



# Sensing the self in spiritual experience

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## Abstract

The paper seeks to argue that the feeling of being part of a larger whole, considered to be a major feature of spiritual experience in some traditions, amounts to a change in the way the self is pre-reflectively understood. Further, the paper argues that some recent developments in the study of cognition support the case for such a revision in self-conception, and this can be used to build up a secular understanding of spirituality. The paper proceeds by making use of Abraham Maslow's account of peak experience along with some accounts of both ancient and contemporary forms of spirituality to argue that the feeling of being part of a larger whole amounts to a significant shift from the separative self-conception implicit in everyday behavior. Subsequently, it is argued that some extant theories on cognition point at the illusory nature of separative self-conception.

**Keywords** Spiritual experience · Self-conception · Free will · Metaphors

Being spiritual is long-understood to be a particular approach to life, and often contrasted with the materialist or worldly-minded approach. Those who primarily look for a good afterlife or salvation are termed 'spiritual', whereas those who primarily look for better means of deriving pleasure in everyday life are called 'worldly-minded'. Even if spirituality is associated with afterlife and religion, this does not mean that spirituality is precluded for those who do not believe in any kind of afterlife. Of course, this requires a more liberal interpretation of spirituality, uprooting it from religious structures and beliefs. Though there are people who consider themselves to be spiritual but not religious, spirituality and religiosity are often understood to be closely linked, and this, in turn, makes the secular attitude antithetical to the spiritual way of life. Another reason why spirituality is not treated respectably in secular culture is its relation to mysticism. It is pertinent to note that the word 'mysticism' comes from the Greek word *mystikos*, meaning secret. Thus, spirituality

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is often associated with things that are mysterious and, therefore, unacceptable in a scientific culture.

In our times, a significant number of people consider themselves to be irreligious. As per one major study, more than one billion people identify themselves as non-religious (Pew Research Center 2012). Though the religious still far outnumber the non-religious, the latter has become a force to reckon with. Further, studies indicate that the number of people who claim to be religiously unaffiliated is on the rise. It can well be the case that growing irreligiosity is mainly due to the spectacular developments in science and technology that do not seem to support religious explanations of matters such as the origin of the universe. At the same time, those who claim to be irreligious are not normally bereft of the need for, say, community bonding, or finding meaning in life. There have been attempts to understand religion as primarily stemming from the impulse to sense something that transcends ordinary experience or the need to belong to communities and overcome pain and suffering (Crane 2017; Botton 2012). That means, some kind of spiritual quest played a significant role in the origin of religion. This implies that religion can subserve some crucial functions in human life even if the metaphysical claims associated with it turn out to be baseless. Hence it is important to make attempts to explain some aspects of religion, such as spiritual experience, without resorting to those metaphysical claims. This will help ensure that those who are irreligious can still fulfill the yearnings such as finding meaning in life or sensing something transcendent.

This paper seeks to understand spiritual experience from a non-religious point of view, disconnecting it from mystical underpinnings. To accomplish this task, I shall begin by arguing that a major feature of spirituality amounts to leading a life different from the reflexive self-conception ordinarily present in human beings by referring to the psychologist Abraham Maslow's analysis of peak experience. Reflexive or pre-reflective self-conception is the way the self is understood automatically before making any reflection on the nature of the self. Normally this appears in the form of a separative self, but in the spiritual experience of unity, separation is transformed into the feeling of being part of a larger, all-encompassing whole. Subsequently, I shall argue that the reflexive self-conception in terms of a separative self does not hold water in the light of certain developments in cognitive science because what studies on cognition show about the genesis of behavior does not give any room for the kind of self assumed in the reflexive self-conception.

## 1 The nature of spiritual experience

One promising way to start finding out how spirituality can be understood bereft of religious moorings is by looking into what distinguishes spiritual experience from ordinary experience. This, in turn, can be accomplished by figuring out what is essential for an experience to be called spiritual. One definition of spiritual experience as "an experience which points beyond normal, everyday life and which has spiritual or religious significance for the person to whom it happens" (Rankin 2008) does not help much in the present endeavor because the attempt here is to extricate spirituality from religious roots. At the same time, it

is pertinent to start from a religion-based understanding of spirituality so as to ensure that the phenomenon studied is not something far away from what is ordinarily understood as spirituality.

One difficulty in taking spirituality out of religious context is the confusion between institutional and personal aspects of religion. The distinction was made by William James (James 2002). Following this distinction, it can be contended that spirituality corresponds to the personal or experiential aspect of religion and, therefore, it is possible to find similar experience outside the institutionalized context of religion. When societies were predominantly oriented towards afterlife, such a distinction was hard to make because spiritual concerns permeated every aspect of life. However, in the modern world where religious structure is not the primary driving force of societal affairs, a distinction between personal and institutional aspects of religion can be made. According to Zinnbauer et al. (1997) the terms religiousness and spirituality were not distinguished until the rise of secularism in the 20th century. When a society is organized along secular principles, religiousness amounts to religious institutions and rituals, whereas spirituality is a matter of personal and subjective experience. With such a distinction firmly in place, it is pertinent to ask: what is the bare essential for an experience to be called 'spiritual' whether it takes place inside the institutionalized context of religion or outside of it?

I attempt to answer this question by looking into some psychological literature available on spiritual experience. There have been various terms such as 'transcendent experience', 'mystical experience', and so on to refer to spiritual experience. Though efforts have been made to make subtle distinctions between, say, spiritual experience and mystic experience, the same is not relevant for the purpose of the present paper, and I shall use these terms interchangeably.

According to William James, there are four marks that distinguish mystical experience from other kinds of experience. They are: ineffability, noetic quality, transiency and passivity (James 2002). Ineffability refers to inexpressibility, where the language is found incapable of capturing the details of the experience. Noetic quality refers to the fact that mystical states often result in claims to knowledge. In addition, mystical experience is often transient, as it does not last for long. It is the feature of passivity that is central to the present purpose and, perhaps, the key in distinguishing mystical experience from other kinds of experience that can also be called ineffable and of noetic significance. Passivity refers to the loss of the feeling that one is the doer of actions. Instead, one finds oneself to be amidst certain experience which has simply occurred. This can be understood in many ways, including being controlled by some external force or feeling oneself to be a part of the larger whole.

A look at the following description given by J. Krishnamurti, a well-known spiritual teacher who lived in the 20th century, will help in elucidating the nature of mystic experience:

On the first day I was in that state and more conscious of the things around me, I had the first most extraordinary experience. There was a man mending the road; that man was myself; the pickaxe he held was myself; the very stone which he was breaking up was a part of me.....The birds, the dust and the very noise were a part of me ....I was in everything or rather everything was in

me, inanimate and animate, the mountain, the worm and all breathing things. (Lutyens 1997).

What is evident in this account is the absence of any sharp boundary between the self and the rest of the world during this experience. That is to say, the self and the world are not seen as discrete entities but as continuous. This can be interpreted in terms of feeling oneself to be a part of a larger whole.

## 2 Peak experience

It is this aspect of feeling oneself to be a part of a larger whole that forms central to the analysis of peak experience by the psychologist Abraham Maslow (Maslow 1970). He uses the term 'peak experience' to refer to different kinds of experience, named 'mystical experience' or 'transcendent experience.' The major distinguishing feature of a peak experience lies in perceiving the whole universe as an integrated and unified whole. This amounts to the reflexive realization of oneself to be a part of a larger whole. It is pertinent to note that such a realization requires passivity. This is because as long as one considers oneself to be the agent of an action or experience, then there is an element of separation from the rest, and this precludes the feeling of oneself as a part of the whole. It is important to note that what is referred to here is not any abstract or intellectual realization of one being a part of all that exists but to the visceral feeling of it.

Maslow uses terms like 'non-evaluating', 'non-comparing,' or 'non-judging cognition' to refer to the processes that underlie peak experience. It is non-evaluating because things are not judged as good or bad. It is non-comparing and non-judging because there is no particular interest or purpose on the part of the experienter. This suggests overcoming, even if temporarily, one's usual self-centered concerns because instantaneous judging of experience in terms of desire or aversion usually stems from self-centered thoughts. That is to say; when there is no comparison or judging of experience, there can be a reduction in the frequency of self-related thinking. As peak experience amounts to moments of high happiness, it can be triggered by even routine events such as appreciation of art, sexual activity and so on. What is important is that one be completely immersed in the experience so much that thoughts about the past or future (often referred to as mind-wandering) are significantly reduced. This can be described in terms of feeling oneself to be part of a larger whole because thinking of oneself in terms of a separate entity is reduced in those moments. In other words, during moments of peak experience, the self is not conceptualized as free-floating or separative and is understood as part of a larger whole.

Peak experience has to be understood in the context of 'self-transcendence' - a term used by Maslow in his later period. Transpersonal psychology is developed as an attempt to explain the phenomenon of transcendence. If self-actualization, in Maslow's scheme, is a matter of fulfilling one's potential, self-transcendence becomes going beyond oneself to address larger concerns. To put it in his words, "transcendence refers to the very highest and most inclusive or holistic levels of

human consciousness, behaving and relating, as ends rather than means, to oneself, to significant others, to human beings in general, to other species, to nature and to the cosmos" (Maslow 1993). It is clear that self-transcendence takes place during peak experience. Some studies indicate that a significant number of people reported undergoing at least one transcendent experience in their lives. (Levin and Steele 2005) There have been attempts to understand the phenomenon of transcendence in terms of factors such as group-feeling and aesthetic appreciation. (Gorelik 2016) That means there are different ways in which the boundary between the self and the world gets blurred, but all of them are not instances of spiritual transcendence. Spiritual transcendence is even called the sixth-factor of personality because it arguably involves a different psychological dimension. (Piedmont 1999) Further, there are efforts to figure out the neurological underpinnings of transcendent experience. (Davidson and Lutz 2008; Johnstone and Cohen 2019).

Whether transcendence occurs due to appreciation of beauty or the realization that one is simply a part of the all-encompassing whole, it involves a revision in the way the self is ordinarily understood. This point can be elucidated further by showing that a person's normal experience includes the feeling of oneself as a separate or free-floating entity.

### 3 Ordinary reflexive self conception

Any discussion about human self-conception may appear to be an unwarranted generalization given the enormous diversity among human cultures. But there are grounds to assert that a particular kind of self-conception is present in most humans on most occasions in the modern world.

As per an account of reflexive self-conception given by Miri Albahari, there are four modes of self-conception. They are: (1) autonomy (2) consistent self-concern (3) ownership and (4) this-ness (Albahari 2006). Autonomy refers to the notion of free will by which we consider ourselves to be causally responsible for our actions and thoughts. Consistent self-concern refers to the fact that our thoughts are mostly self-related. Ownership need not be just perspectival, but it can be personal as well. Perspectival ownership refers to the fact that if a person has got, say, neck pain, then that person owns it given that nobody else can have direct access to it. On the other hand, personal ownership refers to the feeling of being mine, resulting in identification with it. For instance, it is common for humans to be identified with their family members, community, or objects like vehicles, etc. Whereas it is fairly obvious what is meant by autonomy, consistent self-concern, and ownership, the notion of this-ness requires more explanation. Suppose there is a list of all qualities—both physical and mental—of a person, and the person is asked whether he or she is ready to be substituted with somebody else who has got all these qualities. The answer to this is likely to be negative, and this is due to the feeling that something is missing even after listing all qualities as the bearer of them. It is this ineffable essence of oneself that is referred to by the term 'this-ness'.

When the modes of this-ness, autonomy, consistent self-concern, and ownership come together, Albahari contends that a thick psychological boundary between the self

and the world is created, which underlies the free-floating or separative self-conception. It is separative or free-floating because the self is understood to be a separate, bounded entity endowed with free will. Freedom is normally understood in such a way that it does not take into account the causal framework operating in nature. For instance, when I consider myself to have freely chosen, say, my spouse, this notion of freedom does not give room to the possibility of my choice being the result of some processes unknown to me. Thus, the self is free-floating in the sense of appearing to exist over and above the natural order of causal relations. It also refers to the constant changes in identification during the normal process of thinking. Given the way the mind wanders, at one moment, the 'I' is identified with the role of a teacher, but the next moment it can get identified with that of a parent and so on. That is to say, identification of the self keeps changing depending upon the contents of thoughts.

One major objection to any generalization concerning human self-conception is the individualist versus collective difference found in different parts of the world. It is often claimed that Westerners are more individualistic, whereas Easterners are more collective (Nisbett 2004). It is tempting to hold that this implies a fundamental difference in the way the respective population conceptualizes themselves, but a closer look makes it clear that both individualist and collective outlooks are consistent with the separative self-conception discussed above. Both can be understood as different identifications that the separative self makes. If the outlook is collective, it can be understood as a case of a person considering her identity to be primarily that of being a member of a community. That means she identifies herself to be a member of a community, and this becomes the major means of identity. In the individualistic outlook, a person considers herself to be primarily an individual independent of the community. But still that person can identify with many possessions or even bigger collectives such as nations but the primary identification remains at the level of the individual. This implies that the difference between individualistic and collective outlook can be understood as a difference in degree, and both are consistent with the free-floating self-conception because their difference is mainly due to the object of identification. It is important to note that the collectivist outlook is far away from the feeling of being part of the all-encompassing whole because identification is done with a limited community only.

This understanding of reflexive self-conception opens up avenues to understand spiritual experience without resorting to supernatural factors. If a major feature of spiritual experience is the feeling of oneself as part of the larger whole, then it can be contended that spiritual experience amounts to a reduction in the separative feeling or the thick psychological boundary with the world, central to ordinary experience. Since this has nothing to do with any belief in supra-natural entities and does not amount to any communion with transcendent reality, a secular understanding of spirituality can be built up on the basis of this reading.

#### 4 Examples from spiritual traditions

Examples from some spiritual traditions support this reading. Consider the case of an enlightened person who has reached the acme of perfection as per Buddhist practice. Such a person does not seek gratification from any state of affairs

and does not conceptualize herself in terms of a separate entity (Albahari 2013). That means the modes of consistent self-concern and ownership are absent or significantly reduced; consequently, the thick psychological boundary with the world gets diminished. Such a person is expected to maintain equanimity in all kinds of situations and is beyond the ordinary approach to events in terms of categories like pleasant, painful or neutral. This is expected to happen because she no longer considers the self to be a bounded entity sharply separated from the world and does not get identified with any particular thought that one requires this or that. This, in turn, can reduce the tendency to view events as pleasant, unpleasant etc. because what makes an event pleasant or unpleasant is based on what one expects from it. As per the Buddhist literature, enlightenment requires decades of dedicated practice, and it may not be even certain whether such a stage is actually attainable or not. At the same time, there is sufficient evidence to indicate that long-standing meditation practice can strengthen positive emotions. For instance, literature on mindfulness is abundant with empirical evidence for its salutatory effect in promoting many positive traits (Keng et al. 2011).

The Bhagavad Gita, a Hindu text long adored for its philosophical insights, consists of a detailed description of what it is to be an enlightened person. Equanimity is given as the major characteristic that distinguishes an enlightened person from ordinary ones. As the text famously says, the behavior of an enlightened person is similar to a tortoise withdrawing its limbs inside the shells to avoid getting hurt. That is to say, an enlightened person can have control over sense organs and, therefore, does not get frequently embroiled in everyday problems. In other words, the enlightened person does not use senses or thoughts to seek gratification from the world and, as a result, does not suffer from the vagaries of the world.

The above discussion suggests that the account of an enlightened person in Hinduism and Buddhism is consistent with the account of the spirituality in terms of a reduction in the separative feeling. This can be elucidated further with the help of one example from a contemporary account of spirituality.

Jiddu Krishnamurti is known for presenting spirituality in contemporary language without resorting to supernatural explanations. According to him, much of human suffering can be traced to the craving that human beings have for various things much more than mere biological survival. A spiritual person, unlike an ordinary person, is not affected by this craving and, therefore, can lead a life of happiness and equanimity.

According to Krishnamurti, the self is constructed out of myriad processes of thinking and though it appears to be separate from and even the source of thinking, actually the self too is a form of thinking (Krishnamurti 2008). The self considers itself to be separate from the world and this gives rise to deep psychological insecurity. The inability to see 'what is' results from the tendency of the mind to constantly wander. He argues that moment-by-moment awareness can change the wandering nature of the mind and overcome the constant striving and suffering.

He emphasized the separative nature of ordinary self-conception and argued that this underlies much of the violence and misery among human beings. The way to reduce these problems, accordingly, lies in being able to realize ourselves as parts

of the whole. He explains how the wandering nature of mind underlies our frequent failure to focus attention, which can affect seeing facts as they are.

The suggestion that Krishnamurti gave to reduce the separative feeling of the self and consequent susceptibility to conflicts and misery is to have moment-by-moment awareness where there is no division between the thinker and the thought, but there is only observation of thought or any other phenomenon that occurs in the present. Awareness as such without the constant thinking that there is a person who thinks is a fundamental change from the usual pattern of thinking where the 'I' is understood to be the thinker existing independent of thought.

The above discussion shows that some forms of ancient and contemporary spirituality are amenable to understanding spiritual experience of unity in terms of a revision in the way the self is conceptualized. Though spirituality is much broader than what is discussed here, the experience of unity is a major feature of it in some traditions. If this experience is explained without referring to anything supra physical, it opens up avenues to salvage some aspects of spiritual heritage in a form acceptable to the scientific and secular mind-set.

## 5 On the centrality of experience

There have been voices questioning the centrality given to experience in the study of religion. (Sharf 1995; Taves 2009) It is pertinent to engage with such criticisms before proceeding further. The major objection is that religious experience was not always treated as constituting the essence of religion. Experience became central in the twentieth-century study of religion, as per this view, mainly to dissociate itself from scientific scrutiny. That is to say, metaphysical beliefs and ritualistic practices could not withstand empirical scrutiny, and therefore, apologists of religion had to resort to inner experience, which is often treated as privileged to the experienter. No third-person method can counter what is known through the first-person perspective, and therefore, the realm of religion, with its central focus on experience, can continue to stand on its own without being questioned by any other mode of inquiry. Robert Sharf calls this 'the rhetoric of experience' and argues, mainly in the context of Buddhism, that this is an attempt to save religion from secular critique. This, according to Ann Taves, results in treating religious experience as *sui generis* and, therefore, not amenable to psychological or cultural analysis.

It is beyond the scope of this paper to have a detailed discussion on the point whether experience became central to the study of religion to save it from scientific scrutiny. Sharf could be right in saying that moral behavior and ritualistic practices were more important in Buddhism for long, but in contemporary times Buddhism is projected as rational by appealing to inner transformation through meditative practices. However, this does not mean that any appeal to experience necessarily carries Cartesian assumption, and it is always used to undermine third person approaches. The present paper is primarily an attempt to show that third person approaches can validate the claims based on first-person experience. That is to say, there is no need to resort to the claim of Cartesian incorrigibility about the kind of experience analyzed here. Further, experience was central to some groups within many religious



traditions for long.<sup>1</sup> For instance, individual conscience was the key focus for Christian Martyrs. Martyrs used to testify based on what they know from personal observation, even risking persecution and death. This shows the importance given to personal experience even during ancient times when it was not possible to make any sharp distinction between institutional and personal aspects of religion. Similarly, in modern times, movements such as Protestantism asserted that an individual's connection with God need not involve any mediation by the clergy. That is to say, individual experience can be the most important factor in religious life. Hence, even if Sharf is right in holding that appeal to experience became the major tool in recent times to save religion from scientific scrutiny, this does not mean that experience was otherwise marginal always in the religious world.

It may be objected that the kind of experience referred to in this paper is often used to make tall metaphysical claims. The purpose of the paper is to show that even if such claims are baseless, there is still something valuable that can be gleaned from reports of such experience, which can be buttressed by certain developments in the cognitive sciences. It is important to note that when it is argued that experience of unity implies a different kind of relation of the self with the world, experience is not taken as referring to something transcendent or mysterious that can be known only through such experience. Instead, it only suggests that our implicit assumptions about the nature of the self and its relation with the world can be changed, and, as a result, the nature of experience may undergo change. Further, there is nothing unique to religion about this kind of experience. It is pertinent to reiterate that peak experience, according to Maslow, can be triggered even by routine events. For instance, when one is fully immersed in the enjoyment of music, the self is not conceptualized as a separate entity, but it becomes part of whatever is around. This should not be confused with other group feelings exhibited during, say, mob violence, or tribal or national loyalties. In such cases, too, there is the feeling of being part of something bigger, but that is always contrasted with something else. In the case of a peak experience of intense musical appreciation or the spiritual experience of unity, there is no division between what one feels part of and the rest. But that is not the case when one feels to be part of a group which makes a division between in-group and out-group. In such cases, there continues to be a thick psychological boundary with the out-group. This division can even result in mob violence and destructive tendencies. Further, in such cases, unlike peak experience, the cognitive processes involved cannot be called non-evaluating or non-judging. But that is not the case with the spiritual experience of unity. When one feels oneself to be a part of all-encompassing whole, there is nothing from which it is divided, and that amounts to the experience of unity. This, in turn, amounts to a reduction in the separative feeling and the thick psychological boundary with the world at large.

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<sup>1</sup> I am thankful to an anonymous referee for making this point.

## 6 Self in cognitive science

### 6.1 Self model theory of subjectivity

One of the most insightful accounts of the self is available in Thomas Metzinger's Self-Model Theory of Subjectivity (Metzinger 2003). The theory does a commendable job in doing justice to both intuitive understanding of what the self is and what the extant scientific theories tell about consciousness and the self. The major claim of the theory is that the self is not a substance in the sense of something that exists by itself, even if the body or the brain disappeared. But the reflexive self-conception understood in terms of free-floating self implies the self to be something that exists by itself.

Metzinger's argument for the non-existence of the self begins by trying to explain what makes a mental state conscious. A representational state becomes conscious, according to him, if it is integrated into the presence of the Now and that of a World. To be a conscious system is to have the presence of a world. That means, a state becomes conscious if it is part of the presence of a world. Apart from the notion of presence, which includes the feeling of the temporal Now and the appearance of a World, Metzinger's theory heavily relies upon the concept of transparency.

A mental state is transparent if the system within which the state appears is not aware of its status as a representation and misunderstands the representation to be the reality. This, according to Metzinger, gives rise to naïve realistic misunderstanding. That is, the system ends up thinking that it is in direct touch with the reality though it has access only to representations of reality.

Just like there are representations of the world, there is representation of the self, called the self-model. It is not understood to be a model due to transparency, and the system considers the model to be the reality and this, according to Metzinger, results in the belief in the existence of the self. What actually exists is information processing systems meeting the requirements to be conscious and operate in a transparent manner.

What the Self Model theory of subjectivity suggests is that the presence of reflexive self-conception is the result of our inability to realize the self-model simply as a model and considering it to be the reality. The free-floating nature of the self can be understood to be arising out of the process of identification. Whenever the mind wanders, it can be said that there is a constant change in identification because each thought becomes infused with the feeling 'I am this' (Metzinger 2013). Empirical studies show that people spend twenty five percent to fifty percent of the waking time in the wandering mode (Smallwood and Schooler 2015). During mind wandering, attention is hardly directed towards what takes place in the present, and thoughts wander from past to future. As Metzinger points out, dissociation occurs between the processes of temporal self-location and spatial self-location. That is to say, even if the system is aware of its spatial location, it may not be aware of the present moment the way it unfolds (Blanke and Metzinger 2009).

It is easy to note that the process of identification discussed above is the result of the feature of transparency of representation. When the system cannot realize a

representation as a representation, it gets identified with the content. Since the object of identification keeps on changing during mind wandering, the notion of something free-floating arises. If wandering state is the default state of mind, then reflexive self-conception becomes that of the free-floating self. Thus, with the help of Self Model Theory of Subjectivity, it is possible to give an account of how the reflexive self-conception is that of a separative self constituted by a thick psychological boundary with the world. This, in turn, can support the attempts to revise the way the self is conceptualized.

## 6.2 Conceptual metaphor theory

Our everyday language consists of multiple ways to understand the self. This can be explained with the help of conceptual metaphor theory according to which abstract concepts are understood metaphorically (Lakoff and Johnson 1999). The major claim of the theory is that concepts that are not directly based on sensory experience tend to be conceptualized in terms of concrete concepts, and this is due to the embodied experience that everybody undergoes. There are many examples in language that show such a pattern. For instance, affection is understood in terms of warmth as in expressions like 'his smile was quite warm.' This can be due to the fact that the first instance of affection that everybody gets in early childhood is that of being held closely. Similarly, the abstract concept of importance is understood in terms of physical size because, in early childhood, whoever is important is bigger in size as well. It is pertinent to note that there can be multiple metaphors for the same concept.

The self is an abstract concept because it is not perceived through sense organs. One common way used to understand the self is the metaphor of a container. The concrete idea of a container is easy to be generated in childhood with the common bodily experience of things going into the body. The notion of self-fulfillment can be said to be arising out of the container metaphor because a container is something that can be filled in. Looking at the world outside as the source for fulfilling the requirements of the self can strengthen the sense of separation from the world. In fact, conceptualizing the self as an entity inside is metaphorical because an entity is understood in terms of objects in the world, such as physical bodies. This results in a sharp distinction between the inside and the outside, which, in turn, can give rise to the thick psychological boundary of the self with the world.

It is pertinent to note that though metaphorical understanding, as per the conceptual metaphor theory, treats metaphors as unavoidable, there is scope for revising the metaphors to understand a concept better. This is because some metaphors hide certain aspects of a phenomenon and highlight some other aspects. It needs to be kept in mind that metaphors are ways of understanding certain things, and it is always possible to revise understanding in the light of evidence. That is to say, the metaphors we currently use in conceptualizing the self may be based on an inadequate understanding of the relevant phenomena and, therefore, it is incumbent on us to reconceptualize the self in the light of scientific progress in relevant fields.

### 6.3 Free will

Another important finding in the study on cognition relevant in the present discussion is related to free will. Benjamin Libet's experiment is often taken as demonstrating the non-existence of free will (Libet 2004). The experiment consisted of asking a subject to move his finger and recording the readiness potential of the act in the brain. The subject was also asked to report exactly the moment he becomes consciously aware of the intention to act. The experiment showed that the subject becomes consciously aware of the decision to act 150–200 ms before the act, but the actual brain process required to do the act started 550 ms before the act. This implies that the actual physical mechanism underlying an action precedes the occurrence of conscious thought related to the act. At the same time, human beings who are not aware of what actually goes on in the brain end up thinking that it is the conscious thought that has caused the act though the brain process required to initiate the act has started before the conscious thought to perform the act occurs. This underlies the common belief in free will.

If the actual causal process precedes the occurrence of conscious thought, then the function of conscious thought, as the psychologist Daniel Wegner observes, must only be that of alerting the organism that a particular act is going to be performed (Wegner 2002). In the case of involuntary actions, such information is not available to the consciousness about the onset of action. But this is not how the difference between voluntary and involuntary act is understood because voluntary actions are taken to be the acts that human beings perform based on their freedom of will. This free will even assumes the status of something supra-causal because to be caused by some processes appears inconsistent with this notion of freedom. Since human self-conception reflexively assumes the form of free-floating self, the capacity of free will can be easily attributed to it. It is this notion of freedom that is undermined by Libet's studies. If behavior can be explained without appealing to the free decision taken by the separative self, then the principle of parsimony demands that we adopt an anti-realistic stand towards such a self-conception. It is important to recall that passivity is a feature of spiritual experience where the feeling of free will is absent. This, in turn, supports the contention that spiritual experience amounts to overcoming the ordinary ways of understanding the self.

### 6.4 Cognitive unconscious

The notion of the cognitive or adaptive unconscious arises out of the realization that much of the processes that underlie any cognitive activity is unconscious. As Timothy Wilson points out, the adaptive unconscious is powerful, sophisticated, and crucial for survival. (Wilson 2002) These processes are not conscious precisely because, given their magnitude, it would be impossible for consciousness to catch up with them. The cognitive unconscious is defined by John F. Kihlstrom as "mental structures and processes that, operating outside phenomenal awareness, nevertheless, influence conscious experience, thought, and action." (Kihlstrom 1987) Even in actions that are seen as voluntary, such as writing this paper, several cognitive

processes go on unconsciously. There must be myriad processes underlying perception, sentence formation, sentence understanding, remembering, and imagining, but we hardly have any access to those processes. It would be simply impossible for consciousness to gain access to all these things given the enormity of parallel processing required to perform any of these cognitive processes. As Kihlstrom succinctly puts it, our access is limited to the product of the processes and not to the processes themselves.

A simple calculation of the difference between the amount of data our sense organs receive and the amount we can consciously process will make it clear how pervasive and central the unconscious is. As per an estimate, at any moment, all of our five sense organs together receive more than 11,00,0000 pieces of information. (Wilson 2002) But we cannot process more than 40 pieces of information consciously in a moment. This does not mean that the rest of the information is lost, but they are processed unconsciously though most of which would be filtered out as being irrelevant.

Language production and comprehension require tremendous cognitive activity on the part of the unconscious. Native speakers of any language are normally able to intuitively state whether a statement is grammatically correct or not even if they cannot state the rule that makes the statement correct. A 2 year old can master her mother tongue not by exerting any conscious effort but by what is called implicit learning. The point is that many cognitive processes humans are good at do not require any conscious involvement.

It is important to keep in mind that the word ‘consciousness’ is not to be understood here as simply being awake. It is a feature of a mental state by which one is aware of the presence of that state. So, when I type these lines, I am certainly awake and aware of what is being written but I am not aware of various cognitive processes that must be going on, which result in the production of the sentences in a meaningful fashion. In this sense, it is said that normally we are conscious of only the products of the cognitive processes and not of the processes behind them.

What the above discussion points at is that conscious access to cognitive processes is very limited. This results in the view that there are fundamentally two systems at work in our mind: One is unconscious and fast, whereas the other is conscious and slow. Daniel Kahneman calls them System 1 and System 2, respectively (Kahneman 2011). It follows that system 1 does not require any conscious effort on our part, and it can go on uninterruptedly without any control on our part. What was referred to as the cognitive unconscious is System 1. System 2, on the other hand, is slow and requires voluntary effort on our part. When we want to multiply two three-digit numbers, we certainly require conscious effort and concentration. Similarly, when I type this sentence, I need to focus on it, without which the resultant sentence can be arbitrary or even grammatically wrong. Needless to say that the activities of System 2 result in a drain on our resources and, therefore, much of cognitive processing, essential for survival, goes on in System 1.

The presence of the two systems, namely, System 1 and System 2, casts a cloud over the claims concerning self-knowledge. If much of what goes on in the mind is unconscious, what is the basis of the claim that we (can) know ourselves? As Kahneman points out, when we think of ourselves, we identify with System 2—the

conscious part. It is all that can be expected because by virtue of the fact that System 1 is beyond the ken of conscious knowledge, what goes in it cannot influence the picture or story that we make of ourselves. Thus, even if the actual brain processes required to carry out a particular action take place before the conscious intention to do it occurs, we end up thinking that our intention is the cause of the action because our access is limited to the intention.

The above discussion shows that the way the self is understood reflexively can be far away from what we know about the self from some empirically grounded theories. Thus, if some forms of spirituality can be understood to be a means to revise the reflexive self-conception, then the way scientific study of cognition progresses, there can be sufficient support for the cause of spirituality from an empirical and secular standpoint. The spiritual experience of unity can be understood in terms of doing away with illusory notions about the self. It does not mean a complete decimation of the self but the realization that one is simply a part of all-encompassing whole. To put it in terms of a distinction made by Shaun Gallagher, (Gallagher 2000), the minimal self is operative as usual, but the narrative self gets changed drastically during moments of spiritual experience. Minimal self, as per this distinction, is the fundamental form of self-reference, which is integral whenever there is conscious experience. Experience directly appears as one's own, and this minimal self can be based on bodily processes such as interoception and proprioception. Narrative self, on the other hand, arises out of the story we tell ourselves. The ordinary mode of narrative is based on separation, ownership, autonomy, and related things and often gives rise to anxiety, pride, pleasure, and so on. The spiritual experience of unity can be drastically different as far as narrative is concerned. It can be one of realizing oneself to be part of the all-encompassing whole with the feeling of abiding connection and love to all that is around. This amounts to a sharp reduction in the thickness of the psychological boundary with the world. It is not a matter of complete dissolution of the self but one of understanding oneself in a radically different manner. This may also be a matter of using different metaphors to understand the self. When the world is not seen as a source of satisfaction or fulfillment, it can be argued that the container metaphor is not used in understanding the self. It is clear that such a substantive change in narratives does not take place in group feelings such as tribalism or nationalism.

Thus, it is possible to understand the spiritual experience of unity without appealing to any supra physical process such as communion with God. It can well be a case of reduction in separative feeling with the world and feeling oneself to be a part of the all-encompassing whole. The principle of parsimony leads us to accept the latter explanation because it does not involve any reference to numinous entities.

## 7 Conclusion

The essence of spiritual experience of unity can be understood in terms of a revision in the separative self-conception. This obviates the need to resort to explanations of such experience in terms of communion with any transcendent reality. There are sufficient indications arising from cognitive studies to the effect that the way we

reflexively understand ourselves is in need of substantial change. Thus, it is possible to develop an account of some forms of spirituality acceptable to the scientific and secular mind-set of our times.

## Compliance with ethical standards

**Conflict of interest** On behalf of all authors, the corresponding author states that there is no conflict of interest.

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