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Complexities and Challenges of Nonduality

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Abstract: States of consciousness referred to as nonduality, awakening, enlightenment, moksha, peak experience, unitive states, or void states, among other terms, have garnered increasing secular attention and have become a topic of psychological and neuroscientific research. A review of the literature revealed many challenges to studying this set of states, such as inconsistent conceptualizations, a variety of models and theories, and conflicting descriptions indicating that the actual experience may not live up to the superlative descriptions found in historical texts or the expectations put forth by nondual teachers. A great deal more empirical research on this topic is needed, and researchers should bear in mind the complexities and challenges that have surfaced on the related topics of mindfulness and meditation.

Keywords: Consciousness, meditation, nonduality, nondual consciousness

"By itself, there is an interest in waking up coming to more and more people...by itself people are popping up that have direct experience of truth...we are now at a point where the stage is set for a mass awakening." - Isaac Shapiro (Lumiere & Lumiere-Wins, 2003, p. 97).

The experiences or states of consciousness known as nonduality, awakening, enlightenment, moksha, peak experience, unitive states, or void states, among other terms, are challenging to describe and define, and it has not been established that they are referring to the same category of experiences. For the purposes of this article, *nonduality* will be defined as states of experiencing reality as one and experiencing separation or multiplicity as illusion. The term nonduality literally means "not two" in the Advaita Vedanta philosophical system (Torwestern, 1985). *Awakening* will be defined as the process of arriving at nondual experiences and deepening within them.

Sacred texts contain remarkable and tantalizing descriptions of nonduality (Conze, Horner, Snellgrove & Waley, 1954; Hixon, 1978) and speak of nonduality as an ultimate attainment. Historically, the pursuit of it meant leaving home and family to join a spiritual or monastic community, and the process was heavily managed and hierarchized by a guru or spiritual teacher. In recent times, however, nonduality has become a layperson's pursuit. Devices and technologies have even been developed, such as binaural beat audio recordings, that purport to induce or facilitate these states. Nondual teachers abound, and increasing numbers of people are reporting the experience, if they are describing the same set of phenomena.

The research that has been conducted on nonduality is insufficient. Several questions need elucidation by rigorous empirical research, both quantitative and qualitative, including:

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Can nonduality be consistently defined and described? Does it consist of a single state, multiple states, and/or a developmental process? Are lived experiences of these states actually desirable, as often advertised by nondual teachers and gurus? Are studies of nonduality useful for informing fields such as psychology and psychiatry, either to help train therapists to correctly identify nonduality and not misdiagnose it, or to determine whether any therapeutic value is conferred by these states? Finally, can nondual states be correlated with meditation, and thus can the challenges that have arisen in meditation research inform research on nonduality? Because so little research has been done on nonduality, and because numerous complexities and challenges are apparent, much more empirical research is needed.

Review of the Nonduality Literature

When dawn broke...the great Seer took up the position which knows no more alteration, and the leader of all reached the state of all-knowledge. When, through his Buddhahood, he had cognized this fact, the earth swayed like a woman drunken with wine, the sky shone bright with the Siddhas who appeared in crowds in all the directions. and the mighty drums of thunder resounded through the air. Pleasant breezes blew softly, rain fell from a cloudless sky, flowers and fruits dropped from the trees out of season-in an effort, as it were, to show reverence for him. Mandarava flowers and lotus blossoms, and also water lilies made of gold and beryl, fell from the sky on to the ground near the Shakya sage, so that it looked like a place in the world of the gods. At that moment no one anywhere was angry, ill, or sad; no one did evil, none was proud; the

world became quite quiet, as though it had reached full perfection. Joy spread through the ranks of those gods who longed for salvation; joy also spread among those who lived in the regions below. Everywhere the virtuous were strengthened, the influence of the Dharma increased, and the world rose from the dirt of the passions and the darkness of ignorance. (Conze, 1959, p. 157)

Such florid and hagiographic literary depictions of awakening have given the impression that awakening is an absolute state and an ultimate attainment. Nonduality has been described by many names (Loy, 1983) and has probably been used as an umbrella term to represent a category of mystical experiences. It is certainly possible that it has been conflated with other states of consciousness. A look at both popular and academic literature reveals a great deal of complexity, contradiction, and theoretical models.

Nondual teacher Bonder calls awakening a "fundamental wellness and integrity of Being" (1998, p. 115), but also warns readers of what he calls the "Wakedown Shakedown":

You probably have been trained to think, if you have been thinking about such matters as enlightenment or awakening at all, that once it happens, you are from then on forever free of all karmas. From then on, nothing can touch you. From then on, you are above and immune to all the chaos, disturbance, and sheer weirdness of being a human being [but] the reality is almost precisely one hundred and eighty degrees on the opposite arc....to put it bluntly, awakening is when the real work of purification of karmic, or

previously binding, habits, preferences, conditioning, illusions, and prejudices, really gets underway (pp. 109-110).

Given this caveat, awakening may not match the expectations of readers and scholars alike. The following review of literature will consider a range of writings and research but does not do justice to the myriad systems and conceptualizations of nonduality in the Buddhist traditions

Stace was an early influential scholar of mysticism who classified mystical experiences into two main types: introvertive and extravertive (1960/1987). He associated the extravertive type with earlier stages of mysticism, and characterized it as having a sense of oneness with all things, or a sense of expansion or merging of self into nature or an object. The introvertive type, on the other hand, he associated with advanced stages of mysticism, in which perception of reality shifts into the void of unity consciousness. While extravertive states grant an understanding of oneness, introvertive states result in a direct experience of "universal self or pure ego or pure consciousness" (p. 133).

Stace (1960/1987) developed his characterizations of introvertive and extravertive mysticism from a comprehensive study of the writings of Hindu, Christian, Buddhist, and Sufi mystics, as well as the writings of Evelyn Underhill, Richard Bucke, and William James. He identified seven characteristics, the first two of which are unique to introvertive mystical experience:

- 1. The Unitary Consciousness; the One, the Void; pure consciousness
- 2. Nonspatial, nontemporal
- 3. Sense of objectivity or reality

- 4. Blessedness, peace, etc.
- 5. Feeling of the holy, sacred, or divine
- 6. Paradoxicality
- 7. Alleged by mystics to be ineffable. (pp. 131-132)

Stace theorized that in further, or more advanced mystical states, dissolution of the "empirical" ego occurs:

One may say that the mystic gets rid of the empirical ego whereupon the pure ego, normally hidden, emerges into the light. The empirical ego is the stream of consciousness. The pure ego is the unity which holds the manifold of the stream together. This undifferentiated unity is the essence of the introvertive mystical experience. (1960/1987, p. 87)

A paradox arises because writers speak of the realization of the Void or nothingness, but also the One and the Infinite (Stace, 1960/1987). This paradox shows in the literature, along with other paradoxes such as experiences of bliss along with experiences of dissociation and anhedonia. Paradox is not uncommon when discussing complex and subjective topics such as nonduality, but it may also be an indication of entirely different states. Paradoxical reports or descriptions also make research on nonduality even more challenging, because empirical science dismisses conflicting data.

Hood is another influential scholar who has studied nondual states. He developed a well-known measure of mystical experience called the Hood Mysticism Scale (1975), which was based on Stace's work and uses non-theological language. Using this scale, Hood and colleagues (Hood, 1989, 1997; Hood et al., 2001; Hood, Morrison, & Watson, 1993; Hood &

Williamson, 2000) were able to obtain a more concrete measure of the introvertive factor of mystical experience, characterized as "devoid of content" and "timeless" (Hood & Williamson, 2000, p. 234), and the extravertive factor, characterized as "unity amidst diversity" (2000, p. 234) concurrent with Stace's (1960/1987) model. Hood et al. (2001) built upon the 1993 and 2000 studies by surveying university students in the United States and Iran, using modified versions of the scale which included the terms "God" or "Christ" and "Allah" respectively. Their findings lent support to Stace's (1960/1987) assertion that both types of mystical experience can be found in different spiritual traditions. Hood et al.'s (2001) research also provided cross-cultural confirmation that mystical experience can correlate with psychological dysfunction such as psychoticism, depression, and physical symptoms of stress.

While some have mistaken nonduality for a single state. Stace and Hood developed a binary model, and others have developed more complex models. Maharishi Mahesh Yogi developed a framework of seven states of consciousness, based on Vedic philosophy, three of which consist of the typical states of waking, dreaming, and dreamless sleep (1967/1992). The later four states are transcendental consciousness, cosmic consciousness, God consciousness, and unity consciousness. Maharishi claimed that in the fourth state, transcendental consciousness, mind and senses are completely silent, a quality of bliss emerges, and consciousness is fully awake though not yet nondual. He taught that this fourth state could be experienced intermittently using the techniques of Transcendental Meditation (1967/1992). The fifth state, cosmic consciousness, is the first of the permanent stages of enlightenment, according to Maharishi (1967/1992). This stage narrows

the separation between individual self and oneness or Brahman, leading to a more persistent awareness of pure consciousness. In the sixth state, called God consciousness, the self is nearly nondual, reaching Brahman and experiencing a deepening of bliss and devotion. In the seventh state, unity consciousness, no separation exists between self and oneness, and Atman is experienced as Brahman with no separation (Maharishi, 1967/1992).

Ingram (2018) described the process and experience of awakening from largely Buddhist schools of thought, including schemas such as the three characteristics of "impermanence, dissatisfactoriness, and no-self," and the seven factors of "mindfulness, investigation, energy, rapture, tranquility, concentration, and equanimity." He also critiqued 50 models of awakening, admittedly favoring the "non-duality model," which he described as having the goal of stop[ping] a process of identification that turns some patterns of sensations into a doer, perceiver, centerpoint, soul, agent, or self in some very fundamental perceptual way. By seeing these sensations as they are, the process can be seen through gradually until one day the last holdout of duality flips over and there are no more sensations that trick the mind in this way. (p. 320)

He admits that the term nonduality "does not appear in the Pali canon or the commentaries... [and] is often associated purely with Vedanta." Ingram eschews perennialism but keeps this term from a different philosophical system because "there are distinct reproducible commonalities that occur when people pay attention to bare sensate reality, because bare sensate reality is how it is" (2018, p. 321).

Another approach to conceptualizing nonduality is from the perspective of developmental

models. Noetic theories of development view shifts in consciousness as part of the developmental process. As Wade (1996) explained in the introduction to her holonomic theory of the evolution of consciousness, conventional developmental models have not typically addressed consciousness, but "some higher-order theory focusing on consciousness itself, rather than the content or expression of consciousness, might bring greater integration to the field of developmental psychology" (p. 1). The challenge is that developmental models rely a great deal on mystical literature because empirical research on certain states of consciousness is scarce (Wade, 1996; Washburn, 1995; Wilber, 1986).

Developmental models often suggest an evolution of consciousness through preegoic, egoic, and postegoic modes (Cook-Greuter, 1999; Wade, 1996; Wilber, 1986). Wilber (1986) described these as prepersonal, personal, and transpersonal phases, whereby consciousness develops a relational and fully developed sense of self before that self can be integrated with the larger whole in a realization of nonduality. The prepersonal stage is one in which the ego is not fully formed, and traditional developmental psychology tracks the solidification of the self as a normal and healthy process. Personal identity and object relations come with the ability to work with representational symbols (Piaget, 1977). The personal stage is dominated by self-referential thought and self-reflective awareness, the individual identity known as ego (Wilber, 1986). Western psychology regards a fully formed ego and self-concept as the goal of mature lifespan development (Cook-Greuter, 1994). However, a fully formed sense of self is not to be equated with consciousness, as Engler (1993) explained:

The "self" is literally constructed out of our object experience. What we take to be our "self" and feel to be so present and real is actually an internalized image, a composite representation, constructed by a selective and imaginative "remembering" of past encounters with the object worlds. (p. 118)

The experience of individualized self, in other words, is constructed. The final stage of development in noetic models, the transpersonal, is one in which "it becomes clear that experience belongs ontologically to awareness alone rather than to a conceptualized self which 'has' the experience" (Costeines, 2009, p. 31). Development culminates in the realization that a separate, individualized self is not the ultimate reality. One may begin seeking transcendent experiences or nonordinary states of consciousness in the pursuit of a deeper truth, leading to mystical experiences of nonduality. Noetic developmental theory suggests that experience guides consciousness toward an awakening from the egoic dream (Cook-Greuter, 1994; Wade, 1996). As Brown and Engler (1980) wrote,

The meditator is said to learn fundamental truths regarding the operation of the mind. His awareness is said to become so refined that he begins to explore the interaction of mind and universe. ...In doing so, he learns that there is no real boundary between the mind-inside and the universe-outside. Eventually, a fundamental non-dual awareness will intuitively and experientially understand the operation of the mind/universe, leading to a radical transformation of experience called enlightenment. Moreover, there may

be several such transformations, more than one such enlightenment. (p. 145)

From the point of view of egoic self, nonduality or no-self is an altered state. But as Caplan (1999) pointed out, once consciousness has shifted into nonduality, egoic separateness feels like the altered state. While a complete elimination of negative mental states may not occur, a baseline, fundamental resting in the absolute replaces the self-referential chatter. As Washburn puts it, the ego attempts in vain to establish value through its constructed image, but in the culminating stages of nonduality, the constructs are replaced by stillness and a knowing that supersedes egoic self-importance (1995). Or as Wade writes,

Pure Unity consciousness is total psychic integration. There is no repression, no distance or conflict between feeling and perception; all is immediate. ... Yet, the here-and-now... cannot be fully realized or directly experienced except by highly evolved people who have deconstructed all dualism. (1996, p. 206)

An important question is how people experiencing nondual consciousness can continue to perform practical action and maintain rational thought processes, behaviors typically associated with a well-developed self. According to Maharishi (1972), these processes now function from freedom and relaxation rather than neurosis or chronic activation of the nervous system. As Wade proposed in her earlier work (1996), profound well-being emerges from this unobstructed, integrated perception.

It would take a tremendous amount of research to validate or refute the various models of nonduality that exist. Very little empirical research has been conducted thus far; some

studies support the superlative literary descriptions, the bold claims of teachers, and the hopes of seekers, while others do not.

McCormick (2010) conducted an intuitive inquiry and grounded theory study with twelve participants who had an experience of no-self and posited a progression, starting with a sense of individual self, moving into an experience of no-self, and culminating in a broader transpersonal experience of nonpersonal Self. Her use of the term *no-self* conveys the emptiness often experienced in states of nonduality, and the term *Self* to convey the unitive and oneness aspects.

Nondual teacher Weinman (2013) emphasized that the process of awakening first requires one to awaken from what one is not, a separate self, before one can awaken to what one IS. This conceptualization is similar to McCormick's (2010) progression from self to noself to Self. Both McCormick and Weinman appear to contradict Stace's unsubstantiated assertion that the introvertive type of mysticism, experiencing emptiness or Void, is a more advanced stage than the extravertive type which grants an experience of Oneness.

Conway (1988) conducted interviews of 24 spiritual teachers from a variety of traditions, finding that nonduality entailed the absence of pride and narcissism, as well as the presence of humility, "purity of heart," freedom from discontent and neuroticism, extraordinary empathy for others, deep bliss, fearlessness, and positive radiance of pure aliveness and innocent exuberance. Costeines (2009) interviewed twelve nondual teachers, and their responses supported his hypothesis that people experiencing nonduality do not experience negative emotions, such as fear, anger, or anxiety:

The absence of neurotic worry and existential fear in nondual consciousness can be attributed to the awareness of immortal, absolute being. In retrospect, participants perceived the core fear of personal annihilation as the source of all lesser worries—mental anxieties caused by mortal trembling at the gut level. Taken as a whole, the data indicate that the transition from egoic consciousness to nondual consciousness amounts to a shift from the false ontology of fear to the veridical ontology of peace. (p. 167)

Costeines further suggested that a study of people who claim to be free of suffering can inform the practice of psychotherapy, citing recent literature that describes nondual consciousness as the best perspective from which to understand psychospiritual suffering and a source of guidance toward genuine transformation (e.g., Blackstone, 2006; Brazier, 1995; Butlein, 2005; Capriles, 2000; Prendergast, Fenner, & Krystal, 2003). Likewise, Capriles (2000) called for a metatranspersonal psychology, founded on nonduality. Costeines only interviewed twelve awake teachers; if his findings were replicated across a larger and more diverse population of people in nondual states. then perhaps nonduality could inform or inspire a new take on psychology.

Butlein also arrived at very positive conclusions about nonduality with a mixed methods study (2005). He compared measurements from three scales, the Washington University Sentence Completion Test (WUSCT) which measures ego development (Loevinger, 1987), the State-Trait Anxiety Inventory (STAI), and a scale he and John Astin developed called the Nondual Embodiment Thematic Inventory (NETI), which is designed to measure nondual experience but is not yet validated. He studied

three groups of psychotherapists: five "awakened" psychotherapists, five unawakened transpersonal psychotherapists, and five unawakened nontranspersonal psychologists. The awakened group were selected by a well-known nondual teacher, Adyashanti, regarded as an expert at determining this state. The awakened group had the most favorable scores on all assessments; the transpersonal and non-transpersonal groups scored similarly in total, but the transpersonal group had better scores on the WUSCT, indicating better egoic and moral development, and the nontranspersonal group had lower anxiety as measured by the STAI (Butlein, 2005).

For the next phase of his study (2005), Butlein's hypothesized that seven extraordinary personal qualities would emerge from a thematic analysis of the interviews with higher frequency in the purportedly awake group than in either the transpersonal or nontranspersonal groups. This was found to be true with the following six themes: mental clarity, vibration evocation, nonduality, spacious presence, heartful and mindful contact, and deep empa-That these themes are imprecise constructs calls into question the construct validity of this study. Butlein further concluded that the qualities that distinguished the purportedly awake group from the other two groups appeared to be useful to the therapeutic process. In particular, spiritual realization appears to decrease therapists' defensiveness and countertransference and increase openness, empathic attunement, and client-therapist connection (p. 1). While Butlein is among the few to have used psychological scales, his sample size was very small, and his qualitative themes are imprecise.

Mills, et al. (2017) conducted a study in which they administered the NETI, the CES-D scale, the Patient-Reported Outcomes Measurement

System (PROMIS), and the Delaney Spirituality Scale (DSS) to 121 subjects. 98 subjects were randomly assigned to either the 6-day Perfect Health wellness program or a 6-day relaxation protocol, and 28 subjects were allocated directly to the relaxation protocol group. The NETI, designed to address nondual awareness,

...was significantly positively correlated with the Delaney Spirituality Scale (DSS) (p<0.001), demonstrating convergent validity with a validated measure of spirituality, and negatively correlated with the Center for Epidemiology Studies-Depression (CES-D) mood p< 0.001) and PROMIS anxiety (p<0.001) scales, demonstrating discriminant validity. Because nonduality can be fostered, in part, through meditation practice, the potential relationship between duration of meditation practice and the NETI score was also examined, and concurrent validity in this sample by showing that months of meditation practice (any form of meditation) was positively correlated with NETI scores could be demonstrated (r = 0.346, p = 0.004).(Mills, et al., 2017, p. 4)

Mills, et al. concluded that a holistic wellness program including meditation increased nondual awareness and overall wellbeing.

More empirical, quantitative research is certainly needed. Josipovic is one of a few researchers using electroencephalogram (EEG) and functional magnetic resonance imaging (fMRI) to measure brain states associated specifically with nonduality. His neuroscientific research has sought to identify the neural

correlates of nonduality (2010, 2014), defining it as "a background awareness that precedes conceptualization and intention and that can contextualize various perceptual, affective, or cognitive contents without fragmenting the field of experience into habitual dualities... such as self versus other, good versus bad, and in-group versus out-group" (2014, p. 9).

Travis (2014) and Travis, Tecce, Arenander, and Wallace (2002) have taken EEG measurements of subjects in transcendental and waking states, which could be compared to results from EEG measurements of subjects in specifically defined nondual states. Others such as Davis and Vago (2013), Vago and Zeidan (2016), and Yaden, Haidt, Hood, Vago, and Newberg (2017) have assessed literature and analyzed quantitative data, including that produced by brain imaging, on states that may correlate with nondual experience.

Wade's study (in press) provided much-needed qualitative rigor and dispelled a common myth that awakening is a spiritual experience. She defined awakening or nonduality as "a discrete shift in awareness, in which the consensual, apparently manifest reality of normal waking, adult sensory experience is perceived to derive from a singular unmanifest source in a seamless whole" (p. 2). The research sought to determine whether those who attained it considered the experience to be spiritual. Research participants were limited to those who (a) had self-identified as being in a state of nonduality for at least six months; and (b) were not currently a devotee or disciple of a religious teacher, which might have biased their experience in the direction of spirituality. There were 26 in the final sample, comprised of volunteers from three secular nondual communities: Finders Course, Liberation Unleashed, and the students of Fred Davis. They reported a wide array of spiritual upbringings

and current practice, including atheism. Wade's findings showed that only a third viewed the experience as a spiritual one, perhaps reflecting "a resistance to the duality of language, which is meaningless in nonduality" (p. 36). What was most interesting about her study was the lack of immediate or consistent bliss in nonduality, and even some potential risk:

Since the small samples of the current study and Costeines's (2009) study included people whose awakening process cost relationships and jobs; led some to homelessness and incarceration in mental institutions; and debilitated others for years with kundalini disturbances, doing non-duality "on your own" clearly involves hazards. Granted that religious communities and teachers have been corrupt, that some individuals involuntarily awaken without seeking, and that few communities or teachers know how to manage kundalini awakenings, individuals awakening without some of the traditional supportive structures religious institutions provided are likely to face many challenges. (Wade, in press, p. 38)

Given these findings, the earlier studies on spiritual teachers that concluded very positive conceptualizations of nonduality (Conway, 1988; Costeines, 2009) call into question the value of interviewing teachers, who presumably earn their livelihood supporting nonduality. Anyone whose livelihood is based on consumer revenues may be naturally biased toward a positive presentation of the experience they are supporting.

Martin's dissertation study (2010) was perhaps the first to dispel a myth of nonduality, finding no simple correlation between level of egoic development and what he terms persistent nonsymbolic experience (PNSE). He administered the Washington University Sentence Completion Test and the Hood Mysticism Scale (M-Scale) to 36 people reporting nondual states. While the participants showed high scores on the M-Scale, they exhibited a fairly wide range of developmental levels as measured by the WUSCT. This may contradict Butlein's study of 15 psychotherapists, which reported that the five nondual participants scored higher on the WUSCT than the other Martin's finding (2010) does, ten (2005). however, support the Wilber-Combs Matrix model (Combs, 1995, 2009) which presents lines of development in many areas including psychological and spiritual, which may or may not progress at the same rate.

Martin has conducted extensive research on nonduality since his 2010 dissertation study. Over a period of ten years, Martin (2013) was able to find nearly 1,200 nondual research participants, which is an impressive number considering it can be difficult to find nondual subjects who are not well-known teachers. He started with teachers, then sought out subjects who were blended in with the general population. His research population was much larger and more diverse than those of Costeines (2009) and Conway (1988), who limited their studies to spiritual teachers. Martin's work contradicts their glowing claims and echoes writers who dispel myths and discuss the challenges of awakening, such as Adyashanti (2008) and Bonder (1998).

Based on his interviews, Martin developed a classification system that is somewhat progressive (2013, 2015, in press). He has identified approximately twenty different categories or "Locations" of what he terms persistent

nonsymbolic experience (PNSE), including the following four paraphrased from his work:

- 1. Location 1 is subtle, marked by a shift into deep and fundamental sense of wellbeing, a loss of interest in narrative story, a feeling of being complete, and subtle changes in the sense of selfhood. There is, however, still a sense of separate self.
- 2. Location 2 is described as a deepening of Location plus a shift into nonduality, or the experience of self as not separate from things outside the self.
- 3. Location 3 is a state of even further reduced narrative thought, almost entirely positive emotion, extremely high wellbeing, and a deep sense of peace profound or merging with the Divine; however, it is characterized by a subtle sense of duality in relation to an external, usually described in a divine or panpsychist sense.
- 4. Location 4 is a stronger perceptual shift into a state of nonduality, but accompanied by loss of emotion, loss of a sense of agency, and emptiness. (Martin, in press)

Martin observed (in press) that those with a Christian perspective tend to feel comfortable in Locations 1 through 3 but can become very confused in Location 4 because the lack of the sense of the divine does not conform to their spiritual expectations. On the other hand, for some with a Buddhist or Advaita Vedanta perspective, the emptiness of Location 4 can be the goal, or the only state of nonduality worth striving for, as it fits the depictions of liberation or enlightenment described in some traditions. Martin's investigation of locations beyond these four is still pending.

The religious expectations surrounding Martin's (in press) Location 3 and Location 4 bring to mind Piaget's constructivist theory (1977), which suggests that people construct meaning from their experiences and expectations. Katz's theory of constructivism (1978), which asserts that spiritual experience is largely or entirely shaped by a person's religious or spiritual background and expectations, also applies to nondual states. Given that Christians sometimes experience a state of void or emptiness that does not fit their expectations of union with the Divine, their subjective sense of wellbeing in nonduality may be negatively affected by their expectations, which may pertain to any person whose experience does not match their belief.

Martin's qualitative work (in press) has produced a rich report on the lived experience of He found that nondual experinonduality. encers do appear to have a baseline wellbeing, but not constant bliss, nor consistently moral behavior, nor freedom from suffering. The core experiences include a dramatic reduction in self-referential thought, a deep background sense of fundamental "okayness," a unique quality of experiencing and ultimately extinguishing emotional reactions, a reduction in memory perhaps due to decreased self-reference, and even some unexpected changes in interpersonal relationships (Martin, 2013, 2015, in press). Some nondual experiencers wind up unemployed or divorced, and many of them experience a severe reduction in motivation, though generally their anxiety and depression become reduced and they would not "trade away" nonduality. Martin and some popular nondual teachers have also discussed the deconditioning process that accompanies nonduality (Martin, in press; Yates, Immergut, & Graves, 2015; Young, 2016; Ingram, 2018). He found that dissolution of the sense of self does not produce immediate

nor perpetual bliss and joy, but that residual psychological cleanup work needs to be done. However, the reduction in self-referential thought, even when it includes a feeling of emptiness and loss of emotion and motivation, correlates with a sense of wellbeing and freedom.

Martin's research group conducts much of their current research through an online awakening class, called The Finders Course. As part of the course, subjects are asked to complete pre- and post- psychological and wellness scales. He has found significant changes in most of these measures, such as increased markers of nondual experience as measured by a modified version of Astin and Butlein's NETI scale (2005), greater happiness as measured by the Authentic Happiness Inventory, and lower depression as measured by the CES-D (Martin, 2018). Remarkably, 70% of people completing the course report a shift into PNSE. These findings have been presented at a variety of conferences but not vet published. Baruss and Thomas (2018) conducted independent research on Finders Course participants and found significant results overall and interesting trends by Location of PNSE experience.

Bonder (1998) discussed the path of "mutuality," or engagement with others, which can create many challenges in awakening. Interacting with other people tends to trigger emotional conditioning, but why would this be particularly challenging for people in nondual states? It may be that losing the sense of separate self leads to the breakdown of identities which had previously served certain functions. Habituation and neural pathways may remain for some time after the underlying identities that supported certain behaviors and coping mechanisms are gone. Also, emotional conditioning remains after awakening (Martin, in

press; Yates, Immergut, & Graves, 2015; Young, 2016; Ingram, 2018), yet there may be less personal identification with the condition-What conditioning remains may cause greater discomfort when it is triggered; fears, neuroses, and other issues that were once integral to the sense of self may become irritating remnants of separation, now experienced as a falsehood. Martin (in press) observed that due to such challenges, nondual people reach a point where they favor one direction or another: Path of Freedom, marked by increasing solitude, or Path of Humanity, a lifestyle of continued engagement with others, much like Bonder's path of mutuality. If conditioning remains after awakening, is there a natural deconditioning process, or does it still require active work? What about awake people who continue to operate from a preponderance of negative conditioning?

Greenwell (2018) described awakening as a clear remembrance of being one with all existence, but this state does not involve purity or sainthood, which is a common misconception. It does involve a "continual alignment with truth...plunging into the unknown mystery of transformation...[and] rather than abandoning individual humanity, enlightenment is a lightening of it and includes compassion for the ways we become stuck in separateness" (p. 11). She discusses the aloneness of it, the difficulty of finding a psychological counselor or practitioner who really understands the state, and offers many strategies for integrating and working through the transformative nature of the process. One of the goals of research in this area, therefore, should be to clarify the realities of nonduality so that counselors can more effectively help awakening people with spiritual emergencies. It would also help counselors to avoid misdiagnosing the challenges of awakening as psychological disorder (Lukoff, 1985; Vieten & Scammell,

2015). Of course, there can also be mixed states of both disorder and spiritual emergency. Given the variety of pathways to awakening that Greenwell (2018) lists, distressed nondual people could present a large and confusing variety of cases to therapists. Such "portals" include:

...near-death experience (NDE), deep meditative practice, a traumatic event or injury, yoga or qigong exercises, suffering, despair, or grief, encountering a guru or awakened teacher, child-birth, ... experimentation with psychedelics, devotional practice and prayer, a visitation, vision, or mystical dream, breathing practices, a sudden *aha!* moment, [or] a shamanic journey or treatment (Greenwell, 2018, p. 8).

Suzanne Segal (2009) is an example of someone who had a sudden and profound awakening experience that was very psychologically upsetting to her. It occurred while she was standing at a bus stop in Paris:

> In one moment, everything that I had ever taken to be my personal self completely disappeared. It was just gone. As I waited for the bus to approach, something in consciousness was loosening somehow. And when it got there--I am sure it had nothing to do with the bus driving up--this reference point of an "I," a someone that everything was about and that everything that occurred in life was structured around, was gone. It was like a switch had been turned off. And it was never to turn on again. The first response that the mind had to this completely ungraspable experience was absolute terror, but that terror never changed the experience for a moment...never got

the reference point back again (Lumiere & Lumiere-Wins, 2003, p. 271).

Segal (2009) spent ten years struggling with the confusion and terror of having lost her core sense of self. She consulted with many psychotherapists, all of whom diagnosed with her something, none of whom understood what had really happened to her. She did not get any clarity until she started upon a spiritual path and met with a Zen teacher who recognized her state.

Underhill (1911/2002), another early influential scholar of mysticism, and Hunt (2007) addressed the dark night of the soul or spiritual suffering. Hunt described it as a later, or even penultimate, state of spiritual development. His work addressed the issues of whether a directly felt realization of "Being" or "Isness" is even possible, and how the complete absence of a felt sense of spirituality, which he equates with both dark night of the soul and dissolution of self, can parallel schizophrenic and schizoaffective conditions. Hunt's (2007) findings indicate that the anhedonia, or inability to feel pleasure and other positive states, may be a necessary part of spiritual development. In the dark nights,

...a deepening of mystical witnessing reveals a nonsubstantiality within previous enhancements of presence—only to be transformed into more subtle levels of unitive mysticism with a more complete letting go of the boundaries of self. We could say that schizophrenic anhedonia distills the despair of the spiritual dark night, without its previous tacit assurance of a steadily expanded presence. Indeed, some of the pain of the "dark night" comes from the memory of this contrast and the awareness of a seemingly complete loss of meaning in the very midst of its

ostensibly authentic realization. This broader context "contains" spiritual despair as a "meta" version of the more total life context of suffering in the patient." (p. 220)

Britton (2011, 2018) a neuroscientist and clinical psychologist, has conducted empirical studies on dark nights and other challenging and unexpected results from spiritual practice.

While dark nights are a more personal difficult experience that can be related to nondual states, no discussion of nonduality would be complete without a mention of the scandals and abuses in which some nondual or purportedly nondual teachers have been involved. Falk (2009) wrote of the dangers of exploitative teachers and gurus, and there have been cases in the media, such as Bhagwan Shree Rajneesh (later known as Osho) whose story was made into a Netflix documentary series called "Wild Wild Country" (2018). examples support the concept that psychological development is independent and may lag behind spiritual attainment, per Combs' (1995, 2009) and Wilber's models (1986), and as discussed by Franklin Merrell-Wolff (1995). Fortunately, more popular writers are beginning to discuss the challenges of integrating awakening. More research is critical for clarifying this process and for dispelling the myths, both to provide insight into so-called "crazy awake" behavior and to help protect seekers and consumers from being misled or manipulated by unethical teachers. Exploitation or abuse should never be excused, and certainly not on the basis of some special status or allowances supposedly conferred by awakening.

The spiritual beliefs around nonduality are an elephant in the room, but should be navigated carefully and likely avoided, in order for re-

search to carry weight across fields such as psychology and neuroscience. Some popular writers think of awakening as a change in brain state and do not subscribe to a metaphysical model, such as Shinzen Young (2016), despite his decades of Zen training. Other writers openly discuss metaphysics of awakening but still have similar descriptions to those of non-metaphysical writers of the challenges and realities of awakening. Weinman (2013) described structures in consciousness, which he called "veils," that act as a series of lenses to progressively focus consciousness into the experience of a separate self. When those structures start to release, the experience of being a separate self begins to release as well, as the underlying and elemental consciousness loses more and more of what was causing the experience of separateness. Weinman discusses a popular myth of awakening, the notion that it is the end of all suffering:

> This is the biggest selling point of awakening, in spite of the fact that awakening does not end your suffering. You take all your mental and emotional stuff with you into awakening and it is still there on the other side. What changes is your relationship to all that stuff. The relationship changes instantly and continues to evolve and change as your awakening deepens. All that mental and emotional stuff was created around the experience of being a particular I, and now that *I* is gone. As a result, you lose the oneness with it, you have more space in relation to it, and at some point, it no longer even feels like it has anything to do with you...the leftover mental and emotional stuff you still carry after awakening may seem like someone else's stuff, [but] you will

still get caught up in some of it. And you will still be responsible for it, whether you experience it as your own or as belonging to someone who has passed on...This is not exactly the fantasy of "the end of all suffering," but from the point of view of easing suffering, it is still an improvement (pp. 13-14).

Another myth Weinman discusses is what he calls "Whatever I get from awakening will be wonderful" (2013, p. 24):

Whatever value there is in awakening, the ego won't be there to receive that benefit. The ego expects all kinds of benefits from awakening, but that's part of the cosmic joke, because there is absolutely no benefit for the ego in In fact, from the ego's awakening. point of view, if it could see past its projections, it would see that awakening is really a losing game. Instead of gaining a prize, it continually loses, losing more and more of itself. ...people who have deeply awakened often look blissful and peaceful, but the [observer] won't/can't notice that there is no ego inside that is enjoying that awakened state (p. 24).

Nondual teacher Adyashanti (2008) echoes this, describing awakening as a "destructive process," not a "journey about becoming something. This is about *unbecoming who we are not*, about undeceiving ourselves" (p. 114). He also emphasizes that awakening is not a mystical experience as many are inclined to think, not a blissful merging with God or a sudden flash of cosmic insight; rather it is a process of loss that often creates a sense of disorientation.

Forman, a professor of religion and critic of Constructivism, wrote a popular book about his personal experience and challenges with awakening (2011). He writes about the changes in his drive and motivation, the issues it created in his marriage, the arising and releasing of traumatic memories, a change in his sleep to an unusual but not unpleasant wakeful sleeping, a lightening of his anxiety, the gift of emotional neutrality, "bottomless consciousness," and the space created by internal silence. Yet he continued to shoplift for months after his awakening.

To learn how to be a human being enmeshed in permanent silence is, as the Nicene Creed has it, to learn how to be "fully God and fully man." It is to learn to be silent and noisy, wrestl[e] with ancient demons and be spacious. It is to live in the soul, one foot in the great cosmic infinite and the other in the leftovers from imperfect parents, half-formed siblings and childish friends, not to mention our own troubled histories. And silence cures some of our dysfunctions, but only some. Curing a life, in my case becoming truly "indifferent to success and failure" (or whatever our life issue) is where this all gets lived (p. 172).

Given such rich descriptions of the complexity of awakening, the small amount of research that has been conducted is the tip of a very deep iceberg. More rigorous qualitative, as well as quantitative, research is needed to uncover possible commonalities and to bring clarity to a category of states that holds a great deal of fantasy, myths, and expectations.

Meditation vis a vis Nonduality

Although Josipovic (2013), Baarentsen, et al. (2010), and Mills, et al. (2017) assert a connection between nondual states and meditation, more research is needed to validate and explore the correlation. This connection makes the research on long-term meditators potentially very relevant for understanding nondual states. Several research studies have been published in high impact journals indicating that long-term meditation affects the default mode network (DMN) of the brain (Brefczynski-Lewis, Lutz, Schaefer, Levinson, & Davidson, 2007; Brewer, et al., 2011; Fingelkurts, Fingelkurts, & Kallio-Tamminen, 2016; Garrison, et al., 2015; Jang, et al., 2010; Simon & Engstrom, 2015). The DMN is a set of regions across the brain that are active during autobiographical memory, thoughts about the future, and mind-wandering (Kolb & Whishaw, 2015). It is involved when people think about themselves, think about others, or think about what others might be thinking about them. If, as these studies indicate, longterm meditation reduces activity in the DMN, this may offer a physical correlate and mechanism for the historical claims of Eastern philosophies. Meditation may diminish activity in the network in the brain that is involved in self-referential thought, thus physically bringing about a reduced sense of self. Whether this is a desirable effect remains to be seen. It could be that "crazy awake" behavior is related to decreased default mode network brain functioning while other areas of the brain, such as the amygdala and sympathetic nervous system, remain unchanged.

If long-term meditation reduces activity in the DMN, but not in older areas of the brain such as the limbic system, can this be the cause of distress or unhealthy behavior in awake people, who have lost their sense of separate self but may still display anxious, fearful, or otherwise unhealthy behaviors? At the very least it could create a cognitive dissonance, if some

regions of the brain are changed while others are not. Even for a psychologically healthy person in a nondual state, if they have a reduced or lower-functioning DMN and their sympathetic nervous system or amygdala gets triggered, how do they cope? Are they better equipped or lesser equipped to not react in socially inappropriate ways or engage in unhealthy behaviors? Even though the cognition of separate self may be diminished in nondual states, and with it a sense of personal identity and agency, a physical body remains which functions separately from other physical bodies, has unique identifiers such as a passport and tax identification number, and experiences its own physical appetites and urges. More research, including the use of brain imaging technology, would be useful for understanding this potential dissonance and to explore possible remedies, but the post-awakening emotional challenges some writers discuss warrant a deeper qualitative exploration beyond what brain imaging may reveal.

Traditionally, a long-term meditator or contemplative would be part of a cloistered community, or would have waited until retirement (the stage of life known as vanaprastha in the Hindu tradition) to begin a serious meditation practice. While cloistered communities have primarily provided structure that facilitates concentration without the distractions of mundane life, either option is a safeguard of sorts, a solution to potential negative side effects of nonduality. Modern society, however, provides no fail-safes for negative consequences of meditation. For example, if a busy working parent has an awakening experience, would he or she have the same functioning and be able to feed the children and pay the mortgage? More research is necessary to investigate potential consequences and inform a consumer market that is thirsty for well-being and has been promised numerous benefits from meditation.

Given the indications of a connection between meditation and nondual states, it is important for researchers to be mindful of the challenges that have arisen in mindfulness meditation research. A collaborative paper was published recently by a cohort of well-known researchers on mindfulness and meditation called "Mind the Hype: A Critical Evaluation and Prescriptive Agenda for Research on Mindfulness and Meditation" (Van Dam et al., 2017), which articulated a series of concerns:

During the past two decades, mindfulness meditation has gone from being a fringe topic of scientific investigation to being an occasional replacement for psychotherapy, tool of corporate wellbeing, widely implemented educational practice, and 'key to building more resilient soldiers.' Yet the mindfulness movement and empirical evidence supporting it have not gone without criti-Misinformation and poor methodology associated with past studies of mindfulness may lead public consumers to be harmed, misled, and disappointed. Addressing such concerns, the present article discusses the difficulties of defining mindfulness, delineates the proper scope of research into mindfulness practices, and explicates crucial methodological issues for interpreting results from investigations of mindfulness. (p. 1)

Mindfulness has been defined as conscious awareness or taking notice of emotions or body sensations, but it has also been defined behaviorally as a practice of sitting with a certain posture and focusing on the breath or some other focal point (Van Dam, et al, 2017). This can lead to a great deal of confusion about what is actually being studied. Next, the measurement and operationalization of

mindfulness presents significant challenges. Much of the data have been gathered by selfreport questionnaires, which is a concern for Van Dam, et al.: "Fueled by the prominence of behaviorism, which continues to play a prominent role in contemporary psychology..., the logical positivistic approach posits that a given measure is equivalent to the construct it purports to measure" (2017, p. 8), an assumption which cannot safely be made with states of consciousness. Van Dam, et al. discussed construct representation, or "the psychological processes that give rise to responses on instruments that purport to measure the construct" (2017, p. 8), as a remedy, citing Embretson (1983) and Strauss and Smith (2009). Van Dam et al. (2017) list nine scales in common use, each measuring a different subset of factors, such as acceptance, decentering, attention, and present focus (2017). The two most highly cited scales, the Mindful Attention and Awareness Scale (MAAS) and the Five Facet Mindfulness Ouestionnaire (FFMQ) measure attentiveness and awareness versus nonreactivity, observing, awareness, describing, and nonjudging (Van Dam, et al., 2017). All of these issues, definition, measurement, and self-report scale usefulness/ accuracy, will likely be challenges for the study of nonduality as well.

Van Dam, et al. (2017) discussed numerous methodological issues in addition to construct validity, including "potential adverse effects from practicing mindfulness" and "questionable interpretations of data from contemplative neuroscience concerning the mental processes and brain mechanisms underlying mindfulness" (p. 7). Some of the meditation-related negative effects have been psychosis, anxiety, mania, and depersonalization (Van Dam, et al., 2017). As discussed, these are concerns for research on nonduality, as a likely result of long-term meditation. Van Dam,

et al. compared the challenges to studying states of mindfulness to those of defining and studying "intelligence" and suggest measuring supporting mental faculties rather than attempting to directly measure mindfulness. This and other remedies they offer for the challenges of studying mindfulness meditation deserve serious consideration by nonduality researchers.

A final word of caution by Van Dam, et al. (2017) is for truth in advertising by contemplative neuroscience. They discussed the "common misperception in public and government domains that compelling clinical evidence exists for the broad and strong efficacy of mindfulness as a therapeutic intervention" (p. 11). The actual effect sizes, according to a recent meta-analysis by the U.S. Agency for Healthcare Research and Quality of mindfulness-based interventions, have shown a range of moderate to zero efficacy, depending on the disorder being treated (Van Dam, et al., 2017). If nondual states are found to result from meditation, then given the challenges of nonduality weighed against the small benefits of meditation, a widespread "prescription" for meditation may not be advisable

Fortunately, research on the downsides of meditation is underway and could inform research on nonduality as well. Lindahl, Britton, Cooper, and Kirmayer (forthcoming, 2019) discussed the challenges and adverse effects of meditation based on results from Britton and Lindahl's qualitative study on 60 Buddhist practitioners and 30 Buddhist teachers, "The Varieties of Contemplative Experience," which is ongoing.

One problem with nonduality or awakening that has not arisen in meditation research is that awakening has traditionally been described as a permanent shift. How does one determine if a research subject has experienced a permanent or temporary shift, and does it even matter? Likewise, can a researcher confirm whether a nondual subject's experience is authentic, or if they are simply parroting what the enlightenment marketing has promised them? A simple solution is not likely to be found. Subjects could be asked to provide verification from others, such as a nondual teacher, but that presents numerous ethical and validity considerations. Scales could be developed to define and measure nondual experience, or existing ones could be further tested for validity, such as Butlein's (2005) or Cook-Greuter's (1999).

An important direction for research on nonduality will be the possibly adverse changes in social functioning, motivation, memory, and capacity for interpersonal relationships that some writers discuss. Despite the aforementioned construct validity challenges with scales, it might still be useful to administer well-being scales, a social responsivity scale, a motivation scale, and possibly others in order to elucidate these potentially undesirable effects. It would also be interesting to determine how people in nondual states score on mindfulness scales. Subjective aspects of nonduality such as wellbeing should be measured with validated scales, as Garssen, Visser, & de Jager Meezenbroek (2016) have emphasized for mindfulness research. Others, such as Spilka, Brown and Cassidy (2009) have called for an investigation of the character and quality of life experience following mystical experiences, including nonduality.

An important caveat for researchers on such a sticky topic as awakening is bias, both personal experiences and philosophical leanings. Taylor (2016) has advanced what he calls "soft" perennialism, which has the same philosophical end as perennialism, but substantiat-

ed by phenomenological data rather than philosophical speculation. However, Taylor's (2017) popular work on awakening appears too soft on the downsides and challenges of awakening, presenting a much more glowing picture than other writers on the subject. Arguably, his phenomenological research has been biased by a failure to bracket his own philosophy and expectations, while he asks for a bracketing of the ontologies that are biased against his work (Taylor, 2016).

Conclusion

Nonduality is a challenging topic for researchers, but more research is critical to reconcile the conflicting definitions, descriptions, and systems, to ascertain a single state or multiple states of consciousness, and to determine whether it is permanent or temporary. Further research may reveal consistencies or common aspects, but the problem of definition will not be a simple one to solve, given the subjective, mystical, and often paradoxical reports of the experience. And while it may be getting less difficult to obtain a diverse nondual research population, given the many potential communities now, how can a researcher be certain that their participants are reporting genuine experience? Popular writing about awakening and nonduality has proliferated to the point that anyone could describe the characteristics and make claims to "enlightenment."

The literature reveals that the actual experience may be far more complicated and far less grand and wonderful than the poetic descriptions and marketing materials would suggest. Based on what little empirical research has been conducted, the lived experience of nonduality does not match up to the literary depictions. Martin found no correlation between nonduality and stage of ego development (2010), Wade found that people did not neces-

sarily describe the experience as spiritual (in press), and other work indicates such undesirable effects as temporary increase in emotional reactions, reduction in short-term memory, and unwanted changes in interpersonal relationships (Martin, 2013, 2015, in press).

A potentially valuable area of research for psychology is the process of integrating the experience of nonduality and deconditioning emotional issues post-awakening. Costeines (2009) and Capriles (2000), as well as Prendergast, Fenner, and Krystal (2003), may be correct that nonduality could inform the practice of psychotherapy, though likely not because it is a turnkey model of perfect psychological health.

It may be that awakening is a developmental process of dissolving the limitations of separate self and awakening to a larger sense of oneness, however differently such oneness might be conceptualized and experienced. The consequent reduction in self-referential experience, and/or the process of releasing emotional conditioning, could reduce neurosis, anxiety, and reactivity, and bring about an increased sense of well-being. Meditation promises such benefits and has traditionally been linked to nonduality. Future research may or may not confirm that link.

With long-term meditation and the pursuit of awakening becoming more popular, and with a burgeoning market of books, retreats, classes, and other products, the vague or white-washed descriptions of awakening by gurus and teachers can be countered by critical scholarship. The egoic sense of self may be drawn by the promise of a glowing attainment, but ironically, if the default mode network gets reduced by long-term meditation, possibly correlating with nondual states, certain key facets of individualized self would also be

reduced. Rather than winning a prize in enlightenment, the egoic self has pursued its own demise.

And, just as meditation research has uncovered a host of complexities, led to the development of scales, and fueled scholarly debate, nonduality will likely follow suit. It is becoming an important enough topic that researchers should be forewarned by the challenges defining and studying meditation, and approach the research carefully.

References

- Adyashanti. (2008). The end of your world:

 Uncensored straight talk on the nature
 of enlightenment. Boulder, CO: Sounds
 True.
- Baerentsen, K. B., Stodkilde-Jorgensen, H., Sommerlund, B., Hartmann, T., Damsgaard-Madsen, J., Fosnaes, M., Green, A. C. (2010). An investigation of brain processes supporting meditation. *Cognitive Processing*, *11*, 57–84.
- Baruss, I. & Thomas, K. (2018). *Preliminary* results of a study on Finders Course participants. Society for Consciousness Studies Conference, San Francisco, CA, June 2018.
- Blackstone, J. (2006). Intersubjectivity and nonduality in the psychotherapeutic relationship. *Journal of Transpersonal Psychology*, 38(1), 25-40.
- Brazier, D. (1995). Zen therapy: Transcending the sorrows of the human mind. New York, NY: John Wiley & Sons.

- Britton, W. (2011). *Buddhist Geeks: The Dark Night Project*, http://www.buddhistgeeks.com/2011/09/bg-232- the-darknight-project/. Accessed Sept 16, 2013.
- Britton, W. (2018). *Research at Brown:* Willoughby Britton. https://vivo.brown.edu/display/wbritton. Accessed July 18, 2018.
- Bonder, S. (1998). Waking down: Beyond hypermasculine dharmas--A breakthrough way of self-realization in the sanctuary of mutuality. San Anselmo, CA: Mt. Tam Awakenings, Inc.
- Brefczynski-Lewis, J.A., Lutz, A., Schaefer, H. S., Levinson, D. B., & Davidson, R. J. (2007). Neural correlates of attentional expertise in long-term meditation practitioners. *Proceedings of the National Academy of Sciences*, 104(27), 11483-11488. doi: 10.1073 pnas.0606552104
- Brewer, J. A., Worhunsky, P. D., Gray, J. R., Tang, Y-Y., Weber, J., & Kober, H. (2011). Meditation experience is associated with differences in default mode network activity and connectivity. *Proceedings of the National Academy of Sciences*, 108(50), 20254-20259. doi: 10.1073/pnas.1112029108
- Brown, D. P., & Engler, J. (1980). The stages of mindfulness meditation: A validation study. *Journal of Transpersonal Psychology*, *12*(2), 143-192.
- Butlein, D. A. (2005). The impact of spiritual awakening on psychotherapy: A comparison study of personality traits, therapeutic worldview, and client experience in transpersonal, non-

- transpersonal, and purportedly awakened psychotherapists. *Dissertation Abstracts International*, 67(1), 533B. (UMI No. 3202046)
- Caplan, M. (1999). Halfway up the mountain: The error of premature claims to enlightenment. Prescott, AZ: Hohm Press.
- Capriles, E. (2000). Beyond mind: Steps to a metatranspersonal psychology. *International Journal of Transpersonal Studies*. *19*, 163-183.
- Combs, A. L. (1995). The radiance of being: Understanding the grand integral vision; Living the integral life. St. Paul, MN: Paragon House.
- Combs, A. L. (2009). Consciousness explained better: Towards an integral understanding of the multifaceted nature of consciousness. St. Paul, MN: Paragon House.
- Conway, T. (1988). *The criteria for spiritual realization: An investigation of optimal well-being*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (Dissertation No. 303594280).
- Conze, E., Horner, I.B., Snellgrove, D., & Waley, A. (Eds.). (1954). *Buddhist texts through the ages*. Boston, MA: Shambhala Publications.
- Cook-Greuter, S. R. (1994). Rare forms of self-understanding in mature adults. In M. E. Miller & S. R. Cook-Greuter (Eds.), *Transcendence and mature thought in adulthood: The further reaches of adult development* (pp.

- 119-146). Lanham, MD: Rowman & Littlefield.
- Cook-Greuter, S. R. (1999). Postautonomous ego development: A study of its nature and measurement. Unpublished doctoral dissertation, Harvard University, Cambridge, MA.
- Costeines, M. (2009). What enlightenment means: A qualitative study of nondual consciousness as experienced by teachers of nondual mysticism. (Doctoral dissertation). Retrieved from Pro-Quest Dissertations and Theses database. (Dissertation No. 305094599.)
- Davis, J. H. & Vago, D. R. (2013). Can enlightenment be traced to specific neural correlates, cognition, or behavior? No, and a (qualified) yes. *Frontiers in Psychology*, 4(870), 1-4.
- Embretson, S. (1983). Construct validity:

 Construct representation versus nomothetic span. *Psychological Bulletin*, *93*, 179-197.
- Engler, J. H. (2003). Being somebody and being nobody: A reexamination of the understanding of self in psychoanalysis and Buddhism. In J. D. Safran (Ed.), *Psychoanalysis and Buddhism: An unfolding dialogue* (pp. 35-100). Boston, MA: Wisdom.
- Falk, G. D. (2009). *Stripping the gurus: Sex, violence, abuse and enlightenment.*Toronto, Ontario: Million Monkeys Press.
- Fingelkurts, A. A., Fingelkurts, A. A., & Kallio-Tamminen, T. (2016). Long-term meditation training induced

- changes in the operational synchrony of default mode network modules during a resting state. *Cognitive Processing, 17*(1), 27-37. doi: 10.1007/s10339-015-0743-4
- Forman, R. K. C. (2011). Enlightenment ain't what it's cracked up to be: A journey of discovery, snow, and jazz in the soul.
 Winchester, UK: O-Books.
- Garrison, K. A., Zeffiro, T. A., Scheinost, D., Constable, R. T., & Brewer, J. A. (2015). Meditation leads to reduced default mode network activity beyond an active task. *Cognitive, Affective, & Behavioral Neuroscience, 15*(3), 712-720. doi:10.3758/s13415-015-0358-3
- Garssen, B., Visser, A., & de Jager Meezenbroek, E. (2016). Examining whether spirituality predicts subjective wellbeing: How to avoid tautology. *Psychology of Religion and Spirituality*, 8(2), 141-148
- Gazzaniga, M. (1988). Brain modularity: Towards a philosophy of conscious experience. In A. Marcel & E. Bisiach (Eds.), *Consciousness in contemporary society* (pp. 218-238). New York, NY: Oxford University Press.
- Greenwell, B. L. (2018). When spirit leaps:

 Navigating the process of spiritual

 awakening. Oakland, CA: Non-Duality
 Press.
- Hixon, L. (1978). Coming home: The experience of enlightenment in sacred traditions. Burdett, NY: Larson Publications.

- Hood, R. W., Jr. (1975). The construction and preliminary validation of a measure of reported mystical experience. *Journal for the Scientific Study of Religion*, 14, 29-41.
- Hood, R. W., Jr. (1989). Mysticism, the unity thesis, and the paranormal. In G. Zollschan, J. Schumaker, & G. Walsh (Eds.), *Exploring the paranormal* (pp. 117-130). Bridport, Dorset, UK: Prism Books.
- Hood, R. W., Jr. (1997). The empirical study of mysticism. In B. Spilka & D. McIntosh (Eds.), *The psychology of religion* (pp. 222-232). Boulder, CO: Westview Press.
- Hood, R. W., Jr., & Williamson, W. (2000). An empirical test of the unity thesis: The structure of mystical descriptors in various faith samples. *Journal of Psychology and Christianity*, 19(3), 232-244.
- Hood, R. W., Jr., Ghorbani, N., Watson, P. J., Ghramaleki, A. F., Bing, M. N., Davison, H. K., ...Williamson, W. P. (2001). Dimensions of the mysticism scale: Confirming the three-factor structure in the United States and Iran. *Journal for the Scientific Study of Religion*, 40(A), 691-705.
- Hood, R., Morrison, R., & Watson, P. (1993). Further factor analysis of Hood's mysticism scale. *Psychological Reports*, 73, 1176-1178.
- Hunt, H. (2007). "Dark nights of the soul": Phenomenology and neurocognition of spiritual suffering in mysticism and psychosis. *Review of General Psychology, 11*(3), 209-234.

- Ingram, D. M. (2018). Mastering the core teachings of the Buddha: An unusually hardcore dharma book (Rev. ed.). London, UK: Aeon Books Ltd.
- Jang, J. H., Jung, W. H., Kang, D-H., Byun, M. S., Kwon, S. J., Choi, C-H., & Kwon, J. S. (2010). Increased default mode network connectivity associated with meditation. *Neuroscience Letters*. doi:10.1016/j.neulet.2010.10.056
- Josipovic, Z. (2010). Duality and nonduality in meditation research. *Consciousness and Cognition*, 19(4), 1119-1121. https://doi.org/10.1016/j.concog.2010.03.016
- Josipovic, Z. (2013). Freedom of the mind. *Frontiers in Psychology, 4*(538).
- Josipovic, Z. (2014). Neural correlates of nondual awareness in meditation. *Annals* of the New York Academy of Sciences, 1307, 9–18. doi: 10.1111/nyas.12261
- Katz, S. T. (Ed.). (1978). *Mysticism and Philosophical Analysis*. New York, NY: Oxford University Press.
- Kolb, B. & Whishaw, I. Q. (2015). Fundamentals of Human Neuropsychology (7th ed.). New York, NY: Worth Publishers.
- Lancaster, B. L. & Friedman, H. L. (2017). Introduction to the special topic section: The Taylor-Hartelius debate on psychology and spirituality. *International Journal of Transpersonal Studies*, 36(2), 72-74.
- Lindahl, J. R., Britton, W. B., Cooper, D., & Kirmayer, L. J. (forthcoming, 2019).

- Challenging and adverse meditation experiences: Toward a person-centered approach. In M. Farias, D. Brazier, & M. Laljee, (Eds.), *The Oxford Hand-book of Meditation*. New York, NY: Oxford University Press.
- Loevinger, J. (1987). *Paradigms of personality*. London, UK: W.H. Freeman & Company.
- Loy, D. (1983). How many nondualities are there? *Journal of Indian Philosophy*, *11*(4), 413–426. https://doi.org/10.1007/BF00194265
- Lukoff, D. (1985). The diagnosis of mystical experiences with psychotic features. *The Journal of Transpersonal Psychology, 17*(2), 155-181.
- Lumiere, L. M. & Lumiere-Wins, J. (2003).

 The awakening West: Conversations with today's new Western spiritual leaders. Gloucester, MA: Fair Winds Press.
- Maharishi Mahesh Yogi. (1967). *Bhagavad Gita: A new translation and commentary: Chapters 1-6*. Los Angeles, CA: International SRM.
- Maharishi Mahesh Yogi. (1972). *The science of creative intelligence*. Los Angeles, CA: Maharishi International University Press.
- Maharishi Mahesh Yogi. (Speaker). (1992).

 The seven states of consciousness: A
 historic lecture by his Holiness Maharishi Mahesh Yogi founder of the transcendental meditation and TM-Sidhi program [Audio cassette]. Fairfield,

- IA: Maharishi International University. (Original work published 1967)
- Martin, J. A. (2010). Ego development stage does not predict persistent non-symbolic experience. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (Dissertation No. 3447085.)
- Martin, J. A. (2013). *A continuum of persistent non-symbolic experiences in adults*. (Unpublished paper.) Retrieved from http://nonsymbolic.org/PNSE-Summary- 2013.pdf.
- Martin, J. A. (2015). *The Finders Course experiments*. Society for Consciousness Studies Conference, New Haven, CT, June 2015.
- Martin, J. A. (2018). *The Finders Course experiments*. The Science of Consciousness Conference, Tucson, AZ, April 2018.
- Martin, J. A. (in press). *The finders*. Charleston, SC: Integration Press.
- McCormick, L. A. (2010). The personal self, no-self, self continuum: An intuitive inquiry and grounded theory study of the experience of no-self as integrated stages of consciousness toward enlightenment. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (Dissertation No. 3397100)
- Merrell-Wolff, F. (1995). *Transformations in consciousness: The metaphysics and epistemology*. Albany, NY: State University of New York Press.

- Mills, P. J., Peterson, C. T., Pung, M. A., Patel, S., Weiss, L., Wilson, K. L., ... Chopra, D. (2018). Change in sense of nondual awareness and spiritual awakening in response to a multidimensional well-being program. *The Journal of Alternative and Complementary Medicine*, 24(4), 1-9. doi.org/10.1089/acm.2017.0160
- Piaget, J. (1977). *The essential Piaget* (H. E. Gruber & J. Voneche, Eds.). New York, NY: Basic Books.
- Prendergast, J., Fenner, P., & Krystal, S. (Eds.). (2003). *The sacred mirror: Nondual wisdom and psychotherapy*. St. Paul, MN: Paragon House.
- Segal, S. (2009). *Collision with the infinite: A life beyond the personal self.* New Delhi, India: New Age Books.
- Simon, R. & Engstrom, M. (2015). The default mode network as a biomarker for monitoring the therapeutic effects of meditation. *Frontiers in Psychology*, 6(776), 1-10. doi:10.3389/fpsyg.2015.00776
- Spilka, B., Brown, G. A., & Cassidy, S. A. (2009). The structure of religious mystical experience in relation to pre- and post-experience lifestyles. *The International Journal for the Psychology of Religion*, 2(4), 241-257.
- Stace, W. (1960). *Mysticism and philosophy*. Philadelphia, PA: Lippincott.
- Stace, W. (1987). *Mysticism and philosophy*. New York, NY: Oxford University Press. (Original work published 1960)

- Strauss, M. E. & Smith, G. T. (2009). Construct validity: Advances in theory and methodology. *Annual Review of Clinical Psychology*, *5*, 1-25.
- Taylor, S. (2016). From philosophy to phenomenology: The argument for a "soft" perennialism. *International Journal of Transpersonal Studies*, 35(2), 17-41.
- Taylor, S. (2017). *The leap: The psychology of spiritual awakening*. Novato, CA: New World Library.
- Travis, F. (2014). Transcendental experiences during meditation practice. *Annals of the New York Academy of Sciences*, 1307, 1-8.
- Travis, F., & Pearson, C. (2000). Pure consciousness: Distinct phenomenological and physiological correlates of "consciousness itself." *International Journal of Neuroscience*, 100, 77-89.
- Travis, F., Tecce, J., Arenander, A., & Wallace, R. K. (2002). Patterns of EEG coherence, power, and contingent negative variation characterize the integration of transcendental and waking states. *Biological Psychology*, *61*, 293-319.
- Tolle, E. (1999). *The power of now: A guide to spiritual enlightenment*. Novato, CA: New World Library.
- Torwestern, H. (1985). *Vedanta: Heart of Hinduism*. New York, NY: Grove Press.
- Underhill, E. (2002). *Mysticism: A study in the nature and development of spiritual consciousness*. Mineola, NY: Dover

- Publications, Inc. (Original work published 1911)
- Vago, D. R. & Zeidan, F. (2016). The brain on silent: mind wandering, mindful awareness, and states of mental tranquility. *Annals of the New York Academy of Sciences*, 1373(1). doi.org/10.1111/nyas.13171
- Van Dam, N. T., van Vugt, M. K., Vago, D. R., Schmalzl, L., Saron, C. D., Olendzki, A....Meyer, D. E. (2017). Mind the hype: A critical evaluation and prescriptive agenda for research on mindfulness and meditation. *Perspectives on Psychological Science*, 1-26. doi: 10.1177/1745691617709589
- Vieten, C. & Scammell, S. (2015). Spiritual and religious competencies in clinical practice: Guidelines for psychotherapists and mental health professionals.

 Oakland, CA: New Harbinger Publications, Inc.
- Wade, J. (1996). Changes of mind: A holonomic theory of the evolution of consciousness. Albany, NY: State University of New York Press.
- Wade, J. (in press). After awakening, the laundry: Is nonduality a spiritual experience?
- Washburn, M. (1995). *The ego and the dynamic ground* (Rev. ed.) Albany, NY: State University of New York Press.
- Weinman, R. (2013). Awakening through the veils: A seeker's guide. Bloomington, IN: Balboa Press.

- Wilber, K. (1986). The spectrum of development. In K. Wilber, J. Engler, & D. Brown (Eds.), *Transformations of consciousness: Conventional and contemplative perspectives on development* (pp. 65-107). Boston, MA: Shambhala.
- Yaden, D. B., Haidt, J., Hood, R. W., Jr., Vago, D. R., & Newberg, A. B. (2017, May 1). The varieties of self-transcendent experience. *Review of General Psychology*. Advance online publication. http://dx.doi.org/10.1037/gpr0000102
- Yates, J. C., Immergut, M., & Graves, J. (2015). The mind illuminated: A complete meditation guide integrating Buddhist wisdom and brain science for greater mindfulness. New York, NY: Touchstone.
- Young, S. (2016). *The science of enlightenment: How meditation works*. Boulder, CO: Sounds true.