

Background and Overview

This volume forms part of the AAPS book series *Advances in Postmaterialist Sciences*, created with the intent to educate scientists, students, and science-minded readers about postmaterialist consciousness research and its implications and applications. We are delighted that it is also being co-sponsored by the Scientific and Medical Network's Galileo Commission, with its mission to expand the scope of science beyond the limitations of the currently predominant materialist world view. Our intent is that each volume of the AAPS book series combines rigor and creativity, expresses first person (inner experiences) as well as third person (external observations), and facilitates the evolution of humanity and improved conditions on the planet. The first volume, *Is Consciousness Primary?*, shared both the contributing authors' first-person experiences that transformed their understanding of the primacy of consciousness and the research that supports that perspective. The second volume, *Expanding Science*, offered perspectives on what the unfolding of the postmaterialist paradigm might be like.

With the current volume we take this exploration further, by going to both scientists and other academics, typically with PhDs or other Doctoral degrees, and letting them share the experience of their own spiritual journey. This includes a description of their spiritually transforming experience(s), the subsequent transformation including both an inner change (world view, values and beliefs) and outer changes (how this experience manifested in their day-to-day life). Finally, authors discuss the challenges to their credibility in academia and the scientific field, if they shared these experiences publicly, obliging them to live a 'divided life' between the personal and the professional. This fear of losing credibility with professional colleagues was the reason that three authors chose to submit their essays anonymously, supporting the concept of epistemological policing of thinking out of the 'power knowledge' (Foucault) box as elaborated in *The Flip* by Jeffrey Kripal (2019). The Galileo Report already demonstrated that the standard model that the brain produces consciousness is not an established fact but rather a philosophical assumption whereby, as Kripal puts it 'our conclusions are a function of our exclusions.' As far back as the 1890s, FCS Schiller, William

James and Henri Bergson were advancing another possible theoretical approach: that the brain might serve as a ‘transmitter’ or filter for consciousness. More recently, this approach has been further elaborated in the three volumes initiated by the Esalen Institute and the Division of Perceptual Studies at the University of Virginia, especially *Beyond Physicalism: Toward Reconciliation of Science and Spirituality* (Kelly et al., 2015).

A further point on ‘the divided life’ is the separation between private and public, personal and professional. It is our experience that many more people are happy to broach topics around spiritual experience in private settings but would not consider doing so professionally. One of our hopes for this volume is that by reading these accounts, more scientists and academics will realize how common they are (a fact already established by research following up the original work by Sir Alister Hardy in the 1960s). The irony is that the same people who are reluctant to speak to their colleagues would find that their colleagues are in a similar situation, so that if more people ‘came out’, spiritually speaking, this might contribute to a welcome change of culture toward greater openness in this respect.

In these essays you will note that we use the term “spiritual awakening” as typically characterized by two elements: 1) the spiritually transforming experience (STE) itself (the triggering experience(s)) and 2) the process of transformation, including both inner and outer changes. Inner transformation was characterized by a change in an individual’s “world view”, that is, their understanding of the nature of reality. This includes the narratives we each create about the nature of the world and the subsequent interpretation of these experiences. A ‘crucial experience’ carries far greater weight than any ‘crucial experiment’ in bringing about fundamental change.

These essays describing the contributors’ STE and subsequent transformation in world view were varied and very nuanced, leading us to contemplate the subtle nature underlying these processes, and how they may be quite distinct for each individual. We realize that the essays share experiences along a continuum related to the content and intensity of the original experience as well as the timeframe of transformation, especially where this was more gradual and did not involve a single dramatic experience. Despite the nuanced nature of individual spiritual awakenings, a number of themes emerged with respect to both the nature of the STE and

the subsequent transformation, so we have grouped the essays into categories based on these themes.

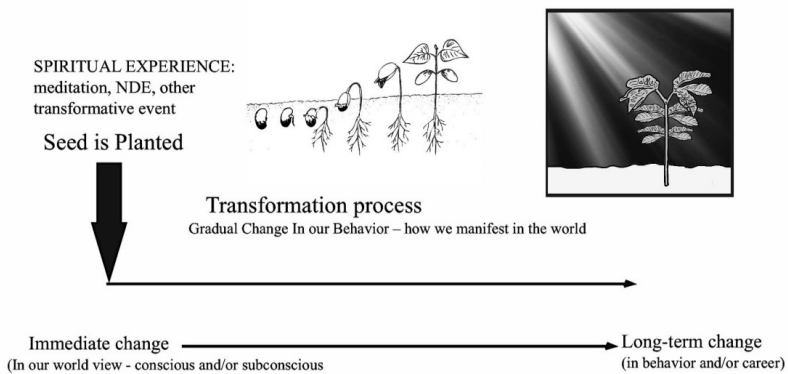
Thematic categories include: 1) mystical awakenings triggered as a result of spiritual practices; 2) STEs occurring during or awakening from sleep; 3) STEs occurring spontaneously during other daily activities, often without a specific triggering event; 4) STEs occurring as synchronistic transmissions through the word; 5) dramatic STEs facilitated through the use of psychedelic substances; 6) STEs triggered by near-death experience (NDEs); and 7) STEs triggered by psychic phenomena, such as telepathic connections, precognition, after-death communication or awareness of remote events.

A leitmotif that runs through essays in all of the categories is a quieting of the mind, specifically a reduction in the ongoing mental narrative. This quieting of the ongoing mental narrative appears to be an important element within the STE. Interestingly, research by a number of labs has examined changes in the state of the mind-brain complex during some of these categories of experience, including deep states of meditation, psychedelic experiences and NDEs (Woollacott & Shumway-Cook, 2020). For example, the research of Judson Brewer and his colleagues used brain imaging to track these changes during meditation in a part of the brain called the Default-mode (DMN) or mind-wandering network, often considered a source of our egoic identity (Brewer et al., 2011). They demonstrated that there was both a reduction in mind-wandering during meditation in advanced meditators vs. control participants, and that this was associated with a decrease in the activity of the DMN.

This reduction in brain activity, specifically in the DMN, has been reported in many types of spiritually transforming experiences such as when using psilocybin and other types of drugs. This research has led to the proposal that quieting the mind (reducing activity in the DMN) reduces the filtering process of the brain, allowing the experience of expanded awareness not normally available when the DMN is active (Woollacott & Shumway-Cook, 2020). You will see our comments on this throughout the introductions to the various sections of the book, as we believe the stilling of the narrative mode of thinking is an important adjunct and possibly a causative agent in these experiences.

Within and across these categories the transformation process ranged

along a continuum from an immediate change in world view occurring at the time of the STE, to a gradual shift in world view over time, or a combination. With this awareness in mind, we propose to use a metaphor for the experiences shared in this volume. As the experiences frequently consisted of an initial awakening to a new understanding of the nature of reality that shifted the individual's world view, we may liken it to a seed that has been planted, as you see in the accompanying figure. In some individuals, their previous narrative framework or world view is immediately superseded by a more expansive one, being likened to the seed germinating immediately and, like a new seedling, rising above the surface, to be seen in changes in attitudes and behaviors. In others there may be smaller shifts in world view with continuing experiences and insights, or a longer germination period, depending on the ability of the individual to incorporate the experience into an expanded world view.



Photos: Left: From https://www.barewalls.com/art-print-poster/bean-seed-germination-isolated_bwc28903029.html
Right: From <http://www.mrefamilyschool.com/courses/cape-unit-2/cape-unit-2-biology/>

The difficulty in applying a conceptual framework to nuanced spiritual experiences is that the very framework used to organize experiences can blind and bind us – a characteristic of predominantly left hemisphere orientation that does not recognize its own limits, as explained in detail by Iain McGilchrist (2019). In addition, the range of meanings associated with many words used to describe STEs makes understanding their import

challenging. For example, one of our contributors, who had his own concerns about the word “spiritual”, challenged our request to contribute an essay in this way:

As I reflect, I find the very idea of a ‘spiritual awakening’ disturbs me. The word ‘spiritual’ points tacitly toward a transcendence of this worldly realm; for me that which is sacred is immanent on Earth. And the metaphor of ‘awakening’ harks back to the conceit of Enlightenment: my experience is that the dark is as full of meaning as the light. Further, my experience is not of one turning point but an unfolding process over decades. I can, however, trace some moments of grace, of subject-to-subject encounters, that lead me tentatively to experience the world as sentient.

This challenge to the wording of our invitation helped us see that, though our own definition of the word ‘spiritual’ includes the sacred as both immanent - within the world - and transcendent - beyond the world - these nuances need to be made explicit. And we also agree with the contributor that awakening includes the understanding of the sacredness of both darkness and light within our lives. And as you will see in the essays, the unfolding process continues throughout the lifetime, with many contributors saying that they are still in the process of understanding their original experiences.

As you read through the essays on spiritual awakening, we invite you to think about your own life, and whether you have also experienced spiritually transformative experiences and any resulting insights that gave you a new way of seeing the world, perhaps shifting the trajectory of your life. We hope that the cumulative effect of reading these essays will encourage you to ‘come out’ and share your own unfolding journey so that it becomes easier for scientists and academics to lead lives integrating the personal and the professional rather than continuing with a divided life, as noted above. In this way we can hasten the expansion of our culturally dominant world view beyond the limits imposed by scientific materialism. If you are a scientist and/or academic we also encourage you to submit your own experience of the evolution of awakening and transformation to the section of our AAPS website, TASTE, The Archive of Scientists’ Transcendental Experiences.

(link: <https://www.aapsglobal.com/taste/>)

After the essays we have included an epilogue, with further

contemplation about the nature of the transformation process and the meaning of these experiences both in the authors' lives and their interactions with others. It is significant that individuals often found it difficult to share the experience and subsequent change in worldview with friends, family and colleagues. Many reported keeping their experiences private except for a few close friends, others feared ridicule or dismissiveness by academic colleagues. Most reported that the STE prompted a shift in careers or finding new approaches to their scientific or academic career that would allow them to incorporate new understandings into their teaching, research, or healthcare.

Note: We have retained the authors' own writing styles in British and American English.

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PART ONE

STEs Through Spiritual Practices

This first category of essays encompasses STEs that include awakenings that have occurred through a variety of spiritual practices, including meditation, mantra repetition and other practices that often awakened a tangible spiritual energy within the body. In some individuals the awakening occurred as a dramatic stilling of the mind the first time they were introduced to a practice, including being in the presence of or receiving initiation by a master of meditation. For example, in her essay one woman describes her first meeting with a spiritual teacher. “Once seated before the master, I was suddenly transported into another state of being by a powerful and irresistible force. I felt totally exposed; totally seen; totally known; totally accepted; totally loved.”

In others the awakening came as a result of intense effort over a long period of complete devotion to study and meditation. For example, in one of the essays in this section, the meditator had an awakening that came as a result of intense effort over a half-year retreat, in which he devoted himself completely to study and meditation. He said, “Then, in a sudden and unexpected rush, the seeking of the past six months and the concentration of the past three days finally burned a hole through the ‘ego-I.’”

For another person this quieting of the verbal narrative happened as a result of intense mantra repetition, over a period of seven days. He said, “This was the seventh day since I had started [mantra repetition]. I continued my mantra deliberately as I walked out of my office, then out of the building, across the street, and onto the grassy meadow. And then the universe opened up to me. I seemed to be one with the cosmos, the grass, the trees, the sky.”

Just as in many of the following categories of awakenings, the current experiences often occurred as the normal verbal egoic narrative associated with the stories of who we are and how we relate to the world, were suddenly

stilled. As was discussed in the preface, researchers examining changes in brain activity during deep states of meditation found that among advanced meditation practitioners there was reduced activity in the DMN and a concomitant decrease in self-referential or ego-related narrative, enabling an experience of expanded awareness.

You may recall moments in your own life, when a meditative practice, even walking contemplatively in nature, may have moved your mind toward silence and expansion.

PART TWO

STEs Occurring During or Awakening From Sleep

This second category of essays includes STEs that were triggered in some relation to the sleep state, including during sleep, upon awakening from sleep or during lucid dreaming. Though the experiences themselves varied widely, the noetic aspect of expanded awareness was consistent across all. One author shared that after awakening from a lucid dream, she felt a “spontaneous, noetic sense of absolute Oneness activating every fiber in my body, with an embodied sense of interconnection with everything.” Another said, after awakening in the middle of the night, that he was “filled with a marvelous warm sense of well-being. The darkness seemed alive, pervaded with a powerful harmonious force.... The force filled the whole universe. It was the essence and the source of all things.” And, in this ongoing theme, a third said, “I suddenly experienced my sense of self – both physically and mentally – gently dissolving, and I began to experience a sense of ‘oneness’ with everything around me.”

How could a sleep state engender a sense of expanded awareness? We propose that during a sleep state the conscious mind’s control relaxes, there is a decrease in activity in the Default Mode Network, and thus the brain’s filtering processes are reduced, allowing a more expansive state to be experienced.

Though these initial experiences were often somewhat similar in their noetic quality, the individuals’ worldviews or frameworks in which they interpreted the experiences were often varied and in stark contrast to each other. In one essay the experience resulted in a change in “the root core of my belief system..... It was the closest I have ever come to touching infinity”. In contrast another labelled the STE as an “anomalous experience...a momentary lapse in my perception of reality, not to be pursued or appreciated.” As you see in these two examples, the interpretation was sometimes influenced by the individual’s worldview when they entered into the experience. Though some

worldviews crumbled, like a house of cards, when met with the noetic experience, others, though they gave a glimpse into an alternative lens on reality, remained in place for many years, as further experiences and evidence were required, in order to shift to a new framework.

PART THREE

STEs Occurring Spontaneously During Daily Activities, Often Without a Specific Triggering Event

The essays in this category most often represent a series of gradual insights that bring the individual closer and closer to a sense of unity with all that is around them. One person wrote, “There was no ‘Road to Damascus’, no blinding light ... just a gradual opening to a presence in the heart.” The experiences often seemed to happen in the midst of “ordinary” activities, which were suddenly perceived as “extraordinary.” During this experience the usual ordinary state of awareness was transformed into a wider, expanded awareness.

This shift in consciousness happened in many contexts, from a jail cell in Spain to the bush of Africa. We include here the classic example of Arthur Koestler’s epiphany in a jail cell in Spain (Koestler was an early Member of the Scientific and Medical Network). He said, “I was standing at the recessed window of cell No. 40, and, with a piece of iron-spring that I had extracted from the wire mattress, was scratching mathematical formulae on the wall... I was trying to remember how to derive the formula of the hyperbola, and was stumped; then I tried the ellipse and the parabola, and to my delight succeeded.... Now, as I recalled the method and scratched the symbols on the wall, I felt the same enchantment. ...And then, for the first time, I suddenly understood the reason for the enchantment: the scribbled symbols on the wall represented one of the rare cases where a meaningful and comprehensive statement about the infinite is arrived at by precise and finite means..... The significance of this swept over me like a wave.”

In another essay the author talks about his experience as a 19-year-old in a beautiful part of South Africa. He says, “There, at Sengwa was the beginning of the long trail that has brought me to new ways of being in nature which encompass academic biology and science, but which are in fact much older and wiser.... This feeling of being in the midst of the deepest sacred and

of the most wise never left me for a moment during the five months or so I spent at Sengwa.”

It is possible that as in other types of STEs, when one is intensely engaged with an activity or with the natural environment, there is a reduction in activity in the Default Mode Network and a suspension of the egoic narrative of the mind, allowing an experience of unfiltered expanded awareness.

PART FOUR

STEs Occurring as Synchronistic Transmissions Through the Word

We have included in this category synchronistic transmissions that occur through the written word. One author describes his experience during a visit to the Boston Library, when he was in high school. “On one of the shelves there was a big book with Plato’s name on it. I had heard of Plato but had read nothing by him and had no idea what his ‘philosophy’ was all about. I took the book down and opened it. It opened to his Allegory of the Cave (*Republic*, 514a – 517b). As I was reading the Allegory, my body started to react ...tears flowed freely, chills up and down the spine, and my whole body almost in convulsions. I remember trying to stop it; after all, it was a public space and people were around. But I couldn’t stop it. While my body was doing its thing, my mind was understanding Plato’s allegory completely. This understanding is not the kind of understanding that comes with effort; the understanding was immediate and effortless.”

This theme of awakening through the written word is actually a perennial one, in that many traditions talk about the word as being one with the absolute creative potential of the universe. In India the term that is used for the divine word is *Vak* or *Vac*, often considered as a goddess who is the divine inspiration for poets and visionaries. And in the Christian tradition, logos, the word, is also considered to be divine, as in the phrase, “In the beginning was the word and the word was with God and the word was God.” (John, 1:1). In the Tantric tradition of India there is an understanding that when an enlightened teacher shares wisdom through a written text, there can be a direct transmission (*sankrānti*) of the deep meaning of that text to a qualified reader, that is, one who is receptive and becomes deeply absorbed (Williams, 2017).

In reading these essays, we invite you to consider whether the individual was in a state of readiness for this transmission through the written word, which was accompanied by a sense of receptivity, presence and a stilling of the

mind, allowing the awakening and expanded state of awareness to occur. Think about times when you have been reading and felt a deep connection to the words or author, perhaps experiencing a direct transmission of meaning going directly to your heart.

Reference

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PART FIVE

STEs Triggered by Psychedelic Experiences

Descriptions of spiritual experiences that have occurred through the use of psychedelics have been a part of our human written history for millennia, as these plants have been used as sacramental tools across cultures. For example, Sanskrit texts talk about the legendary Soma, part of Indian sacramental lore, which was possibly an extract of a hallucinogenic mushroom. And the ancient Greeks, in their Eleusinian mystery rites have been said to create a drink which may have included wheat infected with a fungus closely related to LSD. In addition, research on the spiritually transformative experiences associated with psychedelic use has increased during the last century, with individuals such as Aldous Huxley, Willis Harman, Roland Griffiths, and Stanislav Grof being some of the leading contributors to this movement.

In this group of essays, individuals who had taken psychedelics, also called entheogens, report the most exceptional and transformative experiences of their lives. After multiple experiences with psilocybin an author reports: “These experiences were the most ecstatic, most cognitively marvelous, most existentially satisfying experiences of my life.” And, “At the time and afterward I realized that this was the most important and most transformative experience of my life - and fifty years later, I still feel the same way.” One author, who only ingested it a single time reports, “Not too long after (ingesting the psychedelic), I began a meditation practice, starting practicing yoga, and learned about energy medicine.... My research ever since has been focused on the intersection between spiritual practices, health, and consciousness, with a focus on underlying mechanisms guiding healing and transformation.”

Interestingly, research on the change in brain states associated with psilocybin ingestion shows that it appears to act in a way that is very similar to that seen when individuals enter into deep states of meditation. After psilocybin ingestion activity of the Default-Mode Network, which is associated with the narratives or stories we create about ourselves and our relationship to the world

and is often considered the source of our egoic identity, is substantially reduced. This quieting of the mind's narratives and the correlated brain areas appears to result in an expansion of awareness beyond the normal default state. As with deep states of meditation, persons often experience a profound transformation of worldview, with terminal cancer patients, for example, losing their anxiety about the diagnosis and their fear of death (Barrett & Griffiths, 2018).

References

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PART SIX

STEs Triggered by Near-Death Experiences

Near-death Experiences (NDEs) have been described in the written history of many cultures for more than 2000 years. One of the first known NDEs was mentioned in Plato's Republic, as that of a warrior named Er who was left dead on the battlefield, but revived as he was placed on the funeral pyre (van Lommel, 2011; Lorimer, 1984). And the first medical report of such an experience was published in 1740 by Pierre-Jean du Monchaux, a French military physician (Gholipour 2014). In the past thirty to forty years there has been a blossoming of medical research on the nature of NDEs including work by researchers such as Bruce Greyson, Raymond Moody, Peter Fenwick and Kenneth Ring, which indicates the accuracy of the NDE out-of-body experiences that a number of individuals have had during cardiac arrest with flatlined EEGs; these studies show that individuals had clear awareness of the resuscitation events in the hospital room and even elsewhere in the hospital, in addition to mystical experiences. There is also an interesting characteristic that NDEs have in common with deep meditation and psilocybin experiences, in that the brain cortex networks, including the Default-Mode Network responsible for much neural filtering, are essentially inactive during their experiences.

Reference

Gholipour, B. (July 24, 2014). Oldest medical report of near-death experience discovered. *Live Science*. Retrieved October 16, 2018

PART SEVEN

STEs Triggered by Psychic Experiences

Psychic experiences also play a significant role in triggering spiritual awakenings or STEs. It is interesting that in the US and Europe psychic phenomena have been experienced by a substantial portion of the population, ranging from 21-34% in Europe and 25-50% in the US for such phenomena as telepathy, clairvoyance and contact with the dead (Wahbeh et al., 2020). Yet many people in our culture consider these to be simple random occurrences that we incorrectly interpret as having spiritual significance.

The STEs in this section ranged from a young woman having a shared experience of seeing her deceased grandfather bring her mother onto shore after she was in a swimming incident, to communication from a friend who had recently and unexpectedly died when struck by a car, and an apparently miraculous self-healing through an energy healing practice.

Were these triggered by a quieting of mental activity? It is not clear from the essays; however, it may be that a quiet mind allows a clearer perception of these phenomena when they occur.

Reference

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