# Chapter

# Enlightenment and the Psychology of Self-Transcendence: Pathways to Fundamental Well-Being and Prosocial Behavior

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# Abstract

The concept of enlightenment has long intrigued scholars and contemplation practitioners alike, often associated with profound insights into the nature of self and reality. This chapter explores the notion of enlightenment through the lens of non-dualism, emphasizing the dissolution of the independent, single, permanent self and the emergence of self-transcendent experiences. Such experiences are characterized by a sense of universal oneness, benevolence, compassion, and an overarching feeling of happiness and love. We critically evaluate various practices that have been proposed to facilitate these states, including near-death experiences, insight meditation, and the use of psychedelic substances. By examining empirical studies that have implemented these practices, we critically assess their role in promoting well-being and positive effects on individuals' psychological states and behavior. Through a comprehensive analysis, this chapter aims to illuminate key pathways to enlightenment and their potential to foster a more compassionate and harmonious human existence.

**Keywords:** emptiness, nonduality, self-transcendence, meditation, near-death experience, psychedelics, psilocybin, Buddhism, well-being, prosocial behavior, enlightenment, nonself

# 1. Introduction

"Enlightenment is the moment the wave realizes that it is water."

– Nhat Hanh [1], p. 138

Enlightenment, as understood across various spiritual traditions, represents a profound transformation in consciousness and perception of reality. In Buddhism, enlightenment (Sanskrit: *nirvāņa*) is understood as an awakening to the true nature of reality, leading to the dissolution of attachment to an independent, permanent self and liberation from suffering [2]. In Hinduism, enlightenment (Sanskrit: *mokṣa*)

also involves the cessation of suffering, but emphasizes the realization of the self's unity with the divine ultimate [3]. The Greek mystic schools, such as the Eleusinian Mysteries, viewed enlightenment as a profound transformation of the ignorant soul, achieved through the pursuit of wisdom, inner purification, and contemplation [4]. Neoplatonism, influenced by Plato's teachings, emphasized the soul's return to the One, the ultimate source of all existence, through intellectual and spiritual practices [5]. Similarly, in Christian mysticism, enlightenment is seen as the union with God, attained through contemplative prayer and the experience of divine presence [6]. Furthermore Sufis, the mystics of Islam, believe that recovering an awareness with one's full identity is the most urgent task to be undertaken within this lifetime [7].

Across these diverse traditions, enlightenment is consistently seen not only as the ultimate aim of spiritual practice but also as a journey involving the transcendence and dissolution of the ego (Latin for "I") and the recognition of non-duality: insight into a reality that is interconnected and interdependent. These self-transcendent experiences (STEs), where one's subjective sense as an isolated identity fades away, and the boundary between one's sense of self and others dissolves into to an experience of unity with other people or one's surroundings [8], have become the subject of empirical research in social and clinical psychology, cognitive sciences, and neuroscience.

Throughout such research, various types of STEs have been identified such as near-death experiences [9], unitary experiences [10], transpersonal experiences [11], mystical experiences [12], non-dual awareness [13], meditation-induced near-death experiences [14], emptiness experiences [15], sacred moments [16], awe-inspiring experiences [17], quantum change experiences [18], persistent non-symbolic experiences [19], and psychedelic unselfing [20]. Despite the different terminologies used, there appear to be some notable areas of convergence in the experiences being described.

For example, consider the following accounts of STEs:

I felt myself one with the grass, the trees, birds, insects, everything in nature. I knew so well the satisfaction of losing self in a perception of supreme power and love. ~ (as quoted in James [21], p. 299)

You melt into your surroundings. There's no separation. When I breathe in, the universe breathes in with me, and when I exhale the universe exhales with me. ~ (as quoted in Van Gordon et al. [15], p. 269)

I felt an empathy with everyone and everything and was aware of the interconnectedness and oneness of all.

 $\sim$  (as quoted in Ring and Valarino [22], p. 172)

The feeling of no boundaries – where I didn't know where I ended and my surroundings began. Somehow I was able to comprehend what oneness is.

~ (as quoted in Griffiths et al. [23], p. 19)

Across these accounts, a common theme emerges: decreased self-salience (egodisillusionment) and a heightened sense of connection with others and one's surroundings [24]. Whether it involves a Christian experiencing the presence of God, a Buddhist experiencing emptiness (Sanskrit: Sunyata) through meditation, an individual with terminal leukemia recounting a near-death experience, or a first-time

psilocybin user reflecting on their experience, each narrative appears to point toward the dissolution of self-boundaries and a profound unity with people and objects around them. It has been asserted that these experiences, historically reported by prophets, visionaries, and mystics, and more recently by participants in psychedelic research, are virtually identical [25].

As reported, experiences of emptiness, near-death experiences, and psychedelicinduced experiences have the potential to evoke states of self-transcendence [15, 22, 23]. Additionally, these experiences often share common features such as a loss of time and space, visions of light, communication with otherworldly beings, and intense emotional responses, ranging from overwhelming peace to, in some cases, fear [14, 26, 27]. However, for the purposes of this chapter, the focus will be on the simultaneous transcendence of one's understanding of the world and the confines of one's ego [28].

Recent studies exploring the potential effects of STEs have suggested compelling connections between such experiences and enhanced critical and creative thinking faculties, improved well-being, and an increase in prosocial behaviors such as kindness, self-sacrifice, co-operation and resource sharing [29, 30]. However, the diversity in terminology describing each experience has somewhat hindered comprehensive cross-study comparisons. The labels used often reflect specific religious or secular perspectives, are linked to the inducing triggers of such experiences, or are associated with the duration or intensity of such experiences. Although these types of experiences are often reported in spiritual and religious individuals, atheists and agnostics have also reported them [31]. Therefore, "self-transcendent experience" appears to be the most appropriate term to refer to such experiences as it remains neutral regarding secular or spiritual connotations in addition to capturing a spectrum of intensities [8].

Indeed, STEs can be induced to different extents, for different durations, through a variety of different practices [32]. Several measures have been developed to assess the intensity of such experiences including the Spiritual Transcendence Scale (Spirit-TS) [33], Mystical Experience Questionnaire (MEQ) [34], States of Consciousness Questionnaire (SOCQ) [35], the Non-dual Awareness Dimensional Assessment (NADA) [36], and the Ontological Addiction Scale (OAS) [37].

Although these measures may be useful to assess differing states of consciousness, it has been cautioned that even a successful occasioning of an STE must be evaluated with respect to a larger context: the goal is not the experience in and of itself, but rather to integrate the insight that arises during such experiences into one's life [38]. Therefore, it is important to investigate if these insights have an enduring impact on an individual's well-being and behavior. It is also crucial to determine whether the effects of STEs vary depending on the practices used to induce them, despite any similarities in the experiences themselves. What follows is an exploration and critical evaluation of three potential triggers of STEs including near-death experiences, insight meditation practices, and psilocybin use, and their long-term effects on well-being and behavior.

#### 2. Self-transcendent near-death experiences

Near-death experiences usually occur in life threatening situations when an individual is approaching or has temporarily begun the process of dying [39]. These situations can include cardiac arrest, clinical death, severe blood loss during or after surgical operations, septic or anaphylactic shock, electrocution, comas from

traumatic brain injuries, intracerebral hemorrhage or stroke, suicide attempts, and experiences of near drowning or suffocation [40]. Near-death experiences have also been reported as occurring in non-life-threatening situations such as during grief and anxiety, epilepsy, syncope and Cotard's syndrome [41].

A recent comprehensive systematic analysis of case reports, case series, and qualitative studies on near-death experiences from 1980 to 2022 [40] identified 'neardeath experience' as a broad term encompassing four main categories: emotional, cognitive, supernatural, and spiritual or religious experiences. The latter, emphasizing a sense of oneness with the universe, is particularly relevant to the study of STEs. Individuals reporting spiritual or religious near-death experiences often describe feeling a profound unity with the universe or nature, experiencing no separation between themselves and their surroundings [41–43]. However, for some individuals the experience of self-transcendent near-death experiences can be distressing and characterized by a profound sense voidness, isolation or nothingness [44].

The primary focus of this exploration is the long-term effects of positive selftranscendent near-death experiences. Ring and Valarino [22] suggest that despite the diverse personalities and cultural backgrounds of individuals who have had near-death experiences, they often undergo similar transformations, resulting in a common psychological profile among NDErs (those who have had a near-death experience). By synthesizing various studies on the aftereffects of near-death experiences [45–49], Ring and Valarino [22] identified twelve psychological and behavioral changes frequently observed in NDErs: (1) a greater appreciation for life; (2) increased self-acceptance; (3) heightened concern for others; (4) a deep reverence for life; (5) anti-materialistic values; (6) reduced competitiveness; (7) enhanced spirituality; (8) a quest for knowledge; (9) a stronger sense of purpose; (10) a lack of fear of death; (11) belief in life after death; and (12) belief in a higher power.

Recent empirical studies have reinforced the idea that near-death experiences, even those lasting only a few minutes, can lead to lasting changes in self-identity, cognition, emotions, life orientation, and compassion [50–53]. Greyson's [39] two-decade study of 63 NDErs and Long and Woollacott's [52] analysis of 834 NDErs both identified enduring transformative effects. Supporting Ring and Valarino's [22] proposed psychological and behavioral profile of NDErs, these studies reported statistically significant long-term impacts on life appreciation, reduced fear of death, spirituality, altruism, compassion, life meaningfulness, self-acceptance, and decreased materialism [39, 52].

To illustrate how the typical aftereffects of a near-death experience can transform an individual's life, a case study example of an NDEr can be examined. Robert, once a corporate lawyer in Los Angeles, experienced a profound shift in his life goals following his near-death experience:

I felt no interest in competing and felt myself opening to the problems of others—that was sort of hard to understand. I heard about transcendental meditation and became a meditator. I made new friends and left the business community and lawyers .... I felt prestige and status needs dropping away and liked the simple life in a farm house on the Snake River in Idaho.

~ (as quoted in Ring and Valarino [22], p. 299)

This example highlights several aspects of a typical NDEr's psychological profile. Notably, there is a reduction in competitiveness and an increased concern for others, along with greater self-acceptance and anti-materialistic values. Robert's decision to

take up meditation after his near-death experience reflects his intensified pursuit of knowledge. Many NDErs develop a strong desire for learning, often channeling it into their spiritual journey [48]. Living in alignment with the insights gained during their experience, and striving to recapture the knowledge they feel was imparted to them, becomes a central focus for many NDErs [22].

Maintaining a spiritual practice, such as meditation, may be essential for sustaining the long-term transformative effects of near-death experiences by enabling individuals to reconnect with their self-transcendent aspects and integrate them into their daily lives. This perspective could explain the unexpected findings of Rousseau et al. [54] and earlier studies by Olson and Dulaney [55] and Greyson [56], which indicated no significant association between near-death experiences and quality of life changes a year later. If this is the case, it raises the question of whether the occurrence of a near-death experience alone, without meditation, can provide the same beneficial effects. Additionally, it prompts inquiry into the specific qualities of meditation that enable individuals to reconnect with and integrate such transformative experiences.

#### 3. Meditation-induced self-transcendent experiences

Self-transcendent experiences obtained through meditation practice are typically associated with insight meditation (the process of meditatively analyzing the true nature of experience), which can lead to the realization of non-self and emptiness [57]. This form of meditation, sometimes considered a form of 'non-dual meditation,' has a long history and is found in various religious and spiritual traditions, ranging from the esoteric teachings of ancient Egypt and Platonic thought purification, to the Jewish Kabbalah, Christian contemplative meditation, and Buddhist vipassana meditation [58].

Within the Buddhist tradition, the insight of non-self (Sanskrit:  $an\bar{a}tman$ ) involves recognizing that no permanent, singular, or independent self exists, nor anything belonging to it, within the five aggregates: form (the body), feeling (pleasure, displeasure, indifference), perception (the mental process of identifying features), mental constructions (all mental activities and emotions), and consciousness (awareness) [59, 60]. From this Buddhist perspective, what is typically perceived as a permanent, singular, and independent self is actually an illusion, as the 'self' defined by these aggregates is constantly changing (impermanent), exists only in relation to its parts (not singular), and arises from causes and conditions (interdependent) [61, 62]. Building on this, the realization of emptiness (Sanskrit: *Śūnyatā*) involves understanding that not only the self but all phenomena lack inherent, independent existence [60].

Therefore, within meditation, a self-transcendent experience can be characterized by experiences in which the self and all phenomena are merged into a unified whole (non-dual awareness) or the boundaries of the self-dissolve into emptiness [60]. Several empirical studies have tried to assess the effects of meditation-induced insight into emptiness [15] or meditation-induced experiences of non-dual awareness [63, 64]. However, these studies typically have a small sample size due to difficulties in recruiting expert meditation practitioners who are able to induce such meditative states.

Despite these limitations, models have been proposed to illustrate how process, content, cognitive, and meta-cognitive processes interact in cultivating self-transcendent experiences during meditation [65]. One such model [15] suggests that meditation begins with calming and stabilizing the mind, which facilitates an investigation of non-self and leads to the perception of emptiness. Experiencing emptiness results in an altered perception of time and space, along with compassion-ate farsightedness—a universal outlook infused with compassionate intention [15].

Importantly, within the Buddhist framework, achieving the mental stability necessary for insight into emptiness (i.e., to have a self-transcendent experience) requires not only concentration training but also the cultivation of ethical conduct [66]. Ethical conduct emphasizes the intentional regulation of speech and actions to mitigate afflictive emotions such as anger, attachment, greed, jealousy, and ignorance, which are seen as distortions that perpetuate suffering [67]. By cultivating mindfulness and self-awareness, ethical training enables practitioners to identify and address these harmful mental states, fostering emotional balance, compassion, and mental clarity [67]. Furthermore, adherence to principles like right speech, right action, and right livelihood not only supports the development of these qualities but also helps practitioners avoid extremes such as moral relativism, potentially allowing self-transcendent experiences to contribute positively to well-being and prosocial behavior [67].

In addition to the spiritually meaningful insights attained both within and postmeditation, an increase in compassion is also often reported both during and following STEs. For example, in a study of meditation-induced STEs among 25 advanced Buddhist meditators, all but one participant reported that feelings of universal oneness were accompanied by profound compassion and a desire to care for all beings [15]. For instance, one participant described their experience as follows:

A sense of responsibility and love springs up. It requires no effort. Its love for all things. Its compassion for all things ... Its unconditional because it's infused with wisdom, with not being attached to self.

~ (as quoted in Van Gordon et al. [15], p. 269)

This profound intention to benefit others beyond the self, that arises due to experiences of self-transcendence, has been reported as a key mechanism through which meditation promotes positive social outcomes [29]. Meditation-induced STEs can turn a rigid, defensive self-centred mindset into a more open and receptive one, increasing positive other-focus by integrating reward and social signals in the brain [29]. A recent systematic review supports this idea, showing that wisdom-based Buddhist meditation practices which emphasize contemplation on interdependence and non-self, encourage prosocial behavior by cultivating a sense of interconnectedness and common humanity, altruism, and feelings of oneness [68].

In addition to the influence on prosocial tendencies, meditation-induced STEs have also been shown to have a positive impact on well-being. For instance, a study involving 294 meditation practitioners found a significant relationship between meditation-induced STEs and psychological well-being, as measured by meta-awareness, (dis)identification with internal experiences, and (non)reactivity to thought content [69]. Furthermore, a study investigating 379 meditation practitioners' experience of self-transcendence found that all participants demonstrated significant improvements in measures of well-being, meaning, and lifestyle factors, as well as significant reductions in negative emotions and symptoms associated with depression [70]. Overall, the largest improvement reported by practitioners was the increased percentage of time they experienced happiness in their daily lives [70].

Although such cognitive psychology studies provide strong evidence linking meditation-induced STEs to positive outcomes for well-being and prosocial attitudes, a limitation remains that only a relatively small number of individuals can induce such experiences through meditation alone [15]. In an attempt to address this limitation, a randomized controlled trial involving 45 novice meditators assessed the effects of mindfulness meditation on perceived body boundaries and increased allocentric frames of reference (two phenomenological features of self-transcendence) [71]. While results suggested that mindfulness training alters novice practitioners' experience of self, relaxing the boundaries of the self and extending the spatial frame of reference further beyond the physical body, no data was collected on the behavioral or well-being consequences of these experiences [71].

#### 4. Self-transcendent psychedelic experiences

Psilocybin, the psychoactive compound found in a family of mushrooms commonly known as 'magic mushrooms' [26], was first isolated from the *Psilocybe mexicana* mushroom by Albert Hofmann in the late 1950s [72]. In the 1960s, preliminary research began exploring psilocybin's therapeutic applications and effects [73, 74]. However, in 1971, due to the United Nations classifying psilocybin as an addictive substance without medicinal value [75] and U.S. president Nixon's 'War on Drugs' [76], research into its therapeutic applications was halted. Yet, as evidence of the therapeutic potential associated with psilocybin has emerged, many countries have begun to reassess their policies restricting research into the naturally occurring psychedelic substance [77].

Over the past 15 years, growing research has indicated that controlled psilocybin use can lead to significant and lasting reductions in depression and anxiety among cancer patients [78, 79], alleviate symptoms of obsessive-compulsive disorder [80], and help mitigate substance addiction [81, 82]. Furthermore, in healthy individuals, psilocybin is associated with enduring positive psychological effects and self-reported improvements in mood, behavior, and the personality trait of openness [83–85].

It is important to note that psilocybin use is not merely a modern trend; although scientific study began in the 1960s and re-emerged in the 2010s, its traditional use dates back much further [75]. For example, McKenna [86] contends that around 150,000 years ago early human ancestors used psychedelic mushrooms to improve creativity and cognitive functioning. Evidence of relatively more recent use includes prehistoric rock art estimated to be 6000 to 8000 years old, which was found in Spain and the Saharan mountains, indicating ancient knowledge of mushrooms' psychoactive effects [87]. Additionally, psychoactive mushrooms were integral to spiritual rituals in ancient civilizations as early as 1500 BCE [75]. For instance, Indigenous Mesoamerican cultures valued them for both medicinal and sacred purposes in religious ceremonies and daily life [88]; traditional Chinese Daoist texts describe them as crucial for achieving immortality [89]; and it is proposed that ancient Greek mystery schools incorporated them into religious rituals [90] to "elevate man above the human sphere into the divine" (Nilsson [91], p. 44).

At maximum intensity, psychedelic experiences are asserted to resemble self-transcendent experiences and can lead to psychological transformation [35, 92], although it should be noted that very few studies have sought to directly compare purported transcendent states arising from psychedelic use with more recognized forms of STEs. Nevertheless, in a 14-month follow-up to a double-blind study on the psychological effects of psilocybin in 36 first-time users, 58% of participants ranked the experience among the top five most meaningful of their lives, and 64% reported increased wellbeing and life satisfaction [23]. Similarly, a double-blind study with 52 participants examined psilocybin's impact on personality traits [85]. The results showed that the psychedelic experience enhanced participants' esthetic appreciation, imagination, creativity, and openness to others and new ideas. For those who experienced something akin to a psychedelically-induced STEs, this openness remained significantly elevated more than a year after the psilocybin session [85].

However, several previous studies on the long-term effects of psilocybin have shown limited evidence of lasting positive changes on trait measures of disposition [23, 93, 94]. Furthermore, a number of recent studies have reported significant negative effects associated with psychedelic use, including triggering anxiety and other psychiatric diagnoses [95], destabilization and difficult self-experiences [96], and heightened risk of adverse effects for those with preexisting psychiatric conditions such as personality disorder [97].

To further explore the potential long-term effects of psilocybin-induced STEs on prosocial attitudes and psychological functioning, a double-blind, three-arm randomized trial was conducted with 75 healthy individuals, six months after their initial psilocybin dose [98]. Participants were divided into three groups: a low-dose psilocybin group with standard support, a high-dose psilocybin group with standard support, and a high-dose psilocybin group with 'spiritual practice support,' which included an additional 30 minutes of daily sitting meditation and other practices focused on integrating spiritual values into daily life.

The results highlighted two key findings. Firstly, participants who received higher doses of psilocybin reported not only more intense 'psilocybin-occasioned mystical experiences' (i.e., STEs) but also more lasting improvements in prosocial behaviors and psychological functioning [98]. This suggests that the enduring benefits of psilocybin use may not stem from the substance itself but rather from the self-transcendent experiences it induces. Such findings align with previous research highlighting the critical role of psilocybin-occasioned STEs in promoting lasting positive changes in psychological well-being, prosocial disposition, and spiritual worldview [79, 99]. For example, a study comparing individuals who experienced psilocybin-occasioned STEs with those who took psilocybin without having an STE found significant differences in lasting positive effects, such as a sense of connection with the universe and increased compassion and love for others [26].

Secondly, while the psilocybin-occasioned STE was the primary driver of positive changes, incorporating meditation and other spiritual practices after the psilocybin dose significantly enhanced long-term prosocial behaviors and psychological functioning [98]. This finding aligns with the previous observation that individuals who had self-transcendent near-death experiences but did not engage in subsequent spiritual practices showed no significant improvements in quality of life one year later [54]. In contrast, those who practiced meditation after their STE reported lasting improvements in well-being, life satisfaction and prosocial attitudes [22].

This implies that for a STE to have a lasting and prolonged effect, it must be fully experienced and integrated into one's life. This integration can be achieved through ongoing spiritual practices, such as meditation, which help to reinforce and sustain the insights and transformations gained during the STE. By regularly engaging in these practices, individuals can deepen their understanding and connection to the experience, allowing its positive effects to permeate their daily lives and contribute to long-term psychological and behavioral benefits.

#### 5. Progressive stages of self-transcendence

While cognitive psychology studies have suggested promising links between neardeath experience-, meditation-, and psilocybin-induced STEs with positive outcomes for well-being and prosocial behavior, previous research indicates that the intensity of self-transcendence can vary, influencing its impact [19]. For example, Martin [19] conducted semi-structured interviews lasting 6 to 12 hours with 319 participants who reported having STEs. This research led to the development of the 'Four Location Continuum Model,' which categorizes and differentiates the varying degrees, and progressive stages, of experiencing self-transcendence [19].

At Location 1, individuals are on the earliest portion of the STE continuum and although there is a reduction in the narrative self, the singular and illusory "I", it is still present. This location is categorized by the experience of not being limited by the boundaries of the physical body, and an accompanied new found sense of fundamental well-being [70].

At Location 2, individuals' pervasive sense of everything being fundamentally fine deepens and there are fewer and less powerful conditioned psychological responses. A key feature here is the boundaries between what feels like the self and what feels like outside of the self increasingly soften, or disappear entirely, leading to non-dual awareness not yet present in Location 1. Interestingly, at this 'location', conditioning around needing the approval of others begins to dissolve, which may result in less social, and less socially desirable, behavior [19].

At Location 3, individuals have shed much of their previous psychological conditioning and negative emotions, experiencing a heightened sense of present moment awareness, inner peace, and well-being compared to Locations 1 and 2 [70]. They predominantly feel a blend of highly positive emotions, such as compassion, joy, and love, often accompanied by a strong sense of divinity. Although the need for approval has diminished even more than at Location 2, these individuals often value helping others and strive to maintain social harmony [19].

Finally, at Location 4, individuals typically report the disappearance of any remaining narrative self-related thoughts and emotions [70]. This stage is characterized by a more profound sense of non-duality where individuals often describe having no sense of personal agency or decision-making ability, experiencing life as if it unfolds naturally while they observe the process. The term 'freedom' is frequently used to describe their dominant ongoing experience, and while all locations offer a sense of expanded freedom, the level experienced at Location 4 appears to be far more significant [19].

There is an interesting distinction made between Location 2 and 3 regarding the influence of STEs on prosocial behavior. This distinction echoes the statement by clinical psychologist and former Trappist monk James Finley: "You can be an enlightened asshole" [100]. At the second 'stage' of self-transcendence, there is profound insight into non-duality, which may be seen as a form of enlightenment or awakening, as discussed in traditional religious texts [101] however, this does not necessarily lead to positive prosocial behavior. In fact, the opposite can sometimes occur due to the reduced need for approval from others and a potential rise in moral relativism.

This distinction in self-transcendence stages and their impact on prosocial attitudes is also evident in Buddhist philosophy. For example, the four stages of awakening (*Srotāpanna*, *Sakṛdāgāmin*, *Anāgāmin*, and *Arhat*) roughly correspond to the 'Four Location Continuum Model.' At the second stage, *Sakṛdāgāmin*, the attachment to others' approval begins to dissolve, which may lead to a decreased concern

for conforming to social norms [102]. Furthermore, a distinction is made between Hinayana Buddhism, which some would argue focuses more on individual enlightenment, and Mahayana Buddhism, which some assert emphasizes the collective enlightenment of all beings and seeks enlightenment for the benefit of others [60].

This comparison highlights the complexity of self-transcendence and its varied effects on behavior. Although some individuals may naturally extend their spiritual growth to benefit others, others may achieve an increase in personal enlightenment without necessarily enhancing their prosocial behavior. This underscores the importance of integrating spiritual insights gained through STEs with and ethical framework such as compassionate intention, ensuring that personal transformation aligns with a broader commitment to the well-being of all.

#### 6. Conclusion

There are many pathways to self-transcendence. Attachment to the idea of a single correct method should be avoided; however, any chosen approach should be imbued with wisdom and compassion [57]. The present chapter has explored the potential long-term effects of STEs induced by near-death experiences, meditation practices, and the use of psychedelics. Although descriptions of self-transcendence in each case often share common themes, such as the dissolution of self-boundaries and a profound sense of unity with others and surroundings, the effects on well-being and behavior can vary depending on the method used to induce them.

Near-death STEs can significantly influence an individual's psychological and behavioral profile, but these changes are not always long-lasting [54]. This may be because such experiences often occur unexpectedly to a diverse range of individuals, some of whom may not engage in spiritual practices. Without ongoing spiritual practices such as meditation, particularly those rooted in Buddhism that emphasize the integration of insight with compassion, the initial benefits of a self-transcendent near-death experience may diminish. Spiritual practices such as meditation help individuals reconnect with the insights gained during Near-death STEs and integrate them into daily life, thus leading to a positive influence on behavior.

Furthermore, the sudden and potentially dangerous nature of near-death experiences can leave individuals unprepared and without the necessary framework to fully understand or benefit from the experience, which may lead to confusion, fear, or distress [44]. In Buddhism, developing a conceptual and intellectual understanding of concepts, such as non-self, is often likened to having a road map that enables practitioners to more accurately interpret and make sense of the experiences they have during deep meditation [59]. These conceptual frameworks guide the practitioner through the complexities of the experience, and without it, understanding experiences such as self-transcendence may be difficult to comprehend or benefit from.

Of the three mechanisms of self-transcendence discussed in this chapter, meditation-induced STEs are unique as they do not always require an external trigger to occur. In some ways this characteristic can be seen as a purer form of selftranscendence as it comes from within. Those able to induce STEs through meditation are usually engaged within a wider spiritual practice, which in the case of Buddhism promotes the combination of insight and wisdom gained through such experiences with compassion and love for all beings [103]. Due to this, those able to attain selftranscendence through meditation usually benefit from prolonged positive effects on well-being and prosocial attitudes [15]. However, achieving self-transcendence

through meditation alone presents its own challenges, as it typically requires expert meditators with years of practice to reach such states through advanced meditation techniques [104].

Psychedelically-induced STEs appear to offer a means of inducing an STE that involves much less effort than meditative practice as well as less risk of harm than STEs that occur as part of an NDE during life threatening situations. However, although these experiences have been shown to enhance psychological functioning and be meaningful for users [85], due to a lack of comparative research it remains unclear to what extent they resemble more recognized forms of STE such as those induced by meditation. There is also the issue of negative effects although these appear to be reduced when psychedelics are used in a controlled way under medical supervision. Similarly, the positive effects of psychedelics are significantly more enduring when combined with spiritual practices such as meditation [98].

The integration of spiritual practices, particularly meditation, with STEs has been a consistent theme throughout the analysis of the three methods for inducing STEs discussed in this chapter. Such practices have been shown to enhance and prolong the positive effects of STEs on well-being and behavior. Therefore, it is advisable that any path chosen to achieve self-transcendence should be grounded in a spiritual framework. In this context, a spiritual framework is understood as "spiritual but not religious", emphasizing ethical conduct grounded in compassion, empathy, and openness to others as core values [105]. Entering into an STE with a compassionate mindset and subsequently engaging in practices that help one understand and integrate the insights gained into daily life, is the essence of enlightenment. It is not merely the experience of self-transcendence that matters, but how it shapes and nurtures one's outlook and behavior [38].

To build upon Nhat Hanh's [1] poetic description of enlightenment provided at the start of this chapter:

Enlightenment is not only when a wave realizes that it is the water,

but also, when the water nourishes all life with its boundless embrace.

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