

**SPIRITUAL INTELLIGENCE: IS IT RELATED TO A
LEADER'S LEVEL OF ETHICAL DEVELOPMENT?**

by

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Abstract

Within the organizational environment there is an increasing interest in spiritual leadership. A leader who can effectively build an organization that exhibits workplace spirituality brings benefit to the members of the organization and the stakeholders represented as their agent. Spiritual intelligence offers the potential of a compass through which a leader's ethics and spiritual leadership ability can be assessed. Building on the model of spiritual intelligence created by King (2008), a sample group of managers of both genders, age 21+, all cultures, and all educational levels will be studied to investigate if spiritual intelligence can be related to moral development theories and spiritual leadership attributes. The results are meant to provide a deeper and broader understanding of the application of spiritual intelligence and its relationship to the changing leadership and organizational paradigms involving spirituality.

We are essentially spiritual beings having a human experience, rather than the other way around. Although we might initially say that we “have” a soul, it is more accurate to say that we are a soul who “has” a personality, and this self-centered personality is our instrument of expression in the world. The soul reveals that we are not separate from each other or from all life, whether visible and invisible. To experience the soul is to experience a deep sense of oneness with all that is—a profound sense of inspiration and joy.

—Corinne McLaughlin

But, in fact, in this final apocalypse of the self,
the dissolution of the sole remaining duality of existence
and nonexistence—identity itself dissolves in
Universal Divinity, and no individual consciousness
Is left to choose. The last step, then, is taken by God.

—David Hawkins

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CHAPTER 1. INTRODUCTION

Introduction to the Problem

Twenty-first-century businesses are facing intense scrutiny into how they operate. According to the 2007 National Business Ethics Survey, levels of ethical misconduct within organizations have once again reached the same level as measured at the height of the ethical scandals that began with Enron (Ethics Resource Center, 2007). Add to this the economic pressures, globalization, and demographic changes in the work force that, when combined, are causing the business environment to enter a new age in leadership—an age where spirituality in the workplace is overcoming the bureaucratic principles of the 20th century (Paulison, 2002).

While a clearly defined set of organizational values are seen as critical to a company's strategy, it must be remembered that organizations are made up of individuals (Ethics Resource Center, 2007). It is those individuals, through either their explicit role within the organization or their implicit role within an interdependent part of the organization, influence the values of the organization either formally or informally. Kouzes and Posner (2002) stated, "Values make a *significant* difference in behavior at work" (p. 49). If a person has clarity around what they personally value, and an understanding of the differences between their values and organizational values, they can make the choices of how they respond in times of conflict. Values impact decision

making, interpersonal interactions, social relationships, career choice, motivation, and commitment (McDonald & Gandz, 1991; Rokeach, 1973). “Clarity about personal values is more important in our attitudes about work than is clarity about organizational values alone. Those individuals with the clearest personal values are prepared to make choices based on principle” (Kouzes & Posner, 2002, p. 51). This is due to the fact that part of acting in an ethical manner is to be able to identify ethical concerns even when they are not clearly visible.

Within the workplace, there is increasing interest in spiritual leadership, which focuses on not only the leader’s ethics and values but builds “an environment of respect, ethics, values and integrity” (Wolf, 2004, p. 23). By empowering their employees, spiritual leaders encourage them to find a real balance between work and life that is enriching not only for them but also for those they serve on behalf of the company.

Kanungo and Mendonca (1996) posited that a leader who puts the needs of others before his or her own personal needs or gain exhibits a high degree of altruism characteristic of universal behavior in Stage 6 of Kohlberg’s moral development theory (Kohlberg, 1981).

With the Baby Boomers reaching the retirement age, those born in the Gen X and Gen Y eras are questioning any area of their life that does not meet their needs (Zemke & Raines, 2000). People want their job to be more than just a job. They want to find meaning and fulfillment that will allow them to integrate their personal and professional life personas and be a whole person in all areas of life (Bowman, 2000; Kouzes & Posner, 2002; Zohar & Marshall, 2000). Zohar (2005) described this as “the power a leader can unleash in individuals or organizations by evoking people’s deepest meanings, values, and purposes” (p. 46).

Spiritual leadership capacities are a combination of core competencies, skills, and learned techniques. Reave (2005) stated, “Spiritual leadership would start with the leader’s own ethics and integrity” (p. 663). Research on cross-cultural leadership attributes have found that 14 of the 22 endorsed attributes of an effective leader can be associated with spirituality, values and ethics while 7 of 8 qualities of an ineffective leader have a spiritual dimension (Den Hartog, House, Hanges, Ruiz-Quintanilla, & Dorfman, 1999). For leaders, this means exhibiting in word and action such values as caring, concern, respect, appreciation, honesty, and humility while avoiding egocentricity, negativity, and dictatorship (Den Hartog et al., 1999; Jurkiewicz & Giacalone, 2004; Reave, 2005).

A leader who can effectively build an organization that exhibits workplace spirituality brings benefit not only to the members of the organization but to the stakeholders that he represents as their agent. These benefits include increased organizational performance (Lloyd, 1990), intrinsic employee job satisfaction and involvement, and higher rates of return on investments (Jurkiewicz & Giacalone, 2004). Spiritual leadership fosters an attitude of discernment over intervention, allowing rather than controlling, listening rather than doing, and humility rather than competence and competition (Korac-Kakabadse, Kouzmin, & Kakabadse, 2002).

Zohar and Marshall (2000) were the first to introduce the concept of spiritual intelligence or SI as a form of intelligence that is based on a person’s innermost meanings and needs to fulfill a higher existential purpose. Although Zohar and Marshall laid out the concepts based on personality and defined traits and behaviors that they felt typified

spiritual intelligence, they asserted that, “unlike IQ, which is linear, logical and rational, spiritual intelligence cannot be quantified” (p. 276).

Since their initial introduction of spiritual intelligence, other researchers have posed different measures and theories to define and measure SI. Emmons (2000a) built an argument that spiritual intelligence was composed of five components:

(a) the capacity for transcendence; (b) the ability to enter into heightened spiritual states of consciousness; (c) the ability to invest everyday activities, events and relationships with a sense of the sacred; (d) the ability to utilize spiritual resources to solve problems in living; and (e) the capacity to engage in virtuous behavior. (p. 10)

The challenge in substantiating his components is developing the broad conceptual basis that can help to identify the cognitive aspects that would provide a basis of assessment (Emmons, 2000a; Mayer, 2000).

King (2008), as part of his master’s thesis, created a measurement instrument for SI, that was not subjected to peer review, based on four attributes: (a) critical existential thinking, (b) personal meaning production, (c) transcendental awareness, and (d) conscious state expansion. Nasel (2004) created a measurement instrument for SI based on two attributes: awareness of divine presence and existential questioning. Nasel’s attribute of awareness of divine presence would compare to King’s transcendental awareness. Existential questioning would compare to critical existential thinking (King, 2008; Nasel, 2004). Critical existential thinking incorporates a person’s need to understand the meaning and purpose of his or her life and work. Finding a sense of purpose and fulfillment in one’s daily physical and mental experiences is the basis of personal meaning production. Transcendental awareness describes “the capacity to identify transcendent dimensions of the self, of others, and of the physical world during

normal, waking states of consciousness” (King, 2008, p. 63). The last dimension, conscious state expansion, discusses the individual’s ability to enter into and exit from, at will, higher states of consciousness through deep contemplation, meditation or prayer (King, 2008). These traits, as expressed by Covey (1990), use natural universal laws to enable leaders to guide follower actions and to build trust.

Amram (2009) used the Integrated Spiritual Intelligence Scale (ISIS) 45-question, short-form model, created and validated by Amram and Dryer (2008), as part of his doctoral dissertation. This instrument measures SI based on five components: (a) consciousness, (b) grace, (c) meaning, (d) transcendence, and (e) truth. These constructs tie to King’s (2008) and Nasel’s (2004) dimensions of spiritual intelligence and to the theories presented by Emmons (2000a), Vaughn (2002), and Zohar and Marshall (2000). A discussion of the design and validity of these instruments will be covered in Chapter 2.

Background of the Study

Gardner (2006) was the first to propose the theory of multiple intelligences in humans based on seven independent factors: linguistic, logical-mathematical, musical, bodily-kinesthetic, spatial, intrapersonal, and interpersonal. Research over the following 2 decades has built on this and identified several other varieties of intelligence. Among these various types of intelligence were social intelligence and emotional intelligence. Social intelligence describes one’s ability to relate to other people in a social setting (Goleman, 2006). Emotional intelligence, which was considered a form of social intelligence by Salovey and Mayer (1990), concerns an individual’s ability to monitor and understand their own emotions and the emotions of the person(s) in an interpersonal

relationship. Emotional intelligence is considered to be part of the tools needed to effectively use one's IQ (Goleman, 2006; Zohar & Marshall, 2000). As a subtype, emotional intelligence relates to Gardner's intrapersonal and interpersonal factors (Goleman, 2006). While emotional intelligence is considered to be a part of leadership success and has been embraced because of Goleman's popularization of the research on the subject, it "has yet to be accepted or rejected empirically" (King, 2008, p. 16).

Another type of intelligence proposed by Zohar and Marshall (2000) is *spiritual intelligence*, described as the ultimate intelligence that "reframe[s] or reconceptualize[s] our experience and thus transforms our understanding of it" (p. 65). This reframing relates to a person's level of cognition and encompasses decision making, flexibility, self-awareness and moral reasoning (Zohar & Marshall, 2000). Within the framework of Gardner's multiple intelligence theories, and building on the foundations of emotional intelligence and neural processing arrangements, SI has been characterized as the missing link between IQ and emotional intelligence (EI). This link imbues the user with a transformative power that allows not only the understanding of the situational boundaries but the ability to transform those boundaries (Zohar & Marshall, 2000).

Although Gardner (2006) still contended that spiritual intelligence does not meet his criteria for intelligence, he has stated that existential intelligence is a potential candidate. His reluctance, and he states that of the scientific community, has to do with his assertion that spirituality and religion are related (Halama & Strizenec, 2004; Zohar & Marshall, 2000). His existential intelligence is based on "human proclivity to ponder the most fundamental questions of existence" (Gardner, 2006, p. 20). When appraised against spiritual intelligence's role to "address and solve problems of meaning and value" (Zohar

& Marshall, 2000, p. 3) that can allow one to assess and change one's life-path to be more meaningful, it could be argued that they have the same philosophical concepts as a basis. Gardner stated that the big questions pondered in existential intelligence have to do with why we live and die or where we originated, as examples. If one looks at the various depictions of spiritual intelligence, an aspect that is preeminent throughout the various constructs used to define SI compares to these questions. Examples of these questions include: "Why was I born? What is the meaning of life?" (Zohar & Marshall, 2000, p. 4); "spiritual strivings [that can aid in] discern[ing] God's will for my life" (Emmons, 2000a, p. 12); "investigation of personal beliefs about who and what we think we are" (Vaughn, 2002, p. 29).

Add psychoethics and the spiritual development theories of Wilber (2000) and Hawkins (1995) to this train of thought, and one has a basis for the hypothesis that a leader's level of spiritual intelligence should relate to his level of moral development based on Kohlberg's stages of moral development (Needle & Lecker, 1997).

Statement of the Problem

Research has clearly shown that a leader's level of moral development impacts the members of the organization. The marketability and value of a leader is often based on the earnings of the organization they manage, which leads to the pursuit of self-interest at any cost (Carroll, 2000; Zohar, 2005). The *American Heritage Dictionary* (n.d.) defines *self-interest* as "selfish or excessive regard for one's personal advantage or interest."

“Agency theory postulates that because people are, in the end, self-interested they will have conflicts of interest over at least some issues any time they attempt to engage in cooperative endeavors” (Jensen, 1994, p. 12). Self-interest can lead to unethical behavior as demonstrated by the actions of the executives of Enron, Tyco, and WorldCom (Andreoli & Lefkowitz, 2009; Gibson, 2000). Stakeholders need a way to assess a leader’s ethical and moral compass. In studying the antecedents of unethical behavior in organizations, Andreoli and Lefkowitz (2009) found that “promoting a moral organization through the actions and speech of senior managers and supervisors, backed by support for those adhering to ethical standards and disciplining those who violate them” (p. 326) provides the most effective environment for promoting a values-based environment. Spiritual intelligence offers the potential of a possible avenue through which a leader’s “moral sense, and ability to temper rigid rules with understanding and compassion, and an equal ability to see when compassion and understanding have their limits” (Zohar & Marshall, 2000, p. 5) can be assessed.

To date, there have been three measurement instruments proposed for measuring the construct of spiritual intelligence. These instruments have all proposed different bases for the research but very similar attributes. None of the instruments have been validated across multiple settings, nor has the academic community adopted them as accepted measurement instruments for the construct of spiritual intelligence. Further, measurements of spiritual intelligence have not been related to a leader’s level of moral development. For spiritual intelligence to become accepted in the leadership community as a solid form of intelligence and as a viable leadership attribute, additional data, tied to acceptable seminal premises, must be gathered.

Purpose of the Study

Spiritual intelligence is in its infancy. Because spiritual intelligence has foundations in spirituality (and can be linked to religiosity) the scientific community will be slow and resistant to acceptance of this concept. The need for a new paradigm in leadership that allows leaders to place their subordinates' needs before the organization's needs, is gaining momentum as evidenced by the increased emphasis on spiritual leadership.

The goal of this study is to establish a link between the level of a leader's spiritual intelligence and his or her moral development. This link needs to be built on accepted theories of moral developmental and spiritual intelligence. The study findings will assist in providing more evidence and validity to the claim that spiritual intelligence is a type of human intelligence. In addition to adding data to the current body of knowledge on spiritual intelligence theory, the outcome of the study will add context to support the validity of the selected measurement instrument.

Rationale

This study will build on the research of King (2008), Craig and Gustafson (1998), Wilber (2000), and Hawkins (1995) in an effort to (a) add further validity through data to the construct of spiritual intelligence; (b) demonstrate the intersections between Wilber's spectrum of consciousness model, Hawkins's Scale of Consciousness, and Kohlberg's (1973, 1981) and Gilligan's (2003) stages of moral development; and (c) show through

self-reporting using the Perceived Leader Integrity Scale (Craig & Gustafson, 1998) that these concepts are interrelated.

Research Questions

1. Does the measurement instrument, the Spiritual Intelligence Self-Report Inventory (SISRI-24) short-form, yield valid and reliable data when used by another researcher to measure the spiritual intelligence of an individual?
2. To what extent do demographic factors influence the level of spiritual intelligence?
3. Are religious affiliation and/or level of religious or spiritual activity related to a person's spiritual intelligence level?
4. Can the level of an individual's spiritual intelligence be tied to the stages of moral development through the use of the Perceived Leader Integrity Scale (PLIS)?

Significance of the Study

This study has the ability to add further data that could assist in the validation of a measurement instrument for spiritual intelligence. Without empirical data that can be linked to mental, individual or organizational performance, spiritual intelligence will not gain acceptance by either the academic or scientific community. Solid empirical data that supports spiritual intelligence are limited, so this additional data will not only increase the knowledge base but also lend support to the concept of spiritual intelligence.

The goal is to establish a link between the level of a leader's spiritual intelligence and his moral development based on Kohlberg's (1973, 1981) and Gilligan's (2003)

scientifically accepted theories of moral development. By linking the computed spiritual intelligence level of the participants to their stage of moral development, identification of SI to a quantifiable moral measure is achieved. This will then validate that spiritual intelligence can be used as a business tool to identify ethical leaders who can align employee needs with organizational goals.

Lastly, the findings of this study will assist in providing more evidence and validity to the claim that spiritual intelligence is a type of human intelligence and can be measured. Combined with the neurological data on synchronous neural oscillations, this data will provide a picture of the process that mind and body plays with both reason (IQ) and emotion (EI) (Zohar & Marshall, 2000).

Definition of Terms

Baby Boomers. A generational descriptor used to classify those individuals born from 1946 to 1964 (Zemke & Raines, 2000).

Emotional intelligence (EI). The measure of an individual's ability to identify, assess and manage his or her personal emotions and the emotions of the person(s) with whom he or she is interacting (Goleman, 2006; King, 2008; Mayer, Caruso, & Salovey, 2000; Zohar & Marshall, 2000).

Generation X. Those individuals born from 1965 to 1977 (Zemke & Raines, 2000).

Generation Y. Those individuals born from 1978 to 2000 (Zemke & Raines, 2000).

Human intelligence. The ability to apply knowledge in order to manipulate one's environment or to think in the abstract to problem solve or to reason on objective criteria (Gardner, 2006; Sternberg & Kaufman, 1998).

Intelligence quotient (IQ). The measure of an individual's rational intellect that is used when one is performing problem solving or logical reasoning (King, 2008; Zohar & Marshall, 2000).

Spiritual intelligence (SI). "A set of mental capacities, which contribute to the awareness, integration and adaptive application of the nonmaterial and transcendent aspects of one's existence" (King, 2008, p. 54). Within this framework exist four domains: (a) critical existential thinking, (b) personal meaning production, (c) transcendental awareness, and (d) consciousness state expansion (King, 2008). The ability to enter higher states of consciousness to expand mental capacity either through meditation, relaxation or controlled breathing reflects the precept of conscious state expansion. Personal meaning production aligns to a person's knowledge of their life purpose from a relationship to a greater power and to others and their environment (King, 2008; Vaughn, 2002). Meaning has two investigated levels: purpose and service (Amram & Dryer, 2008). Transcendental awareness speaks of "inner-directedness (combining discernment and freedom) and love for life, drawing on the inspiration, beauty, and joy inherent in each present moment to enhance functioning and well-being" (Amram, 2009, p. 71). Transcendence discusses the individual's ability to move beyond ego and to the I, which is the true spiritual nature of the person (Hawkins, 1995). Critical existential thinking encompasses an individual's inquiry about his reason for living (King, 2008; Vaughn, 2002; Zohar & Marshall, 2000).

Spirituality. “(a) Focus on ultimate meaning, (b) awareness and development of multiple levels of consciousness, (c) experience of the preciousness and sacredness of life, and (d) transcendence of self into a connected whole” (Amram, 2009, p. 28). In contrast, religiosity is based on a set of established, institutionalized, religious doctrine that leads to a set of beliefs and behaviors that a person practices (King, 2008; Reave, 2005; Zohar & Marshall, 2000).

Assumptions and Limitations

1. The population selected for this study will provide a cross-cultural sample.
2. The participants will not be influenced by the term *intelligence* that could affect the validity of their replies, as only the acronym and not the full instrument name will be utilized.
3. The fact that the study has underpinnings of religiosity will result in no harm or distress to the participants.
4. The sampling plan allows for the selection of individuals that will vary in their range of spiritual intelligence development.
5. Data collected in this study will add to the validity and reliability of the measurement instrument used in this research.
6. The PLIS created by Craig and Gustafson (1998), while created to assess a leader’s integrity based on subordinates’ perceptions, can be used as a self-assessment instrument of an individual’s moral development.

Nature of the Study

A quantitative research methodology with a descriptive design will be used to collect data to test the hypotheses for Research Questions 1, 2, and 3. Research Question 4 will employ a design that is correlational in nature in order to explore whether a relationship can be determined between ethical development level and spiritual intelligence. The study design is demonstrated graphically in Figure 1.

The measurement instrument for this study is created from two existing research survey instruments. Both instruments were designed with a Likert-type, multiple-choice scale to gather the data. Cooper and Schindler (2006) stated, “Analytical procedures are determined by the scale types used in the survey” (p. 359). The Likert-scale choice fits with the intent of a survey, which is “to measure various behaviors, thought processes, and mental characteristics” (King, 2008, SISRI-24 instructions). In addition to the measurement instrument, demographic information will also be gathered. These demographic data represent independent variables that could have an impact on the study outcome.

The study data collected will be separated into three parts consisting of the SISRI-24 data to be scored for the spiritual intelligence score, the PLIS data to be scored for the level of moral development, and the demographic data. Descriptive statistics will be performed on the interval data to identify skewed data. This analysis will be followed with calculation of Cronbach’s alpha as a representative of the reliability and validity of the collected data. In addition, a confirmatory factor analysis will be performed on the SISRI-24 data to examine the factor loadings of the indicators in relation to the expected outcomes predicted by the prior research models.

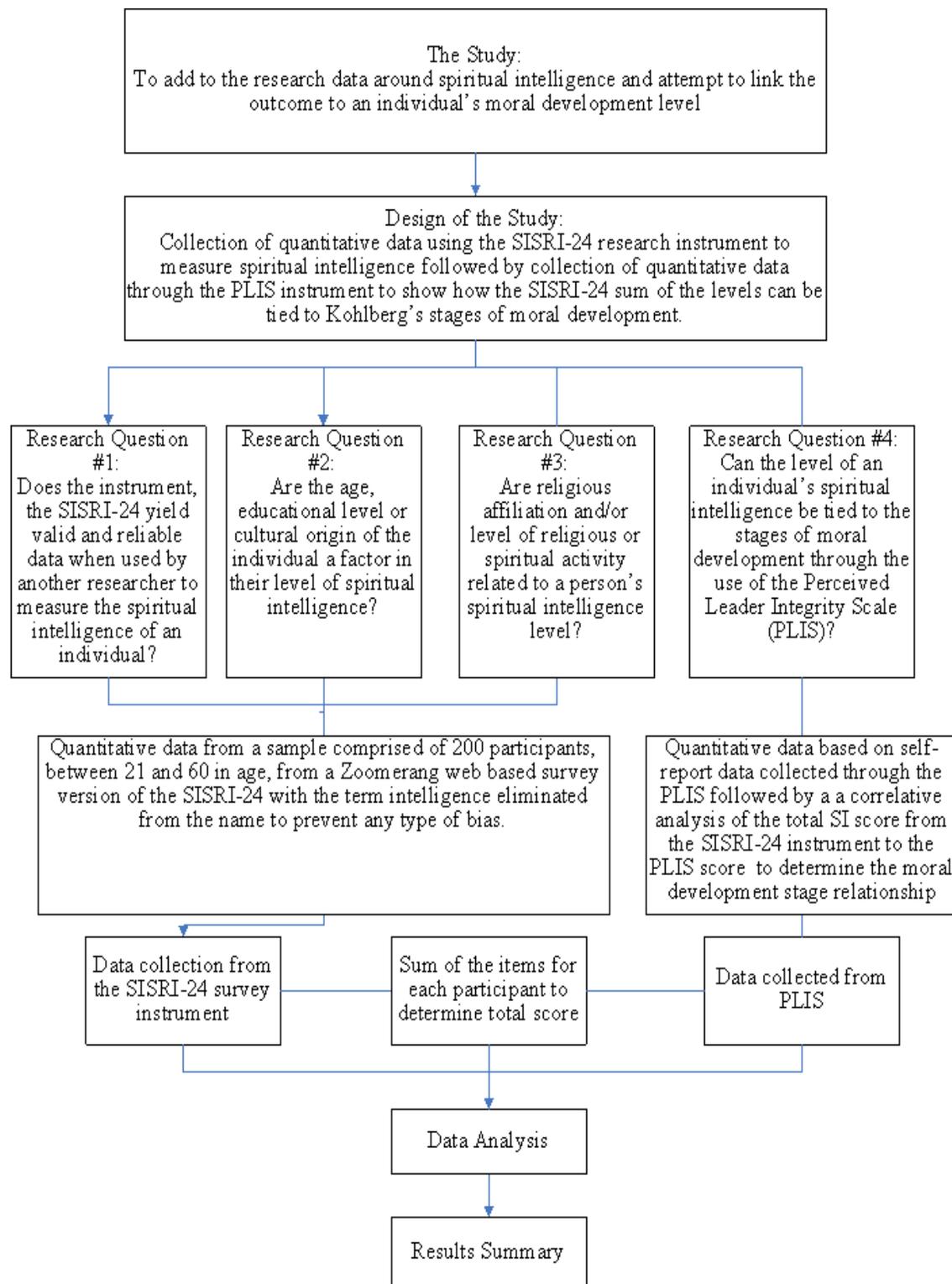


Figure 1. Study design flowchart.

Pearson r correlation methodology will be used to determine the strength of the relationship between the SI score and the PLIS score. The final level of data analysis will be comparing the means of the dependent variables to the independent variables via statistical testing methodologies.

CHAPTER 2. LITERATURE REVIEW

Introduction

The technological advances and globalization of the 20th century have caused rapid and evolutionary change in the workplace. This change has caused a reevaluation by employees from working for a living to wanting careers that are meaningful, inspirational, and consequential (Mitroff & Denton, 1999). In searching for the meaning and connection desired, individuals become aligned with their inner or higher self—their spirituality. Jung (1933) correlated this search to a spiritual rebirth that brings forward a change in attitude toward what is valued in life.

There are many rationalizations around what has sparked this increased search for meaning and connectedness that is an intrinsic component of our humanness (Jung, 1933). Mitroff and Denton (1999) called it a reactive response to social and organizational change. This change has alienated employees due to the resultant contraction of the work force in quest for profits by many organizations (Kinjerski & Skrypnek, 2004). Others believe that it has to do with the aging Baby Boomers in the work force who, as they are growing older, are contemplating life's meaning (Marques, Dhiman, & King, 2005). Whatever the catalyst, the interest in Eastern philosophies, and their belief in synchronicity and harmony between self and environment, are impacting leaders and the workplace (Eck, 2001).

Is there a relationship between spiritual intelligence and spiritual leadership capabilities in individuals? One cannot discuss the relationship of spiritual intelligence and spiritual leadership capabilities without an understanding of spiritual intelligence and its role within the workplace. Spiritual intelligence has been proposed to be another type of human intelligence based on neurological, psychological, and anthropological research (Zohar & Marshall, 2000). A brief history of human intelligence and the underlying cognitive processes will be discussed. Cognitive psychology delves into how humans develop mental processes that underlie behavior, including thinking, deciding, reasoning, and to some extent motivation and emotion.

Brief Synopsis of Applicable Human Intelligence Theory

The foundation of human intelligence theories can be traced back to the Greek philosophers Plato and Aristotle, and to the scholastic philosopher, Aquinas, to name a few. In psychology, the term human intelligence is used to describe an ability to apply knowledge in order to manipulate one's environment or to think in the abstract to solve problems. The intelligence quotient or IQ test (also known as the Stanford–Binet Intelligence Scale) was the first accepted measure of intelligence (Gardner, 2006; Plucker, 2003). IQ posed a singular view of intelligence arrived at by scoring “a variety of tasks they thought were representative of typical children's abilities at various ages” (Plucker, 2003, para. 7) to arrive at a basis for statistical comparison of mental age and abilities to their peers.

The psychologist Piaget was one of the first to suggest that intelligence was a multidimensional process based on stages of development. His theory of genetic

epistemology held that “a child cannot build new, increasingly complex schemes without interacting with his environment; nature and nurture are inexorably linked” (Plucker, 2003, “Biographical Profiles: Piaget”). Today, Piaget’s stage version is not taken literally but all agree with him that “the view of the world of the infant or toddler has its own peculiar structures; many developmentalists believe that there are stage sequences within particular domains of experience (for example, language, moral judgment, understanding of physical causality)” (Gardner, 2006, p. 172).

In the 1980s, Gardner introduced the theory of multiple intelligences. In 2006, Gardner published *Multiple Intelligences, New Horizons*, updating multiple intelligence theory based on a multiple factor view of human intelligence, which he defined as “a computational capacity—a capacity to process a certain kind of information—that originates in human biology and human psychology” (p. 6). Multiple intelligence theory identifies eight independent intelligence sets: linguistic, logical-mathematical, musical, bodily-kinesthetic, spatial, intrapersonal, interpersonal, and naturalist (Gardner, 2006; Sternberg & Kaufman, 1998). Each of these types of intelligence includes a problem-solving skill and a cultural component that provides knowledge, beliefs, and feelings when expressing conclusions (Gardner, 2006). Research over the following 2 decades has built on multiple intelligence theory and proposed other constructs of human intelligence development.

Sternberg and Kaufman (1998) challenged conventional constructs of intelligence based on research in the meaning of intelligence in various cultures. Case studies have repeatedly shown that high IQ, while depicting success in educational endeavors such as tests and school grades, may not equate to success within the job or social domain

(Gardner, 2006; Goleman, 2006; Sternberg, 2003; Sternberg & Kaufman, 1998).

Sternberg has proposed successful intelligence as an alternative to conventional constructs of human intelligence (Sternberg, 2003; Sternberg & Kaufman, 1998).

Successful intelligence is defined as “the ability to adapt to, shape, and select environments to accomplish one’s goals and those of one’s society and culture”

(Sternberg & Kaufman, 1998, pp. 493–494).

Successful intelligence theory is built on three abilities: analytical, creative, and practical. Analytical abilities encompass the framing, analysis, and solution to a problem. Creativity can be expressed in many ways, such as visual art, writing, theoretical ideas, among other forms, and is somewhat domain-specific rather than across a whole span of abilities (Sternberg & Kaufman, 1998). Practical involves taking the options created in the analytical and creative stages and applying them in a real-world setting. Practical skill evolves with age and experience in dealing with everyday issues. For a leader, “successful intelligence involves an individual’s discerning his or her pattern of strengths and weaknesses, and then figuring out ways to capitalize upon the strengths and at the same time to compensate for or correct the weaknesses” (Sternberg & Kaufman, 1998, p. 494).

Morality and Ethics

Morality and ethics are closely related. In fact, for many individuals these terms are synonymous in meaning. BusinessDictionary.com defines *ethics* (n.d.) as the

Investigation into the basic concepts and fundamental principles of human conduct. It includes study of universal values such as the essential equality of all men and women, human or natural rights, obedience to the law of land, concern

for health and safety and, increasingly, also for the natural environment. See also morality.

According to Gert (2005), *morality* is

1. descriptively to refer to a code of conduct put forward by a society or,
 - a. some other group, such as a religion, or
 - b. accepted by an individual for her own behavior or
2. normatively to refer to a code of conduct that, given specified conditions, would be put forward by all rational persons.

Carroll (2000) outlined ethics as being “a range of norms, standards, or expectations of behavior that reflect a concern for what consumers, employees, shareholders, the community, and other stakeholders regard as fair, right, just, or in keeping with stakeholders’ moral right or legitimate expectations” (p. 36). For purposes of this research, the terms *morality* and *ethics* are used interchangeably. The definition for *ethics/morality* will be an individual’s code of behavior that exhibits universal values of honesty, truth and caring, and that allows one to deal with the demands of human life with a balance between one’s needs and the needs of others.

Kohlberg’s Theories of Human Moral Development

In 1958, Kohlberg published his doctoral dissertation, which took the concept of Piaget’s two-stage model of moral judgment and expanded it into a three-level, six-stage model (Daeg de Mott, 2001). The first level, known as Level A, was the Preconventional Level. Stage 1 within Level A takes a self-centered point of view where caring for self is more important than the actions or beliefs of others. This leads to a concept of morality based on obedience of rules and authority to avoid punishment and the infliction of physical harm (Kohlberg, 1981). Stage 2 encompasses a more concrete individualistic perspective, in which the participant’s moral decisions are based on meeting the needs of

him- or herself or others and making equitable agreements that represent a concrete exchange of fairness (Kohlberg, 1981).

Level A gives way to Level B, or the Conventional Level, during preadolescence (Kohlberg, 1973). Participants in Stage 3 understand shared feelings, agreements, and expectations of those with whom they have a relationship. As expressed by Kohlberg (1981), “This person relates points of view through the ‘concrete Golden Rule,’ putting oneself in the other person’s shoes” (p. 410). The stage of social system and conscience maintenance actually has a Stage 4 component and a Stage 4½ component. The Stage 4 individual is characterized by the understanding that roles and rules are defined by society and must take precedence over individual relations. Stage 4½ has a postconventional view seen in Level C, but does not yet meet the principled point of view. The individual in Stage 4½ is beginning to understand that decisions can be made outside of society and self but is not yet sure why this is true (Kohlberg, 1981).

Level C, the postconventional and principled level, is first evident during adolescence (Kohlberg, 1973). This level “typifies moral decisions generated from rights, values, or principles created from fair and beneficial practices to both individuals and the society to which they belong” (Kohlberg, 1981, p. 411). Within Stage 5 of this level, participants understand that the rights and values of individuals have priority over social bounds. They struggle between reconciling the legalist point of view and the moralistic point of view. The final stage, Stage 6, shows the participant attaining an awareness of the universal ethical principles of justice such as the value of human life, and the dignity and equality of humans. Decisions are grounded on these principles and when social rules conflict, action is taken according to their principles (Kohlberg, 1981).

It should be noted that Kohlberg's stages are a progression toward a concept of justice and are invariant in sequence (Kohlberg, 1973). Progression through the stages varies by individual as to speed and level, with some individuals becoming fixed at a given level of development. An individual can cease progress at any age or level but, if and when they progress, they move in a linear pattern through the stages (Kohlberg, 1973). The higher a person's level of development within Kohlberg's stages the more advanced their level of moral development and thus their moral and ethical behaviors.

Gilligan's Theory of Female Moral Development

Gilligan (2003), while a protégé of Kohlberg in the 1970s, criticized his research with regards to applying his findings to women. During her association with Kohlberg, she began to notice two ways moral problems were discussed. Her initial unease began with the fact that the limited number of females included in Kohlberg's studies scored lower than their male counterparts. This realization was furthered through the observation of a sample of women being studied for judgment and action related to moral conflict and choice (Gilligan, 2003). In her book *In a Different Voice*, she defended her viewpoint that females are socialized differently than males, resulting in a behavior based on concerns for others. Women demonstrate this through nurturing behaviors, serving behaviors, and other socially dictated female roles that prevent women from developing moral reasoning per Kohlberg's legalistic model (Gilligan, 2003).

Gilligan (2003) backed her observations with data characterized by theme from three studies: (a) the college student study, which explored identity and moral development in the early adult years; (b) the abortion decision study focused on the relations between experience and thought and the role of conflict in development; and (c)

the rights and responsibilities study, which took the first two studies and further refined the modes of thinking about morality based on different views of self. From her interviews within these studies, she presented samples of the voice used by the participants during the initial interview and during a follow-up interview. In using voice, her purpose was to provide the distinctive style or manner of expression around the choice the participant made with regard to the right or opportunity presented (“Voice,” n.d.). Using the intent derived from the interview inputs of the study participants, she proposed a new concept to look at moral development for females.

Gilligan (2003) believed that the moral imperative for females is “an injunction to care, a responsibility to discern and alleviate the ‘real and recognizable trouble’ of this world” (p. 100). She referred to her theory as a feminine version of the ethic of care. Gilligan contended that the use by women of words such as *selfish* and *responsible* show the females lack of concern about the fulfillment of moral judgment while demonstrating their need to exercise care to avoid hurtful actions in making such decisions. The level of care expressed by females shows the understanding that there is an interdependent relationship between self and others that inserts layers other than a strictly legalistic view into the decision making process (Gilligan, 2003).

Similar to Kohlberg, Gilligan (2003) constructed her ethics of care into stages and substages. Stage 1, the selfish stage, is similar to Kohlberg’s (1981) preconventional stage, where the focus of decisions is the effect on self. Within Stage 1 are two substages: Substage 1 is characterized by caring for the self, while Substage 2 has a focus on avoiding behavior that could be perceived as selfish. Stage 2 is referred to as the social stage, and consists of Substage 3, care for others and self-sacrifice, and Substage 4 that

represents a search for equilibrium between caring for others and the self. The third and final stage, universal care, is focused on principled morality. Relationship dynamics are the instrumental force in Substage 5. Substage 6 moves beyond personal relationships to universal care and a protection of human relationships (Gilligan, 2003; Saint Olaf College, 2003–2006).

Based on synthesis of Kohlberg’s theory and Gilligan’s theory, the conclusion can be drawn that the level of a person’s moral maturity is different than their chronological maturity level. Kohlberg’s research showed the majority of people’s moral development stops at either Stage 3 or Stage 4 (Kohlberg, 1973). This can be attributed to the common sense of everyday life, which provides little need or opportunity to confront moral dilemmas thereby hampering the progression of moral development. Whether male or female, the person who is progressing through the stages of moral development will look for adequate ways of resolving moral dilemmas encountered. People growing in moral maturity are attracted to the next stage of moral reasoning to help understand and resolve the dilemmas they face (Galbraith & Jones, 1976).

Emotional Intelligence

Salovey and Mayer (1990) were the first to propose the theory of emotional intelligence. Framed as a factor within social intelligence, their concept of emotional intelligence was defined as “the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (Salovey & Mayer, 1990, p. 188). Emotional intelligence combines the emotional knowledge gathered from self and others with the cognitive processes of

reasoning and decision making. Emotional intelligence fits into Gardner's (2006) factor sets of interpersonal and intrapersonal abilities. Interpersonal intelligence is the ability to understand other people by interpreting their moods, temperament, and understanding what motivates and inspires them (Gardner, 2006; Goleman, 2006). Intrapersonal can best be described in the words of Plato, "Know Thyself." By being able to identify and appraise the basis of one's emotional reactions, the knowledge acquired can be used to guide and direct one's behavior and reactions (Gardner, 2006).

According to Mayer et al. (2000), emotional intelligence consists of four branches that are skill-based: (a) understanding emotions, (b) distinguishing emotion and expressing the information, (c) integrating emotional based information in thought processes, and (d) managing emotions. Based on these skills, Mayer et al. were able to build the case that this model of emotional intelligence "consists of mental abilities, that those abilities meet certain correlational criteria, and that the abilities develop with age" (p. 291). Mayer et al. developed the Mayer-Salovey-Caruso EI Test to assess the four factor model abilities of subjects to categorize emotions (Mayer, Roberts, & Barsade, 2008).

In the 1980s, the Emotional Quotient Inventory (EQI) was developed by Bar-On to assess "non-cognitive abilities, competencies, and emotional skills that influence success in dealing with environmental demands" (Amram, 2005, p. 8). The EQI is a self-report measure of skills in five areas: (a) interpersonal skills, which have the similar construct of Gardner's interpersonal intelligence focusing on empathy and interpreting emotional states of others; (b) intrapersonal skills, which include self-awareness and monitoring; (c) adaptability of reasoning to fit the situation; (d) impulse control,

including the ability to deal with high-stress situations; and (e) moods such as optimism, happiness, or sadness (Mayer et al., 2008; Mayer et al., 2004).

Emotional intelligence was popularized by the publication of Goleman's (2006) book entitled *Emotional Intelligence*. Goleman described EI as

A key set of these "other characteristics," *emotional intelligence*: abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope. (p. 34)

This broader definition discusses abilities and traits similar to the EQI scale developed by Bar-On (Mayer et al., 2008).

Various other measurement instruments such as the Levels of Emotional Awareness Scale and the Diagnostic Analysis of Nonverbal Accuracy 2 have shown to be effective in measuring an individual's capacity to identify a single ability, such as identifying an emotional state in another (Mayer et al., 2008). Others such as the Multibranch Emotional Intelligence Scale or Izard's Emotional Knowledge Approach join multiple abilities such as recognition of emotions, management of one's emotions, and reacting to emotional needs of others, with acceptable measures of validity (Mayer et al., 2000). Mixed models for measuring EI, which combine traits, abilities, and other factors using a self-assessment format, have resulted in less favorable correlations (Mayer et al., 2008).

After 20 years of research, emotional intelligence has still not been validated as a form of intelligence in the scientific community (Mayer et al., 2008). While the scientific community may be split as to how and what constitutes the measure of emotional intelligence, studies have found that levels of emotional intelligence are beneficial not

only in business settings but also in home and school settings (Mayer et al., 2004). Studies in relationship dynamics have shown others view individuals with high emotional intelligence more favorably. Employees have a higher level of self-worth, better group interactions within the workplace, and higher levels of job satisfaction (Mayer et al., 2008). Emotional and social intelligence have been proven relevant to leadership and the experiences in the leader–follower relationship (George, 2000; Kobe, Reiter-Palmon & Rickers, 2001).

Spiritual Intelligence

In 2000, Zohar and Marshall introduced the idea of spiritual intelligence. They defined this new portion within the whole of human intelligence as

The intelligence with which we address and solve problems of meaning and value, the intelligence with which we can place our actions and our lives in a wider, richer, meaning-giving context, the intelligence with which we can assess that one course of action or one life-path is more meaningful than another. (pp. 3–4)

Before the theory around spiritual intelligence can be discussed, it is necessary to understand the constructs upon which the theory is built.

Spirituality Versus Religion

Spirituality has been characterized as “the search of the human being for meaning in his or her life” (Johnson, Bengtson, Coleman, & Kirkwood, 2005, p. 364). Emmons (2000a) defined it as “the personal expression of ultimate concern” (p. 4). King (2008) defined *spirituality* “as an unbound set of personal drives, behaviors, experiences, values, and attitudes which are based on a quest for existential understanding, meaning, purpose, and transcendence” (p. 51). Amram (2009) defined *spirituality* as “(a) focus on ultimate

meaning, (b) awareness and development of multiple levels of consciousness, (c) experience of the preciousness and sacredness of life, and (d) transcendence of self into a connected whole” (p. 28). Spirituality has no class system or doctrine. Spirituality can be characterized as a person’s individual experience, without middlemen, of connection and oneness with God; however, an individual can have a sense of spirituality without a connection to the divine. This sense or connection facilitates the individual’s search for their personal truths (Amram, 2007; Emmons, 2000a; King, 2008; Pargament, 2000).

Religion is characterized by a class system that delineates the spiritual leaders and followers and a doctrine, which is the shared beliefs of the classes. Conformity to the doctrine is required to gain acceptance into the religion (The Spiritual Naturalist, 1999). Love (2002) represented religion based on (a) symbolism in the form of stories and representations that express the beliefs, (b) doctrine and dogma, and (c) quest for the higher or ultimate power. Spirituality, in contrast to religion, is the sense of connection that individuals seek to the Divine Source as a personal experience. “It’s an inner voice and an inner harmony” (Rose, 2003). Fuller (2001) explained that spirituality and religion

Both connote belief in a Higher Power of some kind, imply a desire to connect or enter into a more intense relationship with this Higher Power, and both connote interest in rituals, practices, and daily moral behaviors that foster such a connection or relationship. (p. 1)

From a study of 364 individuals, it was found that

Religiousness was associated with higher levels of interest in church attendance and commitment to orthodox beliefs, [while in contrast] spirituality was associated with higher levels of interest in mysticism, experimentation with unorthodox beliefs and practices, and negative feelings toward both clergy and churches. (Fuller, 2001, p. 1)

For purposes of this study, *spirituality* will be defined as “(a) focus on ultimate meaning, (b) awareness and development of multiple levels of consciousness, (c) experience of the preciousness and sacredness of life, and (d) transcendence of self into a connected whole” (Amram, 2009, p. 28). Regardless of one’s religious or spiritual description of themselves, “spirituality is an attitude (such as openness or love) that you can have at whatever stage you are at” (Wilber, 2000, p. 133).

The philosophy of the world’s spiritual traditions describes one’s reality as composed of various levels that include matter, body, mind, soul, and spirit. Plotinus synthesized the ideas of Plato and Aristotle into the concept of a great chain of being that portrayed the stages of the soul developing spiritually towards a closer union with God (Lovejoy, 1936). These stages of development, commonly referred to as one’s spiritual path, are applicable to both spirituality and religion and involve a self-transformation. “The wisdom traditions all offer stories and metaphors of transformation that depict stages on the path, such as the soul’s journey in Christianity, stages of the self in Sufism, or the 10 ox-herding pictures in Zen Buddhism” (Vaughn, 2002, pp. 23–24).

Spiritual Intelligence as a Construct

Emmons (2000a) was the first to propose “evidence for spirituality as a set of interrelated ability and skills” (p. 3). The abilities and skills were comprised within five components:

- (a) the capacity for transcendence; (b) the ability to enter into heightened spiritual states of consciousness; (c) the ability to invest everyday activities, events, and relationships with a sense of the sacred; (d) the ability to utilize spiritual resources to solve problems in living; and (e) the capacity to engage in virtuous behavior or to be virtuous (to show forgiveness, to express gratitude, to be humble, to display compassion). (p. 10)

Mayer (2000) faulted Emmons's construct as being more consciousness based than intelligence based. Transcendence, entering heightened states, and virtuousness were challenged as not being mental abilities that can be empirically measured. Today, the Mind & Life Institute in conjunction with the University of Wisconsin Keck Laboratory are piloting studies in the measurement of functional brain activity using brain imaging methods to measure meditative states in Buddhist practitioners. The working assumptions of these studies are

That specific meditative states can be correlated with specific dynamical neural signatures in these synchrony patterns and that such on-going synchrony patterns occurring during a meditative state can constrain, in a reliable way, the temporal structure of the neural responses to sensory stimulation. (Mind & Life Institute, 2007, "Training & Studying")

The remaining two constructs, utilizing spiritual resources to problem solve, and the ability to imbue daily life with a sense of the sacred, were believed to have some segment of abstract reasoning that would equate with an intelligence based component (Mayer, 2000). Gardner (2000) also argued against spiritual intelligence as a form of intelligence citing the phenomenological states of transcendence and sanctification (imbuing sacredness into life) as his first objection. He argued that the bodily control of contemplative states of meditation and prayer typify feelings and bodily-kinesthetic intelligence respectively.

Emmons (2000b) responded to these criticisms acknowledging them as raising "important issues for the larger endeavor of attempting to link spirituality and religiousness with intelligence and life functioning" (p. 57). Emmons (2000b) agreed to the removal of the fifth capacity, virtuous behavior, resulting in a four-factor construct.

Emmons (2000a) inferred that finding the right questions to display the mental abilities represented was the next challenge in measuring SI.

Examining spiritual intelligence from a religious studies frame, Kwilecki (2000) used Emmons's SI categories to perform a biographical analysis to critique the construct as acceptable for "describing and explaining the religions of individuals" (p. 36).

Kwilecki concluded that spiritual intelligence could offer benefit although she took issue with the construct around using SI in day-to-day problem solving.

Vaughn (2002) defined *spiritual intelligence* as "concerned with the inner life of mind and spirit and its relationship to being in the world. Spiritual intelligence implies a capacity for a deep understanding of existential questions and insight into multiple levels of consciousness" (p. 19). Vaughn's framing of the concept of spiritual intelligence ties to Emmons's (2000b) four branch model in that it uses the abilities gained from contemplative practices to see different perspectives and relationships in problem solving and living that honors the perceptions and beliefs of all involved in the process. *Spiritual*, according to the *Merriam-Webster Online Dictionary* (n.d.), is defined as "of, relating to, consisting of, or affecting the spirit; of or relating to sacred matters," which is demonstrated through the contemplative practices and actions implied in these various descriptions of spiritual.

Zohar and Marshall (2000) portrayed spiritual intelligence as

The intelligence with which we address and solve problems of meaning and value, the intelligence with which we can place our actions and our lives in a wider, richer, meaning-giving context, the intelligence with which we can assess that one course of action or one life-path is more meaningful than another. (pp. 3–4)

While presenting a compelling case, they offered no measurement constructs other than a self-assessment based on spiritual path or personality type.

Hyde (2004), after a review of the various research completed to date, and with a focus on problem solving, concluded that spiritual intelligence could be a viable intelligence. Hyde's concern goes back to Mayer's (2000) questioning of whether SI is truly a form of intelligence or consciousness and how the educational community defines the term when incorporating it into their studies. While Hyde presented a compelling review, he arrived at the conclusion that there needs to be more empirical evidence to prove or dispel spiritual intelligence as an intelligence—which is the same conclusions drawn by Emmons (2000a), Kwelicki (2000), and Mayer (2000).

Nasel (2004) defined *spiritual intelligence* as “the ability to draw on one's spiritual abilities and resources to better identify, find meaning in, and resolve existential, spiritual and practical issues” (p. 42). Drawing on the literature around spirituality, religion, and spiritual intelligence, Nasel (2004) conceptualized spiritual intelligence as a model that exhibits similarity to Galatians 5:22 (Today's English Version), in the New Testament of the Bible: “But the Spirit produces love, joy, peace patience, kindness, goodness, faithfulness, humility, and self-control. There is no law against such things as these” (p. 63).

Resembling the constructs proposed by Emmons (2000a), Vaughn (2002), and Zohar and Marshall (2000), Nasel (2004) framed spiritual intelligence as “an overall framework within which an individual can negotiate his or her search for meaning and purpose in life, and work towards personally meaningful goals” (p. 77). Warning that spiritual intelligence is affected by personality, upbringing, religious/spiritual

background, and religious/spiritual practices, Nasel (2004) contends that spiritual intelligence can be measured only at a descriptive level.

After finding only Wolman's Psychomatrix Spiritual Inventory, which "is concerned with the focus and patterning of spirituality" (Nasel, 2004, p. 76), Nasel created the Spiritual Intelligence Scale (SIS) as an instrument to assess forms of spiritual intelligence related to Christianity and individual-based spirituality. In addition, Nasel (2004) constructed the Spiritual and Religious Dimensions Scale to explore the differences in spiritual intelligence that could be related to an individual's spiritual or religious beliefs and practices.

Nasel's (2004) definition of awareness of Divine presence is a measure of Emmons's (2000a) combined components of capacity for transcendence and heightened spiritual states of consciousness, Amram's (2007) theme of transcendence, and King's (2008) transcendental awareness. Noble (2000) described this aspect as "a quality of awareness that recognizes the multidimensional reality in which physicality is embedded" (p. 1). Existential questioning, Nasel's second component, reflects Gardner's (2006) existential intelligence view, Vaughn's (2002) "capacity for a deep understanding of existential questions" (p. 19), and King's (2008) critical existential thinking. "This type of questioning in part refers to exploring and contemplating the underlying meaning of life experiences and problems, rather than simply addressing the other characteristics of circumstances and situations as they present themselves" (Nasel, 2004, p. 57).

The SIS instrument was refined to its final form through multiple studies. Study one, comprised of 76 students, resulted in a Cronbach's alpha of .87. The second study, consisting of 224 participants, resulted in a Cronbach's alpha of .88. The final group,

which measured the correlation between SI and well being, resulted in a Cronbach's alpha of .87. Through all three studies the reliability measures for the factors were satisfactory. Although study results showed acceptable reliability and validity, the limitations of measuring only two dimensions of spiritual intelligence poses a potential of limiting the elements that truly portray SI. In addition, the instrument needs to be expanded beyond adherence to limited precepts of Christianity and spirituality (Amram, 2009; King, 2008) as spiritual intelligence needs to be a universal construct.

Building on the various capacities proposed by the spiritual intelligence researchers, King (2008) refined the components to describe the construct of spiritual intelligence to include (a) critical existential thinking, (b) personal meaning production, (c) transcendental awareness, and (d) conscious state expansion. Using these components, King (2008) developed the SISRI as part of a master's thesis so it has not been subjected to peer review. Although not peer reviewed, King's (2008) development effort was mentored by and published with Dr. Teresa L. DeCicco (King & DeCicco, 2009).

Critical Existential Thinking (CET). This cognitive ability represents a person's "ability to create meaning based on deep understanding of existential questions, and awareness of and the ability to use multiple levels of consciousness in problem solving" (Amram, 2005, p. 15). Existential questions address such issues as death, suffering, life's purpose, and other ultimate questions regarding one's life. Gardner (2006) referred to existential questions as "the most fundamental questions of existence" (p. 20) or as "questions that transcend perception; they concern issues that are too big or too small to be perceived by our five principal sensory systems" (p. 20).

Mayer (2000) characterized critical and/or abstract thinking as “the ability to carry out many types of mental transformations, such as identifying similarities and differences, making generalizations, mentally rotating figures, and other tasks” (p. 48). Goal setting, problem solving, and motivation are all elements of critical existential thinking that are shared in common with effective leadership (Amram, 2005; Emmons, 2000a; Mayer, 2000).

Personal Meaning Production (PMP). The second component involves a person’s ability to infuse both physical and mental experiences with personally held meaning that provides both significance and satisfaction (King, 2008; Zohar & Marshall, 2000). Emmons’s (2000a) component termed sanctification as “a recognition of the presence of the Divine in ordinary activities” (p. 11). As humans, we build mental models of the spiritual truths that are imbued with meaning for self through information processing from stories, religious texts, and experiences (Mayer, 2000; Rokeach, 1973). It is from these information domains that one creates one’s personal values and meanings that guide and direct one’s experience of everyday events (Gardner, 2000; King, 2008; Sternberg & Kaufman, 1998). Amram and Dryer (2008) further synthesized meaning into two capabilities: “purpose and service” (p. 31). Purpose aligns with the ability to experience satisfaction from one’s daily encounters through alignment with one’s life values and meanings. Service is the ability to use one’s daily activities and interactions as a symbolic interpretation of those life values and meanings. “Personal meaning may often be equated with existential meaning” (King, 2008, p. 61). An individual’s life purpose is a separate construct that relates to one’s ability to find purpose and service not only in one’s activities and interactions but within the world in which one exists.

Transcendental Awareness (TA). This component of spiritual intelligence relates to the ability to understand one's relationship to a higher power, all beings, one's environment and the earth (King, 2008; Vaughn, 2002). *Transcendent* (n.d.), according to *Merriam-Webster Online Dictionary*, can be defined as "extending or lying beyond the limits of ordinary experience or *in Kantian philosophy*: being beyond the limits of all possible experience and knowledge." The scientific community views transcendental awareness as a consciousness due to what is deemed "certain phenomenological states" (Gardner, 2000, p. 29). Hawkins (2001) summarized this view as "science has decided that unless something is definable and measurable ('reality is measurement'), it was unreal and imaginary" (p. 78) resulting in science being "unable to grasp the significance of the subtle and intangible" (p. 78).

King (2008) paraphrased Noble, who described the ability as being able to perceive and recognize that one's "physical reality is embedded within a larger, multidimensional reality" (p. 65). Transcendental awareness is a key concept of spirituality. While developing the ability can take the form of meditation, prayer, or other spiritual practices, it involves the capacity to "coordinate different perspectives" (Vaughn, 2002, p. 24) that result in the ability to correlate "empathic identification, sensitivity to subtle realities and familiarity with various symbolic maps of consciousness" (Vaughn, 2002, p. 24) and apply them not only to one's own mental models that form one's personal meaning but to a deeper understanding of the interactions and interrelations between oneself and others.

Goleman (1988) classified meditation into three categories or techniques: "(a) *concentration*, in which mind focuses on a fixed mental object; (b) *mindfulness*, in which

mind observes itself; or (c) both operations present in *integrated* combination” (p. 105). All of the meditation systems of today fall into one of these categories, i.e., Raja Yoga uses integrated, Zen uses integrated, and Krishnamurti uses mindfulness (Goleman, 1988). The major religious traditions all express similar stages, despite the technique employed: purification, meditative concentration and insight (Goleman, 1988). In his Yoga Sutras, Pantanjali called the purification stages *yama* and *niyama* (Yogananda, 1995). *Yama*, or “the ‘thou shalt not’s’—abstaining from injury to others, falsehood, stealing, incontinence, and covetousness” (Yogananda, 1995, p. 74), describes the moral conduct to which the meditator should aspire. *Niyama* are the religious observances, “purity of the body and mind, contentment in all circumstances, self-discipline, self-study (contemplation), and devotion to God” (Yogananda, 1995, p. 74). In the Vispassana, a Buddhist tradition, this is called *silha* or moral conduct. Observance and internalization of the purification provides the meditator attainment of meditative concentration.

Meditative concentration, which is about removing distractions and achieving one-pointed focus, progresses through the various states of the mind (Goleman, 1988). In the beginning the meditator’s mind wanders and is distracted by outside thoughts and feelings (Goleman, 1988; Hawkins, 2006; Wilber, 2000). In the Yoga Sutras, this is broken into multiple states beginning with *kshipta*, where the mind is restless and wandering, followed by *mudha*, where the mind seems to be in a dull or sleepy state, and *vikshipta*, where the mind has periods of quiet concentration but then is distracted (Bharati, n.d.). When this ability to be distracted is overcome, meditative concentration, which is also termed *samadhi* or *ekagra* depending on the Eastern tradition, is reached. Hawkins described this as the point at which “the mind stops when it is no longer

narcissistically energized. Thinkingness is intrinsically a vanity” (pp. 81–82). *Nirudha, panna*, or insight is the place where “the soul, or superconscious state awakens” (McNaughton, 2003, p. 19).

Transcendental awareness is not about altered states of consciousness but is about being able to recognize “dimensions of reality” (King, 2008, p. 71) in all things. The development of transcendental awareness makes it possible for unilevel thinkers to develop into multilevel thinkers. Goleman (1988) described this as perceptual sharpening that allows one to clearly interpret environmental cues and respond in an appropriate manner facilitated by mindfulness of the present and increased concentration.

Conscious State Expansion (CSE). “The final component of the current model is the ability to enter higher or spiritual states of consciousness (e.g. pure consciousness, cosmic consciousness, oneness) at one’s own discretion” (King, 2008, p. 71). There is no doubt that aspects of conscious state expansion can involve altered states of consciousness. The key to understanding this component is from the aspect of the mental capacity to trigger the higher states at one’s own discretion. Gardner (2006) implied that this is part of his bodily-kinesthetic intelligence in that it requires an individual to exercise a greater degree of control over his mind and body.

Vaitl et al. (2005) describe “the ability to maintain concentration” (p. 107), “the ability to refrain from goal-directed and analytical thoughts” (p. 108), and “the ability to tolerate and accept unusual or paradoxical experiences” (p. 108) as integral parts of [meditation and] relaxation. (King, 2008, p. 78)

The mental capacity to enter higher states at will is an ability that one learns and develops over time (Emmons, 2000a; King, 2008; Louchakova, 2005). This ability is a

component of the meditative process discussed previously under “Transcendental Awareness.”

In this process of meditation, purity, concentration and insight arise; first by strength of will, then by the interiorization of the consciousness. Goleman (1988) discussed this transcendence in terms of altered states of consciousness. Interiorization is focusing one’s attention inward so as to “distract” and focus the waking consciousness. As this happens, the soul, or superconscious state awakens, giving rise to concentration, as well as insight (intuition) which can be used in making both personal and business decisions. (McNaughton, 2003, p. 19)

The ability to enter higher states of consciousness correlates to refined perception, increased empathy, better concentration, decreased tendencies to become distracted, and greater intuition (Louchakova, 2005; Valentine & Sweet, 1999).

According to Yogananda (1995), consciousness consists of three states: (a) waking, (b) subconscious, and (c) superconsciousness. The perennial philosophy, which is a compilation of all the major religious traditions (Buddhism, Hinduism, Western mysticism, etc.), expands these stages of consciousness further into (a) physical, (b) biological, (c) mental, (d) subtle, (e) causal, and (f) ultimate (Wilber, 1998). Jung (1933) defined the conscious mind as one’s ego. One’s waking or conscious mind is composed of one’s perceptions, memories, thoughts, and feelings (Jung, 1933; Yogananda, 1995). The subconscious mind is similar to a storage chest in that it stores all one’s previous life experiences, one’s belief system, one’s memories, one’s skills, all situations one has been through, and all images one has ever seen (Goleman, 1988; Jung, 1933). The superconscious state, which Jung also referred to as the universal subconscious mind or the collective unconscious, is the collective wisdom and knowledge of all the ages and is available to everyone (Goleman, 1988; Jung, 1933).

The inner experience of transcendence is the consequence of moving from a lower to a higher level of consciousness which may initially require effort and processing, but it eventually becomes familiar and habitual as it is assisted by willingness, devotion, humility and dedication to Truth. (Hawkins, 2008, p. 293)

True understanding of these higher states can only be obtained through experiencing them (Goleman, 1988; Hawkins, 2008; McNaughton, 2003; Wilber, 1998; Yogananda, 1995). In a state of expanded consciousness, emotionality is replaced with a comprehension that recontextualizes comprehension (Hawkins, 2008).

Study one in the creation of the SISRI had an original survey pool of 84 questions. Administered to 631 students, the instrument yielded a Cronbach's alpha of .97. Factor analysis was then performed and resulted in a reduced question pool of 39 items. This reduced pool was analyzed and resulted in a revised Cronbach's alpha of .96 and an average interitem correlation of .36. A second study, with 42 questions, was given to a population of 321 students. This instrument yielded a Cronbach's alpha of .96 and an inter-item correlation of .36.

Construct validity (both convergent and divergent) for study two was examined by including additional measures of theoretically related and unrelated psychological constructs, including personal meaning, metapersonal self-construal (the interpretation of oneself as connected to all life), mysticism (mystical experiences), satisfaction with life, intrinsic and extrinsic religiosity, mood states, emotional intelligence, and IQ. (King, 2008, p. 138)

Participants in study two were also given the following instruments to complete:

The Satisfaction with Life Scale (SLS; Diener, Emmons, Larsen, & Griffin, 1985); The Age Universal Intrinsic–Extrinsic Religiosity Scale (AUIE; Gorsuch & Venable, 1983); The Profile of Mood States Scale–Short Form (POMS–SF; Shacham, 1983); The Assessing Emotions Scale (AES; Schutte et al., 1998); The Metapersonal Self-Construal Scale (MSCS; DeCicco & Stroink, 2007); The Mysticism Scale–Research Form D (MSD; Hood, 1975); The Profile of Mood States Scale–Short Form (POMS–SF; Shacham, 1983); The Assessing Emotions Scale (AES; Schutte et al., 1998); The Multidimensional Aptitude Battery–II

(MAB–II; Jackson, 1998); and The Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984). (King, 2008, pp. 142–144)

These instruments were used to perform correlations to and provide support that the measure represents the actual underlying construct.

Confirmatory factor analysis was then performed and resulted in removal of 18 items yielding a 24-question instrument. The 24-item pool was then analyzed and yielded a Cronbach's alpha of .92 with low multivariate skewness and kurtosis of .02 and .23, respectively. A confirmatory factor analysis was then performed on the remaining 24-item pool. The results of the Varimax normalized rotation shows the four factors yielding eigenvalues of 8.86 for critical existential thinking, 2.12 for consciousness state expansion, 1.63 for personal meaning production, and 1.33 for transcendental awareness.

Using a grounded theory approach, Amram (2007) identified seven major ecumenical themes by which to measure spiritual intelligence. Spiritual intelligence was defined as “the ability to apply and embody spiritual resources and qualities to enhance daily functioning and wellbeing” (Amram, 2007, p. 2). Conducting interviews with 71 people identified as spiritually intelligent by their peers, and representing most of the major Eastern and Western spiritual/religious traditions, resulted in seven proposed universal themes that are representative of spiritual intelligence:

Consciousness: developed refined awareness and self-knowledge; (b) *Grace*: living in alignment with the sacred manifesting love for and trust in life; (c) *Meaning*: experiencing significance in daily activities through a sense of purpose and a call for service, including in the face of pain and suffering; (d) *Transcendence*: going beyond the separate egoic self into an interconnected wholeness; (e) *Truth*: living in open acceptance, curiosity, and love for all creation (all that is); (f) *Peaceful surrender* to Self (Truth, God, Absolute, true nature); and (g) *Inner-Directedness*: inner-freedom aligned in responsible wise action. (Amram, 2007, p. 1)

Many of the same core themes as proposed by Emmons (2000a), Vaughn (2002), and Zohar and Marshall (2000) are reflected in the resulting themes of the grounded theory research of Amram (2007).

Amram and Dryer (2008), using the themes from the ecumenical grounded theory of SI developed by Amram (2007), created and validated a proposed measurement instrument to assess spiritual intelligence abilities and qualities. The ISIS has both an 83-item long form and a 45-item short form. The study has two groups of participants. Group one was identified as people that exhibited spirituality in their daily lives (Amram & Dryer, 2008). Group two was identified as not being identified for their embodiment of spiritual attributes as part of their daily life. From the findings of the ecumenical study, the two groups were further segmented based on the degree of business savvy (Amram & Dryer, 2008). Group two business savvy members were acquired based on soliciting MBA students in finance classes at top rated business schools (Amram & Dryer, 2008). From these four distinct groups, data for analysis were gathered via questionnaire.

The ISIS measurement instrument was given to a population of 263 participants. Based on the data analysis, ISIS was shown to have reliability and validity with an overall Cronbach's alpha of 0.97 and between the domain scales ranging from 0.84 to 0.95 (Amram & Dryer, 2008). Results indicated that age and sex were a factor in spiritual intelligence level. No correlation was found between level of business savvy and spiritual embodiment; however, the level of spiritual intelligence was significant between MBA students and other participants.

One could argue that if level of spiritual intelligence is linked to ethical behavior, this could be an expected deviation. In the fall of 1971, Kohlberg and Gilligan issued an

article describing the anomalies to the stage progression of moral development. “Fifteen percent of the college bound male students who were a mixture of conventional (stage 4) and social–compact–legalist (stage 5) thought at the end of high school, ‘retrogressed’ to an apparent stage 2 instrumentalist pattern in college” (Kohlberg, 1973, p. 1075). This pattern has been associated with the identity crisis that most adolescents and/or young adults experience when trying to move from their childhood moral expectations and guilt into their adult ideologies (Kohlberg, 1973).

Amram and Dryer (2008) further analyzed the data based on scale scores for the constructs that equaled meaning and truth. The conclusion reached was that

The MBA group values were low on the first function [meaning] and high on the second (–1.43, 0.45) [truth]. . . . The business leaders’ group values were high on both functions (1.23, 0.66). In other words, the first function (high meaning) may be related to the nomination of embodiment of spirituality, the second function (high truth) may relate to the degree of business savvy. (Amram & Dryer, 2008, pp. 25–26)

The study results indicate that spiritual intelligence can be assessed via measurement instruments. The challenges that relate to validation and acceptance of spiritual intelligence and/or the ISIS instrument are (a) agreement in the academic community of the constructs related to SI, their definitions, and their basis as a part of a cognitive ability; (b) expanding the use of proposed measurement instruments to broader demographic audiences to confirm levels of validity and reliability; and (c) integration and measurement of how the constructs impact leadership intuition, morals, and abilities.

Amram and Dryer (2008) also administered to these two groups the “Satisfaction with Life Scale (SWLS, Pavot & Diener, 1993), the Index of Core Spiritual Experiences (INSPIRIT; Kass, Friedman, Leserman, Zuttermeister, and Benson, 1991) and a brief

demographic questionnaire assessing age and gender” (p. 14). Convergent and discriminate validity was assessed through the correlation of the interrelationships between the INSPIRIT results, the SWLS results and the ISIS results (Amram & Dryer, 2008). While the “scores on the INSPIRIT were highly correlated with the ISIS scores; Pearson $r = 0.73, p < .01$ ” (Amram & Dryer, 2008, p. 21), only the ISIS categories of transcendence demonstrated a high correlation while truth was moderately correlated.

Amram (2009), using the ISIS measurement instrument validated by Amram and Dryer (2008), applied the instrument as part of his doctoral dissertation. The short-form ISIS, which is compiled of 45 questions, measures five spiritual dimensions: (a) consciousness, (b) meaning, (c) grace, (d) transcendence, and (e) sacredness. These dimensions are recognized in the literature on spirituality and on the proposed constructs of spiritual intelligence (Emmons, 2000a; Halama & Strizenec, 2004; King, 2008; Pargament, 2000; Vaughn, 2002; Zohar & Marshall, 2000).

Consciousness is defined as “the ability to raise or shift consciousness, to tap intuition, and to synthesize multiple points of view in ways that enhance daily functioning and well-being” (Amram, 2009, p. 70). King’s (2008) construct of conscious state expansion that is defined as “the ability to enter higher or spiritual states of consciousness (e.g. pure consciousness, cosmic consciousness, oneness) at one’s own discretion” (p. 71) is representative of the same construct. These abilities compare to the capability subscales of intuition, mindfulness and synthesis that Amram attributed to this domain.

Personal meaning production, the second domain, involves a person’s ability to infuse both physical and mental experiences with personally held meaning that provides

him or her with significance and satisfaction (Amram, 2009; King, 2008; Zohar & Marshall, 2000). Emmons's (2000a) component, termed *sanctification*, reflects this ability as "recognition of the presence of the divine in ordinary activities" (p. 11). As humans, we build mental models of the spiritual truths that are imbued with meaning for self through information processing from stories, religious texts, and experiences (Mayer, 2000; Rokeach, 1973). It is from these information domains that one creates one's personal values and meanings that guide and direct one's experience of everyday events (Gardner, 2000; King, 2008; Sternberg & Kaufman, 1998).

Amram and Dryer (2008) further synthesized personal meaning into two capabilities: "purpose and service" (p. 31). Purpose aligns with the ability to experience satisfaction from one's daily encounters through alignment with one's life values and meanings. Service is the ability to use one's daily activities and interactions as a symbolic interpretation of those life values and meanings. "Personal meaning is often equated with existential meaning" (King, 2008, p. 61), as an individual's life purpose relates to their ability to find purpose and service not only in their activities and interactions but also within the world in which they exist.

Amram (2009) defined the third domain, *grace*, as

Inner-directedness (combining discernment and freedom) and love for life, drawing on the inspiration, beauty, and joy inherent in each present moment to enhance functioning and well-being. The grace domain includes five capability subscales: beauty, discernment, freedom, gratitude, immanence and joy. (p. 71)

Domain 4, *transcendence*, reflects an individual's "ability to align with the sacred and transcend the egoic self, with a sense of relatedness and holism" (Amram, 2009, p. 71). This component of spiritual intelligence relates to the ability to understand one's

relationship to a higher power, all beings, one's environment and the earth (King, 2008; Vaughn, 2002). Transcendent can be defined as "extending or lying beyond the limits of ordinary experience or *in Kantian philosophy*: being beyond the limits of all possible experience and knowledge" (Transcendent, n.d.).

According to King (2008), Noble's definition described the ability as being able to perceive and recognize that one's "physical reality is embedded within a larger, multidimensional reality" (p. 65). Transcendental awareness (see previous discussion of this concept) is a key concept of spirituality. While developing the ability can take the form of meditation, prayer, or other spiritual practices, it involves the capacity to "coordinate different perspectives" (Vaughn, 2002, p. 24). This ability allows one to correlate "empathic identification, sensitivity to subtle realities and familiarity with various symbolic maps of consciousness" (Vaughn, 2002, p. 24) and apply them to one's own mental models that form one's personal meaning. Through one's transcendental abilities, one gains a deeper understanding of the interactions and interrelations between others and oneself. Transcendental awareness is not about altered states of consciousness but is about being able to recognize "dimensions of reality" (King, 2008, p. 71) in experiences, events, activities, and objects, when in normal waking consciousness, through a sense of connection to a larger force within the universe.

This cognitive ability represents a person's "ability to create meaning based on deep understanding of existential questions, and awareness of and the ability to use multiple levels of consciousness in problem solving" (Amram, 2005, p. 15). Existential questions address such issues as death, suffering, life's purpose, and other ultimate questions regarding one's life. Gardner (2006) referred to existential questions as "the

most fundamental questions of existence” (p. 20) or as “questions that transcend perception; they concern issues that are too big or too small to be perceived by our five principal sensory systems” (p. 20).

The scientific community views transcendental awareness as a consciousness due to what is deemed “certain phenomenological states” (Gardner, 2000, p. 29). Hawkins (2001) summarized this view as “science has decided that unless something is definable and measurable (‘reality is measurement’), it was unreal and imaginary” (p. 78) resulting in science being “unable to grasp the significance of the subtle and intangible” (p. 78).

The fifth and final domain, *truth*, “reflects the ability to be present to, love, and peacefully surrender to truth, manifesting open receptivity, presence, humility and trust” (Amram, 2009, p. 71).

Amram’s (2009) study population consisted of 252 participants located in the San Francisco and San Jose areas in California. The self-report ISIS short form demonstrated internal reliability yielding a Cronbach’s alpha of .92. As the purpose of the study was to prove that emotional intelligence and spiritual intelligence influence leadership effectiveness, each chief executive officer (CEO) participant also completed “a 16-item self-report emotional intelligence scale (EIS) developed by Wong and Law (2002)” (Amram, 2009, p. 73), “the FFM 10-item personality inventory (TIPI)” (Amram, 2009, p. 74), and demographic information regarding self and company. Staff respondents of the CEOs had a different set of instruments to provide feedback regarding their perception of their CEO. The resulting data confirmed that “the correlation between self-reported spiritual intelligence and leadership effectiveness rated by the staff was significant with $r = .17, p = .016$ ” (Amram, 2009, p. 85).

Leadership Theories and Spiritual Intelligence

Leaders of organizations face tremendous challenges in the 21st century driven by globalization, economic pressures and demographic changes in the work force (Paulison, 2002). Such ethical misconduct as seen in the Enron, WorldCom, and Tyco scandals, among others, has weakened public confidence in both organizations and leaders. The 2007 National Business Ethics Survey results showed that ethical misconduct within organizations has once again reached the levels seen during the scandals referred to previously (Ethics Resource Center, 2007). “Leadership, the exercise of social power (and often attendant economic and political power), is fundamentally a moral endeavor. There is an inescapable moral dimension to the exercise of power, whether or not it is formally acknowledged” (Thompson, 2004, p. 28).

It is important to understand the correlation of the various components to the individual. Individuals comprise the organizational levels and influence the organizational values, actions, and strategies (Audi & Murphy, 2006; Ethics Resource Center, 2007). Studies have shown that if a person has clarity around their personal values they will make principle-based choices when faced with conflict (Kouzes & Posner, 2002; McDonald & Gandz, 1991; Moustafa-Leonard, Wellington, & Gaydos, 2008; Rokeach, 1973). Forsyth (1980) stated, “A person faced with making a decision about another’s morality bases this decision on his or her own individual system of ethics, and disagreements concerning morality must necessarily surface when personal ethical systems are different” (p. 175).

Spiritual Intelligence and the Self

Zohar and Marshall (2000) described the harmony of self and spiritual intelligence using the petal layers of the lotus, which has long been a symbol of spiritual and physical integration in Eastern traditions. The lotus is to represent the three layers of self: (a) ego, (b) associative unconscious, and (c) inner self. The ego layer is tied to personality types based on Holland and Jung's personality type interrelationships (Zohar & Marshall, 2000). The associative unconscious, likened to Freud's id, is representative of the symbolic realm of the unconsciousness where one houses images, habits, cultural influences, and so forth (Zohar & Marshall, 2000). Inner self, the final lotus layer, is composed of one's dreams, imagination, and one's spirit (Zohar & Marshall, 2000). In their later work, *Spiritual Capital*, Zohar and Marshall (2004) tied SI to a value-based capitalistic culture with a scale of motivations based on Maslow's hierarchy. "Maslow later differentiated the growth need of self-actualization into self-actualized and self-transcendent" (Huitt, 2007, para. 2).

Hawkins (2008) stated, "Each person perceives, experiences, and interprets the world and its events in accord with their predominant level of consciousness" (p. 59). Hawkins (1995) created his own measurement scale for human consciousness. Each calibrated level is represented by a logarithmic value that denotes positive or negative states with the line of demarcation being at the logarithmic value of 200, which corresponds to zero on Zohar and Marshall's scale of motivations. Original results were obtained from field trials involving 4,864 persons using a kinesiological test method. The technique was found to have high reliability and validity.

Wilber (2000) posited that spiritual consciousness evolves as a range of identity that begins with egocentricity and progresses to a universal identification with a Supreme Identity. Incorporating ancient and modern systems from perennial philosophy to Eastern and Western religious tradition, the Great Nest of Being and Knowing represents the developmental space that incorporates the common stages of the spectrum of human development (Wilber, 2000). Wilber overlaid his Great Nest of Being stages with Kohlberg's moral development stages, Gilligan's stages of care theory, and Maslow's Hierarchy of Needs to demonstrate the relationship between these stage concepts (Pauchant, 2005). The inter-relatedness of these theories is depicted in Figure 2 (designed by this researcher, compiled from data from Gilligan, 2003; Hawkins, 1995; Huitt, 2007; Kohlberg, 1981; Pauchant, 2008; Saint Olaf College, 2003–2006; Wilber, 2000 and Zohar & Marshall, 2004).

Spiritual Intelligence and Spiritual Leadership

In the absence of a validated measurement instrument for the construct of spiritual intelligence, the impact of SI to leadership has been defined through the use of the influence of spirituality on leadership (Amram, 2005). The Age of Spirituality, the globalization of the work place, and the change in employee demographics as the Baby Boomers reach retirement, has brought about a new paradigm in leadership—that of spiritual leadership.

What is spiritual leadership? Wolf (2004) defined *spiritual leadership* as “building an environment of respect, ethics, values and integrity” (p. 23). A broader definition has been proposed as spiritual leadership research evolves:

The purpose of spiritual leadership is to tap into the fundamental needs of both leader and follower for spiritual well-being through calling and membership, to create vision and value congruence across the individual, empowered team, and organization levels and, ultimately, to foster high levels of organizational commitment and productivity. Operationally, spiritual leadership comprises the values, attitudes and behaviors that are necessary to intrinsically motivate one's self and others so they have a sense of spiritual well-being through calling and membership. (Fry, 2008, p. 133)

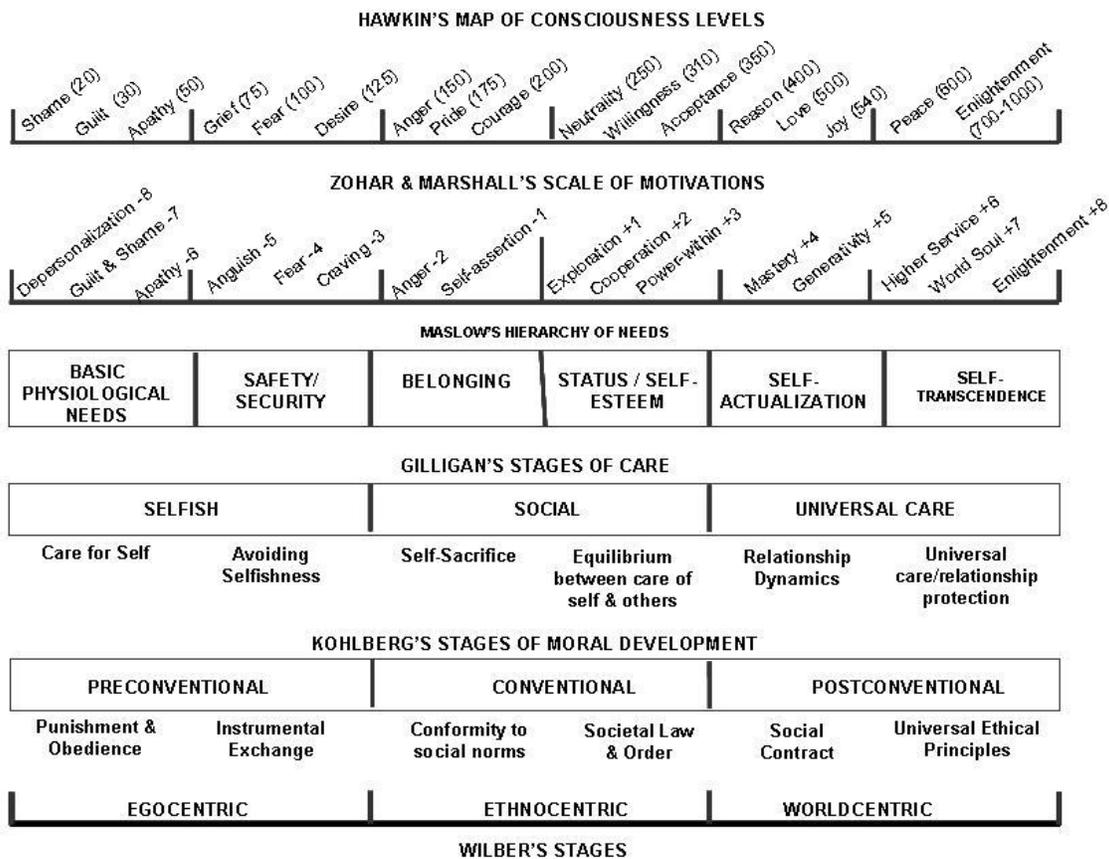


Figure 2. Interrelations of spiritual development and moral development theories.

Spiritual leadership is moving leaders from managing employees to inspiring employees, a critical component of transformational leadership (Amram, 2005; Bass & Steidlmeier, 1999; Dvir, Eden, Avolio, & Shamir, 2002). Spiritual leadership integrates

transformational and servant leadership with spiritual, ethical, and values-based leadership models into a combination of core competencies, skills, and learned techniques to provide a model of behavior for the spiritual leader (Den Hartog et al., 1999; Dent, Higgins & Wharff, 2005; Jurkiewicz & Giacalone, 2004; Reave, 2005; Ryan, 2000). “Spiritual leadership starts with the leader’s own ethics and integrity” (Reave, 2005, p. 663), which would be demonstrated to the organization in both word and deed (Argyris, 1966). Research has shown that a person who is guided by good moral habits and virtuous personal values displays integrity (Argyris, 1966; Caldwell, Hayes, Karri, & Bernal, 2008; Cavanaugh & Bandsuch, 2002; Parry & Proctor-Thomson, 2002).

Cavanaugh and Bandsuch (2002) identified what they believe is the process by which spirituality influences individual moral development resulting in benefit to the organization. Figure 3 demonstrates this positive effect of spirituality in “character formation that further enhances the workplace” (Cavanaugh & Bandsuch, 2002, p. 112).

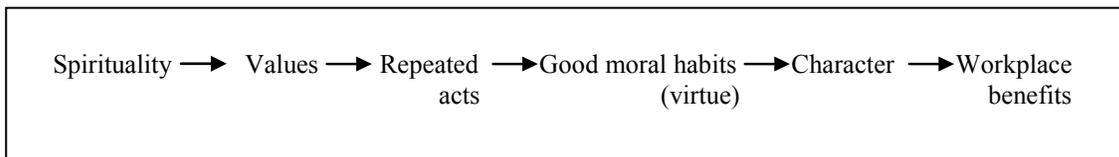


Figure 3. The influence of spirituality on virtue, character, and workplace. From “Virtue as a Benchmark for Spirituality in Business,” by G. F. Cavanaugh and M. R. Bandsuch, M. R. (2002). *Journal of Business Ethics*, 38, 109–117. Copyright 2002 by Kluwer Academic Publishers. Reprinted with permission.

The organizational benefits of spiritual leadership include increased organizational performance (Lloyd, 1990), intrinsic employee job satisfaction and involvement (Fry, 2003), higher employee performance resulting in improved customer

service (Duchon & Plowman, 2005), and higher rates of return on investments (Jurkiewicz & Giacalone, 2004). The inspirational and/or transformational effect of spiritual leadership can result in positive moral behavior of the members of the organization (Bass & Steidlmeier, 1999; Dvir et al., 2002). For the stakeholders of the organization, the impact of a spiritual organizational culture translates not only to the integrity of the organization but also to the financial returns from improved performance and customer satisfaction.

Fry (2003, 2008) developed a causal model of spiritual leadership that demonstrates its relationship to the attributes of spirituality (see Figure 4).



Figure 4. Causal model of spiritual leadership. From “Toward a Theory of Spiritual Leadership,” by L. W. Fry, 2003, *The Leadership Quarterly*, 14(6), 693–727. Copyright 2003 by Elsevier. Reprinted with permission.; “Spiritual Leadership: State-of-the-Art and Future Directions for Theory, Research and Practice,” by L. W. Fry, 2008, In J. Biberman & L. Tishman (Eds.), *Spirituality in Business: Theory, Practice and Future Directions*, New York, NY: Palgrave. Copyright 2010 by International Institute of Spiritual Leadership. Reprinted with permission.

From this model, this researcher will build the relationship between spiritual leadership's causal attributes and spiritual intelligence. The causal model portrays

The source of spiritual leadership is an inner life or spiritual practice that, as a fundamental source of inspiration and insight, positively influences development of [a] hope/faith in a transcendent vision of service to key stakeholders and [b] the values of altruistic love. (Fry, 2008, p. 137)

Transcendental awareness, which can be developed through spiritual practices such as meditation or sustained prayer, provides the ability to see the facets of issues from varying perspectives (Amram, 2005; King, 2008; Vaughn, 2002). La Forge (2000) described this process as “seeing” (p. 26), which is characterized as “the inner spiritual eye of the individual is gradually opened through nondiscursive [mindfulness] meditation to multiple meanings” (p. 26). By the ability to attend to the moment through concentration and reflection a leader is able to better assess the true dimensions of the challenge being faced. Valentine and Sweet (1999) discovered that attention and accuracy were greater in those who meditated. McNaughton (2003) found a similarity in study subjects as to decision making framework and the use of intuition gained through meditation.

Besides providing confidence in their own meaning and purpose in life, meaning production helps the leader understand the needs of followers to satisfy their own need for meaning (Amram, 2005). Spiritual psychology describes this transformational ability as “the mutual ‘raising’ of both sides to higher levels of motivation and morality” (Chakraborty & Chakraborty, 2004, p. 194). By creating a vision for the organization, which provides employees with a sense of meaning, fulfillment, and membership, individuals will view their job based on their personal meanings, values and purpose

(Bowman, 2000; Kouzes & Posner, 2002; Zohar, 2005; Zohar & Marshall, 2000). By inspiring hope and faith within the organization, the spiritual leader is able to give life to a vision that can align purpose and service through values, attitude and behaviors (Amram & Dryer, 2008; Fry, 2008). Critical existential thinking combined with conscious state expansion enhance the ability to apply abstract reasoning without distraction, use intuition and refined perception to enhance decision making, and increase empathy and humility (Fry, 2003; Louchakova, 2005; Valentine & Sweet, 1999). In summary, the benefit to the organization and the leader can best be described in the words of King (2008), who defined *spiritual intelligence* as

A set of adaptive mental capacities which contribute to the awareness, integration, and adaptive application of the nonmaterial and transcendent aspects of one's existence, leading to such outcomes as deep existential reflection, enhancement of meaning, recognition of a transcendent self, and mastery of spiritual states. (p. 54)

When applied, these processes are adaptive in their ability to facilitate unique means of problem-solving, abstract-reasoning, and coping (King, 2008).

Spiritual Intelligence and/or Ethics and Moral Development

Since ethics is a social construct that is shaped by cultural and societal influences such as spirituality, religion, or education, there is no clear ethical or unethical division (Moustafa-Leonard et al., 2008; Samar, 2000). Moustafa-Leonard et al. stated

Ethical behaviors result from both individual values and context (Trevino, 1986) and cognitive moral development level (Kohlberg, 1969). Therefore, assessment of a situation where particular behavior is required is a conjunction of values, context (e.g., societal culture), and moral development. (p. 93)

The SI construct for meaning correlates to a person's ability to clearly identify his or her values. This ability is demonstrated by the fact that "When faced with a dilemma,

personal meaning production can lead to a meaning-based solution (i.e., a solution that considers the meaning and purpose of the dilemma)” (King, 2008, p. 87). This basis is further supported by Amram and Dryer (2008) in their findings regarding meaning through service, which is about linking experiences with values. Emmons’s (2000a) original fifth component of SI, virtuous traits can be connected to spiritual and religious traditions and to moral actions such as humility, honesty, mercy and gratitude (Mayer, 2000; Moustafa-Leonard et al., 2008; Samar, 2000).

Critical existential thinking assists an individual in taking his or her personal meaning construct and applying abstract reasoning and critical thinking to arrive at an ethical action. Mayer (2000) supported abstract reasoning based on Emmons’s (2000a) sacredness and transcendence SI attributes. Moral or ethical evaluation is based on an individual’s values, the context of the issue, and the level of spiritual intelligence of the individual.

The two components of SI, transcendence and consciousness, can also be related to moral development. Transcendence allows one to view a situation with a multidimensional view that is larger than the needs of the self (Emmons, 2000a; Hawkins, 2008; King, 2008). Consciousness, which may be accessed through training in spiritual practices such as meditation, has been shown to be beneficial in the critical thinking process inherent in being able to analyze the ethical dilemma from perspectives that integrate both content and context (King, 2008; Zohar & Marshall, 2000).

Young (2002) evaluated CEOs’ problem-solving abilities based on Wilber’s spectrum of consciousness and found that as they moved up the spectrum, “their problem solving effectiveness, the morality of their decisions, and their individual sense of well-

being are enhanced” (p. 45). The altruistic love attribute from Fry’s (2003, 2008) causal model of spiritual intelligence compares with Kanungo and Mendonca’s (1996) altruism characteristic that infers that a leader who puts the needs of others above personal gain exhibits Kohlberg’s (1981) Stage 6 universal ethics. This altruistic act is reflected in Wilber’s (2000) worldcentric view, Gilligan’s (2003) universal care stage, Maslow’s peak experiences (as cited in Huitt, 2007), Zohar and Marshall’s (2000) higher service, and Hawkins’s (1995) enlightenment, as demonstrated in Figure 2. Benefiel (2005) supported the precept that a leader on “the spiritual path is not ultimately about enlightened self-interest” (p. 743), although this is a natural starting point in the quest.

Conceptual Framework

Spiritual intelligence is in its infancy. There is much debate in the psychological community as to whether it qualifies as intelligence, consciousness, or a personality trait. Vaughn (2002) stated, “Spiritual intelligence is related to emotional intelligence insofar as spiritual practice includes developing intrapersonal and interpersonal sensitivity. Paying attention to subjective thoughts and feelings and cultivating empathy is part of increasing awareness of the inner spiritual life” (p. 20). While EI and SI are related, the difference is the abilities involved in the application of each as intelligence. Amram (2009) confirmed this premise based on his study and stated, “The incremental contribution of observer-reported EI, after controlling for observer-reported SI, suggests that EI and SI are measuring distinct constructs, in spite of the fact that EI and SI were significantly correlated with one another” (p. 111).

In conjunction with the appearance of spiritual intelligence theory, there has been increasing interest in spirituality in business and spiritual leadership. Spirituality is impacting the lives of individuals on a daily basis from “choices in the marketplace as ‘value-driven consumers’ to ‘organizations to foster a moral transformation’” (Fry, 2008, p. 130). Aburdene (2007), author of *Megatrends 2010*, stated that spirituality is today’s greatest megatrend affecting individuals and organizations at multiple levels.

Spirituality in business is in the forefront spurred by ethical scandals, the need of employees to find purpose in work, and the changing economic and global marketplace (Duchon & Plowman, 2005). Paine (1994) stated, “Unethical business practice involves the tacit, if not explicit, cooperation of others and reflects the values, attitudes, beliefs, language, and behavioral patterns that define an organization’s operating culture. Ethics, then, is as much an organizational as a personal issue” (p. 106). The ethical portion of spiritual leadership is defined by the moral/ethical development of the individuals within the organization. Progression through the stages of moral development is not guaranteed by chronological maturity. Moral development is more an individual process where humans gain greater awareness, understanding, and consciousness as they are attracted or faced with dilemmas at the next level of the moral development sequence. Davis and Rothstein (2006), based on the outcome of their meta-analysis, stated that employee’s perceptions of a leader’s behavioral integrity (word and deed) is positively correlated to job satisfaction, firm performance, and organizational commitment.

“There have been few studies that discuss meditation as a basis for higher ethics” (McNaughton, 2003, p. 34). Pantanjali’s Yoga Sutras of *yamas* and *niyamas* are focused

on moral behavior as a part of the purification process, which is integral to progressing to meditative concentration (Goleman, 1988; McNaughton, 2003; Yogananda, 1995).

Walsh and Vaughn (1993) stated that ethics are the foundation for transpersonal psychological development and a critical factor for training the mind for meditation. Walsh and Vaughn went on to say that after one reaches and is anchored in higher states of consciousness, ethical behavior flows spontaneously due to the meditator's knowing of their 'oneness' with all people and life. (McNaughton, 2003, pp. 34–35)

Based on the fact that meditation and/or concentration is an integral part of most peoples spiritual life, one could argue that those who are high in spiritual intelligence are also at a higher level of ethical development.

According to Northouse (2004), Craig and Gustafson developed the PLIS to “evaluate leaders’ ethics by measuring the degree to which subordinates see them as acting in ways that would produce the greatest good for the greatest number of people” (p. 323). Baker and Craig (2006) advised, PLIS “behaviors are classified as unethical using a rule-based utilitarian approach. By this approach an act is labeled wrong or unethical if it violates explicit or implicit rules that ideally maximize outcomes for the majority of individuals” (p. 4). Through their analysis, Craig and Gustafson (1998) found that the instrument yielded two types of perceptions, specific and global.

While this instrument was created to measure an individual's perception of the ethical integrity demonstrated by the organization's leaders, this instrument can be used to gather data about the participants' self-evaluation of their own integrity. The scoring on the instrument yields results that can be correlated to both Kohlberg's (1973, 1981) and Gilligan's stage theories of moral development. The low ethics or unethical leader would typify Stage 1, pre-conventional or selfish. Stage 2, conventional or social, would

emulate the moderately ethical leader. The highly ethical leader aligns with postconventional or universal, the Stage 3 levels.

The concept of spiritual leadership has many of the same attributes as leader–follower exchange theory, transformational leadership and servant leadership such as high ethical values, putting followers before self, empathy, inspirational vision, altruism, trust and integrity (Bass & Steidlmeier, 1999; Caldwell et al., 2008; Greenleaf, 2002; Howell & Avolio, 1992). Northouse (2004) contended that because the leader–follower relationship is critical to successful leadership, Gilligan’s (2003) ethics of care model is the key to building trust and cooperation. Ciulla (2009) supported Northouse’s belief, stating, “Care is about feelings, but it may also be framed in terms of attention to one’s duty” (p. 4).

Spiritual intelligence has been proposed as a measure of an individual’s propensity toward spiritual leadership (Amram, 2005; Emmons, 2000a; King, 2008; Nasel, 2004; Vaughn, 2002; Zohar & Marshall, 2000). The components that comprise the construct are deeply rooted in attributes that are core to both the studies of spirituality and religiosity (Amram, 2005; Emmons, 2000a, 2000b; King, 2008; Nasel, 2004). The benefits to stakeholders (employees, stockholders, customers and vendors) of leaders with high levels of spiritual integrity include positive impact on organization culture (Young, 2002), organizational commitment and productivity (Davis & Rothstein, 2006; Fry, 2003), declines in absenteeism, turnover and stress (Jurkiewicz & Giacalone, 2004), and high ethical standards within the organization (Caldwell et al., 2008; La Forge, 2000; White & Lean, 2008). The challenge to the academic community is to define, validate,

and correlate SI measurements to organizational performance outcomes (Amram, 2005, 2009; Dent et al., 2005; Fry, 2003).

To date, three measurements instruments have been proposed for the measurement of spiritual intelligence. Each of the three instruments have factors in common that correlate across the academic community as representative of SI (Emmons, 2000a; King, 2008; Nasel, 2004; Noble, 2000; Vaughn, 2002; Zohar & Marshall, 2000).

King (2008) developed a four-factor model for measuring SI based on “established measures of spirituality [that] would be expected to correlate highly with spiritual intelligence” (p. 119) and can be identified as “mental capacities and abilities related to human spirituality” (p. 119). The resulting instrument, the SISRI-24, measures were shown to be valid variables when correlated to accepted spiritual measurements as represented by the Meaning in Life Questionnaire, the Metapersonal Self-Conceptual Scale, the Mysticism Scale-Research Form D, the Satisfaction with Life Scale, the Age Universal Intrinsic-Extrinsic Religiosity Scale, the Profile of Mood States Scale-Short Form, the Assessing Emotions Scale, the Multidimensional Aptitude Battery-II, and the BIDR (King, 2008).

Nasel (2004) created a two-factor scale of spiritual intelligence and a construct for measuring the differences in spiritual intelligence that could be related to an individual’s spiritual or religious beliefs and practices. The SIS measures two factors: awareness of divine presence and existential questioning.

Amram and Dryer (2008) created the ISIS. The ISIS short form was recently used to gather data as part of Amram’s (2009) dissertation. In this study, five domains were assessed that demonstrated correlation to measures of spirituality. These measures were

(a) consciousness, (b) grace, (c) meaning, (d) transcendence, and (e) truth. This instrument has shown reliability and construct validity.

Each of these studies and measurement instruments represent a step forward in creating an instrument to assess SI as a form of intelligence (Mayer, 2000). Based on the data from these studies, there are factors that are constant across the research as representative of the construct of spiritual intelligence. Critical existential thinking corresponds to Nasel's (2004) existential questioning, King's (2008) critical existential thinking, Amram and Dryer's (2008) grace and truth dimensions, and Emmons's (2000a) capacity for transcendence. Personal meaning production (King, 2008) fits into the same construct as Amram and Dryer's meaning construct, Emmons's ability to invest everyday activities with a sense of the sacred, and Zohar and Marshall's (2000) "the intelligence with which we can assess that one course of action or one life-path is more meaningful than another" (pp. 3–4). Transcendental Awareness, which represents one's ability to perceive and recognize the multidimensional aspects of life (Noble, 2000) tie to Nasel's awareness of divine presence, Vaughn's (2002) identify and coordinate different subtle realities, and Amram and Dryer's transcendence component. Lastly, conscious state expansion represents Emmons's ability to enter heightened spiritual states of consciousness, Nasel's awareness of divine presence, and Amram and Dryer's consciousness.

King's (2008) SISRI instrument was not peer reviewed, based on the level of correlation to accepted spirituality constructs this instrument seems to represent the cognitive elements of spiritual intelligence as they relate to existing spirituality scales and subscales (Emmons, 2000a, 2000b; Halama & Strizenec, 2004; Macdonald & Friedman,

2002). This study will utilize King's SISRI-24. Based on the analysis and relationship to spiritual constructs, it is believed that this instrument more accurately represents the cognitive elements that link measurements of spirituality to intelligence as supported by the literature.

The interconnection between spirituality, spiritual intelligence, and morality supports the argument that the level of an individual's and/or leader's spiritual intelligence provides insight into their level of moral development. When comparing the various stage theories of human spiritual and moral development, the argument that the level of spiritual intelligence can be correlated to ethical/moral behavior is supportable.

CHAPTER 3. METHODOLOGY

Research Design

A quantitative research methodology with a descriptive design was used to collect data to test the hypotheses for Research Questions 1, 2, and 3. Research Question 4 employed a design that is correlational in nature in order to explore whether a relationship can be determined between ethical development level and spiritual intelligence level. Halama and Strizenec (2004) suggested that existing scales related to cognitive aspects of spirituality can measure the constructs of spiritual intelligence. Macdonald and Friedman (2002) supported the use of quantitative instruments, stating:

The best way of understanding or knowing an experience or state of consciousness is to directly experience it oneself, any attempt to either communicate that to another or, indeed, to internally process that experience with conceptual thought is bound to be at least somewhat reductionistic. (p. 105)

Another benefit of the quantitative approach is the fact it will provide data-based findings, which are more acceptable to the business and scientific community (Amram & Dryer, 2008).

Turning to the literature review, three instruments to measure spiritual intelligence were located: (a) Nasel's (2004) 17-item SIS measuring existential questioning and awareness of divine presence; (b) Amram and Dryer's (2008) ISIS, composed of an 83-item long form or a 45-item short form, self-report survey that measures five spiritual constructs relating to SI; and (c) King's (2008) SISRI-24

consisting of 24 questions mapping to four spiritual attributes. Nasel's SIS instrument is not being used as its narrow focus measured only two of the many spiritual attributes identified in the literature. King's SISRI-24 showed validity and reliability and will be used. Although developed as part of a master's thesis, it was mentored by a professor and published in the *International Journal of Transpersonal Studies* and will be used for this study (King & DeCicco, 2009). Amram and Dryer's ISIS instrument showed internal consistency, reliability, and convergent validity based on the initial study performed and on the research performed as part of Amram's (2009) dissertation research (discussed in Chapter 2). While Nasel's (2004) and Amram and Dryer's (2008) instruments both exhibited validity and reliability and were peer reviewed, as discussed in the literature review, King's SISRI-24 appeared to better address the cognitive aspects and dimensions of spiritual intelligence supported by the literature.

Part two of the research was to correlate an individual's level of spiritual intelligence to their moral development. This was accomplished using Craig and Gustafson's (1998) PLIS to have each participant self-assess his or her moral development level (Northouse, 2004).

The measurement instrument for this study was created from the above two existing research survey instruments. Both instruments, the SISRI-24 and the PLIS, were designed with a Likert-type, multiple-choice scale to gather the participant's responses. Cooper and Schindler (2006) stated, "Analytical procedures . . . are determined by the scale types used in the survey" (p. 359). The Likert scale choice fits with the intent of a survey, which is "to measure various behaviors, thought processes, and mental characteristics" (King, 2008, SISRI-24 instructions). The Likert scales yielded data that

lended itself to analysis using quantitative methods. In addition to the measurement instrument, demographic information was also gathered. This demographic data represented independent variables that could impact the study outcome.

Research Questions and Hypotheses

RQ1: Does the instrument, the SISRI–24, yield valid and reliable data when used by another researcher to measure the spiritual intelligence of an individual?

H1₀: The measurement instrument (SISRI–24) will not yield valid and reliable data when used by others researchers as a measure of spiritual intelligence.

H1₁: The measurement instrument (SISRI–24) will yield valid and reliable data when used by others researchers as a measure of spiritual intelligence.

RQ2: To what extent do demographic factors influence the level of spiritual intelligence?

H2₀: Age will not have an effect on spiritual intelligence levels.

H2₁: Age will have an effect on spiritual intelligence levels.

H3₀: Gender will not have an effect on spiritual intelligence levels.

H3₁: Gender will have an effect on spiritual intelligence levels.

H4₀: Education level will not have an effect on spiritual intelligence levels.

H4₁: Education level will have an effect on spiritual intelligence levels.

H5₀: Cultural origin will not have an effect on spiritual intelligence levels.

H5₁: Cultural origin will have an effect on spiritual intelligence levels.

RQ3: Are religious affiliation and/or level of religious or spiritual activity related to a person's spiritual intelligence level?

H6₀: Religion and/or religious/spiritual activity will not be correlated to a person's spiritual intelligence level.

H6₁: Religion and/or religious/spiritual activity will be correlated to a person's spiritual intelligence level.

RQ4: Can the level of an individual's spiritual intelligence be tied to the stages of moral development through the use of the Perceived Leader Integrity Scale (PLIS)?

H7₀: No relationship will be found between moral development and the level of an individual's spiritual intelligence.

H7₁: A relationship will be found between moral development and the level of an individual's spiritual intelligence.

Population and Sample

Zoomerang selected the population for this study from their database based on this researcher's defined population criteria. The population criteria requested included (a) all genders, (b) ages 21–60, (c) a cross-cultural mix, (d) all business organizational levels, and (e) all educational levels. Demographic characteristics of the participants were gathered for stratification and cross-tabulation purposes as identified in Research Question 2 and corresponding Hypothesis 2 through 5. Zoomerang was requested to provide 100 responses from male participants and 100 responses from female participants, with the final population being 202 (103 male participants and 99 female participants). This level of participant response was a convenience sample that was selected due to the cost of acquiring responses from Zoomerang.

Setting

Zoomerang administered the survey research instrument via the electronic survey medium on their web site. This allowed confidentiality and anonymity among those taking the survey. This was recommended as in one of the reviewed studies administered in a classroom setting by the researcher, “positive correlations between social desirability” (King, 2008, p. 169) was indicated, which could indicate response bias.

Instrumentation

The SISRI–24 survey instrument was designed to represent proven spiritual constructs: (a) critical existential thinking, (b) personal meaning production, (c) transcendental awareness, and (d) conscious state expansion (King, 2008). The PLIS was a self-report instrument designed to assess perceptions of integrity (Craig & Gustafson, 1998). Self-report data were gathered via Likert scales, which meets with the goal of “measur[ing] various behaviors, thought processes, and mental characteristics” (King, 2008, SISRI–24 instructions). Cooper and Schindler (2006) confirmed that this type of measurement scale was consistent with the study design and analytical procedures that were used to assess the data and constructs.

The SISRI–24 measurement instrument was selected to measure the construct of spiritual intelligence in this study. The measurement instrument was altered slightly to remove the term intelligence from the title as recommended by King (2008) to avoid possible response bias effects. Demographic questions were added to gather sex, age, educational level, culture, and spiritual techniques/training received and/or practiced. This information was gathered at the end of the data gathering session rather than at the

beginning. SISRI-24 spiritual intelligence domains that were measured include the following.

Critical Existential Thinking. This cognitive ability represents a person's "ability to create meaning based on deep understanding of existential questions, and awareness of and the ability to use multiple levels of consciousness in problem solving" (Amram, 2005, p. 15). Mayer et al. (2000) characterized critical and/or abstract thinking as "the ability to carry out many types of mental transformations, such as identifying similarities and differences, making generalizations, mentally rotating figures, and other tasks" (p. 48). Goal setting, problem solving, and motivation are all elements of critical existential thinking that are shared in common with effective leadership (Amram, 2005; Emmons, 2000a; Mayer, 2000). Seven items (Questions 1, 3, 5, 9, 13, 17, and 21) comprise this category.

Personal Meaning Production (PMP). The second component involves a person's ability to infuse both physical and mental experiences with personally held meaning that provides both significance and satisfaction (King, 2008; Zohar & Marshall, 2000). Emmons's (2000a) component termed sanctification as "a recognition of the presence of the divine in ordinary activities" (p. 11). As humans, we build mental models of the spiritual truths that are imbued with meaning for self through information processing from stories, religious texts, and experiences (Mayer, 2000; Rokeach, 1973). It is from these information domains that one creates one's personal values and meanings that guide and direct one's experience of everyday events (Gardner, 2000; King, 2008; Sternberg & Kaufman, 1998). Questions 7, 11, 15, 19, and 23 represent this component.

Transcendental Awareness (TA). This component of spiritual intelligence relates to the ability to understand one's relationship to a higher power, all beings, one's environment and the earth (King, 2008; Vaughn, 2002). Transcendental awareness is a key concept of spirituality. While developing the ability can take the form of meditation, prayer, or other spiritual practices, it involves the capacity to "coordinate different perspectives" (Vaughn, 2002, p. 24) that result in the ability to correlate "empathic identification, sensitivity to subtle realities and familiarity with various symbolic maps of consciousness" (Vaughn, 2002, p. 24) and apply them not only to one's own mental models that form one's personal meaning but to a deeper understanding of the interactions and interrelations between oneself and others. Transcendental awareness is not about altered states of consciousness but is about being able to recognize "dimensions of reality" (King, 2008, p. 71) in all things. Transcendental awareness encompasses these seven survey items: 2, 6 (which is reverse coded), 10, 14, 18, 20, and 22.

Conscious State Expansion (CSE). "The final component of the current model is the ability to enter higher or spiritual states of consciousness (e.g. pure consciousness, cosmic consciousness, oneness) at one's own discretion" (King, 2008, p. 71).

Vaitl et al. (2005) describe "the ability to maintain concentration" (p. 107), "the ability to refrain from goal-directed and analytical thoughts" (p. 108), and "the ability to tolerate and accept unusual or paradoxical experiences" (p. 108) as integral parts of [meditation and] relaxation. (King, 2008, p. 78)

The mental capacity to enter higher states at will is an ability that one learns and develops over time (Emmons, 2000a; King, 2008; Louchakova, 2005). The ability to enter higher states of consciousness correlates to refined perception, increased empathy, better concentration, decreased tendencies to become distracted, and greater intuition

(Louchakova, 2005; Valentine & Sweet, 1999). Items 4, 8, 12, 16, and 24 of the survey address this construct.

One final item was added to aid in assessment of validity: “I have answered all the questions truthfully and to the best of my ability” (Amram & Dryer, 2008, p. 15). Based on the results indicated in Chapter 4, four participants were removed from the final population for a negative response to this question resulting in a final population of 198 participants (100 males and 98 females).

Due to the limitations of the online survey tool through Zoomerang, the SISRI-24 Likert scales required modification as zero was not an allowable value. For data collection purposes, the scale values, which ranged from 0–4, were amended to 1–5, resulting in recoding of the responses to obtain the proper scores.

The PLIS had a 31-question format and was used to self-assess moral development. Because people are resistant to their morality and ethics being judged by others, the name of this instrument was not used in the study, only the acronym PLIS, to prevent response bias.

Data Collection

Data collection was performed online through Zoomerang. The participants had a period of 30 days to complete their responses. This period commenced after dissertation committee review of the proposal and Institutional Review Board approval by the school. At the close of the survey, Zoomerang provided the data collected for analysis in an Excel-compatible format as described in “Research Design.”

Data Analysis, Validity, and Reliability

The study data collected were separated into three parts consisting of the SISRI–24 data to be scored for the spiritual intelligence score, the PLIS data to be scored for the level of moral development, and the demographic data. Data were analyzed using descriptive statistics and response distributions as a means to identify any skewed data results. For the SISRI–24, to confirm that the responses were in line with the expectation, a mean value of 48.0 was expected. For the PLIS, the mean value was 77.5. The mean value is a measure of central tendency that represents the typical or average response expected to a question (Cooper & Schindler, 2006).

Since the demographic data were entered via text drop-downs, in order to complete the data analysis, these items were coded into numeric values.

Integrated Spiritual Intelligence Scale

After examining the response means, domain scale scores were compared against the alpha coefficients for each domain as stated in King's (2008) results:

Cronbach's alpha for the 24-item pool was .92 (standardized alpha = .92), which represents a more appropriate internal reliability. . . . Individual subscales of CET, PMP, TA, and CSE also displayed adequate alpha coefficients of .78 (average inter-item correlation = .34), .78 (average inter-item correlation = .42), .87 (average inter-item correlation = .49), and .91 (average inter-item correlation = .69), respectively" (p. 151)

Reliability will be assessed by comparing internal consistency of the SISRI–24 against the original score of .92 (King, 2008).

Participants' SI level was then determined by scoring their responses. Step one in this process was to reverse the response to the single reverse coded question. Scoring then consisted of totaling the responses by domain followed by totaling the domain

scores to arrive at a total SI score (see Appendix B for details). The higher the overall SI score, the higher the level of spiritual intelligence. Within the domains, the higher the domain score, the higher the participant's capacity in that area. Total SI scores were further analyzed based on the demographic variables to identify any group differences due to age, gender, culture or educational level. Further analysis was performed to assess if religious affiliation and/or level of activity influences an individual's SI score.

Perceived Leader Integrity Scale

Internal consistency was assessed against the .97 Cronbach's alpha shown in the development of the instrument. The combined score of the answers to the 31 questions was then calculated and interpreted as 31–35, highly ethical; 36–66, moderately ethical; and 67–124, low ethics (Northouse, 2004). Scores were then analyzed for group differences based on the demographic data. PLIS scores were correlated with the participant's SI score to determine if a relationship exists.

Ethical Considerations

Arbnor and Bjerke (1997) stated that the ethical aspects that need to be considered when doing business research include not only those that pertain to the participants but also the actions and attitude of the investigator. The purpose of the study is to determine or explore the interaction of single or multiple concepts. The resulting data and analysis needs to be analyzed and presented with a focus on integrity so that it has value and adds to the body of knowledge. The researcher needs to be open and receptive to the outcomes of the research rather than entering into the study with fixed expectations. Reporting of study results needs to accurately represent what was observed from the data. Researchers

must make sure their personal biases and opinions do not interfere with the administration of the survey or the research results.

Since the type of research being conducted in this study is primary research, special consideration needs to be given to the individuals who will participate in the study. This consideration starts with acquiring their consent to participate in the study. Privacy and anonymity of the participants' answers is key. This will be ensured through the use of a professional survey service that will not disclose any participant information other than the requested demographic data (e.g., age, gender, educational level completed, cultural background, religious affiliation, and religious/spiritual techniques practiced).

Another consideration that must be thoughtfully considered is preventing emotional harm to the participants. This could take the form of feeling as if they were being treated as objects of measurement without respect for their individual values and sense of privacy. Another potential harm is feeling overburdened by the number of items being used to collect the information. The research instruments combine to total 77 questions. The participant is asked to read the question and circle a value on the Likert scale. Practice runs by the researcher and volunteers have shown completion time for the survey falls into the 30- to 45-minute range. Because of the electronic research medium, participants will have the ability to enter and exit at will, for up to 30 days, allowing them to complete the survey on their time constraints. To prevent emotional distress that can be caused by participants' implied perceptions of the terms *intelligence* or *integrity*, the survey titles of the two instruments will not be used—only the acronyms.

CHAPTER 4. DATA ANALYSIS AND RESULTS

Introduction

This correlational study uses a quantitative lens to gather and examine data to ascertain if the construct of spiritual intelligence can be correlated to level of ethical development. The results of the research are presented beginning with a summary of the demographic data collected. This will be followed by a presentation of the survey data, which is comprised of two components: the spiritual intelligence data and the ethical-level data. The ethical-level data will be described through the use of descriptive statistics and later tied, at a macro level, into the research questions and related hypotheses. The spiritual intelligence data will be described through (a) the use of descriptive research questions, tests for normality, reliability and validity; (b) the inferential research results for each research question and the related hypotheses; and (c) statistical data regarding any correlation.

Demographic Data

Study participants completed a demographic data sheet as part of the survey package. Table 1 summarizes the demographic data collected in relation to sex, age, ethnicity, educational level, religious affiliation and religious/spiritual practices.

Table 1. Frequencies for Categorical Demographic Variables ($N = 198$)

Demographic item	<i>f</i>	%
Gender		
Male	100	50.5
Female	98	49.5
Total	198	100.0
Age		
21–29	63	31.8
30–39	52	26.3
40–49	37	18.7
50–59	40	20.2
60 or greater	6	3.0
Total	198	100.0
Ethnicity		
Not indicated	2	1.0
White	153	77.3
Asian	15	7.6
Black	13	6.6
Hispanic	8	4.0
Other	7	3.5
Total	198	100.0
Educational level		
High school or equivalent	29	14.6
Associate's or bachelor's degree	138	69.7
Master's degree	19	9.6
JD or doctorate	11	5.6
No response	1	0.5
Total	198	100.0
Religious affiliation		
Atheist/agnostic	2	1.0
Buddhist	4	2.0
Catholic	41	20.7
Protestant (Christian)	91	46.0
Hindu	2	1.0
Jewish	6	3.0
Spiritualist	3	1.5
Unitarian Universalist	2	1.0
Other	14	7.1
None	33	16.7
Total	198	100.0
Spiritual practices participation		
Yes	121	61.1
No	77	38.9
Total	198	100.0

While the total sample was 202 participants, four participants were removed due to the negative response to the validity assessment question of “I have answered all the questions truthfully and to the best of my ability” (Amram & Dryer, 2008, p. 15).

The gender distribution was as expected, as the survey firm was asked to provide a minimum of 200 participants with a target of 50% male and 50% female representing a normal distribution.

The age demographics were to be between 21 and 60 and collected by a range methodology. By assigning the ranges a value, the mean distribution indicates an average age in the 30–39 category ($M = 2.36$, $SD = 1.209$). As expected the 60+ range had the smallest number of participants ($n = 6$ or 3% of total sample). The 21 to 29 age group comprised the largest number of participants ($n = 63$ or 31.8% of total sample).

Ethnicity demographics was heavily weighted toward White participants ($n = 153$ or 77.3%). Two participants (1%) declined to provide ethnicity data. This distribution is supported by the U.S. Census fact sheet that shows that for the period 2005–2009, Whites comprise 74.5% of the total population (U.S. Census Bureau, n.d.). For other ethnicities, the distribution appears understated: Blacks (6.6% versus 12.4% of U.S. population) and Hispanics (4% versus 15.1% of U.S. population; U.S. Census Bureau, n.d.). Asians are somewhat overrepresented compared to the population (7.6% versus 4.6% of U.S. population). While the discrepancies are not large, they are not completely negligible but will be considered acceptable variations for purposes of this analysis. Education-level data had the majority of the participants ($n = 138$ or 69.7%) with a college degree of either an associate’s degree or a bachelor’s degree. This percentage would be expected

based on the Bureau of Labor Statistics (n.d.) data that show 76% of the civilian work force has a bachelor's degree or higher.

Religious affiliation and spiritual practices data were as expected with the population taken from the Western culture and being predominantly Protestant/Christian ($n = 91$ or 46%). With all participants but 33 (16.7%) indicating a religious affiliation of some type (not including the 2 (1%) that indicated atheist/agnostic), the 61% or 121 participants that indicated participation in a spiritual practice is inferred.

Ethical Development Data

The PLIS was the survey instrument selected to assess the self-reported ethical development level of the participants (Craig & Gustafson, 1998). Answer frequencies to each of the survey questions are shown in Appendix C.

Table 2 summarizes the scoring results of the study participants as to ethical development level. The PLIS sample population's mean score was 44.55 with a standard deviation of 18.66. Since the minimum value of 31 and maximum value of 124 indicate an expected average of 77.5, which is not within the mean plus or minus the standard deviation, a Kolmogorov–Smirnov test was run to ascertain the normality of the data (see Appendix C), with results ($p = 0.000$) indicating non-normal data distribution. To further substantiate the non-normality assumption of the data, a binomial test was conducted that showed only 7%, or 14 scores, were below the expected mean of 77.5. This confirms that the data should be considered to have a non-normal distribution.

Table 2. Summary of PLIS Ethical Development Level of Participants ($N = 198$)

Measurement criteria	<i>f</i>	%
31–35: Highly ethical	103	52.0
36–66: Moderately ethical	71	35.0
67–124: Low ethics or unethical	24	13.0

The independent demographic variables collected and analyzed indicates that gender does affect the PLIS mean score based on Levene’s test for equality of variances ($p = 0.003$), a t test of the equality of means ($p = 0.031$), and a Mann–Whitney test showing a mean ranking of 107.31 for males and 91.53 for females. Analysis based upon age category indicates no assumption of difference in ethical result variances.

The variability in ethical results between age categories was equal. Analysis of data using Levene’s test demonstrated that ethical development level is independent of age category ($p = 0.401$). Analysis of variance (ANOVA) on the age categories yields the same assumption ($p = 0.700$) as does a Kruskal–Wallis test ($p = 0.537$). From this information one can infer that age has no affect on the level of an individual’s ethical development.

Variability in ethical results is influenced by ethnicity. If viewed from a parametric lens, ethnicity appears to have no influence on the variability of ethical results as shown by the ANOVA between groups ($p = 0.050$). When consideration is given to the distribution of the ethnicity of the participants, the data are non-normal (Kolmogorov–Smirnov $p = 0.000$), which would indicate usage of a nonparametric analysis (Mirabella,

2008). Using a Kruskal–Wallis test ($p = 0.019$) indicates that ethnicity does influence ethical results variance with the mean ranking indicating that Blacks have the highest mean rank, followed by Asian, Hispanic, White, Other, and not indicated.

Education does not impact ethical score variability [Levene’s test ($p = 0.065$), ANOVA ($p = 0.136$), and Kruskal–Wallis ($p = 0.126$)]. Religious affiliation has no impact on ethical score variability [ANOVA ($p = 0.279$) and Kruskal–Wallis ($p = 0.779$)]. Participants involved in spiritual practices such as contemplative prayer, meditation, and so forth, showed no difference in ethical score variability from those who did not indicate participation in such practices [Levene’s test ($p = 0.201$), Mann–Whitney ($p = 0.541$)].

Spiritual Intelligence Data

The SISRI instrument that was used to gather the data to support the research questions and resulting hypotheses has the same demographic structure described previously. Research outcomes will be presented by looking at the normality and reliability of the data through the use of descriptive statistics and statistical testing. This will be followed by the inferential research results for each research question and the related hypotheses including the correlational data to the ethical development level results provided. Frequency tables showing the answers to each survey question can be found in Appendix D.

Normality and Reliability of Survey Data

Survey data were assessed for both normality and reliability prior to applying the results to the inferential research questions. Normality tests were conducted on the total

spiritual intelligence scores using the Kolmogorov–Smirnov test ($p = 0.986$) indicating normal data distribution. The mean spiritual intelligence score was 51.96 with a standard deviation of 16.08 and a range from 0 to 92.

Data reliability was assessed using SPSS 15.0 scale reliability analysis testing. The Cronbach’s alpha outcomes derived from each of the subscales measured within the instrument were then correlated to the Cronbach’s alpha outcomes for the second confirmatory factor analysis conducted on the instrument (see Appendix B). Results of the statistical tests are summarized in Table 3. As noted in Table 3, the Pearson correlation ($p = 0.791$) falls into the range of 0.70 to 1.00, which is considered strong. The Spearman’s test ($p = 0.684$) falls into the range of 0.31 to 0.69, which is considered moderate. These outcomes indicate that the results yielded by the instrument are reliable.

Table 3. Reliability Results for the SISRI Subscales

Subscale	Prior Cronbach’s alpha	Current Cronbach’s alpha	Pearson correlation p value	Spearman’s rho p value
CET	0.780	0.830	0.791	0.684
PMP	0.780	0.840		
TA	0.870	0.753		
CSE	0.910	0.908		

Reliability was further assessed on the entire sample population by performing a reliability assessment on the total data. This yielded a Cronbach’s alpha correlation between forms of 0.816 and a Guttman split-half coefficient of 0.894. Both of these

outputs fall into the strong range, and when compared with the prior study split-half reliability coefficient of 0.91, would indicate reliability as predictable (Cooper & Schindler, 2006).

Research Questions

This study was built on four research questions for which data were collected. Each of these questions and the supporting survey results are discussed as follows.

Analysis of RQ1 hypothesis. Research Question 1 and the related hypothesis were

RQ1: Does the instrument, the SISRI-24, yield valid and reliable data when used by another researcher to measure the spiritual intelligence of an individual?

H₁₀: The measurement instrument (SISRI-24) will not yield valid and reliable data when used by others researchers as a measure of spiritual intelligence.

H₁₁: The measurement instrument (SISRI-24) will yield valid and reliable data when used by others researchers as a measure of spiritual intelligence.

Based on the outcome of the reliability analysis discussed in the previous section indicating both the subscales and the overall instrument outcome yielded *p* values supporting reliability, this researcher rejected the null hypothesis H₁₀ and accepted the alternative hypothesis.

Analysis of RQ2 hypotheses. Research Question 2 and the related hypotheses discuss the impact of the independent demographic variables on the spiritual intelligence score results, summarized as follows.

RQ2: To what extent do demographic factors influence the level of spiritual intelligence?

H2₀: Age will not have an effect on spiritual intelligence levels.

H2₁: Age will have an effect on spiritual intelligence levels.

H3₀: Gender will not have an effect on spiritual intelligence levels.

H3₁: Gender will have an effect on spiritual intelligence levels.

H4₀: Education level will not have an effect on spiritual intelligence levels.

H4₁: Education level will have an effect on spiritual intelligence levels.

H5₀: Cultural origin will not have an effect on spiritual intelligence levels.

H5₁: Cultural origin will have an effect on spiritual intelligence levels.

Analysis of H2 hypothesis. Age as a factor on the level of spiritual intelligence was explored from the collected data through ANOVA testing, which yielded a Levene's homogeneity of variances $p = 0.641$. Since $p > 0.05$, this researcher accepted the null hypothesis and inferred that age does not affect the spiritual intelligence level.

Analysis of H3 hypothesis. Study data supported the null hypothesis that gender is not a factor in the variance of level of spiritual intelligence as evidenced by Levene's test for equality of variances ($p = 0.082$). The 100 males in the sample population yielded a $M = 51.20$, $SD = 17.704$. The 98 females yielded a $M = 52.73$, $SD = 14.286$.

Analysis of H4 hypothesis. The null hypothesis that education is not a factor in spiritual intelligence level is accepted. The assumption is based on the outcome of Levene's homogeneity of variances testing ($p = 0.980$) and a Kruskal–Wallis test ($p = 0.206$). The Kruskal–Wallis variable rankings are shown in Table 4.

Table 4. Educational Rankings From the Kruskal–Wallis Testing ($N = 198$)

Educational level	n	Mean rank
Not indicated	1	*
High school or equivalent	29	102.93
Associate’s or bachelor’s degree	138	94.22
Master’s degree	19	112.13
JD or doctorate	11	125.91

*No ranking provided for the “not indicated” category.

Analysis of H5 hypothesis. Ethnicity was initially assessed using Levene’s test ($p = 0.069$) and an assumption of normality of data. However, when the ethnic data are analyzed using a Kolmogorov–Smirnov normality test ($p = 0.000$), the data are shown to have a non-normal distribution. Mirabella (2008) noted that when non-normal data are present, one should use the Bonferroni test under the assumption of equal variances or the Games–Howell test under the assumption of unequal variances. The ANOVA ($p = 0.325$) indicates that there is insufficient evidence to reject the assumption of equal variances. With ethnicity variances being equal, the Bonferroni test indicates no significant difference in the mean values between ethnic groups with all $p = 1.000$ except (a) White to Black ($p = 0.726$), (b) Asian to Black ($p = 0.625$), and (c) Hispanic to Black ($p = 0.940$). Table 5 recaps the spiritual intelligence descriptive statistics for each ethnicity. Based on the Bonferroni test results, the null hypothesis will be accepted and ethnicity will be eliminated as impacting spiritual intelligence.

Table 5. Spiritual Intelligence by Ethnicity Descriptive Statistics ($N = 198$)

Ethnicity	n	M	SD
Not indicated	3	46.67	20.01
White	153	51.79	16.13
Asian	15	48.53	19.94
Black	13	61.00	6.83
Hispanic	8	47.50	18.88
Other	6	53.83	9.62

Note. $M = 51.96$, $SD = 16.08$.

Analysis of RQ3 hypothesis. Since religiosity and/or spirituality are key components of the subscales that comprise the spiritual intelligence, Research Question 3 explores the effect of religious affiliation and/or spiritual practices on spiritual intelligence level as follows.

RQ3: Are religious affiliation and/or level of religious or spiritual activity related to a person's spiritual intelligence level?

H₀: Religion and/or religious/spiritual activity will not be correlated to a person's spiritual intelligence level.

H₁: Religion and/or religious/spiritual activity will be correlated to a person's spiritual intelligence level.

Data regarding the participants' religious affiliation were collected and analyzed using one-way ANOVA testing and Bonferroni's post hoc test. The Levene's test resulted in $p = 0.057$, which would indicate acceptance of the null hypothesis based on the

assumption of normally distributed data. A Kolmogorov–Smirnov test ($p = 0.000$) indicates non-normally distributed data, which indicates use of Bonferroni’s post hoc test as the ANOVA ($p = 0.057$) supports the assumption of equal variances in SI means (Mirabella, 2008). Bonferroni’s test demonstrated a significant mean difference between (a) Catholic and Universal Unitarian ($MD = 9.220, p = 0.016$), (b) Christian and Universal Unitarian ($MD = 8.121, p = 0.000$), and (c) those who indicated no affiliation and Universal Unitarian ($MD = 10.879, p = 0.004$). The mean and standard deviation scores for each religious affiliation are presented in Table 6. Based on the Bonferroni test results, the null hypothesis will be rejected. The alternative hypothesis will be accepted and religious affiliation will be considered a factor affecting spiritual intelligence.

Table 6. Spiritual Intelligence by Religious Affiliation Descriptive Statistics ($N = 198$)

Religious affiliation	n	M	SD
Atheist/agnostic	2	57.00	15.56
Buddhist	4	48.25	25.20
Catholic	41	50.78	15.60
Christian	91	51.88	16.68
Hindu	2	57.00	43.84
Jewish	6	52.67	9.93
Spiritualist	3	63.00	13.75
Unitarian Universalist	2	60.00	0.00
Other	14	58.43	15.79
None	33	49.12	14.16

Note. $M = 51.96, SD = 16.08$.

Additional data were collected to see if spiritual practices affected spiritual intelligence scores. 121 of the 198 study participants participated in a form of spiritual practice such as contemplative prayer, meditation, yoga, tai chi, and so forth. The mean spiritual intelligence score for this group was $M = 53.94$, $SD = 14.99$ versus a mean score of $M = 48.84$, $SD = 17.30$ for the 77 who did not participate in a form of spiritual practice. Table 7 provides a view of practices indicated by religious affiliation. Table 8 provides the mean spiritual intelligence score by spiritual practice indicated. Levene's test ($p = 0.111$) supports acceptance of the null hypothesis and eliminates spiritual practice participation as a factor in spiritual intelligence level.

Table 7. Spiritual Practice by Religious Affiliation ($N = 198$)

Religious affiliation	Contemplative prayer	Church attendance	Meditation	Yoga/tai chi	Bible reading/study	Nature	None
Atheist/agnostic	0	0	0	0	0	0	2
Buddhist	0	1	0	0	0	0	3
Catholic	11	19	6	2	0	0	16
Christian	34	61	16	10	4	1	20
Hindu	1	0	0	0	0	0	1
Jewish	0	2	0	0	0	0	4
Spiritualist	2	1	2	0	0	0	1
Unitarian Universalist	1	0	1	0	0	0	0
Other	5	6	5	2	3	0	4
None	2	1	3	4	0	0	26

Note. Some participants indicated more than one practice.

Table 8. Spiritual Intelligence Mean Scores by Spiritual Practice ($N = 198$)

Spiritual practice	<i>n</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
Contemplative prayer	56	58.21	14.72	1.97
Church attendance/observation of religious traditions	91	53.48	14.82	1.55
Meditation	33	60.82	11.64	2.03
Yoga or tai chi	18	53.56	16.37	3.86
Bible reading and/or study	7	50.14	7.73	2.92
Connection through nature	1	44.00	0.00	0.00
None	78	48.84	17.30	1.97

Note. Some participants indicated more than one practice.

Analysis of RQ4 hypothesis. The research question and hypothesis are

RQ4: Can the level of an individual's spiritual intelligence be tied to the stages of moral development through the use of the Perceived Leader Integrity Scale (PLIS)?

H₀: No relationship will be found between moral development and the level of an individual's spiritual intelligence.

H₁: A relationship will be found between moral development and the level of an individual's spiritual intelligence.

Using the ethics ranking based on total ethics score as shown in Table 3 and the spiritual intelligence study scores for each participant, a Pearson's correlation test ($p = 0.012$) and a Spearman's rho ($p = 0.024$) was performed between ethics score and spiritual intelligence score. Since both of the resulting values were $p < 0.05$, it can be

inferred that spiritual intelligence level and ethical level are correlated causing this researcher to reject the null hypothesis and accept the alternative hypothesis.

This chapter had as its focus the reporting of the statistical data around the research questions and resulting hypotheses. Chapter 5, which follows, discusses the conclusions and recommendations discerned from the literature and data.

CHAPTER 5. CONCLUSIONS AND RECOMMENDATIONS

The observations and correlations presented in this chapter are presented in order to build a case to persuade the reader as to the applicability and significance of the research findings presented. Further it is intended to construct recommendations for further tools and research that could increase the knowledge base around spiritual intelligence and its use as a tool.

Summary and Discussion of Results

Because of the globalization of the workplace, the changing demographics of the work force, and economic pressures, 21st-century leaders are facing scrutiny from organizational stakeholders on all levels. The demands of the various factions of stakeholders are creating a leadership climate where spiritual leadership is overcoming the bureaucratic approach of the 20th century (Paulison, 2002).

Spiritual leadership is about not only a leader's ethics and values but about his ability to imbue the organizational culture with respect, integrity, and balance that enriches employees as well as the organization (Wolf, 2004). The concept of spiritual intelligence has been proposed and is in its infancy. If a link between spiritual intelligence and moral development can be validated, it could prove to be a business tool that could help in leader identification. For organizational stakeholders, the ability to

measure a leader's ethical values on multiple levels would be a strong tool that could prevent further scandals such as those that took place over the last 10 years (Ethics Resource Center, 2007). For employees of the organization who are seeking to find a real balance between work and life, it provides a leader with a high ethical level that empowers employees and demonstrates care and concern through putting the needs of others before his or her own personal needs thereby reinforcing an environment of respect, ethics, values and integrity (Kanungo & Mendonca, 1996; Kohlberg, 1981; Wolf, 2004). For the educational community, it is a challenge to provide leadership curriculum that provides a broader range of tools for the use of leaders (Scheele & Warm, 2010) that will enable them to "build an environment of respect, ethics, values and integrity" (Wolf, 2004, p. 23).

Seminal literature around moral development theories and spiritual development theories were reviewed and used to form a foundation to support the relationship between spiritual intelligence and moral development (see Figure 2). Three existing measurement instruments for spiritual intelligence, which is in its infancy stages, were located and evaluated. The SISRI was selected as the basis for the spiritual intelligence assessment portion of this study (King, 2008). The PLIS was selected as the measurement instrument for the moral development level (Craig & Gustafson, 1998). Based on a quantitative approach, these instruments along with demographic questions were merged into a survey instrument that was administered to a convenience sample of 200 participants. The survey was administered via Zoomerang to a study population ages 21 plus.

The research conducted verified the ability of the SISRI-24 to provide reliable data as a measurement instrument for spiritual intelligence. Correlations to the

confirmatory factor results conducted on the instrument yielded a Pearson's value ($p = 0.791$) that is considered strong. While theoretically this is a benefit to the instrument and fulfills Research Question 1 within the context of this study, from a practical standpoint, the acceptance of this instrument and its underlying constructs will only be proven through additional research usage, evaluation, and time. Since only three measurement instruments could be located due to the infancy of spiritual intelligence, the argument for validity and acceptance of the SISRI-24 instrument is increased.

Research Question 2 in this study focused on the influence of the demographic variables on spiritual intelligence levels. Spiritual intelligence level was not found to be affected by age, gender, nor education level. The findings on age and sex were inconsistent with prior research results where they were found to be factors (Amram & Dryer, 2008; King, 2008). As the prior studies were mainly college students versus this study's population of employed workers at all organizational levels, this is definitely an area that would open itself to further investigation. Education was consistent with previous literature. Ethnicity data when viewed from a parametric lens appeared to be a factor. Further evaluation based on nonparametric testing due to non-normal data eliminated this as a factor. With 77% (153 of 198 participants) being of White ethnic origin, the theoretical argument could be made that based on the population this finding is acceptable. From a practical level, additional research to understand the cultural differences that could influence spiritual intelligence is clearly indicated.

Religious affiliation and spiritual practices was the focus of Research Question 3. Religious affiliation was found to be a factor with Catholic, Christian, Unitarian Universalist and those indicating none being highlighted by the Bonferroni test results.

Since intrinsic religiosity is tied to the constructs used to measure spiritual intelligence, this result would be anticipated from the literature and was confirmed by Nasel's (2004) spiritual intelligence study. Spiritual practices were eliminated as a factor based on the data outcome. This is in contradiction to the literature. This is an area that definitely needs further research and clarification.

Spiritual intelligence level and stage of moral development are correlated. From a practical standpoint, this demonstrates that leaders with high moral character will also be leaders who possess a high level of spiritual intelligence. From a theoretical standpoint, this was an exploratory approach that has confirmed the interrelations outlined in the literature between spiritual development and moral development.

This study has added to the limited knowledge base around spiritual intelligence measurement outcomes. In addition, it has added validity and data to the knowledge base to support the relationship between spiritual development and moral development.

Conclusions

This descriptive study used existing survey instruments with a quantitative approach to gather and analyze data regarding ethical development level and spiritual intelligence level. Dependent variables collected included ethical level score and spiritual intelligence score based on responses to Likert-scale questions. Independent variables in the form of demographic data comprised of gender, age, ethnicity, education level, religious affiliation, and spiritual practices were also gathered. The primary focus of the study was on spiritual intelligence level and its ability to be used as an indicator of ethical development level.

Ethical Level

The ethical-level data derived from the survey results corresponds to Kohlberg's levels of preconventional (corresponding to low ethics or unethical), conventional (corresponding to moderately ethical) and postconventional (corresponding to highly ethical). It could be further argued that within the survey ranges, one could represent Kohlberg's stages, based on range midpoints, as noted in Table 9.

Table 9. PLIS Scoring Ranges Compared to Kohlberg's Stages

Kohlberg level	Kohlberg stage	PLIS level	PLIS range
Preconventional	Stage 1	Low ethics or unethical	96.0 to 124.0
Preconventional	Stage 2	Low ethics or unethical	67.0 to 96.0
Conventional	Stage 3	Moderately ethical	52.0 to 66.0
Conventional	Stage 4	Moderately ethical	36.0 to 51.0
Postconventional	Stage 5	Highly ethical	32.5 to 35.0
Postconventional	Stage 6	Highly ethical	31.0 to 32.5

While Kohlberg's research showed the majority of people's moral development stops at either Stage 3 or Stage 4 (Kohlberg, 1973), survey data demonstrated this to be true for only 35% (71) of the participants, with 52% (103) being postconventional and the remaining 13% (24) falling into the preconventional level. It could be inferred that this higher ethical level portrayed by the survey population would be expected based on the argument that moral maturity increases as people are attracted to the next stage of moral reasoning to help understand and resolve the dilemmas they face (Galbraith & Jones,

1976). This inference is further supported by the spiritual intelligence frame proposed by Nasel (2004) as a “search for meaning and purpose in life, and work towards personally meaningful goals” (p. 77), and is supported by Young (2002) in his review of CEO problem-solving abilities and the morality of those decisions. Figure 2 clearly demonstrates that the farther a leader is on his or her spiritual path, the more morally altruistic his or her decision making (Benefiel, 2005; Gilligan, 2003; Hawkins, 1995; Wilber, 2000; Zohar & Marshall, 2000).

Since 61% (121) of the survey participants participate in a spiritual practice, this suggests that practicing spirituality leads to a moral maturity through their contemplation of the ultimate meaning and the preciousness and sacredness of life (Amram, 2009). The survey participants participating in a spiritual practice, which could be characterized as meditation and/or concentration on higher spiritual truths, as described by Amram is supported by Eastern religious/spiritual precepts, transpersonal development data, and prior studies confirming that higher spiritual attainment corresponds to higher ethical behavior (Goleman, 1988; McNaughton, 2003; Yogananda, 1995).

Spiritual Intelligence Level

Spiritual intelligence is a new construct that was proposed in 2000 and is still in its infancy. The measurement instrument selected for this research was a new instrument that was proved to be reliable when used by another researcher and lends further credence to the fact that spiritual intelligence can be measured (Amram, 2007; King, 2008).

Within the constructs of the research questions posed in this study, this researcher will first discuss the outcome of the influence of the independent variables collected. Age and gender (see analysis of H2 and H3) have been found in other studies to be a factor in

spiritual intelligence level although the results did not show the same indication (Amram & Dryer, 2008; King, 2008). With 77% of the survey participants falling into the Gen X or Y eras (which span 1965 to 2000), and it being known that these generations are searching to find meaning and fulfillment between their personal and professional life personas (Bowman, 2000; Kouzes & Posner, 2002; Zemke & Raines, 2000; Zohar & Marshall, 2000), this could explain the study variation to prior research. The literature framing the concepts of spiritual intelligence, and past data on spiritual development, clearly indicate that those who are “moving from a lower to a higher level of consciousness” (Hawkins, 2008, p. 293) support higher spiritual intelligence scores (Cavanaugh & Bandsuch, 2002; Huitt, 2007; Pauchant, 2005; Wilber, 2000).

Educational level (see analysis of H4) was shown by Amram and Dryer (2008) to be significant but this was based on MBA students being a separate grouping from other participants and may have been applicable only to this study. Neither Nasel (2004) nor King (2008) found educational level as an influencing factor.

The null hypothesis being true for ethnicity was supported by the research outcomes (see analysis of H5) as well as the literature reviewed, which indicated no spiritual intelligence level differences based on ethnicity. Nasel (2004) did warn that spiritual intelligence is affected by upbringing but there was no statistical basis of proof to demonstrate whether this had cultural aspects or religious aspects.

With regard to religious affiliation, the result contributed to rejection of the null hypothesis (see analysis of RQ3 hypothesis). This result is inconsistent with prior studies, except for Nasel (2004), who based his study on religious affiliation. The literature around spiritual intelligence and spiritual/religious development is the foundation on

which the traits encompassed in the measurement instrument were based. This would support the argument that based on the measurement instrument, religious affiliation should not be a contributing factor. King (2008), in evaluating the measurement instrument factors, performed confirmatory factor analysis against psychological measures, which displayed that the instrument was related to intrinsic religiosity. The argument could be made that from a consistency view, the components of spiritual intelligence are definitely related to religiosity.

Spiritual practice ($n = 121$ or 61%) also resulted in acceptance of the null hypothesis that spiritual practice was not a factor in level of spiritual intelligence. This is in conflict with the literature, which has shown evidence that meditation, contemplative prayer, and other spiritual practices contribute to a higher level of spirituality and ethics (Bharati, n.d.; Louchakova, 2005; McNaughton, 2003; Mind & Life Institute, 2007; Yogananda, 1995). Based on the considerable differences in the mean scores (see Table 9) of those who did not participate in a spiritual practice ($M = 48.84$) versus those that participated in contemplative prayer ($M = 58.21$) or meditation ($M = 60.82$), the argument could be made that the data collected are consistent with the existing literature.

Relationship of Spiritual Intelligence and Ethical Level

Spiritual intelligence level and ethical development level are related. As demonstrated by Figures 2 and 3, the major ethical and spiritual authorities support this finding as well as studies centered on workplace virtue and character (Cavanaugh & Bandsuch, 2002; Gilligan, 2003; Hawkins, 1995; Kohlberg, 1981; Saint Olaf College, 2003–2006; Wilber, 2000).

In each of the constructs of spiritual intelligence, critical existential thinking, personal meaning production, transcendental awareness, and conscious state expansion, one finds a recurring theme. This theme encompasses the individual's desire to reach a state of awareness from which he can define his personal meaning and values in relationship to a higher power, his fellow humans, and his earthly environment (Amram, 2009; Emmons, 2000a; Goleman, 1988; King, 2008; Vaughn, 2002). Since a leader bases his decisions on his own individual values, conflict can result when clarity is absent (Forsyth, 1980). The interrelation between a person's spiritual development, as measured by the construct of spiritual intelligence, can be clearly substantiated by the seminal constructs around ethical development as demonstrated in Figure 2. Adding to this model, Scheele and Warm (2010) increased the integration of the construct of spiritual intelligence to other complementary and convergent models. Incorporating brain physiology, Scharmer's theory U, holistic intelligence based on the Native American medicine wheel and linking them to the good society model, Wilber's integral theory of four quadrants, Grint's four paradoxes, and Campbell's hero's journey, they argue that through a leader's personal transformational process that produces clarity as to the values and purpose, they raise the values of those around them (Scheele & Warm, 2010).

While Fry (2003, 2008) proposed a causal model of spiritual leadership that supports spiritual intelligence, the links of such a leadership modality have not been validated as to impact on the "bottom line thinking" (Scheele & Warm, 2010, p. 2) that drives the current lens of leadership. Carroll (2000) advocated that this could become a competitive advantage when an organization views it within the context of corporate social responsibility and stakeholder impact. Organizational impact based on not only a

leader's words but his actions have been clearly demonstrated as affecting employee job satisfaction and firm performance (Davis & Rothstein, 2006). Northouse (2004) and Ciulla (2009) contended that leader–follower exchange theory, which has as its basis interactions on the physical, verbal, emotional, and action levels, is directly tied to Gilligan's (2003) ethics of care model and can thus be correlated to Kohlberg's stages of moral development theories.

Through the preceding discussions on the ethical level and spiritual intelligence level outcomes of this research, this researcher has argued the construct designs, related interactions and constructed a case that is clearly in support of the correlative outcome of this exploratory study. But as with any construct in its infancy within the scientific community, one must have not only a supportable argument but a preponderance of data to support that argument. As demonstrated by the varying opinions and the cross-disciplinary aspect of this construct (business leadership, psychology, sociology, etc.), this researcher added additional complexity to the acceptance of an infant construct that can only be resolved with additional research, data collection, and time.

Recommendations

In any exploratory study, the disparities in the data collected and the basis literature supporting the study presents areas of opportunity to expand the knowledge base around the study data constructs. Recommendations based on review of the study data are

- The relationship between age/generational group (Gen X, Gen Y, etc.) and spiritual intelligence/ethical development levels. Focus should be on whether

their values and attitudes, particularly about work-related topics, can be correlated to the higher mean scores. The Boomers (approximate ages of 40–60) are characterized as self-absorbed with a focus of live to work, which, based on the literature, would result in lower ethical and spiritual intelligence scores. The Gen Xers (approximate ages 20–40) have a focus of work to live with balance being a must. Having experienced the ethical scandals and downsizing over the last 2 decades, their different view would substantiate the higher spiritual intelligence/ethical development levels based on this researcher's understanding of the literature.

- Further study regarding ethnicity and spiritual intelligence level could provide information to better support a globally acceptable measurement instrument.
- Sixty-seven percent of the study was Christian (Catholic/Protestant Christian), yet there were indications that religious affiliation impacted spiritual intelligence level. Focusing on gathering additional data by religious affiliation could provide missing learning in this area. It is this researchers opinion based on the spiritual intelligence construct that religious affiliation, if separated from belief in a higher power and the sacredness and connection of life as a whole, will prove to have no influence on spiritual intelligence level.
- The data around spiritual practices collected for this study are in conflict with the existing literature. While spiritual intelligence mean scores by spiritual practice appears to contradict the statistical finding that spiritual practice is not a factor in level of spiritual intelligence, this researcher believes that this is an inconsistency within the study. It is possible that this could have been

caused by a misunderstanding as to the meaning of the spiritual practices by survey participants. Further research in this area to gain additional knowledge and insight is indicated.

Because of the exploratory nature of this study, the infancy of the construct of spiritual intelligence, and the limitations imposed by sample size, the following suggestions are being offered for further future research:

- Further studies to build additional acceptance of the SISRI–24 measurement instrument and its reliability.
- Expanded studies to test the correlation of spiritual intelligence using the SISRI–24 and other instruments that measure spiritual intelligence level to substantiate the validity of the correlation between spiritual intelligence and ethical level at a broader and more holistic level.
- Further research regarding the impact of the independent variables of age, sex, and ethnicity to help understand the disparities identified between the literature and this study outcome.
- Performing similar research using the same parameters on a broader population base.

Summation

The emerging model of spiritual leadership, its constructs, and its impacts on the organization and its stakeholders and the future of leadership education are pivotal to the success and performance of the upcoming groups of organizational employees who want more than just a job. Leading such an organization will be a challenge and a paradigm

shift in the leadership models of the future. The leader of the future will need to possess a high level of spiritual intelligence and ethics to successfully lead the organization forward and engender the respect of those he leads. Future leaders will have the responsibility of leading through the transformation that will result in the business organization of the future.

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**APPENDIX A. SPIRITUAL INTELLIGENCE SELF-REPORT INVENTORY
(SISRI-24) SCALE, SYNOPSIS OF STATISTICAL RESULTS**

From *Rethinking Claims of Spiritual Intelligence: A Definition, Model, and Measure*, by D. B. King, 2008, Master’s thesis, Trent University, Peterborough, Ontario, Canada. Reprinted with permission.

The following statements are designed to measure various behaviors, thought processes, and mental characteristics. Read each statement carefully and choose which **one** of the five possible responses best reflects you by circling the corresponding number. If you are not sure, or if a statement does not seem to apply to you, choose the answer that seems the best. Please answer honestly and make responses based on how you actually are rather than how you would like to be. The five possible responses are:

**0 – Not at all true of me | 1 – Not very true of me | 2 – Somewhat true of me |
3 – Very true of me | 4 – Completely true of me**

For each item, circle the one response that most accurately describes you.

- | | | | | | |
|--|---|---|---|---|---|
| 1. I have often questioned or pondered the nature of reality. | 0 | 1 | 2 | 3 | 4 |
| 2. I recognize aspects of myself that are deeper than my physical body. | 0 | 1 | 2 | 3 | 4 |
| 3. I have spent time contemplating the purpose or reason for my existence. | 0 | 1 | 2 | 3 | 4 |
| 4. I am able to enter higher states of consciousness or awareness. | 0 | 1 | 2 | 3 | 4 |
| 5. I am able to deeply contemplate what happens after death. | 0 | 1 | 2 | 3 | 4 |
| 6. It is difficult for me to sense anything other than the physical and material. | 0 | 1 | 2 | 3 | 4 |
| 7. My ability to find meaning and purpose in life helps me adapt to stressful situations. | 0 | 1 | 2 | 3 | 4 |
| 8. I can control when I enter higher states of consciousness or awareness. | 0 | 1 | 2 | 3 | 4 |
| 9. I have developed my own theories about such things as life, death, reality, and existence. | 0 | 1 | 2 | 3 | 4 |
| 10. I am aware of a deeper connection between myself and other people. | 0 | 1 | 2 | 3 | 4 |
| 11. I am able to define a purpose or reason for my life. | 0 | 1 | 2 | 3 | 4 |
| 12. I am able to move freely between levels of consciousness or awareness (from waking consciousness which is comprised of our perceptions, memories, and thoughts to the superconscious state | 0 | 1 | 2 | 3 | 4 |

(also called the universal subconscious mind or the collective unconscious which is the collective wisdom and knowledge of all the ages and is available to everyone (Jung, 1933).

13. I frequently contemplate the meaning of events in my life.	0	1	2	3	4
14. I define myself by my deeper, nonphysical self.	0	1	2	3	4
15. When I experience a failure, I am still able to find meaning in it.	0	1	2	3	4
16. I often see issues and choices more clearly while in higher states of consciousness/awareness.	0	1	2	3	4
17. I have often contemplated the relationship between human beings and the rest of the universe.	0	1	2	3	4
18. I am highly aware of the nonmaterial aspects of life.	0	1	2	3	4
19. I am able to make decisions according to my purpose in life.	0	1	2	3	4
20. I recognize qualities in people which are more meaningful than their body, personality, or emotions.	0	1	2	3	4
21. I have deeply contemplated whether or not there is some greater power or force (e.g., god, goddess, divine being, higher energy, etc.).	0	1	2	3	4
22. Recognizing the nonmaterial aspects of life helps me feel centered.	0	1	2	3	4
23. I am able to find meaning and purpose in my everyday experiences.	0	1	2	3	4
24. I have developed my own techniques for entering higher states of consciousness or awareness.	0	1	2	3	4
25. I have answered all the questions truthfully and to the best of my ability.	0	1	2	3	4

SISRI–24 Scoring Procedures

Total Spiritual Intelligence Score:

Sum all item responses or subscale scores (after accounting for *reverse-coded item).

24 items in total; Range: 0–96

4 Factors/Subscales:

I. Critical Existential Thinking (CET):

Sum items 1, 3, 5, 9, 13, 17, and 21.

7 items in total; range: 0–2

II. Personal Meaning Production (PMP):

Sum items 7, 11, 15, 19, and 23.

5 items in total; range: 0–20

III. Transcendental Awareness (TA):

Sum items 2, 6*, 10, 14, 18, 20, and 22.

7 items in total; range: 0–28

IV. Conscious State Expansion (CSE):

Sum items 4, 8, 12, 16, and 24.

5 items in total; range: 0–20

*Reverse Coding: Item # 6 (response must be reversed prior to summing scores).

Higher scores represent higher levels of spiritual intelligence and/or each capacity.

**APPENDIX B. SPIRITUAL INTELLIGENCE SELF-REPORT INVENTORY
SYNOPSIS OF STATISTICAL RESULTS FROM SURVEY CREATION
AND PILOT**

From *Rethinking Claims of Spiritual Intelligence: A Definition, Model, and Measure*, by D. B. King, 2008, Master's thesis, Trent University, Peterborough, Ontario, Canada. Reprinted with permission.

Preliminary Statistical Properties: Study 1 (Exploratory Factor Analysis)

Based on a sample of 619 university undergraduate students (488 females, 131 males) with a mean age of 22.53 years (SD = 5.5; age range = 17 to 59 years).

Properties of the Original Item Pool (42 Items)

- Cronbach's Alpha = .95
- Average Inter-Item Correlation = .36
- Split-Half Reliability = .94
- Multivariate Skewness = -.14
- Multivariate Kurtosis = .01

Exploratory Factor Analysis (Principle Components w/ Varimax Normalized rotation)

- Revealed 4-factor structure; all significant loadings over .35
- F1 = conscious state expansion (CSE), eigenvalue: 14.87
- F2 = critical existential thinking (CET), eigenvalue: 3.01
- F3 = personal meaning production (PMP), eigenvalue: 2.25
- F4 = transcendental awareness (TA), eigenvalue: 1.60

Properties of Subscales

1. CET: Cronbach's alpha = .88, average inter-item correlation = .41
2. PMP: Cronbach's alpha = .87, average inter-item correlation = .47
3. TA: Cronbach's alpha = .89, average inter-item correlation = .47
4. CSE: Cronbach's alpha = .94, average inter-item correlation = .59

Inter-Subscale Correlations (* $p < .05$)

<u>SCALE</u>	<u>CET</u>	<u>PMP</u>	<u>TA</u>	<u>CSE</u>
PMP	.55*	1.0	.67*	.59*
TA	.62*	.67*	1.0	.63*
CSE	.52*	.59*	.63*	1.0

Preliminary Statistical Properties: Study 2 (Confirmatory Factor Analysis & Validation)

Based on a sample of 305 university undergraduate students (231 females, 74 males) with a mean age of 25.56 years (SD = 10.93; age range = 18 to 81 years).

I. Confirmatory Factor Analysis (via Principle Components w/ Varimax Normalized rotation)

- Revealed 4-factor structure matching Study 1; all significant loadings over .35
- Supports 4-factor structure

II. First Confirmatory Factor Analysis (via Structural Equation Modelling) – 42 items

- 4-factor model revealed poor fit to the data for all 42 items; however, 4-factor model displayed best fit to data compared to alternate models (e.g., 2-factor, 3-factor, and 5-factor models)
- Method of Parameter Estimation: Maximum Likelihood
- Discrepancy Function = 6.96
- $\chi^2 = 2108.72$ (df = 813); χ^2 /df ratio = 2.59
- SRMR = .067; RMSEA = .080 (Confidence Interval = .077 – .084)
- GFI = .73; AGFI = .70; CFI = .83
- Cronbach's Alpha = .958; Average Inter-Item Correlation = .36

NOTE: Based on redundancy, high residual correlations, and cross-loadings, 18 items were removed from the SISRI, leaving a final pool of 24 items.

III. Second Confirmatory Factor Analysis (via Structural Equation Modeling) – 24 items

- 4-factor model revealed moderate–adequate fit to the data for the reduced set of 24 items; performed significantly better than the 42-item pool and alternate models
- Method of Parameter Estimation: Maximum Likelihood
- Discrepancy Function = 1.53
- $\chi^2 = 464.68$ (df = 246); χ^2 /df ratio = 1.89
- SRMR = .056; RMSEA = .055 (Confidence Interval = .047 – .062)
- GFI = .89; AGFI = .86; CFI = .93
- See *Figure 1* for the CFA model following modifications

Properties of the Final 24-Item Pool

- Cronbach's Alpha = .920 (CET = .78; PMP = .78; TA = .87; CSE = .91)
- Standardized Alpha = .922 (CET = .78; PMP = .78; TA = .87; CSE = .91)
- Average Inter-Item Correlation = .34 (CET = .34; PMP = .42; TA = .49; CSE = .69)
- Split-Half Reliability = .91
- Test–Retest Reliability (n = 25; 4 months elapsed) = .89 (for Total SI Score)
- Multivariate Skewness = .02
- Multivariate Kurtosis = –.23

Validation of the SISRI-24

The following psychological measures were employed in order to validate and investigate the SISRI-30:

- Meaning in Life Questionnaire (MLQ; Steger et al., 2006)
- Metapersonal Self-Construal Scale (MSC; DeCicco & Stroink, 2003)
- Mysticism Scale – Research Form D (MSD; Hood, 1975)
- Age Universal Intrinsic–Extrinsic Religiosity Scale (AUIE; Gorsuch & Venable, 1983)
- Satisfaction with Life Scale (SLS; Diener et al., 1985)
- Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984) – *social desirability*
- Emotional Intelligence Scale (EIS; Schutte et al., 1998)
- Multidimensional Aptitude Battery–II (MAB–II ; Jackson, 1998) – *IQ*

Conclusions: Construct validity, divergent validity, and convergent validity were well supported overall.

- SI was more significantly related to intrinsic religiosity than extrinsic religiosity.
- SI displayed a barely significant relationship with social desirability, suggesting that this does not play a large role in responding to the SISRI.
- PMP was highly correlated with Presence of Meaning, but not correlated with Search for Meaning. On the other hand, CET was more highly correlated with Search for Meaning.
- No significant correlations were observed between IQ and SI, ruling out IQ as a confounding variable.
- SI highly correlated with MSC and MSD.
- Age was mildly related to SI and subscales, lending potential support to development of SI over lifespan.

Inter-Subscale Correlations (* $p < .05$)

<u>SCALE</u>	<u>CET</u>	<u>PMP</u>	<u>TA</u>	<u>CSE</u>
PMP	.42*	1.0	.59*	.52*
TA	.61*	.59*	1.0	.56*
CSE	.43*	.52*	.56*	1.0

Table 1 All Correlations with the SISRI Total and Subscale Scores (based on final 24-item pool)

Variable/Measure	SI	CET	PMP	TA	CSE
Age (n = 304)	.28***	.11*	.25***	.28***	.26***

MLQ: Search for Meaning (n = 271)	.21**	.39***	.05	.15*	.03
MLQ: Presence of Meaning (n = 271)	.44***	.10	.65**	.38***	.38***
MSC: Metapersonal Self-Construal (n = 270)	.67**	.44***	.60**	.63**	.48***
MSD: Total Mysticism/ Mystical Experiences (n = 270)	.63**	.40***	.44***	.59**	.57**
MSD: Extrovertive Mysticism (n = 270)	.55**	.36***	.34***	.52**	.53**
MSD: Introvertive Mysticism (n = 270)	.58**	.39***	.39***	.52**	.53**
MSD: Religious Interpretation (n = 270)	.58**	.33***	.48***	.56**	.49***
AUIE: Intrinsic Religiosity (n = 265)	.48***	.30***	.43***	.45***	.37***
AUIE: Extrinsic Religiosity (n = 265)	.21**	.19**	.14*	.20**	.13*
SLS: Satisfaction with Life (n = 268)	.20**	.01	.40***	.21**	.10
BIDR: Self-Deception (n = 236)	.16*	-.04	.27***	.20**	.15*
BIDR: Impression Management (n = 236)	.15*	.01	.23***	.22**	.06
EIS: Emotional Intelligence (n = 293)	.43***	.27***	.48***	.39***	.30***
MAB-II: IQ (n = 35)	.07	.09	-.04	.28	-.13
MAB-II: Verbal IQ (n = 35)	.22	.27	.07	.33	-.01
MAB-II: Performance IQ (n = 35)	-.00	-.05	-.05	.18	-.11

Note. SI = Total Spiritual Intelligence Score; CET = Critical Existential Thinking; PMP = Personal Meaning Production; TA = Transcendental Awareness; CSE = Conscious State Expansion.

* $p < .05$; ** $p < .01$; *** $p < .001$

APPENDIX C. PLIS RESPONSES BY SURVEY QUESTION

PLIS survey question	Resp 1	Resp 2	Resp 3	Resp 4
1. Would use my mistakes to attack me personally.	113	64	14	7
2. Always gets even.	114	67	12	5
3. Gives special favors to certain “pet” employees, but not to me.	114	56	21	7
4. Would lie to me.	118	48	24	8
5. Would risk me to protect himself/herself in work matters.	100	62	21	15
6. Deliberately fuels conflict among employees.	138	40	14	6
7. Is evil.	154	27	12	5
8. Would use my performance appraisal to criticize me as a person.	126	43	19	10
9. Has it in for me.	146	35	13	4
10. Would allow me to be blamed for his/her mistakes.	128	45	18	7
11. Would falsify records if it would help his/her work situation.	148	32	12	6
12. Lacks high morals.	136	40	12	10
13. Makes fun of my mistakes instead of coaching me as to how to do my job better.	136	42	15	5
14. Would deliberately exaggerate my mistakes to make me look bad when describing my performance to his/her superiors.	135	45	11	7
15. Is vindictive.	145	36	13	4
16. Would blame me for his/her own mistake.	139	40	12	7
17. Avoids coaching me because he/she wants me to fail.	149	31	11	7
18. Would treat me better if I belonged to a different ethnic group.	148	32	13	5

19. Would deliberately distort what I say.	140	45	9	4
20. Deliberately makes employees angry at each other.	151	35	8	4
21. Is a hypocrite?	133	41	16	8
22. Would limit my training opportunities to prevent me from advancing.	146	37	7	8
23. Would blackmail an employee if he/she thought he/she could get away with it.	155	30	9	4
24. Enjoys turning down my requests.	150	35	7	6
25. Would make trouble for me if I got on his/her bad side.	128	45	18	7
26. Would take credit for my ideas.	132	43	17	6
27. Would steal from the organization.	156	26	12	4
28. Would risk me to get back at someone else.	143	36	15	4
29. Would engage in sabotage against the organization.	158	24	12	4
30. Would fire people just because he/she doesn't like them if he/she could get away with it.	137	44	10	7
31. Would do things that violate organizational policy and then expect his/her subordinates to cover for him/her.	147	37	9	5

Note. $N = 198$. Response key: 1 = *not at all*, 2 = *somewhat*, 3 = *very much*, 4 = *exactly*.

APPENDIX D. SISRI–24 RESPONSES BY SURVEY QUESTION

SISRI–24 survey question	Resp 0	Resp 1	Resp 2	Resp 3	Resp 4
1. I have often questioned or pondered the nature of reality.	22	48	70	39	19
2. I recognize aspects of myself that are deeper than my physical body.	8	24	51	75	40
3. I have spent time contemplating the purpose or reason for my existence.	13	25	55	56	49
4. I am able to enter higher states of consciousness or awareness.	29	55	72	31	11
5. I am able to deeply contemplate what happens after death.	17	45	65	46	25
6. It is difficult for me to sense anything other than the physical and material.	52	24	49	60	13
7. My ability to find meaning and purpose in life helps me adapt to stressful situations.	9	24	66	66	33
8. I can control when I enter higher states of consciousness or awareness.	33	57	67	27	14
9. I have developed my own theories about such things as life, death, reality, and existence.	30	28	65	50	25
10. I am aware of a deeper connection between myself and other people.	15	33	65	61	24
11. I am able to define a purpose or reason for my life.	11	28	77	52	30
12. I am able to move freely between levels of consciousness or awareness (from waking consciousness which is comprised of our perceptions, memories, and thoughts to the superconscious state (also called the universal subconscious mind or the collective unconscious which is the collective wisdom and knowledge of all the ages and is available to everyone (Jung, 1933)).	48	61	50	26	13
13. I frequently contemplate the meaning of events in my life.	11	25	73	62	27
14. I define myself by my deeper, nonphysical self.	19	48	64	50	17

15. When I experience a failure, I am still able to find meaning in it.	11	23	72	59	33
16. I often see issues and choices more clearly while in higher states of consciousness/awareness.	27	50	69	38	14
17. I have often contemplated the relationship between human beings and the rest of the universe.	22	38	65	52	21
18. I am highly aware of the nonmaterial aspects of life.	12	25	62	63	36
19. I am able to make decisions according to my purpose in life.	6	22	78	60	32
20. I recognize qualities in people which are more meaningful than their body, personality, or emotions.	12	20	63	68	35
21. I have deeply contemplated whether or not there is some greater power or force (e.g., god, goddess, divine being, higher energy, etc.).	15	21	41	57	64
22. Recognizing the nonmaterial aspects of life helps me feel centered.	20	21	64	61	32
23. I am able to find meaning and purpose in my everyday experiences.	6	27	61	71	33
24. I have developed my own techniques for entering higher states of consciousness or awareness.	40	50	50	44	14

Note. $N = 198$. Response key: 0 = *not at all true of me*, 1 = *not very true of me*, 2 = *somewhat true of me*, 3 = *very true of me*, 4 = *completely true of me*.