



## Spiritual Experience: Scientific, Philosophical and Theological Implications

**John Calvin Chatlos**, Medical Director, Avatar Residential Detoxification Center, Ringwood, NJ, USA; Professor, Department of Psychiatry, Rutgers-Robert Wood Johnson Medical School, Piscataway, NJ, USA, [jcchat@optonline.net](mailto:jcchat@optonline.net)

---

A review of spiritual experience centered on a framework of spirituality developed by the author identifies implications for the disciplines of science, philosophy, and theology, presenting specific questions to be considered. A general introduction clarifies the terms and limits of the discussion and the focus of the requested commentary prepared for the Institute on Religion in an Age of Science Conference in June 2025. Scientific focus includes the dual process of cognition and its implications for medicine, psychology, psychiatry, neuroscience, anthropology and evolution, and the inclusion of "soul studies." Philosophical discussion highlights the values, Ground of Being, and universal moral values challenging the naturalistic fallacy of "is-ought." Theological implications focus on the Veil of Illusion, mystical experience, transcendence versus immanence, the causal joint problem, a specific Faith Process and a proposed field of applied spirituality, and the nature of soul. A common discussion for all disciplines is the role of ontology and a worldview that demands disciplinary agreement.

---



## Introduction

Recent research with psychedelic-assisted psychotherapy, empirical research within the psychological sciences, and research within psychiatric clinical interventions has dramatically expanded our knowledge of spiritual experience. Debates about the reality versus unreality of spiritual experience have now been settled on the side of reality. Debates about the source of spiritual experience being transcendent versus immanent—outside of versus within material experience—overwhelmingly fall on the side of immanence. (It must be noted that this is limited by competing interpretations of “transcendent.”) Debates about the value and practical usefulness of spiritual experience versus its “airy-fairy,” bordering on imaginary, and delusional nature resoundingly demonstrate it being practically valuable and even a key element in emotional healing and wellbeing. In fact, psychological constructs of the Five-Factor Model explanations of personality (extraversion, agreeableness, conscientiousness, neuroticism, openness to experience) now show that spiritual or numinous experience is proposed as a sixth, independent factor of personality determination and function (Piedmont 2001). Our subjective spiritual experience can no longer be treated as ephemeral, delusional, or unimportant to our worldview and must be as seriously explored as our objective outerspace. One could humorously propose creating a National Administration of Spiritual Applications.

This knowledge challenges our current worldviews in scientific, philosophical, and theological studies and requires dialogue and reconsiderations. The Institute on Religion in an Age of Science (IRAS) was the first organization to explore a specific “Framework of Spirituality” (FOS) that has impact on each of these areas, subsequently published in *Zygon: Journal of Religion and Science* (Chatlos 2021) with a follow-up of its potential impact on adolescent development (Chatlos 2022). To continue its progressive efforts, IRAS is planning a conference entitled “Spiritual Experience: A Scientific, Philosophical and Theological Retreat” for June 22–29, 2025 on Star Island, New Hampshire. Leaders in the disciplines of science and neuroscience, philosophy, and theology will be brought together to academically and informally explore these reconsiderations. This article aims to identify some of the areas for reconsideration at the boundaries of these disciplines. As such, it presents a specific perspective often without including objections or alternative perspectives. In this issue, experts have been asked to review this framework and begin a critical exploration to identify supporting and alternative perspectives. It is hoped that these commentaries and the upcoming conference will set the stage for continued exploration and multidisciplinary development by leaders in these areas of study and applications of spiritual experience.

Multidisciplinary discussions of spirituality require some definitions for clarity. The focus is on spiritual experience that may or may not be connected with religious experience. This discussion begins with descriptions used in

studies mostly related to the role of religion/spirituality in health, mental health, and addictions, derived from Harold Koenig (2015):

- Religion—the institutional aspect of beliefs and practices related to the sacred or divine as held by a community or social group.
- Spirituality—a personal dimension of human experience related to the transcendent, the sacred, or ultimate reality. Spirituality is closely related to values, meaning, and purpose in life. Spirituality may develop individually or in communities and traditions.
- Religiousness—systems of beliefs and practices related to the sacred or divine that may or may not be related to a specific religious tradition or social group.

For most purposes, this article makes an important distinction between spirituality, with expansion of these definitions, and specific personal spiritual experience. A good beginning for this distinction is a quote by William James ([1902] 1970):

Were one asked to characterize the life of religion in the broadest and most general terms possible, one might say that it consists of the belief that there is an *unseen order*, and that our supreme good lies in harmoniously adjusting ourselves thereto. This belief and this adjustment are the religious *attitude* in the soul.

James uses the word *religion* in the way this article uses the word *spiritual* and sets the stage by identifying the general idea of spirituality as an *attitude* (see following definition). This attitude is a harmonious adjustment to this unseen order for our supreme good. Historically, this includes:

- the nature of this unseen order (transcendent, divine, God, sacred, ultimate reality, something greater than ourselves, a higher power, etc.)
- a disposition to self, others, and the world (values, ethics, and morals)
- our role in the world (meaning and purpose)
- our expression (beliefs, practices) of this disposition

Specific spiritual experience is presented as a fundamental experience available to all persons and has become associated with religious traditions in various ways. Other terms in this dialogue relating to spiritual experience include *mystical*, *numinous*, and *intuition*, with their specific relationships and overlap to be part of the discussion.

- mystical—(ME. *mistik* < L. *mysticus* < Gr. *mystikos*, belonging to secret rites < *mystes*, one initiated) 1. any doctrine that asserts the possibility

of attaining knowledge of spiritual truths through intuition acquired by fixed meditation.

- numinous—(L. *numen*=nod, *ie* to the divine) 1. arousing spiritual or religious emotion; mysterious or awe-inspiring.
- intuition—the direct knowing or learning of something without the conscious use of reasoning. (Collins English Dictionary)

Discussions of spiritual experience can extend in many directions and include many phenomena. In this article, FOS refers to a non-ordinary experience that occurs with a sense of awakening or unveiling of a wider truth or reality with a noetic or revelatory quality, associated with mystical-type experiences, including a sense of direct connection, communion or merging with some non-ordinary source. It is often associated with states of peace, equanimity, aliveness, awe, sacredness, gratitude, reverence, unconditional love, bliss, and ecstasy. There may be strong physical sensations and enhanced senses that include hearing voices, having visions, and having unusual body and mental experiences. These may be triggered by stress, specific events such as near-death experiences, and practices such as meditation, prayer, dance, or other physical or mental activities (Corneille and Luka 2021). Finally, opening to this awareness can be mild or gradual (i.e., an insight) or dramatic (i.e., a conversion experience) (James [1902] 1970). At this time, this discussion and current evidence of the framework of spirituality does not include psychic or paranormal phenomena, telepathy, telekinesis, teleportation, time travel, alien abduction, ghosts, demons, or quantum entanglement phenomena. An open-mindedness must be maintained that future exploration may identify associations of the FOS with some of these phenomena.

The introduction and subsequent development of thought regarding the FOS has been incorporated in publications with open-access available to all readers. These articles are summarized here with a brief description of their focus for quick reference.

- **A framework of spirituality for the future of naturalism** (referred to as *naturalism* in text) (Chatlos 2021). Relates to naturalism and other religious and theological perspectives, cognitive behavioral theory (CBT), morality and ethics, and neuroscience, with speculation of an evolutionary foundation.
- **Adolescent identity formation versus spiritual transformation** (referred to as *adolescent identity*) (Chatlos 2022). Relates to adolescent development and spirituality.
- **Did Freud miss the discovery of our spiritual core?** (referred to as *Freud*) (Chatlos 2023a). Elaborates on the framework's relationship to psychoanalysis and psychotherapies.

- **Bullying, spirituality, anxiety, and depression** (referred to as *bullying*) (Chatlos 2023b). The relationships between spirituality and bullying, depression, and anxiety.
- **Is spirituality a master controller for human wellbeing?** (referred to as *master controller*) (Chatlos 2024). Spirituality is proposed as a master-controller for human well-being.
- **Pilot study of a CBT-based intervention for promoting spiritual experience among men in residential addiction treatment** (referred to as *pilot study*) (Chatlos et al. 2025). A pilot study to demonstrate the feasibility and preliminary efficacy of the theoretical foundation of the FOS.

Highlights are summarized in this article with references to guide discussion. This article outlines some possible implications of current knowledge about spiritual experience relevant to science, philosophy, and religion/theology. The commenters were asked to review the original article and subsequent expansion of the theory and provide commentary on these suggested aspects:

- the validity/non-validity of these claims within their area of expertise
- the importance/relevance of these claims in their area of expertise
- the usefulness of the vision presented and/or elements to be added to the vision as presented within their area of expertise
- the challenges of this perspective to their area of expertise
- their critique of this perspective, alternative explanations, or related information from other sources of knowledge.

### Framework of Spirituality Summary

FRAMEWORK OF SPIRITUALITY			
Domain of Being	Experience of Self-Worth	Expression of Dignity	Creative Forces/ Creative Openings
Think	Self-confidence	choice / Reason/wisdom	TRUTH
Feel	Self-esteem	empathy/Compassion/ caring (Justice)	LOVE
Do	Self-competence/ Self-efficacy	honesty/Courage/giving (Generosity)	FAITH

**Figure 1:** This illustrates the full FOS, beginning with the CBT elements of thoughts, feelings, and behaviors, including the distinction of self-worth and the expression of dignity that expands socially as wisdom, justice, and generosity. The expansion to the creative forces/creative openings occurs as the spiritual core ( $\Sigma$ ) is opened, associated with mystical-like experiences. The shaded areas indicate the functional “soul” experience.

The framework of spirituality (Figure 1) describes the manner in which spiritual experience is psychologically organized in human experience, beginning with a

CBT foundation of the perceptions of thoughts, feelings, and behaviors (details in *naturalism*). The integration of thoughts, feelings, and behaviors occurring simultaneously is what is meant by an *attitude*:

- attitude—a manner of acting, feeling, or thinking that shows one's disposition (*Collins English Dictionary*).

The keys to open awareness of spiritual experience are the integrated experiences of self-worth (self-confidence, self-esteem, self-competence/self-efficacy) and dignity (choices with reason, empathy, and compassion; courage beginning with honesty) operationalized as noted. Self-worth, including self-confidence, self-esteem, and self-competence/self-efficacy are each defined and measurable in psychological research. Research shows that there is a developmental progression from self-competence/efficacy (age 1–2 years), progressing to self-esteem (age 3–4 years) and self-confidence (age 5–8 years), and becoming integrated as self-worth (age 8–10 years) (Harter 1990). Operationalizing dignity results from its definition as “the quality of being worthy of esteem or honor,” identifying what it is we honor most about being human in the areas of thinking, feeling, and doing. Attitudes develop from the effect of life events on self-worth and dignity. Components of self-worth and dignity can either be empowered or injured by life events. With the processing of injury and the resultant empowering of a core self-worth and dignity, a proposed spiritual core ( $\Sigma$ ) spontaneously opens with mystical-type experiences to a new level of mind function now available for conscious use. The creative forces/creative openings happen with its moral-truth core, love that is open-hearted and compassionate, and faith with a powerful courage is the functional “soul” experience. This soul experience is a real experiential entity that when injured is personally experienced as loss of faith. Just as damage to the experience of self-worth is experienced as shame and damage to the expression of dignity is experienced as guilt, damage to “soul-worth” is experienced as loss of faith (injury to faith) and associated with moral injury (injury to truth-force) (Bernstein 2015) and compassion fatigue (injury to love-force) (Meadors et al. 2010). Injury to the “soul” experience can be associated with resulting depression, anxiety, and hopelessness, with attempts to compensate leading to addiction and/or antisocial and self-defeating behaviors (*bullying*).

The proposed spiritual core is designated with the Greek symbol  $\Sigma$ . This is chosen to designate the “addition” of a new awareness that is unknown, yet to be defined, and has no historical or personal connotations with the words spiritual, mystical, or numinous.

The theoretical foundation of the Framework of Spirituality has been used in the development of a clinical application as CBT-STE (Cognitive Behavioral Therapy-Self-Transcendent Experience). This application has now been

demonstrated with replicability, feasibility, and preliminary efficacy in a pilot study (Chatlos et al. 2025).

In the following discussion of implications, it is recognized that science, philosophy, and theology have many overlapping areas of interest since the goal of each is to understand and explain reality from different perspectives. Inclusion of discussion in one discipline may have relevance to the others and should be considered as integratively and comprehensively as possible.

## **Scientific Implications**

Note: The following discussions of the implications of the current knowledge about spiritual experience include specific questions with no responses provided. These are suggested questions that may be addressed by the commentaries on this article in preparation for further discussion at the 2025 IRAS conference.

### ***Science and Medicine***

The FOS has implications for extensive areas of science, as it impacts fundamental understanding of human nature with applications at many levels, both individual personal and social. As this framework for understanding spiritual experience has been developed outside of any specific predecessors except CBT, Jean Piaget's (Piaget and Inhelder 1969) work on cognitive development, and Susan Harter's (1990) work on self-worth, there are wide-open opportunities for research. A major opportunity for science in general is to research, understand, and integrate this framework and process with current scientific knowledge in the multiple areas of science in which it has impact—biology, chemistry, psychology, neuroscience, medicine, sociology, etc. The author's works noted at the beginning of this article have begun to connect the FOS with other sources. Some yet to be explored connections may include Lawrence Kohlberg (1981) with stages of moral development; James Fowler (1995) with stages of faith development; Ken Wilber (2017) with quadrants and stages of consciousness; Roy Bhaskar (Gorski 2013) connecting social science with spirituality; many transpersonal and positive psychology authors and researchers such as Abraham Maslow (1954) with stages towards self-actualization; and recently, a metamodern perspective (Dempsey 2023). A main difference between the FOS and several of these sources is that the FOS is not a stage theory, except for that of Piagetian cognitive development. As aspects of self-worth and dignity are inherent in early child development, further exploration can identify progression of these experiences as cognitive development proceeds. This author claims that stage theories other than that of cognitive development may be artifactual and describe stages of humanity's modern (twentieth century) uncovering of knowledge related to moral, faith, and consciousness awareness. As self-

worth, dignity, and the creative forces are culturally and developmentally empowered as fundamental human values, it is predicted that Piagetian cognitive development will be the dominating influence. It is anticipated that the socially related stages of moral, faith, self-actualization, and even consciousness development will need to be reassessed to determine if they are inherent stages in development or actually historical paradigms.

Also important are the many areas for application in mental health and general and psychosomatic medicine. This would include adapting or developing methods to evaluate this process, comparing this process to other interventions such as medications including psychedelics, technological interventions, and other psychological, social, and physical (embodiment) interventions.

This discussion highlights only some of the immediate implications from current knowledge and use of this process and is not intended to be exhaustive. It is intended to provide clarification for greater understanding of the process and opportunity for multi-disciplinary discussion to consider its extensive implications.

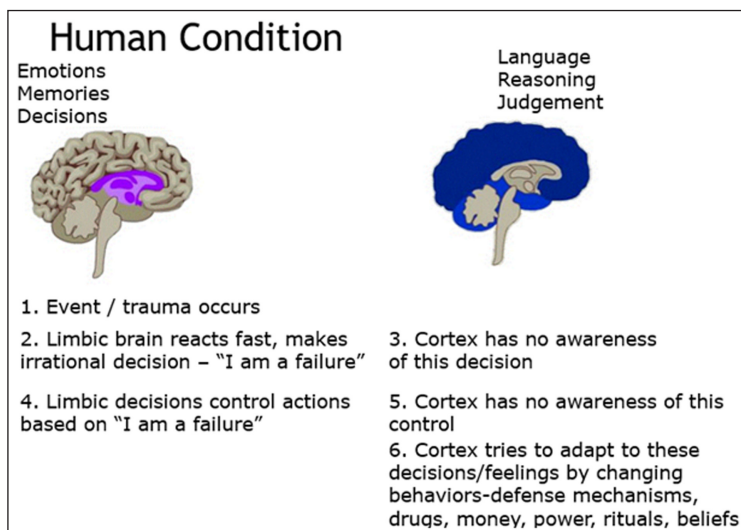
### ***Fundamental Theoretical Foundation***

A major premise of the FOS and its applications is the knowledge that humans have two main brain processors, a theory known as the “dual process of cognition” (Evans 2008). This was popularized in the book *Thinking Fast and Slow* by the Nobel Prize-winning economist Daniel Kahnemann (2011). He describes two modes of thought related to two brain functioning systems—a fast, automatic, emotional, not logical, and unconscious system and a slower, logical, conscious system—operating simultaneously though not always connected. The faster system may make decisions that are out of the awareness of the slower system, though the slower system has the capacity to become aware of and modulate the faster system. This has some yet-undetermined similarities to the Freudian conscious vs unconscious, the right-brain left-brain disconnection from the split brain experiments (Gazzaniga 2018), and a triune brain theory (MacLean 1982) related to human cortical vs mammalian-related limbic system and automatic reptilian-related survival functions.

Without being side-tracked into technical details and theoretical deliberations, the FOS uses this knowledge in its understanding and exploration of the spiritual core. It appears the unconscious, decision-making limbic system or the differential brain hemisphere functions are in some manner related to the spiritual core. This leads to an illustration of the human condition (Figure 2).

The FOS describes how specific use of the conscious part of experience is instrumental in exploring the unconscious part of experience to understand and utilize the nature of spiritual experience.





**Figure 2:** A trauma/event occurs with an irrational, possibly limbic brain decision, out of awareness of the cortex but directing behaviors that the cortex attempts to rationalize and adjust its behaviors to compensate.

It is acknowledged that many of the details and theoretical understandings of this foundation and process have yet to be developed. The purpose of this article is to provide a broad perspective to expose the disciplines of science, philosophy, and theology to the current knowledge of spiritual experience to begin planning further activities and priorities.

### **Psychology**

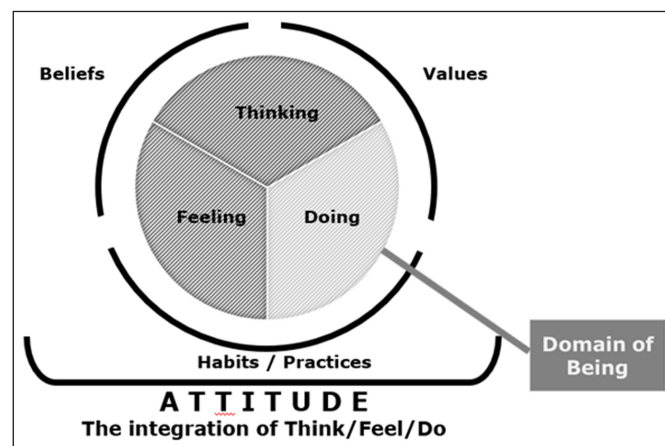
The word psychology is derived from the Greek word *psyche* for spirit or soul. The field of psychology, even before the word’s first English use by Steven Blankaart in 1694 stating that psychology “treats of the soul,” has struggled to define its subject matter and discipline. It has been described variously as the study of behaviors as in behaviorism, cognitions as in cognitive science, emotions, the conscious and unconscious as in Freudian psychoanalysis, individual mental processes or social processes, motivation, morality, values, and even true to its derivation, the soul or spirituality. There have been various “waves” extending from these studies, including humanistic and existential, transpersonal, and recent attempts at a unified protocol. These latest attempts exemplify what has been considered for many years a “crisis of disunity” (Yanchar and Hill 2003) within the field of psychology, referring to it having no unified domain for focus.

In an attempt to address this disunity, one of the main unifying perspectives that has been noted historically but skirted around in the field of psychology is that of “ontology,” the study of “Being” (capitalized to refer to the ontological experience of life). Within psychology, ontology is limited to the study of

human and animal existence. Ontology is generally considered a specific formal branch of philosophy described broadly as the study of “the nature of existence.” This broader perspective in philosophy goes beyond the nature of Being that includes human and animal life and is closely related to metaphysics. Metaphysics is another branch of philosophy having to do with the nature of all reality and may include concepts such as God, creation, and the nature of all matter itself, which impinges on another discipline that will be discussed later, theology.

A major implication within the field of psychology is how the scientifically grounded FOS provides an approach that can unite all three of these disciplines. This occurs as the foundation of the framework begins with the perceptions within psychology that are part of CBT—thoughts, feelings, and actions/behaviors. As presented in greater detail in *Freud*, the perceptions of thoughts, feelings, and behaviors—and the next level of psychological organization of “conceptions,” including beliefs, values, and habits/practices—determine much of the usual realm of human psychology. Most psychotherapies address these levels of experience, such as when CBT deals with irrational thoughts and beliefs, dysfunctional feelings and values, and self-defeating behaviors and habits. Religious and theological thought remains in this area of beliefs, values, and practices as part of a “religious identity” but does not bring a person into spiritual experience.

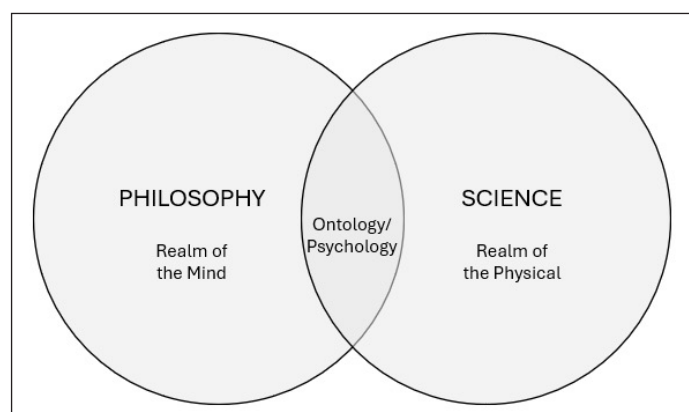
The next level of organization within the FOS carries understanding into the domain of “Being” with the integration of thoughts, feelings, and behaviors as an “attitude” (see Figure 3).



**Figure 3:** The integration of thinking, feeling, and doing (the domain of Being) opens awareness of the experience of Being, which is captured by the focus on “attitude.” See “Did Freud Miss the Discovery of Our Spiritual Core?” (Chatlos 2023a) for a description of the limitations of beliefs, values, and habits in discussions.

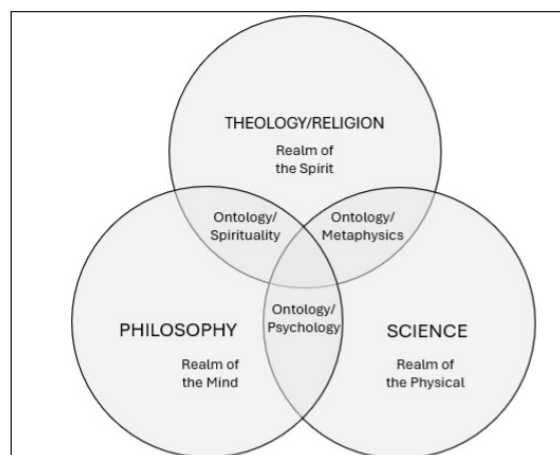
Integration of these perceptions as an attitude begins the exploration of the domain of Being, as Being includes all three simultaneously—sometimes also identified as mind, heart, and body with a full embodiment of the experience of Being. As noted in *Freud* and here, an attitude determines the total direction or disposition of a person—disposition to self, others, the world, past, future, etc. For example, a pessimistic attitude may include a thought of “life never works out,” a feeling of discouragement or hopelessness, and an act of withdrawal or avoidance.

Furthermore, attitudes develop as a result of injury or empowerment of the specific distinctions of Being identified as self-worth and dignity. Again, note that self-worth is a total Being integration of self-confidence, self-esteem, and self-competence—each of these defined and measured within the usual realm of psychology. Similarly, the distinction of dignity is the integration of making choices with reason, expressing compassion, and acting with courage. Working with distinctions of Being requires working within an ontological perspective beyond the usual limited psychological perspective of thoughts, feelings, and behaviors, or even beyond the theological and religious level of beliefs, values, and practices/habits. The FOS demonstrates how the philosophical branch of ontology should also be formally brought into the scientific field of psychology (see Figure 4). This framework demonstrates how to understand these experiences ontologically and how to apply these ontological experiences functionally and clinically with specific useful interventions for praxis and research and entrance to spiritual experience.



**Figure 4:** Overlap of science and philosophy in a common ontological area of interest.

The next step with the FOS demonstrates how ontology can further be extended to become part of the discipline of theology, including metaphysics (Figure 5) and the overlap of theology with philosophy, including an ontologically common interest in spirituality.



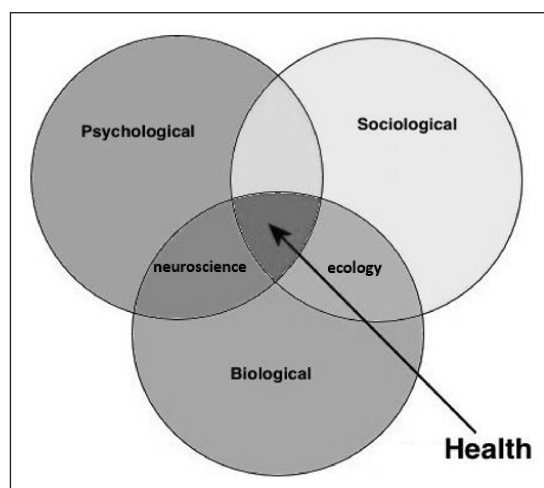
**Figure 5:** Overlap of philosophy and theology highlighting a common ontological interest in spirituality, and the overlap of science and theology with common ontological interests, including metaphysics.

The strengthening of a core self-worth and dignity by the processing of, and opening beyond, attitudes that developed from injury leads to spontaneous opening to the level of the creative forces/creative openings (**Figure 1**). As described in *Freud*, this opening occurs with mystical/numinous characteristics that may include a sense of connectedness, vitality, wholeness, noetics, peace/serenity, and meaning and purpose. These characteristics are a sign that our spiritual core that is usually out of conscious awareness has become opened as part of this spiritual experience or awakening. This core opens to the spiritual creative experiences of agape love, a moral truth-force core, and an indomitable faith, which are the functional characteristics of our “soul” experience. In this manner, the ontological understanding developed through the science of psychology (thoughts, feelings, behaviors, etc.) now connects indelibly with religion and spirituality. This is part of the larger ontological overlap with science and theology that may also include an overlap with philosophy. There will be more about this later, with exploration of the implications of this connection with theology. The central overlap of all three disciplines will also be discussed later.

The inclusion of this understanding of ontology within the field of psychology praises William James and his attempts to bring spiritual/religious experience into the realm of psychology. Hopefully, future efforts will address a remarkable lack, or dismissal, of spiritual/religious experience within much of psychology and mental health, including the medical discipline of psychiatry. This applies not only to the modern field of psychoanalysis (see *Freud*) but also to the modern therapeutic fields of CBT and almost all other therapies, as elaborated in *master controller*.

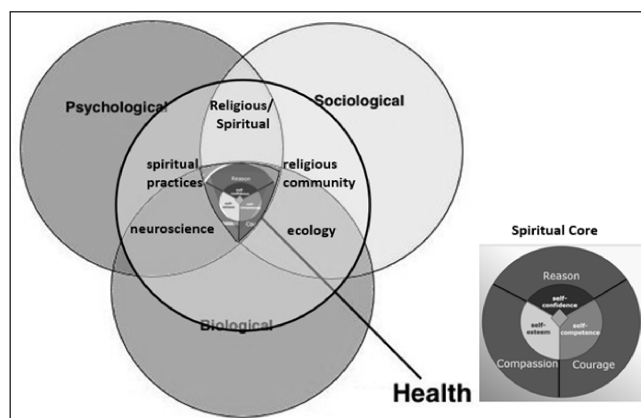
### **Medicine and Psychiatry**

As a brief follow up to the last section, it is important to specifically note the implications of the FOS for the scientific discipline of medicine, especially the field of psychiatry and mental health. Since 1977, the dominant model of medicine and psychiatry has been the biopsychosocial model of medicine, as espoused by George Engel (1977) (Figure 6).



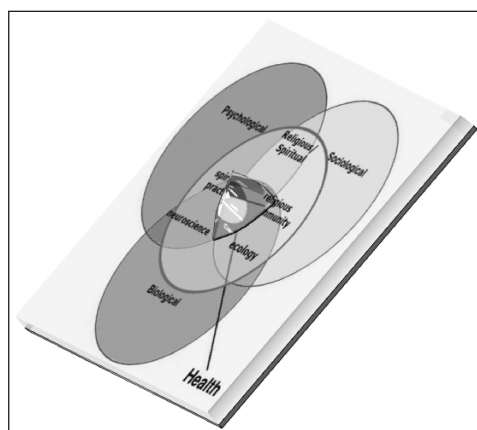
**Figure 6:** Biopsychosocial model of medicine, with biological, psychological, and sociological determinants being balanced to result in health.

The biopsychosocial model illustrates the idea that we have biological, psychological, and sociological aspects of experience that, when balanced in some manner, are the source of health and wellbeing. For years, there has been a noted lack of spirituality within this model. The central role of spirituality and spiritual experience in the healing process requires a revision to highlight the recent knowledge presented in this article. The biopsychosocial model can metaphorically be seen as a two-dimensional view of human beings and a mostly cognitive fact-driven and action-focused discipline. The FOS demonstrates how, with the ontological opening to the distinctions of self-worth and dignity, a depth of experience is identified and extended into the deepest levels of spiritual or soul experience. This includes not only emotions but also values of reason, compassion, and courage and existential aspects of morality, love, faith, and meaning and purpose. The inclusion of this depth appears to be a major source of healing—both emotional and physical—that is yet to be explored. It is proposed that comprehensive inclusion of these various levels of experience requires an expansion to a biopsychosocial-spiritual model (Figure 7) where spirituality is central, as it has very broad aspects of biological, psychological, and sociological determinants.



**Figure 7:** Proposed biopsychosocial-spiritual model with large central religious/spiritual determinants, including religious practices, in sociological overlap and spiritual practices in biological and psychological overlap. The central core is the empowering of self-worth and dignity that fosters opening to a spiritual core and its creativity and healing characteristics.

Religious community can include more of the sociological realm, while spiritual practices may include more of the psychological realm, and even the biological realm when including body practices such as yoga, tai chi or qi gong. These relationships are further illustrated as a three-dimensional model with experiential depth (Figure 8) in which our spiritual core, with the processing and healing of injury to self-worth and dignity, is a critical central component of healing, especially if it is a master controller of wellbeing as described (*master controller*).



**Figure 8:** Biopsychosocial-spiritual model, including spiritual core, with self-worth and dignity opening a depth and central source of health and healing.

Adoption of this biopsychosocial-spiritual model can have profound effects on the future practice of medicine, psychiatry, and mental health.

### **Neuroscience**

Some details of the neuroscience implications are elaborated in *master controller*. Research of spiritual experience did not advance significantly until recent use

of neuroimaging and specialized EEG measures. Earlier studies in this area primarily explored religion—religious affiliation, attendance, practices, and measures of religiousness and religiosity—providing early suggestions of specific brain regions involved with religious/spiritual experience. This research often studied brain differences between religious practitioners who had years of experience such as nuns and monks and those with no or less experience. Studies more related to spiritual experience studied specific practices such as meditation and mindfulness using experienced practitioners such as monks and nuns engaged in specific activities of prayer, meditating on God or divinity, recalling particular spiritual experiences, doing religious recitations, and viewing religious versus nonreligious images. Studies were limited by theoretical issues such as a lack of clarity on what defines spiritual experience, practical issues such as neuroimaging being unable to capture true spiritual experience while someone is in the scanning machine, and having limited research models to actually induce or promote personal spiritual experience.

Despite these limitations, research identified some specific brain regions related to spiritual experience. Regions suggested by neuroimaging include:

- medial prefrontal cortex, associated with mystical states (Van Elk and Aleman 2017)
- superior parietal lobes and temporoparietal junction, associated with peak experience and feelings of unity (Van Elk and Aleman 2017)
- inferior parietal lobe, associated with attention, reasoning, connection, and sense of self and self-awareness (Miller et al. 2019).

Of most interest has been a network of connected brain regions called the default mode network, which includes the medial prefrontal cortex, the posterior cingulate cortex, the parahippocampal cortex, the amygdala and the inferior parietal lobe. It is described as a “functional and structural hub in the brain, assimilating and transmitting representations of salient external and internal events through global brain activity patterns” (Raichle 2019). It has some unique characteristics, including being active when other brain activity is at rest. Default mode network activity is also calming when other brain areas are active, suggesting a modulating homeostatic control. It also has special abilities of creativity (Raichle 2019).

The advent of psychedelic research created an experimental research model, as the psychedelics actually induced and promoted spiritual/mystical experience rapidly that could be measured with psychological and spiritual assessments and a brain scan the following day. These induced spiritual/mystical experiences have been associated with dramatic results in healing multiple mental disorders, including depression, anxiety, PTSD, OCD, and substance use disorders, along with a sense of wholeness, well-being, and quality of life. (Carhart-Harris et al. 2012; Chi and Gold 2020). This has led to

increased interest in and understanding of the possible default mode network role in spiritual experience (Carhart-Harris and Friston 2019).

Further implications for neuroscience to pursue will mostly focus on technical aspects—definitions, instruments of measurement, methods of research—that will not be discussed in this article.

Even if specific regions of the brain are identified as definitively associated with spiritual experience, a major problem remains. While we may know the amygdala region of the brain is associated with emotions, we only have physical methods to use this knowledge functionally. The only methods in this area would be chemical interventions (as with medications like antidepressants) or physical interventions such as transcranial magnetic stimulation, electroencephalographic neurofeedback, electroconvulsive therapy, EMDR (eye movement desensitization and reprocessing, a physical therapy regarding eye movements and the resolution of traumatic memories), and even direct intracranial brain stimulation. The FOS now provides a language for psychological, cognitive, emotional, and verbal interventions to be effective. Using the language and direct experiences of the distinctions of self-worth and dignity allows a person to directly engage and change or transform the brain function in these various areas. Verbal psychotherapies can be used to strengthen use of reason, compassion, and courage while our future research investigates the brain transformations that are likely to be occurring. It is anticipated that future research will identify the mechanisms for the universal mystical/numinous experience that occurs when the spiritual core opens. Some of this work is already in progress, as Michael Winkelman (2010) describes a biopsychosocial perspective of this awakening and Robin L. Carhart-Harris and Carl J. Friston (2019) attempt explanation within psychedelic and neuroscience research. Now that the FOS provides a human research model to intentionally promote spiritual awakening/experience, it is theorized that these non-drug-induced direct experiences of spiritual awakening will be correlated with neuroimaging, physiological measures, and possibly even electroencephalographic recordings.

A major part of the therapeutic process using the FOS, known as CBT-STE (cognitive behavioral therapy for self-transcendent experience), assists self-acceptance with a release of emotions of suffering, similar to the Buddhist approach to happiness and wellbeing of “non-attachment.” It is well known that MDMA (ecstasy, a psychedelic) is being pursued for approval by the U.S. Food and Drug Administration for psychotherapeutic use. MDMA has the unique characteristic of removing the fear reaction when recalling traumatic memories. This impact allows psychedelic-assisted therapy to rapidly transcend the suffering from past traumatic memories with sometimes ecstatic results that appear to have long-term transformation when assisted with personal integration. A vision of the not-too-distant future would be that we can



identify the brain mechanisms that consolidate and promote the continuation of suffering from trauma with the hopes of developing new interventions.

In view of later discussion, questions are raised regarding the theological and philosophical implications of this power of undoing the emotional effects of past experiences. It is an emotional “do-over” of life, part of what is experienced in a “born again” conversion experience.

### ***Anthropology and Evolution***

The reality of spiritual experience as a universal reality available to all human beings requires some explanations within anthropology, especially as it relates to evolution. In *Naturalism*, an evolutionary explanation for our capacity for spiritual experience was suggested. In summary, the theory proposes that at a bottleneck in time, the characteristics of spiritual experience were socioculturally developed for the survival of the pre-human, possibly hominid, tribe. This included an increased sense of connection and empathy with compassion for protecting and caring for each other, a vitality necessary for success in their short, survival-threatened twenty-year lives, and a sense of wholeness and integrity with peace and serenity. Each person had their own role as in a beehive, with constrained flexibility for conflict due to the vagaries of life and the need for survival. Finally, this created an extreme cooperative and communal sense of meaning and purpose. Experientially, a capacity for self-worth was developed neurologically with survival value, as a hominid with poor self-confidence would have little initiative, one with low self-esteem with depression would likely be left by the wayside by the tribe, and poor self-competence would make for fatal mistakes. As a group, choices with reason needed to prevail and compassion and protection for each other were crucial; very little needs to be said about the survival value of courage among leaders. Thus, self-worth and dignity became personally integrated with the identified social characteristics of spiritual experience—connection, vitality, wholeness, peace, and meaning and purpose. Spiritual experience was a by-product of what was needed for survival, it was not what made survival possible.

- Is this supported with current knowledge in anthropology and evolutionary theory? If not, what is needed to either affirm this explanation or offer another explanation for the capacity for spiritual experience within humans?
- An explanation must account for how it is that *all* humans possess this capacity. When did this development occur in evolution and why?
- What was the survival value of spiritual experience?

Currently, most theories of spirituality and religion focus on the cognitive aspects (Rappaport and Corbally 2018), which occurred significantly later in evolution than the capacity for empathy and the presence of courage.

What is unique about this theory is its explanation for why spiritual experience is out of awareness. The idea proposed is that once survival from the bottleneck occurred, the human cortex expanded dramatically with rapid dualistic judgment for social survival—yes or no, good or bad, right or wrong, friend or foe, approach or avoid—as there was likely greater tribal conflict and a new drive for expediency in decisions. Another impact was the development of language with cortical expansion, as the ability to label with words immediately produced a dualism of “is-is not,” which then created a necessity for judgment—what is-isn’t, good-bad, safe-not safe, etc. As hominids and pre-homo sapiens were migrating out of Africa, the cortex eventually dominated and overruled the hominid spiritual core/limbic brain, relegating it to the unconscious but not eliminating its functioning, despite the major problems with dualistic thought setting the stage for future/current problems of humanity. The role of eruptions of these spiritual drives into awareness with associated mystical experiences in the development of religious traditions could account for the presence of a universal mystical core (Teasdale 1999) in the majority of religious traditions.

### ***Creative Forces and the Soul Function***

As noted previously and elaborated in *master controller*, the FOS identifies the experience of the creative forces/creative openings with experiences that are similar to what would normally be included with the word soul: a moral truth-force core; agape love of self, others, life, and the “divine”; and faith as an action related to courage rather than as a belief. Science, including psychology, has avoided, if not denied, the reality of the soul and currently has no place for its study or understanding. The FOS suggests that this would include at least aspects of moral injury, compassion fatigue, and experiences of loss of faith. If soul is recognized as a functional reality associated with a specific set of experiences, then there must be a location in scientific discipline for soul studies.

- What must psychology do to incorporate this study? Would it be under a new field of ontology?
- How would soul studies be included in neuroscience? In sociology? In biology? Chemistry? Physics? Information theory? Integral studies?
- As the spiritual core is suggested as a master controller for human behaviors, what about impact within economics? Engineering? Political science? Ecology and climate change?

Soul must also be considered in other fields such as ethics and morality and human development, as it was described earlier how self-worth and dignity are related to development (Harter 1990).

- What about within cosmology, as humans are recognized as anthropocosmic beings?

In a previous Institute on Religion in an Age of Science conference on “Varieties of Spiritual Transformation,” Ashok Gangadean (2006) stated that “[t]he future evolution of the sciences . . . must come to terms with . . . the global deep ontology of our enchanted cosmos.”

Finally, what about the role of this knowledge in consciousness studies? As was noted at the beginning of this article, the FOS does not include experiences of psychic phenomena.

- How do spiritual and mystical experiences intertwine with psychic phenomena and consciousness studies?

At the very least, it would be expected that any explanations of experiential phenomena outside the usual realm of science must first take into consideration the knowledge of the FOS and its related experiential phenomena as explanatory. How often have we heard of mystical-type experiences as have been described herein being explained by psychic or supernatural explanations, or ideas such as quantum entanglement?

### **Philosophical Implications**

A previous Institute on Religion in an Age of Science conference suggested there be a move from an anthropomorphic worldview of being human within a cosmos to an anthropocosmic worldview of being human as an expression of cosmos. The power of this image itself is transformational, as it immediately dispels the isolation, alienation, and disconnection of our human experience and addresses a prevalent longing for belonging and connection that may prejudice our philosophical pursuits and definitely impacts our human happiness. The FOS supports this as an awakening awareness of our spiritual core that recognizes our connectedness with all of nature and co-creation with the universe in the here-and-now moment. Often, philosophy promotes experiential disconnection with its emphasis on logic and cognitive processes, and this perspective reintegrates it.

### **Values and Ground of Being**

A major part of philosophy and spirituality deals with values. The question of the survival value of spiritual experience has already been raised. To refer back to Figure 3, discussion of values occurs within psychology as a conceptual level of cognitive organization beyond perceptions of thoughts, feelings, and actions. This raises a philosophical question: Are there universal cosmic values or are values humanly determined and grounded?

The presence of capacities for self-worth and dignity already suggest their “evolutionary” value.

- Are life and humanity just inevitable progressions of the universe’s developmental expression, such as a value similar to a cosmic constant like  $\pi$ , or are they something else?
- Are life and intelligent, conscious creatures cosmically destined to occur in this universe?
- Are values dependent on human interpretation and valuing since they only relate to humans?
- If humans were gone, would this “value” still be present in the universe?
- What does this really say philosophically about the place of values in the universe?

A significant source of values noted in philosophy is the possibility and value of a “ground of Being” as elaborated by Paul Tillich (2014) in a reference to the experience of God. This invokes the idea that God is an answer to the ontological threat of “non-Being,” often with the promise of heaven or reincarnation, as well as God being related to the meaning and purpose of Being. The FOS addresses this question:

- If our spiritual core is holotropic (moving toward wholeness) as described, with wholeness being a fulfillment of our self-worth and dignity and opening to the soul experience of the creative forces, can this spiritual core be considered a physical, real embodiment of the ground of Being?
- Is a major value and meaning of life the fulfillment of our self-worth and dignity and connection with our soul experience?
- Is this spiritual core then the source of God?
- Is it the source of God as an embodied entity, or only God as an experience of self-worth and dignity fulfilled with the opening to agape love, a moral-truth core of experience, and a faith in the guidance of our spiritual core and the life process itself?

The other way spiritual experience may be related to the ground of Being is that one of the major measures of spiritual experience with the Numinous Motivation Inventory relates to spiritual experience as addressing the existential question of Being itself. Is there life after death? How do we live as Beings who know that death is an end point of Being?

Courage . . . transcending the non-being of the anxiety of fate and death . . . the anxiety of emptiness and meaninglessness (and). . . the anxiety of guilt and condemnation . . . has the character of faith. (Tillich 2014, 155)

Both of these inquiries suggest that our spiritual core and its drivenness to connect to our soul experience may actually be the ground of Being to which Tillich refers.

Related to this philosophically and theologically is the Omega Point of Teilhard de Chardin (1959). The Omega Point refers to the source and final end point of unification of humanity. Teilhard incorporates this within the Christian idea of “logos” as the source and purpose of all Being, which he associates with our salvation through Jesus Christ.

- Could our spiritual core actually be the embodiment of the Omega Point and the source and container of “logos”?
- Is our spiritual core the source of our purpose, as its awakening is the desired end point of our existence and fulfills the unity with all other human Beings as humanity becomes aware of and connected with our universal spiritual core soul experience?

This can even be carried further beyond Christianity, raising the question of whether this spiritual core is also the source of the Tao—the way of life, or the source of Buddhism’s Four Noble Truths—as we detach from the suffering of injury to our self-worth and dignity and achieve happiness.

- Is the surrender to God’s will within Judaism and Islam, of which the foundation of its name is “submission,” similar to the spiritual experience seen with the FOS that requires an ego surrender to the higher power and guidance of our spiritual core?

This leads us into the full realm of the philosophical idea of panentheism and its theological correlate within process theology.

- Does the presence and function of our spiritual core relate to the concept of panentheism—the idea that God and the world are fully interrelated, with the world being in God and God being in the world?

If panentheism literally includes the whole “world” including all of natural creation, probably not. But if it is interpreted as the whole world of human experience, then the answer would be a resounding “yes.” If the master control by our spiritual core influences all our experiences, especially our source of and drive to human wellbeing, happiness, and even bliss, then this spiritual core is interrelated with the whole world of our experience and our whole world of experience is related to our spiritual core. Thus, the FOS and its uncovering of our spiritual core experientially supports an idea of panentheism if God is an inseparable part of experience.

Philosophically, and in conjunction with our later discussion of theological implications:

- How does philosophy deal with this conclusion?
- Is our spiritual core even in the same realm as the “divine” or is it just plain physical and materialistic?
- With the recognition that this spiritual core is a neuroscientific reality, does it make further discussion of the “divine” irrelevant, or even unreal?
- What does the presence of this spiritual core do to the foundation of process theology?
- Why not just move process theology to the field of science and a materialist explanation devoid of any religious or theological attachment?
- Would this relegate theology to a historical and irrelevant vestigial attempt at understanding reality similar to phlogiston or the ether theory?

As the FOS and spiritual core only relate to human experience, these observations can make no claims about notions of God outside of human experience (such as God as creator or having influence on nonhuman events). Challenges to the concept of an all-loving, all-present, all-powerful entity are an existential injury to our worldview and our foundation of security, importance, meaning, and purpose.

- Is our continued attempt to redefine God only an unresolved “religious” injury to our self-worth and dignity that when processed and grieved would allow one to fully move beyond a God concept attachment as in Buddhism?

### **Universal Moral Direction and Values**

The FOS addresses various areas related to values, specifically moral values. *Master controller* tackles this directly, challenging the “naturalistic fallacy” or the “is-ought” question. The philosopher David Hume (1978) states that just because something “is” does not necessarily mean that it “ought” to be. Since Hume, the conclusion of this has been that moral values cannot be derived from natural properties; therefore, moral foundations on this basis or any basis of material reality are false. If this is true, there is no possibility of universal ethics or morals related to the reality of science and the material world.

The FOS challenges this conclusion and provides an alternative approach to ethics and morality. In contrast to Hume, the *Encyclopedia Britannica* states that “moral terms, concepts, or properties are ultimately definable in terms of facts about the natural world, including facts about human beings, human nature, and human societies.” Following this perspective, a major premise described by John Stuart Mill’s (1987) version of utilitarian ethics is that an action is morally right to the extent that it tends to produce happiness (or pleasure, broadly construed) and morally wrong to the extent that it fails to produce happiness

or tends to produce unhappiness (or pain, broadly construed). This of course is problematic as there are a multitude of ways to define human happiness—including, among many others, the often disastrously contradictory goals of short- and long-term happiness, as seen with addictive behaviors.

The FOS provides a related and more directly applicable approach to ethics and morals. In this framework, self-worth and dignity have been specifically operationalized, making their fulfillment much more defined than “happiness.” A person can be reasonably clear about the subjective experience of achieving increased self-worth and dignity, and this can be visibly seen and empathically felt when it occurs in a clinical setting. The extension from Mills’s utilitarian ethics would be that “an action is morally right to the extent that it tends to empower self-worth and dignity, and morally wrong to the extent that it fails to empower, or even harms, self-worth and dignity.” Assuming this is more useful, it raises the question: Why place self-worth and dignity above all others on the pedestal of human values?

A potential answer becomes: because they are what inherently drive human beings to fulfillment as identified by this framework; the fulfillment of our capacity for self-worth and dignity leads to a specific internal experience of wellbeing and happiness; it is available for all people regardless of life circumstances. Traditionally, this is discounted by the naturalistic fallacy that just because we have an order to our psychological organization described by the FOS (“is”) does not make it the way it “ought” to be.

- Is there any way to move ethics/morality beyond being discounted by the naturalistic fallacy argument?

Exploration of the framework provides a new understanding of this dilemma that is directly related to the spiritual core and the thought processes associated with it. The is-ought argument is based on our dualistic thinking and judgment of things as right/wrong or good/bad, which has dominated our formal thinking about moral and ethical judgment as noted earlier. This itself *is* the fallacy. An example of the limits of this may assist, for instance: if evolution leads to the development of a characteristic fact that humans have two arms (“is”), then humans “ought” to have two arms. This is a typical, and non-arguable, is-ought conclusion acceptable by all people. This is *not* a dualistic moral or “ethical judgment” of right or wrong but a “natural judgment” of how certain material things ought to be. A non-dualistic thought process would use this natural judgment as evaluative or instrumental (i.e., utilitarian), such as good/better, or even best, rather than the dualistic judgment of good/bad or right/wrong, and the is-ought conclusion is no longer a fallacy.

- Does the FOS as described dismiss the naturalistic fallacy? And does the presence of this psychological organization with emphasis on self-worth and dignity make it a primary part of how humanity “ought” to be?

- Does this address the “price” of dualistic thought that has been paid by human history for language development?
- Is this similar to the both/and perspective of Jainism rather than a Western world dualistic thought of either/or?

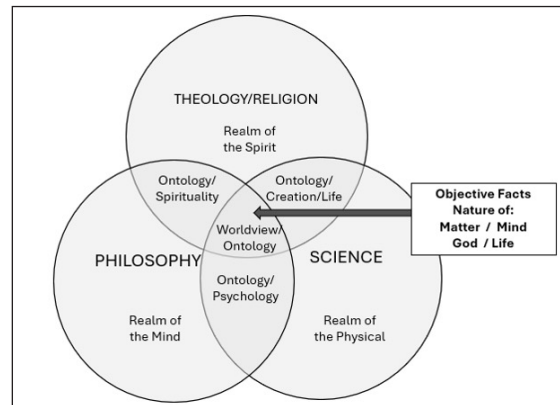
Opening of the spiritual core moves persons into a new awareness of non-dualistic thinking processes about experience. Experience within this spiritual core is not about judgment, good or bad, right or wrong, but rather accepting that “all is the way it has to be” as a reality principle; therefore, “all is good” because it is reality—and it can be better! In fact, an argument can be made that our human cortical dualistic judgment is not the best guide for human wellbeing due to its dichotomous limitations, a conclusion espoused by Eastern religions for thousands of years.

The FOS is much clearer about human nature, with our optimal function being designed for empowered self-worth and dignity and the opening to the creative forces—truth, love, and faith. This moral truth-force is the Satyagraha (truth-force) of Mahatma Gandhi, the built-in embodied “gut” reaction of injury to self-worth and dignity. If, similar to the two arms example, we have this universal moral truth (“is”), then humans “ought” to have this moral truth through empowered self-worth and dignity. This use of is-ought is not a fallacy! The “is-ought fallacy” is an artifact of our fundamental dualistic thinking in making decisions about ethics and morality. A great example to bring this home is that when we look at values, their fundamental nature is that they are not black or white, right or wrong, which unveils the falsehood of basing ethics and morals on a dualistic foundation. With this conclusion, the elements of the framework ought to be intentionally pursued or valued, providing a specific universal ethical and moral framework. This should highlight the core values of self-worth as self-confidence, self-esteem, self-competence/ efficacy, and dignity, with all of its parts of choice/reason/wisdom, empathy/compassion/caring-justice, and honesty/courage/giving-generosity. These are universal core values that ought to be empowered in our culture. The is-ought dilemma *is* a fallacy and *ought* to be discarded. A world moral order can be agreed on that is grounded in the unique nature of being human with the “two arms” of self-worth and dignity.

## Theological Implications

Since the issue of ontology has been repeatedly mentioned, this discussion of theological implications will begin with this topic. Figure 9 illustrates the role of ontology within each of these disciplines—science, philosophy, and theology. The overlap of ontological interests with science and theology includes the nature of matter, creation, and life, including metaphysics; the overlap of philosophy with theology for this discussion will focus on spirituality; the overlap of science and philosophy includes the study of the mind; while the overlap of all three is the main focus of this section.





**Figure 9:** The inclusion of ontology as part of each major discipline, with the overlap of theology and philosophy focusing on spirituality, the overlap of theology and science including metaphysics and creation, and the overlap of science and philosophy including the study of the mind. The central overlap highlights a common ontological worldview.

The central overlap of all three disciplines is a common ontology—the nature of existence. This centrally includes the nature of matter, mind, life, and God. Since this is a part of science, this central overlap must be consistent with objective reality (as much as this can be determined). As such, its content must be agreed on by all three disciplines in what is best described as a common “worldview,” a neutral term with no bias for any one of these disciplines. This area will be a major focus of the June 2025 conference on spiritual experience.

As several areas of theology have already been discussed in previous sections, this section focuses specifically on some central theological concepts not previously discussed or elaborated.

### ***Veil of Illusion and Mystical Experience***

The Veil of Illusion, or *Maya*, is included in Hindu and Buddhist writings and refers to a metaphorical veil that separates our human perceptions and awareness from an ultimate reality.

The self cannot be realized through the external world; it is known when the mind is stilled and *Maya* is transcended. (Katha Upanishad 1.3.10)

When the ignorance (*Maya*) is destroyed, the self, which is the substratum of all, shines forth by its own light. (Brihadaranyaka Upanishad 4.5.15)

This may be described as the manner in which the material world obscures awareness of the true self (*Atman*) and ultimate reality (*Brahman*). A journey of inner exploration is necessary to overcome the veil of illusion and achieve spiritual liberation (*Moksha*). Similar ideas may be found in Plato’s allegory of the cave from *The Republic* and in the Gnostic gospels.

The FOS sheds some light on this from a Western perspective with the understanding of the nature of attitudes. Attitudes that develop from injury to self-worth and dignity, that are primarily fear based, block a person's connection to and awareness of their spiritual core with its experiences of moral truth, agape love, and a powerful faith in life. An attitude such as "I am a failure" blocks a person from loving self and also from loving or accepting love from others. A person with this attitude develops self-loathing, becomes fearful of intimacy and love with other persons, feels undeserving, and dismisses love from others. This leads to doubt and lacking faith in self and in relational life. Awareness of the presence of this attitude, associated with the processing of memories and feelings related to the adoption of this attitude, allows acceptance and, with self-compassion and forgiveness, opens awareness to restore lost faith, self-worth, and dignity. The connection is restored when the injury to self-worth and dignity is processed, often with forgiveness, self-compassion, and self-acceptance, opening the awareness to this deeper self associated with happiness and wellbeing. The Veil of Illusion has been pierced and the unconditional love, moral truth, and faith now open to genuine happiness, peace related to authentic self-acceptance, and freedom from the judgmental and fearful attitude.

- If this is so, how does theology interpret this experience? How does this relate to God, or the divine, beyond just being psychological insights related to various brain functions?
- Can attitudes coming from injury to self-worth and dignity explain the source and nature of the Veil of Illusion?

Clinical application suggests that the CBT-STE process describes in detail a Western world scientific-language guide to piercing the veil.

Though it is not yet understood, the opening of our spiritual core is associated with mystical-type experiences of connection with a powerful source, a wholeness, and union with a sense of belonging, love, and acceptance, a serenity or peace, and finally, a meaning and purpose to life. Historically, these non-ordinary mystical experiences have been interpreted as indicative of an external power or source such as God. One of the mystical characteristics of this spiritual core opening is the certitude of a new "truth" of this experience, that it is revelatory and reveals new knowledge of reality. It "feels" like an ultimate truth experience.

- Again, if this is known to be related to certain psychological operations and brain functions, how does this relate to God?
- Does it reveal anything more about the nature of God than a rational scientific explanation of chemicals and brain function?

This opening to real experiences that “feel like” characteristics of God—such as omnipotent power, all-knowing truth of omniscience, feelings of timelessness as of eternity and even immortality, an all-accepting and encompassing love, joy, and even bliss—undermines any attribution to some external source imbued with these powers and god-like characteristics.

- How does theology interpret these phenomena in relation to God or the divine?

### ***Transcendence vs Immanence***

To continue this last discussion further, the opening of this spiritual core is associated with a dissolution of the experience and awareness of spatial boundaries, so there is an inability to determine whether these feelings, or even some thoughts, are coming from inside (immanent) or from outside and transcendent. Repeated experiences of opening this spiritual core eventually provide a person with an ability to make this determination and distinguish that they are coming from within.

- Does this imply that we are gods or god-like?
- Does it provide evidence that God is within us?
- Is this understandable part of our mind/brain experience evidence that God as an entity may be a delusion, a fabrication, or a misinterpretation?

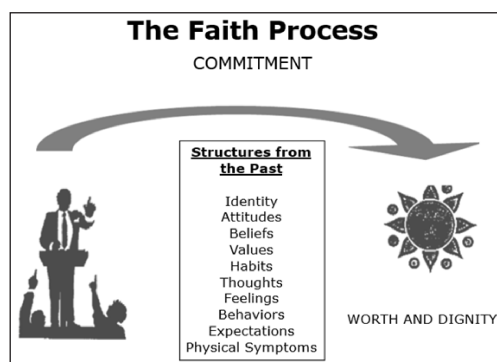
### ***Causal Joint Problem***

Sarah-Lane Ritchie (2019) provides an extensive discussion about what is called the “causal joint problem.” To summarize the question, “If God does play a role in human endeavors, how is this carried out? What and where is the ‘joint’ or connection with humans in which this non-material God carries out these actions in the material world?” One possible solution being proposed is the “receiver-transmitter” hypothesis: that our spiritual core is just a receiver for God’s transmission or broadcast, and through this receiving, God’s will is done. “Christ Jesus is the transmitter of divine grace towards man,” and “[i]t is through Christ that our prayers are spiritually transmitted—sent, carried and conveyed—to God” (Calvary Independent Baptist Church 2015).

- How would we determine if our spiritual core is operating as a receiver/transmitter?
- If it is, what is the character of the God transmitter? How can a nonmaterial entity “transmit?”
- Does the God transmitter just communicate and broadcast to humans or actually impact physical and/or psychological and social events in the world?
- How can a God transmitter heal a leper, raise a man from the dead, or walk on water?

### ***The Faith Process and Applied Spirituality***

The Faith Process (Figure 10) is a yet-to-be-explored process of the FOS. The Faith Process is the practical application of the FOS and the foundation of what is proposed as a new field of “applied spirituality.” Applied spirituality can be a new multidisciplinary field that investigates the worldview within the common ontological focus of all three disciplines of science, philosophy, and theology. This is the in-depth study of the nature of Being as humans.



**Figure 10:** Making a commitment to the worth and dignity of every person invokes a spiritual attitude and creates increased awareness of blocks (aspects of past personal experiences) that prevent individuals from keeping this commitment. Processing these blocks increases a person’s self-worth and dignity as it opens the spiritual core.

The Faith Process begins with making a meaningful commitment to the worth and dignity of all people, including oneself. Making this meaningful commitment increases the awareness of the structures from the past that interfere with keeping this commitment. These are organized in order of complexity, with identity usually being the most prominent block as it comes from the consolidation of habitual attitudes. Processing of our “structures from the past,” including our ego identity, attitudes, and all else that interferes with keeping this commitment, connects us with our spiritual core. This process engages a person with the adoption of a spiritual attitude toward life as an acceptance of reality; that all is as it has to be without dualistic judgment of good or bad, or right or wrong; that all is part of our individual and connected human anthropocosmic purpose; that we are DNA/ evolutionarily designed to learn from experience and not to have experience lead to shame, guilt, or loss of faith; that agape love can be empowered; that faith has yet unknown power with yet unknown courage. The engagement of the Faith Process as a part of an applied spirituality praxis (which occurs in a clinical application in treating injury to self-worth, dignity, and the creative forces in psychotherapies and addiction and trauma recovery) opens persons to the power of their spiritual core as part of “spiritual awakening,” as described. Acting with this “faith” leads to currently unexplainable results as the creativity and generation of new possibilities appear as “aha” moments believed to be generated from the opening of the spiritual core and its creative source and powers (Raichle 2019).

Participants engaging with the Faith Process may take on a project having no idea of the solution (i.e., acting with faith) and can have metaphorically miraculous (i.e., unimagined) results as the spiritual core creativity provides new possibilities. This process can be seen as an explanation for such popular approaches to wellness and happiness or “eudaimonia” as *The Secret*, with its “Law of Attraction” (Byrne 2006), *A Course in Miracles* (Foundation for Inner Peace 1992), *The Calling* (Mossbridge 2019), and the transforming of the past to be “mind present” and focus on the “now” as emphasized by Eckhart Tolle (2004). Despite some promoted uses of these approaches that may be excessively self-centered, hedonistic, and materialistic, the powerful underlying psychological process is what is alluring followers. It appears that aligning with and allowing this “higher power” process to guide a person may enhance the function of being human. It is noteworthy that maintaining the integrity of dignity of the FOS will not allow these distorted goals to occur, as making choices with reason and having true compassion will limit imbalance toward only self-focused ends. Moving toward wholeness and the fulfillment of self-worth and dignity fosters discovery and acceptance of our immanent meaning and purpose, which is a powerful attraction of these approaches.

A main focus of the field of applied spirituality would be the realistic exploration and application of the “soul” function—the results of aligning with our moral truth-force core, the power of the full acceptance, the appreciation and celebration of reality that is the nature of agape love, and the untapped power of indomitable faith empowered by a fearless courage.

- What is the validity or non-validity of these claims within science, philosophy, and theology?
- What is the importance and relevance of these claims in each of these disciplines?
- What is the usefulness of this vision when realized?
- Should a formal “ontology” be developed including all three disciplines, maybe with an applied spirituality praxis?
- What elements can each discipline add from their expertise and methods of inquiry?
- Could this worldview ontology involve three common but different perspectives such as a scientific existential ontology (including medicine), a philosophical Being ontology (including law, ethics, and morals), and a theological sacred ontology (including religious beliefs and practices)?

This definitive bridge of science with spirituality of the FOS demands that science, theology, and philosophy agree on a common worldview in this overlapping area. This is potentially a revolution of this process. This is the challenge we hope to explore with the commentaries of this article and the discussion at the upcoming Institute on Religion in an Age of Science conference in June 2025.

### ***The Nature of Soul***

Previous sections have referred to and described the functional “soul” experience. This soul is not a specific entity separate from the body and appears to be a specific emergent quality of experience to be further explored. The following description is being presented for review and discussion by scientists, philosophers, and theologians as it is a central focus of the common ontology and worldview on which all three disciplines should be able to agree.

There appears to be a common soul of humanity (call it Soul with a capital S) that is part of human development as our spiritual core. It includes the human capacities for self-worth and dignity that are inherent in all people (this is not to say that dignity is inherent, but that the *capacity* for expression of dignity is inherent—big difference). These capacities get developed through life experiences and empowered by “relationship” with the world. Some people have these capacities more fulfilled than others depending on life events. This spiritual core is operating out of awareness, unconsciously, and includes many characteristics of Jung’s collective unconscious. It is “driven” by a holotropic (toward wholeness) character (Grof 2016) to have our conscious human cortex “wake up and fix” us from all of life’s injuries to restore self-worth and dignity to its full potential wholeness. This waking up is the spiritual awakening of transformation with a new awareness of and connection with this Soul within our specific personal Being. With awakening, we experientially get in touch with our Soul and then let it (higher power) guide our conscious soul (lowercase s—conscious awareness) to an integrated wholeness. When this occurs, we are being responsible as an individual human to contribute to the process of further “incarnation” of the greater Soul through our spirit and spiritual attitude connecting in our love for self and others and assisting in empowering others’ awakening and transformation. Therefore, our Soul is present before this awakening but is not yet incarnate and connected with a person’s awareness and full agency. The Soul of humanity (spiritual core) is within our human body, with an opportunity for our personal soul to become consciously aware and co-create and co-evolve our common Soul of humanity. The Soul works through spirit (relationship) and may get injured, injure, be empowered, or empower. In psychology, a therapeutic relationship is spirit/relationship working. This process is beyond the treatment of mental disorders and does not have to be done with a therapist. It can be any healer, friend, or loved one connecting this process with the multitude of non-mental health related healing practices. It is the embodiment of the “I-thou” relationship identified by Martin Buber (1958).

The Faith Process is a method to assist persons in opening/awaking to Soul and strengthening the continued connection once awakened. In some manner, this healing toward wholeness, due to its mystical nature, experientially appears to be related to what we might label holy or sacred. In some manner, holy or sacred may be related to the experience of “honor” that is the nature of human dignity as defined in the framework. Think about how a personal experience of honor or honoring is very different in quality than usual ordinary life experience, making

it a non-ordinary and experientially transcendent (beyond ordinary) experience deserving the label of holy. In this manner, transcendence is a powerful quality of human experience but is not outside the natural/material world.

- Is “holy” actually a recognition of the honor we give certain experience?
- Is this what underlies our attribution of what is “sacred?”

This part of human experience can be considered the gift or “grace” of the universe; as with grace, a person does nothing to deserve it. Gratitude, giving, and generosity being powered by faith and the courage “to Be” is the anthropocosmic expression from the experience of Soul in this human body. This awareness and connection to our spiritual core develops our personal soul to contribute to the evolution of the human Soul as part of community and unity toward a wholeness of humanity. The continuing incarnation of Soul (universal) with soul (individual) occurs as injury to self-worth and dignity is healed.

- Can we recommend that the ontology studies within each discipline in this discussion legitimately and realistically explore the nature of the “soul” experience?
- What might “soul studies” look like or include?

## Conclusion

This article presents a broad overview of aspects of the current knowledge about spiritual experience. A specific approach describing a CBT-based framework connects science, including neuroscience and psychology, directly with spiritual/mystical experience. Specific implications to the disciplines of science, philosophy, and theology/religion have been identified as part of the dedication of the Institute on Religion in an Age of Science to promote multidisciplinary efforts to explore and apply this knowledge. Experts in these disciplines will be engaged at a week-long conference themed “Spiritual Experience: A Scientific, Philosophical and Theological Retreat” scheduled for June 2025 to explore some of these implications and promote action steps for coordinated future efforts. Our vision is to bring leaders of these disciplines together to personally explore this knowledge and identify coordinated efforts to further the flourishing and wellbeing of our future.

In ending, I include a personal experience and look forward to the results of commentary and further discussions with scientists, philosophers, and theologians in an attempt to agree on a worldview for our future.

A powerful example of spiritual experience was described as a Canadian Anishanaabe elder spoke at the 2018 Parliament of the World’s Religions saying, “I thank the Great Spirit for using me in your work. I am supremely grateful for and will miss the opportunity to taste a fresh strawberry, feel the life-giving sun on my face, and experience the chest bursting feeling of being in love. We are truly spiritual beings in a human body.” Namaste.

---

## References

- Bernstein, J. M. 2015. *Torture and Dignity: An Essay on Moral Injury*. Chicago: University of Chicago Press.
- Buber, Martin. 1958. *I and Thou*. New York: Scribner.
- Byrne, Rhonda. 2006. *The Secret*. New York: Simon and Schuster.
- Calvary Independent Baptist Church. 2015. "The Divine Transmitter—Romans 1:8." Bible Studies, January 16, 2015. <https://idahobaptist.com/divine-transmitter-romans-18/>.
- Carhart-Harris, Robin L., David Erritzoe, Tim Williams, et al. 2012. "Neural Correlates of the Psychedelic State as Determined by fMRI Studies with Psilocybin." *Proceedings of the National Academy of Science* 109 (6): 2138–43.
- Carhart-Harris, Robin L., and Karl J. Friston. 2019. "REBUS and the Anarchic Brain: Toward a Unified Model of the Brain Action of Psychedelics." *Pharmacologic Review* 71:316–44.
- Chatlos, J. Calvin. 2021. "A Framework of Spirituality for the Future of Naturalism." *Zygon: Journal of Religion and Science* 56 (2): 308–34.
- Chatlos, J. Calvin. 2022. "Adolescent Identity Formation versus Spiritual Transformation." *Zygon: Journal of Religion and Science* 58 (1): 156–82.
- Chatlos, J. Calvin. 2023a. "Did Freud Miss the Discovery of Our Spiritual Core?" *Religions* 14 (2): 282.
- Chatlos, J. Calvin. 2023b. "Bullying, Spirituality, Anxiety and Depression." *Archives of Depression and Anxiety* 9 (1): 28–34.
- Chatlos, J. Calvin. 2024. "Is Spirituality a Master Controller for Human Well-Being?" *Archives of Psychiatry* 2 (1): 23–29.
- Chatlos, John Calvin, Ralph L. Piedmont, Nina A. Cooperman, Suchismita Ray, and Michelle Zechner. 2025. "Pilot Study of a CBT-based Intervention for Promoting Spiritual Experience among Men in Residential Addiction Treatment." *International Physical Medicine & Rehabilitation Journal* 10 (1): 4–13. DOI: [10.15406/ipmrj.2025.10.00390](https://doi.org/10.15406/ipmrj.2025.10.00390).
- Chi, Tingying, and Jessica Gold. 2020. "A Review of Emerging Therapeutic Potential of Psychedelic Drugs in the Treatment of Psychiatric Illnesses." *Journal of Neurological Science* 411:116715.
- Corneille, Jessica S., and David Luka. 2021. "Spontaneous Spiritual Awakenings: Phenomenology, Altered States, Individual Differences, and Well-Being." *Frontiers of Psychology* 12:720579.
- de Chardin, Teilhard. 1959. *The Phenomenon of Man*. New York: Harper & Row.
- Dempsey, Brendan. 2023. *Metamodernism: Or, The Cultural Logic of Cultural Logics*. Baxter, MN: ARC Press.
- Engel, George. 1977. "The Need for a New Medical Model: A Challenge for Biomedicine." *Science* 196:129–36.
- Evans, Jonathan. 2008. "Dual-Processing Accounts of Reasoning, Judgment, and Social Cognition." *Annual Review of Psychology* 59:255–78.
- Foundation for Inner Peace. 1992. *A Course in Miracles*. Glen Elen, CA: Foundation for Inner Peace.
- Fowler, James. 1995. *Stages of Faith: The Psychology of Human Development and the Quest for Meaning*. New York: Harper and Row.
- Gangadean, Ashok. 2006. "Spiritual Transformation as the Awakening of Global Consciousness: A Dimensional Shift in the Technology of Mind." *Zygon: Journal of Religion and Science* 41 (2): 381–92.
- Gazzaniga, Michael. 2018. *The Consciousness Instinct: Unraveling the Mystery of How the Brain Makes the Mind*. New York: Farrar, Straus and Giroux.
- Gorski, Philip. 2013. "What Is Critical Realism? And Why Should You Care?" *Contemporary Sociology* 42 (5): 658–70.
- Grof, Stanislav. 2016. "Psychology for the Future: Lessons from Modern Consciousness Research." *Spirituality Studies* 2:3–36.
- Harter, Susan. 1990. "Causes, Correlates and the Functional Role of Global Self-Worth: A Life-Span Perspective." In *Competence Considered*, edited by Robert Sternberg and John Kolligian, 67–97. New Haven, CT: Yale University Press.
- Hume, David. 1978. *Treatise of Human Nature*. Edited by L. A. Selby-Bigge. Oxford: Oxford University Press.
- James, William. (1902) 1970. *The Varieties of Religious Experience*. New York: Macmillan Company.



- Kahneman, Daniel. 2011. *Thinking Fast and Slow*. New York: Farrar, Strauss, and Giroux/Macmillan Publishers.
- Koenig, Harold. 2015. "Religion, Spirituality, and Health: A Review and Update." *Advances in Mind-Body Medicine* 29 (3): 19–26.
- Kohlberg, Lawrence. 1981. *Essays on Moral Development, Vol. I: The Philosophy of Moral Development*. San Francisco: Harper & Row.
- Lane Ritchie, Sarah. 2019. *Divine Action and the Human Mind*. Cambridge: Cambridge University Press.
- MacLean, Paul. 1982. "On the Origin and Progressive Evolution of the Triune Brain." In *Primate Brain Evolution*, edited by Este Armstrong and Dean Falk, 291–316. New York: Plenum Press.
- Maslow, Abraham. 1954. *Motivation and Personality*. New York: Harper & Row.
- Meadors, Patrick, Angela Lamson, Mel Swanson, Mark White, and Natalia Sira. 2010. "Secondary Traumatization in Pediatric Healthcare Providers: Compassion Fatigue, Burnout, and Secondary Traumatic Stress." *OMEGA* 60 (2): 103–28.
- Mill, John Stuart. 1987. *Utilitarianism*. Buffalo, NY: Prometheus Books.
- Miller, Lisa, Iris M. Balodis, Clayton H. McClintock, Jiansong Xu, Cheryl M. Lacadie, Rajita Sinha, and Marc Potenza. 2019. "Neural Correlates of Personalized Spiritual Experiences." *Cerebral Cortex* 29 (6): 2331–38.
- Mossbridge, Julia. 2019. *The Calling: A 12-Week Science-Based Program to Discover, Energize, and Engage Your Soul's Work*. Oakland, CA: Reveal Press.
- Piaget, Jean, and Barbel Inhelder. 1969. *The Psychology of the Child*. New York: Basic Books.
- Piedmont, Ralph. 2001. "Does Spirituality Represent the Sixth Factor of Personality? Spiritual Transcendence and the Five-Factor Model." *Journal of Personality* 67 (6): 985–1013.
- Raichle, Marcus. 2019. "Creativity and the Brain's Default Mode Network." In *Secrets of Creativity: What Neuroscience, the Arts, and Our Minds Reveal*, edited by Suzanne Nalbantian and Paul M. Matthews. Oxford: Oxford University Press.
- Rappaport, Margaret, and Christopher Corbally. 2018. *The Emergence of Religion in Human Evolution*. New York: Routledge.
- Teasdale, Wayne. 1999. *The Mystic Heart: Discovering a Universal Spirituality in the World's Religions*. Novato, CA: New World Library.
- Tillich, Paul. 2014. *The Courage to Be*. New Haven, CT: Yale University Press.
- Tolle, Eckhart. 2004. *The Power of Now: A Guide to Spiritual Enlightenment*. Vancouver, BC: Namaste Publishing.
- Van Elk, Michiel, and Andre Aleman. 2017. "Brain Mechanisms in Religion and Spirituality: An Integrative Predictive Processing Framework." *Neuroscience & Biobehavioral Reviews* 73:359–78.
- Wilber, Ken. 2017. *The Religion of Tomorrow: A Vision for the Future of the Great Traditions*. Boulder, CO: Shambhala Publications.
- Winkelman, Michael. 2010. *Shamanism: A Biopsychosocial Paradigm of Consciousness and Healing 2nd Edition*. Santa Barbara, CA: Praeger.
- Yanchar, Stephen C., and Jack R. Hill. 2003. "What Is Psychology About? Toward an Explicit Ontology." *Journal of Humanistic Psychology* 43 (1): 11–32.

