
<td>-3.47***</td>
</tr>
<tr>
<td></td>
<td>Elated</td>
<td>0.01</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>Prayer fulfillment</td>
<td>1.62</td>
<td>2.25*</td>
</tr>
<tr>
<td></td>
<td>Universality</td>
<td>0.90</td>
<td>2.59**</td>
</tr>
<tr>
<td></td>
<td>Connectedness</td>
<td>0.60</td>
<td>2.16*</td>
</tr>
<tr>
<td></td>
<td>Total STS</td>
<td>-2.34</td>
<td>-2.24*</td>
</tr>
<tr>
<td></td>
<td>Religious Well-Being</td>
<td>-0.13</td>
<td>-1.18</td>
</tr>
<tr>
<td></td>
<td>Existential Well-Being</td>
<td>0.38</td>
<td>4.66***</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001
Hypothesis 8. With personality held constant, spirituality explains additional variance with respect to forgiveness beyond that explained by mood during depressed, neutral, and elated mood states.

Results indicated that with personality held constant, spirituality explained additional variance with respect to dispositional forgiveness beyond that explained by mood during depressed, neutral and elated mood states. In step one, personality accounted for a significant amount of variance in dispositional forgiveness ($R^2 = .411$, $F(5,215) = 30.034, p < .001$). In step two, mood did not account for a significant amount of additional variance in dispositional forgiveness after controlling the variance explained by personality ($R^2 = .415$, $\Delta R^2 = .004$, $F(7,213) = 21.627, p = .464$). In step three, spirituality accounted for a significant amount of additional variance in forgiveness after controlling the variance explained by personality and mood ($R^2 = .479$, $\Delta R^2 = .063$, $F(13, 207) = 14.633, p = .001$). These results are shown in Table 18. Upon further examination, results indicated that the variance in total dispositional forgiveness attributed to spirituality is explained solely from the Existential Well-Being subscale of the Spiritual Well-Being Scale. These results are shown in Table 19. Further analysis of the subscales of the Heartland Forgiveness Inventory revealed varying results. For example, spirituality contributed approximately 8% of the variance with respect to forgiveness of self, which was significant. With respect to forgiveness of others, spirituality explained approximately 3% of the variance, which was not significant. Finally, with regards to situational forgiveness, spirituality contributed approximately 5% of the variance, which was significant. These results are shown in Table 20.
Table 18

Hierarchical regression analyses showing amount of unique variance in total dispositional forgiveness accounted for by personality, mood, and spirituality

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$F$ Change</th>
<th>df</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personality</td>
<td>.41</td>
<td>.41</td>
<td>30.03*</td>
<td>5,215</td>
<td>30.03*</td>
</tr>
<tr>
<td>2</td>
<td>Mood</td>
<td>.42</td>
<td>.00</td>
<td>0.77</td>
<td>7,213</td>
<td>21.623</td>
</tr>
<tr>
<td>3</td>
<td>Spirituality</td>
<td>.48</td>
<td>.06</td>
<td>4.20*</td>
<td>13,207</td>
<td>14.63*</td>
</tr>
</tbody>
</table>

Note: N = 148. *$p<.001$
Table 19

Hierarchical regression analysis showing amount of variance in total dispositional forgiveness accounted for by personality, mood and spirituality in the final model

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Neuroticism</td>
<td>-0.33</td>
<td>-4.96**</td>
</tr>
<tr>
<td></td>
<td>Extraversion</td>
<td>0.07</td>
<td>1.02</td>
</tr>
<tr>
<td></td>
<td>Openness</td>
<td>0.04</td>
<td>0.63</td>
</tr>
<tr>
<td></td>
<td>Agreeableness</td>
<td>0.32</td>
<td>4.615**</td>
</tr>
<tr>
<td></td>
<td>Conscientiousness</td>
<td>-0.17</td>
<td>-2.45*</td>
</tr>
<tr>
<td></td>
<td>Depressed</td>
<td>-0.04</td>
<td>-0.58</td>
</tr>
<tr>
<td></td>
<td>Elated</td>
<td>0.01</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>Prayer fulfillment</td>
<td>0.33</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>Universality</td>
<td>0.23</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>Connectedness</td>
<td>0.01</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>STS Total</td>
<td>-0.43</td>
<td>-0.45</td>
</tr>
<tr>
<td></td>
<td>Religious Well-Being</td>
<td>-0.09</td>
<td>-0.95</td>
</tr>
<tr>
<td></td>
<td>Existential Well-Being</td>
<td>0.30</td>
<td>3.97**</td>
</tr>
</tbody>
</table>

*p<.05, **p<.001
Table 20

Hierarchical regression analysis showing amount of variance in post-FS, FO, and Situation accounted for by personality, mood, and spirituality in the final model

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>FS</th>
<th>FO</th>
<th>Situation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$\Delta R^2$</td>
<td>B</td>
<td>t</td>
</tr>
<tr>
<td>3</td>
<td>Personality</td>
<td>0.30***</td>
<td>0.36***</td>
<td>0.36***</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>-.35</td>
<td>-4.87**</td>
<td>-.12</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>.20</td>
<td>2.81*</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>O</td>
<td>.00</td>
<td>.02</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>.04</td>
<td>-.06</td>
<td>.55</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>-.17</td>
<td>-2.21*</td>
<td>-.23</td>
</tr>
<tr>
<td></td>
<td>Mood</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Depressed</td>
<td>-.06</td>
<td>-.90</td>
<td>-.01</td>
</tr>
<tr>
<td></td>
<td>Elated</td>
<td>-.00</td>
<td>-.06</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Spirituality</td>
<td>0.08***</td>
<td>0.03</td>
<td>0.05***</td>
</tr>
<tr>
<td></td>
<td>P.F.</td>
<td>1.21</td>
<td>1.68</td>
<td>-.36</td>
</tr>
<tr>
<td></td>
<td>Univ.</td>
<td>.64</td>
<td>1.84</td>
<td>-.17</td>
</tr>
<tr>
<td></td>
<td>Connect.</td>
<td>.36</td>
<td>1.32</td>
<td>-.27</td>
</tr>
<tr>
<td></td>
<td>STS Total</td>
<td>-1.74</td>
<td>-1.67</td>
<td>.61</td>
</tr>
<tr>
<td></td>
<td>RWB</td>
<td>-.10</td>
<td>-.96</td>
<td>-.03</td>
</tr>
<tr>
<td></td>
<td>EWB</td>
<td>.34</td>
<td>4.13**</td>
<td>.20</td>
</tr>
</tbody>
</table>

Note. FS = Forgiveness of Self, FO = Forgiveness of others, Situation = Situational Forgiveness, N = Neuroticism, E = Extraversion, O = Openness, A = Agreeableness, C = Conscientiousness, P.F = Prayer Fulfillment, Univ. = Universality, Connect. = Connectedness, STS = Spiritual Transcendence, RWB = Religious Well-Being, EWB = Existential Well-Being. *p<.05, **p<.001, ***$\Delta R^2$ is significant.
CHAPTER IV
DISCUSSION

Previous research has shown that personality, mood, and spirituality are related to hope and forgiveness (Maltby, Macaskill, & Day, 2001; Arnau et al., in press; Mickley, Soeken, & Belcher, 1992; Leach & Lark, 2004; Mullet et al., 2003). However, no study to date has examined the role of all three variables with respect to hope and forgiveness in the same study. This study accomplished this task by examining the explained variance in hope and forgiveness that is attributed to all three variables—personality, mood, and spirituality. Isolating the contributions of personality and mood is important when examining spirituality’s relationship with state hope. For example, the current study found that personality, mood, and spirituality contribute significantly to state hope. Additionally, isolating the contribution of personality is important when examining spirituality’s relationship with dispositional forgiveness. This study found personality and spirituality are significantly related to dispositional forgiveness. Therefore, the current study provides support for the idea that researchers should use measures of personality and mood when studying spirituality’s relationship to state hope and measures of personality when studying spirituality’s relationship with dispositional forgiveness.

This chapter will discuss the implications of the results presented in Chapter III. First, the findings of the main and additional analyses will be discussed as they relate to previous literature. Next, a summary and conclusion section will be included to review the main findings of the study and their significance to researchers and mental health.
practitioners. Finally, limitations of the study will be reviewed and suggestions for future research will be proposed.

Summary of Significant Findings and Exploratory Analyses

The results of the pilot study showed that film mood induction procedures are an effective way to induce both elated and neutral moods. These findings were confirmed by the main study. That is, with respect to time, participant’s moods in the depressed and elated condition were more different following the mood induction than would be expected by chance alone. Similarly, participant’s moods in each condition changed significantly in the hypothesized direction more than would be expected by chance alone. When examining the interaction of group and time it was revealed that both the depressed and the elated groups were more variable at T2 than the neutral group. That is, the mood induction procedure achieved the goal of inducing both elated and depressed moods. This confirms previous literature (Gerrards-Hesse et al., 1994) which suggested that the Film/Story Mood Induction Procedure is the mood induction procedure of choice when inducing both elated and depressed mood states.

One criticism of mood induction techniques is that only a low level of intensity of mood is produced (Marston et al., 1984). Nevertheless, several mood induction procedures have been shown to produce depressed/despondent emotion levels and mean happiness levels equivalent to an intermediate clinical level (Martin, 1990). As such, mood induction procedures allow researchers to identify specific mood related affects (Martin, 1990). Therefore, the terms elated and depressed were used in this study as it is possible that intermediate levels of depression and elation were achieved. Similarly, it is possible that significant change in mood and hope was the result of the mood induction procedure.
The results for the first hypothesis indicated significant differences in state hope following an effective mood induction procedure. Specifically, state hope increased in the elated condition and decreased in the depressed condition. Previous researchers have found similar results (Vilaythong, Arnau, Rosen, & Mascaro, 2003). These results support the idea that there is a positive relationship between hope and mood. This information may be useful to clinicians as it emphasizes the importance of instilling hope in clients as a way of helping them improve their mood. Hopelessness has been shown to be related to depression and dysphoria (Minkoff et al., 1974; Chang & DeSimone, 2001), but this is one of the first studies to determine the relationship of elated mood to hope. Results supported Vilaythong, Arnau, Rosen, and Mascaro's (2003) study, which showed that humor increased levels of state hope.

One of the main purposes of this study was to determine if spirituality added significant additional explained variance beyond that of the Five Factor Model of personality with respect to hope (prior to the mood induction procedure). That is, is there some spiritual component, in addition to personality factors that is related to one’s level of hope? The results of the third hypothesis revealed that spirituality plays a significant role in one’s current level of hope. Results showed that personality, as described by the Five Factor Model, accounted for approximately 26% of the variance in state hope. Nevertheless, spirituality variables explained approximately 18% percent more of the variance in state hope beyond that already explained by personality. This is consistent with previous literature (e.g. Coleman, 1997; Mickley, Soeken, & Belcher, 1992) suggesting that there was a relationship between spirituality and hope. Similarly, by using more widely accepted measures of spirituality it added to and confirmed results.
found by Mascaro, Rosen, and Morey (2004) which suggested the spirituality played a significant role in hope above and beyond personality.

Another purpose of the study was to examine the relationship between spirituality and dispositional forgiveness. Specifically, the researcher wanted to examine whether spirituality explained additional variance in dispositional forgiveness beyond that of the Five Factor Model with respect to dispositional forgiveness – forgiveness of self, forgiveness of others, and situational forgiveness (Again, results were examined based on results prior to the mood induction procedure). This study is consistent with Leach and Lark’s (2004) study, which used a different instrument to examine forgiveness of self and forgiveness of others. Additionally, this study also examined the relationship of personality and spirituality to situational forgiveness.

Results of this study, similar to Leach and Lark (2004), found that personality does play a role in dispositional forgiveness. In this study, a negative relationship was found between Neuroticism and total dispositional forgiveness. This negative relationship, however, did not persist across all forgiveness domains. Results showed a negative relationship between Neuroticism and forgiveness of self and situations and no relationship to forgiveness of others. Similarly, negative relationships were found between Conscientiousness and forgiveness of self, others, and situational forgiveness. In this study, positive relationships were found between Extraversion and forgiveness of self. Similarly, positive relationships between Agreeableness and forgiveness of others and situational forgiveness were found.

These results imply that the more emotionally distressed people are, the less likely they will be to forgive themselves and to forgive past situations (e.g. “fate”, natural disaster). Similarly, those who possess positive affect, which forms the core of
the Extraversion dimension of personality, will be more likely to forgive themselves. Results also confirmed Piedmont’s (1998) assertion that those who score high on Agreeableness tend to be forgiving as Agreeableness appears to be an important component of forgiveness of others and situational forgiveness. This makes sense because Agreeableness represents an interpersonal domain of personality on a continuum from compassion to antagonism (Costa & Widiger, 2002). Therefore, those high in Agreeableness are likely to be compassionate and forgiving individuals. Finally, Conscientiousness appears to be a significant negative predictor of all three types of forgiveness. In this regard, any type of forgiveness (self, other, or situation) may be more difficult for people who are orderly or overly compulsive. Conscientiousness as a trait implies criticality, so if one is more critical, she or he may have more difficulty forgiving.

Results showed that, similar to Leach and Lark (2004), spirituality explains variance in dispositional forgiveness above and beyond that explained by personality alone. In this study, personality accounted for approximately 41% of the variance in dispositional forgiveness (prior to the mood induction), while spirituality accounted for an additional 6.3%. Similarly, spirituality accounted for additional variance at all three levels of forgiveness, accounting for 7.8%, 3.4% and 5.0% of the variance in forgiveness of self, forgiveness of others, and situational forgiveness, respectively. Just as in Leach and Lark (2004), the majority of the variance was explained by one subscale, the Existential Well-Being subscale of the Spiritual Well-Being Scale. Results seem to imply that a sense of existential well-being is an important concept for one’s ability to forgive self and others and to let go past negative situations that one views as being beyond anyone’s control (e.g. an illness, “fate”, or a natural disaster).
Hypothesis five compared the role of mood and spirituality in explaining state hope. Results indicated that spirituality plays a more significant role in hope than mood. Specifically, when personality is not included in the model, mood contributed approximately 6% of the explained variance in state hope while spirituality variables contributed approximately 31%. These results seem to imply that one’s spirituality is a more important component of hope than one’s mood. Specifically, results imply that a sense of connectedness, universality, existential well-being, and the belief that one’s prayers are being fulfilled contribute significantly to hope. These findings are contradictory to Zorn & Johnson’s (1997) results which found a moderate positive correlation between hope and religious well-being. Nevertheless, these results support the majority of the literature (Coleman, 1997; Mickley, Soeken, & Belcher, 1992), which suggested a positive relationship between existential well-being and hope. Results of this study, however, do not support the idea that religious well-being is a positive predictor of hope.

Snyder, Sigmon and Feldman (2002) suggested that the effect of spirituality on hope should be examined more thoroughly. This study accomplished this task and indicated that the effects of spirituality on hope are significant – possibly even more significant than one’s mood. Results confirmed Gibson’s (2000) assertion that spirituality variables contribute significantly to hope.

Hypothesis seven examined the relationship of personality, mood, and spirituality to post-mood induction state hope. As such, it was the first study to examine all three variable’s relationship with state hope, which is important because each has been shown to have a significant relationship with state hope (e.g. Arnau, 2002; Chang and DeSimone, 2001; Mickley, Soeken, and Belcher, 1992). Results indicated that
personality, mood, and spirituality all accounted for variance in state hope. Specifically, personality, mood and spirituality contributed approximately 17%, 6% and 15% of the variance to state hope, respectively. Though the focus of this study was on spirituality’s relationship to hope, the results did confirm Arnau et al.’s (2003) results which showed a negative relationship between Neuroticism and hope. This study, unlike Arnau’s (2002), did not show a positive relationship between Openness and Agreeableness and state hope.

With personality held constant, mood also showed a positive relationship with state hope. In the depressed condition state hope scores dropped at time 2 (T2), whereas in the elated condition state hope scores increased significantly at T2. These results confirmed previous research (e.g. Chimich and Nekolaichuk 2004; Chang and DeSimone, 2001) which showed a positive relationship between mood and state hope. These findings indicate that one’s hope is significantly decreased in a depressed condition but is not significantly increased in an elated condition. Interestingly, mood explained only 6% of the variance in state hope, whereas personality and spirituality explained 17% and 16%, respectively. These results imply that personality and spirituality are better predictors of state hope than mood.

Hypothesis eight examined the relationship of personality, mood, and spirituality to dispositional forgiveness and was the first study to do so with all three variables. In this model only personality and spirituality showed a significant relationship with dispositional forgiveness. Personality accounted for approximately 41% of the variance in dispositional forgiveness and spirituality contributed approximately 6%. When forgiveness was segmented into its three components, spirituality was a significant predictor for forgiveness of self and of situational forgiveness, and the explained
variance could be explained by only one factor, existential well-being. Results of this study seem to imply that spirituality is not as an important of factor when considering forgiveness of others. These results are inconsistent with Leach and Lark (2004) which found a significant positive relationship between spirituality and forgiveness of others. Both studies, however, suggested that existential well-being was a significant predictor of forgiveness of others.

Summary and Conclusion

The alienation between mental health professions and religion appears to be coming to an end, providing an opportunity for researchers to study religious constructs, such as hope and forgiveness, scientifically (Richards & Bergin, 2000). Recent research has found significant findings regarding hope and forgiveness and their relationship to mental health. This study expanded on some of the prior research in the areas of spirituality, hope, and forgiveness.

Significant findings implied that spirituality shares a significant relationship with hope and forgiveness even when personality and mood are accounted for. This is important for both researchers and clinicians. For researchers interested in examining spirituality, hope and forgiveness, this research provides a rationale for also including personality as part of the research as personality is a significant predictor of both hope and forgiveness. Additionally, because mood is also a significant predictor of hope, using an instrument to measure mood may be beneficial when conducting research on the relationship between spirituality and hope.

Though a relationship between mood and forgiveness was not found, perhaps forgiveness is related to other psychological conditions such as anger and/or anxiety. In previous research, forgiveness has been shown to account for significant portions of the
variance in measures of psychological well being (i.e., depression, anger, anxiety, and life satisfaction) (Yamhure Thompson et al., 2005). Future studies could examine the relationship between anxiety/anger and dispositional forgiveness to determine what, if any, psychological processes are more closely related to forgiveness. This study found that Neuroticism is negatively related to forgiveness of self and situational forgiveness. Future research could determine which of the facet subscales that comprise Neuroticism are negatively related to forgiveness.

Researchers who utilize mood induction procedures in the future may want to induce moods at the individual rather than the group level. Similarly, the researcher may want to leave the immediate area of the mood induction in order to reduce any demand characteristics that could be associated with the researcher’s presence in the room. During the current study, the researcher noticed participants observing other participants as well as the researcher during all three mood inductions. This approach, however, would likely be much more time consuming and may not be feasible.

Results of this study may provide clinicians a place to start when discussing spiritual issues with clients who deem their spirituality as important. Because of the relationship between spirituality and mood and the relationship between spirituality and hope, clinicians could focus on the aspects of spirituality that improve their client’s levels of hope and/or mood. For example, clinicians could discuss concepts with depressed clients related to universality, prayer fulfillment, and existential well-being as a way of improving hope and, most likely, mood. Results of the study also indicated that one’s mood often improves after watching something humorous. Perhaps, clinicians could encourage their clients to view material which they find funny as a way of helping clients improve their mood.
Results of this study indicated a relationship between existential well-being and forgiveness of self, others, and situational forgiveness. The current study, therefore, adds to and confirms other studies which have shown a relationship between forgiveness of others and spirituality (Edwards et al., 2002; Leach & Lark, 2004). Previous research has also suggested that forgiveness of self (Heinze & Snyder, 2001; Mauger et al., 1992) and situations (Heinze & Snyder 2001) are significantly related to measures of psychological well-being (as cited in Yahmure Thompson et al., 2005). Therefore, clinicians could discuss spiritual concepts related to existential well-being with their clients as a way of helping clients forgive themselves and others and as a way of helping clients relinquish unforgiving attitudes related to the God of their understanding.

The results of this study imply that forgiveness, unlike hope, is not significantly related to mood. This is important for clinicians to understand because forgiveness appears to be a more stable personality trait, and a client’s level of forgiveness may be more difficult and take longer to change during the course of therapy than say, one’s level of hope. Clinicians should therefore expect that client difficulties related to the inability to forgive (self, others, or situations) may take longer to treat than those related to a lack of hope.

Limitations

There were a few limitations to this study beginning with the age and location of the sample. The sample for this study may not be representative of the general population because all participants were from a university in the southeastern United States and most of the participants were students between the ages of 18-22. These findings, therefore, may not generalize to other geographic locations in the United States or to other age groups.
The second limitation is related to the instruments that were used to collect data. Though all of the instruments have been used successfully in previous research and have adequate reliability and validity data, all instruments were self-report measures. It is possible that the participants’ desire to please the researcher or others present could have affected their scores, as the researcher was present while participants were completing all inventories and while the participants were watching the mood induction video clips. Additionally, the wording of the directions for the Heartland Forgiveness Inventory were changed to obtain forgiveness scores based on how participants felt at the time they were completing the inventory. For future studies, it may be beneficial to use several other methods of assessment (e.g. other-report, behavioral observations) in addition to self-report measures.

The final limitation is related to the reliability of the connectedness subscale of the ASPIRES in the current study. The alpha reliability coefficient for the connectedness subscale in the current study was only 0.40. Similar alphas (0.68, 0.49) were reported in Piedmont’s (1999, 2003) studies during the development of the ASPIRES. Therefore, due to threats related to the reliability, and hence the validity of the subscale, any results associated with connectedness subscale should be interpreted with caution.

Implications and Suggestions for Future Research

There are several implications for future research that need to be considered based on this study. First, the present study, though it contained an experimental component, does not permit drawing causal conclusions about spirituality’s direct effects on hope and forgiveness. Nevertheless, this study provides a good beginning for future research on spirituality, hope and forgiveness. One of the main strengths of the current study is that it took into account personality and mood in addition to examining spirituality’s
relationship to hope and forgiveness. This is important because other studies that have examined the relationship of spirituality to hope and forgiveness have not measured personality and mood, both of which have also been shown to be significantly related to hope and forgiveness. Existential well-being appears to be significant contributor to both hope and forgiveness. Future studies on other positive psychology constructs (e.g. optimism, self-efficacy, humility, empathy, altruism) may benefit from incorporating measures of existential well-being to better understand those relationships.
APPENDIX A

Bipolar Adjective Rating Scale – Self

On the following pages are pairs of adjectives that are used to describe people’s personal characteristics. Please determine which of the two adjective more accurately describes YOU as a person. If neither adjective describes you, circle the neutral (4) option. Please work quickly, do not spend too much time on any one item. Remember, your first guess is your best guess!

For example, consider the adjective pair:

RIGHT

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<thead>
<tr>
<th>Very Much</th>
<th>Somewhat</th>
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<tr>
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<td>Like Me</td>
<td>Neutral</td>
<td>Like Me</td>
</tr>
<tr>
<td>Outgoing</td>
<td>1-------(2)--------3------4------5------6------7 Reserved</td>
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If you feel that you are an outgoing, then circle the digit that most accurately represents the degree to which you are outgoing (1, 2, or 3). If you are more reserved, circle the digit that most accurately reflects the degree to which you are reserved (5, 6, or 7). If neither adjective describes you, then circle the “4”, the Neutral response. Remember, circle only ONE response. In the example above the response circled would be appropriate for an outgoing person.

An INCORRECT response would circle more than one number:

WRONG

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<td>Outgoing</td>
<td>1-------(2)--------3------4------5------(6)------7 Reserved</td>
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1. Sociable 1--------2--------3--------4--------5--------6--------7 Retiring
2. Goodnatured 1--------2--------3--------4--------5--------6--------7 Irritable
3. Conscientious 1--------2--------3--------4--------5--------6--------7 Negligent
4. Calm 1--------2--------3--------4--------5--------6--------7 Worrying
5. Conventional 1--------2--------3--------4--------5--------6--------7 Original
6. Sober 1--------2--------3--------4--------5--------6--------7 Full Loving
7. Ruthless 1--------2--------3--------4--------5--------6--------7 Soft-hearted
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Very Much Like Me    | Careful |
Somewhat Like Me     | At Ease |
Neutral Like Me      | Down to Earth |
Somewhat Like Me     | Reserved |
Very Much Like Me    | Rude |

Careful             | Undependable |
At Ease              | High Strung |
Down to Earth        | Creative |
Reserved             | Selfless |
Rude                 | Hardworking |
Unemotional          | Unemotional |
Creative             | Complex |
Inhibited            | Uncooperative |
Complex              | Disorganized |
Temperamental        | Inhibited |
Uncurious            | Uncooperative |
Narrow Interests     | Inhibited |
Sympathetic          | Uncooperative |
Scrupulous           | Secure |
Passive              | Suspicious |
Secure               | Unstable |
Suspicious           | Impulse Ridden |
Unstable             | Impulse Ridden |
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<tr>
<td>78</td>
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<td>80</td>
<td>Vengeful</td>
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</tbody>
</table>

- **Very Much Like Me**: 1
- **Somewhat Like Me**: 2
- **Neutral**: 3
- **Somewhat Neutral**: 4
- **Very Much Neutral**: 5
- **Like Me**: 6
- **Very Much Like Me**: 7

**Descriptions**

- **Stubborn**
- **Ambitious**
- **Subjective**
- **Bold**
- **Cheerful**
- **Self-reliant**
- **Cynical**
- **Playful**
- **Straightforward**
- **Energetic**
- **Proud**
- **Ignorant**
- **Persevering**
- **Stupid**
- **Fair**
- **Imperceptive**
- **Cultured**
- **Prefer routine**
- **Forgiving**
APPENDIX B

Spiritual Well Being Scale (SWB)

For each of the following statements, circle the choice that best indicates the extent of your agreement or disagreement as it describes your personal experience.

SA = Strongly Agree    MA = Moderately Agree    A = Agree
D = Disagree           MD = Moderately Disagree   SD = Strongly Disagree

1. I don’t find much satisfaction in private prayer with God.

2. I don’t know who I am, where I came from, or where I’m going.

3. I believe that God loves me and cares about me.

4. I feel that life is a positive experience.

5. I believe that God is impersonal and not interested in my daily situations.

6. I feel unsettled about my future.

7. I have a personally meaningful relationship with God.

8. I feel very fulfilled and satisfied with life.

9. I don’t get much personal strength and support from my God.

10. I feel a sense of well-being about the direction my life is headed in.

11. I believe that God is concerned about my problems.

12. I don’t enjoy much about life.

13. I don’t have a personally satisfying relationship with God.


15. My relationship with God helps me not to feel lonely.

16. I feel that life is full of conflict and unhappiness.

17. I feel most fulfilled when I am in close communion with God.

18. Life doesn’t have much meaning.

19. My relation to God contributes to my sense of well-being.

20. I believe there is some real purpose for my life.
APPENDIX C

Assessment of Spirituality and Religious Sentiments (ASPIRES)
Self-Report Form

Gender (Please Circle): Male Female Age: ________________

Race: _Arabic _Asian _Black _Caucasian _Hispanic _Other

Religious Affiliation:

_Catholic _Lutheran _Methodist _Episcopal
_Unitarian _Baptist _Evangelical _Mormon
_Other Christian _Jewish _Muslim _Hindu
_Buddhist _Atheist/Agnostic _Other Faith Tradition

Instructions: This questionnaire will ask about various perceptions you hold about your view of the world and your place in it. Answer each question on the scale provided by checking the box that best expresses your feelings. If you are not sure of your answer or believe that the question is not relevant to you, then mark the “Neutral” category.

Please work quickly, do not spend too much time thinking about your responses to any single item. Usually, your first answer is your best response, so go with your first reaction to the item.

Section I.

1. How often do you read the Bible/Torah/Koran/Geeta?
   ___Never ___About once a month ___Several times a week
   ___About once or twice a year ___2 or 3 times a month ___Several times a year ___Nearly every week

2. How often do you read religious literature other than the Bible/Torah/Koran/Geeta?
   ___Never ___About once a month ___Several times a week
   ___About once or twice a year ___2 or 3 times a month ___Several times a year ___Nearly every week

3. How often do you pray?
   ___Never ___About once a month ___Several times a week
   ___About once or twice a year ___2 or 3 times a month ___Several times a year ___Nearly every week

4. How frequently do you attend religious services?
   ___Never ___Rarely ___Occasionally ___Often ___Quite Often

5. To what extent do you have a personal, unique, close relationship with God?
   ___Not at all ___Slight ___Moderate ___Strong ___Very Strong

6. Do you have experiences where you feel a union with God and gain spiritual truth?
   ___Never ___Rarely ___Occasionally ___Often ___Quite Often

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7. How important are your religious beliefs?

- Extremely important
- Very important
- Fairly important
- Somewhat unimportant
- Fairly unimportant
- Not at all important

8. Over the past 12 months, have your religious interests and involvements...

1. Increased
2. Stayed the Same
3. Decreased

9. I feel that God is punishing me.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

10. I feel abandoned by God.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

11. I feel isolated from others in my faith group.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

12. I find myself unable, or unwilling, to involve God in the decisions I make about my life.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Section II.

1. I have not experienced deep fulfillment and bliss through my prayers and/or meditations.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

2. I do not feel a connection to some larger Being or Reality.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

3. I do not believe that on some level my life is intimately tied to all of humankind.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

4. I meditate and/or pray so that I can reach a higher spiritual level.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

5. All life is interconnected.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

6. There is an order to the universe that transcends human thinking.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

7. Death does not stop one's feelings of emotional closeness to another.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

8. In the quiet of my prayers and/or meditations, I find a sense of wholeness.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

9. I have done some things in my life because I believed it would please a parent, relative, or friend that had died.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
10. Although dead, memories and thoughts of some of my relatives continue to influence my current life.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

11. Spirituality is not a central part of my life.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

12. I find inner strength and/or peace from my prayers and/or meditations.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

13. Although there is good and bad in people, I believe that humanity as a whole is basically bad.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

14. I do not have any strong emotional ties to someone who has died.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

15. There is not higher plane of consciousness or spirituality that binds all people.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

16. Although individual people may be difficult, I feel an emotional bond with all of humanity.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

17. I meditate and/or pray so that I can grow as a person.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

18. Prayer and/or meditation does not hold much appeal to me.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

19. My prayers and/or meditations provide me with a sense of emotional support
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

20. I feel that on a higher level we all share a common bond.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

21. I want to grow closer to the God of my understanding.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

22. The praise of others gives deep satisfaction to my accomplishments.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

23. I am not concerned about the expectations that loved ones have of me.
___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly Disagree

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APPENDIX D

Heartland Forgiveness Scale (HFS)

Directions: In the course of our lives negative things may occur because of our own actions, the actions of others, or circumstances beyond our control. For some time after these events, we may have negative thoughts or feelings about ourselves, others, or the situation. Next to each of the following items write the number (from the 7-point scale below) that best describes how you would respond to the type of negative situation described based on how you feel right now. There are no right or wrong answers. Please be as open as possible in your answers.

1  2 3 4 5 6 7
Almost always More often More often Almost Always false of me false of me true of me true of me

1. Although I feel badly at first when I mess up, over time I can give myself some slack.
2. I hold grudges against myself for negative things I’ve done.
3. Learning from bad things that I’ve done helps me get over them.
4. It is really hard for me to accept myself once I’ve messed up.
5. With time I am understanding of myself for the mistakes I’ve made.
6. I don’t stop criticizing myself for negative things I’ve felt, thought, said, or done.
7. I continue to punish a person who has done something that I think is wrong.
8. With time I am understanding of others for the mistakes they’ve made.
9. I continue to be hard on others who have hurt me.
10. Although others have hurt me in the past, I have eventually been able to see them as good people.
11. If others mistreat me, I continue to think badly of them
12. When someone disappoints me, I can eventually move past it.
13. When things go wrong for reasons that can’t be controlled, I get stuck in negative thoughts about it.
14. With time I can be understanding of bad circumstances in my life.
15. If I am disappointed by uncontrollable circumstances in my life, I continue to think negatively about them.
16. I eventually make peace with bad situations in my life.
17. It’s really hard for me to accept negative situations that aren’t anybody’s fault.
18. Eventually, I let go of negative thoughts about bad circumstances that are beyond anyone’s control.
APPENDIX E

State Hope Scale (SHS)

Directions: Read each item carefully. Using the scale shown below, please select the number that best describes how you think about yourself right now and put that number in the blank before each sentence. Please take a few minutes to focus on yourself and what is going on in your life at this moment. Once you have this “here and now” set, go ahead and answer each item according to the following scale.

1 = Definitely False
2 = Mostly False
3 = Somewhat False
4 = Slightly False
5 = Slightly True
6 = Somewhat True
7 = Mostly True
8 = Definitely True

_____ 1. If I should find myself in a jam, I could think of many ways to get out of it.
_____ 2. At the present time, I am energetically pursuing my goals.
_____ 3. There are lots of ways around any problem I am facing now.
_____ 4. Right now, I see myself as being pretty successful.
_____ 5. I can think of many ways to reach my current goals.
_____ 6. At this time, I am meeting the goals that I have set for myself.
Visual Analogue Mood Scale (VAMS)

Directions: Please mark a point ON the line below that best explains your current mood given the numbers and explanation below the line.

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<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
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<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
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<tr>
<td>I do not feel depressed at all.</td>
<td>Neutral</td>
<td>I feel extremely depressed.</td>
<td></td>
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<tr>
<td>I feel very happy.</td>
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The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 26020203
PROJECT TITLE: Spirituality Variables That Lead to Hope and Forgiveness: An Analysis
PROPOSED PROJECT DATES: 01/01/05 to 06/30/06
PROJECT TYPE: Dissertation or Thesis
PRINCIPAL INVESTIGATORS: Russell Lark
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Psychology
FUNDING AGENCY: N/A
HSPRC COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 02/09/06 to 02/08/07

Lawrence A. Hosman, Ph.D.
HSPRC Chair

2-18-04 Date
APPENDIX H

WRITTEN STATEMENT OF INFORMED CONSENT

The purpose of the research project is to determine the relationship between views of yourself and views of spirituality. In order to obtain data for the study, you will be completing several inventories and watching a 15-minute video clip. Total time for your participation in the study should be approximately 75 minutes.

Your participation in this research is completely voluntary and you may discontinue at any time without penalty. You will receive extra credit in one of your classes by participating in this project. While there are no other direct benefits to you as a participant the data collected will help increase our understanding between personality and spirituality. Likewise, the risks of the study are minimal, as all instruments have been used without incident. However, some people may have concerns about responding to questions of a spiritual type or become uncomfortable watching the video clip. If you are one of those people, you do not have to continue with this project. Should you decide to discontinue, the inventories that you have completed or partially completed will be destroyed with no detriment to you as a participant.

Upon your completion, the inventories will be viewed by two people, Dr. Mark Leach, a professor of Psychology at the University of Southern Mississippi, and Russell Lark, a Ph.D. student in Counseling Psychology at the University of Southern Mississippi. Your name will not appear on any of the inventories. The inventories will be coded to maintain anonymity and confidentiality. Following data analysis all inventories will be shredded according to the guidelines as specified by the American Psychological Association.

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Should you have any questions regarding this research study, please feel free to call Dr. Mark Leach (601)266-4543 (m.leach@usm.edu) or Russell Lark (601)818-3619 (Duckyruss@yahoo.com).

I understand the above information and agree to participate in this research study. I realize that my participation is completely voluntary and that I may withdraw from the study at any time without penalty or prejudice. Should I withdraw from the study I will return all inventories to the researcher so that they may be destroyed properly.

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about the rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601)266-6820.

_________________________           ________________
Participant Signature           Date

_________________________           ________________
Experimenter Signature           Date
APPENDIX I

DEBRIEFING FORM

Thank you participating in my study. At this time, I am going to tell you more about the study. I am completing this study for my dissertation as part of the requirements to obtain my Ph.D. I am looking at the relationship of personality and spirituality to hope and forgiveness. So, some of the questionnaires you completed were spirituality questionnaires, one was a personality questionnaire, one was a hope questionnaire and one was a forgiveness questionnaire. You may also remember marking a point on the horizontal line to indicate your current mood level. The purpose of the video was to induce, in your case, a ________ (depressed, neutral, or elated) mood. In addition to the relationship of personality and spirituality with hope and forgiveness, I am interested in the relationship between mood and hope and forgiveness. I am also interested in finding out if changing mood affects state hope and forgiveness. Do you have any questions? I do ask that you not tell your friends or classmates about the particulars of this study including the questionnaires that you completed, the video clip that you watched, or the purpose of the video. Thank you again for your participation and good luck with the rest of your semester.
REFERENCES


101


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Intelligence and personality dimensions in natural language and in questionnaires.


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