Bi-quarterly Journal of
Theosophia Islamica
Islamic Sciences and culture Academy
EISSN: 2783-3240
Vol. 3 ● No. 1 ● 2023 ● Issue 5

Critical Evaluation of the Validity of Religious Experience and Presentation of Patrick McNamara's Solutions

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Received: 2022/08/30 Accepted: 2023/08/31

Abstract

Religious experience, as one of the most prominent states and experiences of human beings, has drawn the attention of both philosophers and scientists due to the justificatory role it can play in the realm of religious beliefs. However, if not properly understood and assessed, it can lead to a form of extremism. Therefore, a precise definition and explanation of all understandings of religious experience will help us properly recognize and validate it. Neuroscientist Patrick McNamara has studied the process of religious experience with a new approach based on neuroscience, distinguishing it from other rival approaches. Grounded in the scientific method, his approach addresses crucial questions and challenges that have called into question the validity of such experiences and their role in justifying beliefs. Accordingly, in this article, we seek to properly understand the validity of religious experience, using McNamara's strategies to evaluate and

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* Musawi, Sayyid Mahmud; Merati, Mostafa. (2024). Critical evaluation of the validity of religious experience and presentation of Patrick McNamara's solutions. *Theosophia Islamica*, 3(5). pp. 71-100. DOI: 10.22081/JTI.2024.64783.1026

critique it. We will gather materials from McNamara's scientific works and other research, applying rational and analytical methods for a thorough assessment. Finally, we will introduce rational, revelatory, and empirical proof as conditions for the validity of religious experience, emphasizing the limitations and inadequacy of a purely empirical method in appraising such spiritual entities.

Keywords

Religious Experience, Patrick McNamara, Neurology, Cognitive Neuroscience, Self, Soul, Mind.

Introduction

With the spread of the empirical approach to religion in the West, the challenge of rational defense arose. Since the nineteenth century, Christian theologians and philosophers have proposed religious experience as a solution to this dilemma. However, after several centuries and ongoing disagreements in this field, many issues remain unresolved.

By examining the religious experiences of followers of various religions and denominations, as well as different mystical traditions—especially contemporary trends in new spirituality—we encounter several important questions: What distinguishes these experiences from one another? Is there a clear boundary between these mystical states that allows for their proper differentiation? If so, what criteria determine the truth and reliability of the claims in question? Does religious experience, regardless of one's religion or profession, validate legitimacy?

All these questions hinge on understanding what religious experience is and how its validity and legitimacy are determined. This article addresses this issue by reviewing the latest theories and experiments to develop a proper understanding of religious experience, allowing us to take steps toward addressing further challenges. Our perspective on religious experience is broad, encompassing all forms of such experiences without focusing on their specific qualities. The general studies and principles outlined at the end of the discussion pertain to the reality of religious experience itself rather than its quality. Additionally, neurological experiments and the views of Patrick McNamara are incorporated to support the discussion.

It is important to note that our discussion does not encompass

the religious experiences of prophets and imams, as their experiences are characterized by unique qualities and divine elements.

Given the importance of the subject, it is worth noting that many individuals go to extremes by misinterpreting their own religious experiences or those of others. This includes cases where mental disorders, delusions, or misunderstandings of religious concepts lead to false or exaggerated claims. Addressing this issue is crucial, as it allows us to establish methods that can, to some extent, ensure the reliability of religious experience in its broadest sense. In light of this introduction, it is necessary to briefly outline the three aspects of religious experience to provide a more detailed examination of the issue.

Ontologically, religious experience is a phenomenon that has occurred throughout history, with its external existence and validity having been established.

Regarding the psychological aspect of religious experience, it has been explained that various psychological and neurological factors contribute to the occurrence of both healthy and unhealthy religious experiences.

The epistemological aspect of religious experience concerns its causes and validity. The cause of a religious experience is only a small part of the issue, as individuals undergo a wide range of such experiences. These variations include experiences that occur with or without prior presuppositions, differences based on gender, experiences linked to knowledge acquisition and awareness, those grounded in infallibility (purity of nature and inner capabilities), experiences shaped by adherence to religious practices and spiritual transformation, and those induced by illness, drugs, psychotropic substances, or addictive substances.

We briefly examine these causes here, but our main concern is to explain the validity of the experience, not its cause. It is often difficult to discern the cause of experience itself because it is internal. Religious experience, as such, also occurs generally, whether through self-realization or disease. In fact, it is a scientific study that can validate experience; otherwise, anyone could achieve these spiritual states (although the quality of each differs).

It should be noted that regarding the presupposition of creating a religious experience, two important theories—essentialism and constructivism—have been proposed, which are briefly outlined below.

Essentialists claim that there is a shared nature among the religious experiences of people from various origins and faiths, suggesting that all such experiences stem from a common cause. This shared nature is believed to have an external existence, and its conformity with an external reality serves as the basis for the validity of religious experience. Constructivists, on the other hand, reject the notion of a common nature and, consequently, regard religious experience as invalid (Peterson et al., 1991, pp. 22–24).

In evaluating these two rival views in the present discussion, it should be noted that whether one accepts the existence of a common nature and cause of religious experience or not, it makes little difference to the conclusion of this article. In the first step, we acknowledge that some individuals, particularly those who share the same theistic religion (e.g., both being Muslims), may exhibit a common nature, while others may not. In the second step, when examining religious experiences neurologically, such theoretical distinctions become less relevant, as various factors can contribute to the occurrence of these experiences, resulting in different states. Therefore, the assumption of a common nature or cause is not

essential to the core argument of this article. Instead, we will propose a general criterion that can accommodate any theoretical framework.

1. Definition of religious experience

In his works, McNamara has incorporated the insights of other theorists to define religious experience, enhancing the depth of his theories. These theorists include Wildman, Pahnke, and William James. According to McNamara's synthesis of various sources, religious experience encompasses a broad range of ultimate experiences that reflect ultimate concerns and generate the most intense cognitive-emotional-spiritual interactions within individuals. Such experiences also have consequences, including the evolution of beliefs, personality change, and existential empowerment (Wildman & Brothers, 1999, pp. 347–418). Religious experiences result from religious practices and occur alongside the transformation of the self (Wildman, 2002, pp. 125–141; Wildman & McNamara, 2008, pp. 212–242; Wildman & Brothers, 1999, pp. 347–418).

The definition they provide is not entirely adequate for addressing all problems and questions. In other words, a more comprehensive and exclusive definition would be preferable to ensure a proper understanding of its subtopics. Thus, religious experience can be understood as an inner experience that arises in an individual with the minimal necessary components of a healthy mind and body to perceive it. The state and outcome of this experience involve religious transformations that lead to the emergence of spiritual guidance and exceptional personal qualities.

According to the general definition of religious experience, it can occur to anyone, with differences arising only in the quality of the experience. Based on this quality, religious experiences can be categorized into three types: the religious experience of a prophet,

known as a prophetic experience, due to the prophet's unique characteristics; the religious experience of a mystic, referred to as a mystical experience, as it occurs to a mystic; and the religious experience of an ordinary person, which is simply termed religious experience in a broad sense, as it involves going through a religious inner state. However, the quality and depth of each person's experience vary significantly, which is beyond the scope of this discussion. Here, we focus solely on the religious experience of ordinary individuals.

There are various perspectives on the relationship between prophetic, mystical, and religious experiences, but given the general and comprehensive criteria of this article, their relationship is understood in terms of generality and particularity.

2. Characteristics of Religious Experience

Typically, what people perceive as the outcome of religious practice is closely linked to what they refer to as religious experience. When an individual engages in sincere religious practice, they encounter states and transformations that, in this context, are identified as characteristics of religious experience. However, in line with our discussion, even individuals without specific presuppositions or prior knowledge may undergo religious experiences—an observation that has implications for both constructivists and essentialists, as briefly mentioned above.

William James, in his research on religious experience, identified several key features, which Pahnke later summarized into nine characteristics. McNamara subsequently added eight more features. Below, we will briefly outline these features, beginning with the nine identified by Pahnke:

1. Unity or a sense of integration within oneself and with others;
2. Transcendence of time and space;
3. Deeply felt positive mood;
4. Sense of sacredness;
5. A noetic quality or feeling of insight;
6. Paradoxicality or the ability to respectfully hold opposing points of view;
7. Alleged ineffability (the experience is felt to be beyond words);
8. Transiency of the euphoria, but
9. Persisting positive changes in attitudes and behavior (Pahnke, 1967).

The following are eight additional features introduced by McNamara:

10. An enhanced sense of personal power or even that one has been specially blessed by God;
11. Enhanced "theory of mind" capacities (these are capacities to accurately guess the mental states and intentions of others);
12. Changes in sexual behaviors (these can be enhanced or dramatically diminished);
13. Changes in reading/writing behaviors . . . most often this manifest as an enhanced interest in writing (In pathological cases, this becomes a form of hypergraphia.);
14. Enhanced awareness and appreciation of music (Despite

the recognition by many religion scholars of deep connections between religious rituals and music, the enhanced appreciation of music as a feature of religious experience itself has been neglected in discussions of religious experience.);

15. Complex visual and metaphoric imagery (These complex visual metaphors are usually related to the sense of noetic insight that accompanies intense religious experiences. The religious ideas are felt as so meaningful that only complex symbolic visual imagery could capture them.);

16. Ritualization (This is the propensity to perform ritual actions when religious experiences are heightened.); and

17. Encounter with God or spirit beings (McNamara, 2009, p.16).

It is worth noting that when a person is on the verge of a religious experience, internal changes occur until they emerge from this state. The description of these changes includes the seventeen features mentioned above. McNamara offers insights into the evolutionary stages of this process; however, we briefly note here that at the onset of religious experience, there is a perceived unity between the actual and ideal self, causing the individual to lose awareness of their surroundings and the passage of time. This state is accompanied by positive emotions, such as an uplifted mood, a sense of insight, and profound depth. The intensity of the experience can be so profound that, in some cases, the individual struggles to articulate or interpret it for others. Although these inner experiences are fleeting in the moment, they can lead to long-term behavioral growth.

On the other hand, due to certain circumstances, an individual may feel chosen for a divine mission, such as leading others—sometimes even through coercion and violence. There have been

numerous instances where individuals claim to read the thoughts of others, though in some cases, this may be a result of indoctrination rather than genuine perception. Ultimately, the most straightforward and evident consequences of religious experience include engaging in religious practices and claiming to have witnessed God or otherworldly beings.

The key point to emphasize here is the inexpressibility of religious experience. Given its characteristics, it is possible that such experiences cannot be fully conveyed in words. The solution, therefore, is to evaluate them within the framework of scientific and revelatory facts, benefiting both the individual who has undergone the experience and others. Intuition itself cannot be directly transmitted and is sometimes entirely ineffable; however, a scientific discussion can still be conducted regarding cognition and its outcomes, as there is no experience from which cognition cannot be derived.

We evaluate religious experience using the three criteria mentioned above. If it withstands rational scrutiny within the rational sciences, aligns with authentic religious texts based on the standard of their transmission, and meets the experimental criterion in the empirical sciences, then the experience is considered valid.

Normally, most people who undergo a religious experience exhibit some or all of these characteristics. However, possessing these characteristics does not, in itself, demonstrate the legitimacy or validity of the experience. An individual may reach this state through sincere religious practice performed with the right intention and method, or it may arise from indoctrination, psychological disorders, or even brain damage. Therefore, a definitive judgment about the authenticity of one's religious experience cannot be made solely based on these traits. To approach a more informed conclusion, we will

outline some of the factors that contribute to the occurrence of religious experiences.

3. Religious Practices and Religious Experience

The best and truest kind of religious experience arises from religious practice. One person, with prior knowledge, may engage in religious practice and attain this state. Another, without any literacy or religious practice, may perceive the ultimate truth solely through a pure life. Yet another may lead a normal or even non-religious lifestyle but, due to the religiosity of their ancestors or divine providence, undergo a subconscious transformation, embracing religion and reporting numerous religious experiences. In all these cases, human actions—even those of one's ancestors—exert a profound influence.

Factors such as the definition of religion, the nature of religious practice, the manner of its performance, and the degree of one's belief in religion and its rituals all contribute to the religious experience derived from religious practice. A Christian mystic and a Shiite mystic both undergo religious and mystical experiences, but do they share the same experience? What about someone who attains a religious experience without any prior training or presuppositions? While the Christian and Shiite mystics reach this state through their respective traditions, the other person arrives at it independently. Ultimately, the criterion for distinguishing and validating these experiences lies in their conformity with reason, revelation, and experience—not in their conflicting perspectives. These three criteria require detailed explanation.

Religious experience is inherently internal and intangible, making it difficult to verify. However, Dr. McNamara's neuroscience of religious experience serves as a powerful tool in this regard, providing valuable confirmation and aiding in a precise understanding

of the subject. Moreover, it helps distinguish between true and false religious experiences in accordance with the third condition.

What can be presented and emphasized as a true religious experience is that it occurs through self-transformation of the soul, as McNamara repeatedly notes in his writings (McNamara, 2009, p. 26). From a narrative and intra-religious perspective, if by religion we mean "divinely bestowed faith" grounded in revelation and divinity—such as Islam—it offers a comprehensive framework for human development and rejects any deviation. This transformation of the soul is primarily initiated through proper engagement in religious practices, whether by oneself or one's ancestors, whose actions manifest in the form of optimistic children receptive to truth and spirituality.

Religion has no purpose other than the transformation of the self and the soul, for individual growth leads to social growth, which in turn serves as the foundation for many spiritual advancements. Without moral, spiritual, legal, and life security in a society, no other form of growth can occur. Such security is attained through the spiritual development of each member of that society. When the soul is transformed and elevated, it results from the very essence of religious experience (McNamara, 2009, pp. 38–39). This statement underscores the significance of religious practice.

The intellectual coherence of this issue has also been established, as human spiritual and religious adherence has always been regarded as the primary path to inner peace. Mentally, one attains satisfactory results as long as they practice religion correctly, but failure ensues when they neglect or misapply it. Therefore, we evaluate the substance of a personal religious experience based on the two criteria of reason and revelation, considering it valid only if it meets both.

Growth and Self-Transformation

Proving the fundamental dimension of human existence—namely, the soul or self—falls beyond the scope of this article. However, for the purpose of discussing religious experience, we assume the existence of this essential aspect of humanity. As previously noted, the cause of religious experience is also beyond our discussion. Whether the soul or the body serves as its source is a separate matter. Here, we are concerned solely with the general validity of religious experience, while nonetheless acknowledging certain foundational principles, such as the existence of the soul.

As noted thus far, one of the most fundamental factors in the occurrence of religious experience is the transformation of the "self" through religious practices. Analyzing McNamara's theories and writings, particularly his work on the neuroscience of religious experience (McNamara, 2009), leads to the conclusion that by "self," he refers to the same concept as the soul in Islamic thought. Drawing on research in Islamic mysticism (Sviri, 2002, pp. 195–215), he illustrates the stages of human spiritual development by citing Qur'anic verses and the terminology of Islamic mysticism. According to the Qur'an, these stages include “for the [carnal] soul indeed prompts [men] to evil” (Quran 12:53), “the self-blaming soul” (Quran 75:2), and “O soul at peace” (Quran 89:27). He asserts that the soul must first be disciplined and reproached before ultimately attaining a state of tranquility and confidence.

Man can foster personal growth by transforming himself, drawing on McNamara's concept of the ideal self or possible selves in this final stage. The human soul aspires to attain this ideal through religious rites, creating a distinction between the present self and the possible self—the divided self. As an "agent" endowed with free will, the human self resolves this disintegration. While we recognize the

unity of thought, consciousness, and self, we often remain unintegrated. Establishing a focal point for unity across all aspects of life is a challenging endeavor—one in which religion plays a vital role (McNamara, 2009, pp. 26–27).

In the early stages of spiritual development, one is more inclined toward evil, but as one progresses, a greater balance emerges, culminating in the complete transformation of the soul at higher levels of perfection. Physically, humans experience uncoordinated internal conflicts. Genetically and neurologically, they possess both positive and negative tendencies, with internal contradiction being a fundamental aspect of human nature. The paradoxical sets of genes within the human genetic system compete for transmission to future generations, contributing to this internal conflict. Through the stimulation of central and peripheral nerves by good or bad actions, neural chemical processes are directed accordingly. Thus, human actions—whether religious or secular—directly influence both physical and spiritual responses, shaping the occurrence of religious experience (H. D., 2006, pp. 8–22).

Thus, this internal discrepancy is an inherent and pervasive process that is difficult to resolve. Religion, however, provides a precise, profound, and long-term means of addressing it. The final step in resolving this contradiction is taken by the self or soul, which accomplishes its mission through the influence of human actions. To overcome internal conflicts, we must exercise our free will and make goal-oriented choices to strengthen our capacity for resolution.

Religious practices strengthen the self by bridging the gap between the current and ideal self, resulting in a unified identity. However, failing to exercise willpower in this way—or using it improperly—leads to a weakened will. McNamara describes the process of narrowing the gap between the current and possible self as

"decentering," a stage in which the old self gives way to the new. Human nature inclines toward negative tendencies in its internal conflicts, making it difficult to sustain a positive transformation. However, religion and religious rites address this challenge by fostering decentering and self-integration. Their impact is far more enduring than that of any other practice (McNamara, 2009, pp. 38–54). Ultimately, the soul seeks perfection, though achieving it is difficult, and religion provides the most effective means of resolving these inner conflicts.

Religious experience emerges both during the process of progress and at the culmination of decentralization. Often, small religious experiences serve as indicators of progress toward the ultimate goal. As decentralization intensifies, emotions and arousal also increase. This is where the characteristics of religious experience, as outlined by Pahnke and McNamara, become relevant. However, if an individual lacks a proper understanding of religion and religious practice and is unable to accurately assess their experience, they may be misled.

But what if a person undergoes a religious experience without engaging in a specific religious practice or as a result of a mental or psychological disorder?

4. Religious Experience of Unhealthy Individuals

Religious experience is one of the few experiences that cannot be easily judged. A person who initially has no belief in religion may undergo a religious experience and subsequently adopt religious practices and beliefs. Conversely, another individual in a similar state may have a similar experience solely due to a psychological disorder. Therefore, making judgments without full knowledge and awareness would be neither reasonable nor fair.

Many individuals claim to have religious experiences but either engage in religious distortions themselves or mislead others with baseless assertions. For example, a person may exhibit religious behaviors due to a neurological disorder or conditions such as epilepsy. In some cases, the individual has not had any genuine religious experience but deceives others through deliberate fabrication. The motivations behind such deception can vary, ranging from political to personal interests. However, regardless of the cause, due to their compromised physical or mental health—and especially their deceptive intentions—their claims of religious experience are invalid.

Therefore, in this section, we will explore the factors contributing to unhealthy religious experiences to distinguish individuals in this category from those with genuine religious experiences. Additionally, these studies can aid those suffering from neurological and mental disorders. We will begin by examining the role of the brain and the nervous system in religiosity to identify the causes of these disorders and the distinction between healthy and unhealthy religious experiences.

5. Anatomy of Brain and Feeling of "Self"

The brain and its neural networks serve as intermediaries in religious experience. Neuroscientific research has identified a specific region in the human brain associated with belief in God and religious experiences, a claim supported by scientific advancements. This topic will be explored in detail here. However, this brain region alone cannot account for all religious experiences; rather, the brain functions as a conduit. Human cognition and complex activities stem from a unique faculty known as the "self" or soul, with the brain and nervous system acting as its instruments. Within the brain, a specific neural

system regulates emotions and their fluctuations. As these emotions develop, the corresponding neural pathways are activated, leading some to mistakenly believe that the entire process originates solely in the brain (McNamara, 2006, pp. 1–3).

Studies show that religiosity, the sense of self, and religious experiences are highly dependent on neural circuits in the brain, and the intensity of these experiences decreases if these circuits are disrupted due to damage. The right temporal cortex and the prefrontal cortex are the two primary brain regions most involved in the occurrence of religious experiences (Craik et al., 1999, pp. 129–178; Feinberg & Keenan, 2005, pp. 661–678; McNamara et al., 1995, pp. 16–23; Miller et al., 2001, pp. 817–821; Seeley & Sturm, 2007, pp. 317–334; Vogeley et al., 1999, pp. 343–363). A dementing process can easily disrupt these regions and impair "self" control. The anterior and temporal cerebral cortex receive dense afferent input from the spinal cord and limbic system and exhibit higher innervation of serotonergic and noradrenergic cells in the brainstem. Dopaminergic cell groups in the right prefrontal cortex show a heightened response to stress. Additionally, this cortex, along with the primary motor cortex, plays a crucial role in supporting volition and voluntary actions (Berridge et al., 2003, pp. 69–104). The prefrontal cortex first encodes the intention to move, which is then transferred to the primary motor cortex to initiate movement. The signal is subsequently relayed to the supplementary motor area, followed by processing in the brainstem, lower spinal cord, cerebellum, and basal ganglia to coordinate sequential movements. During this process, cognitive information, emotional experiences (both positive and negative), religious experiences, and memories are carefully processed (McNamara, 2009, pp. 62–64).

Now, suppose that one of these brain regions suffers a physical, mental, or psychological injury or disorder—what will

happen? As long as the areas responsible for processing sensory input and religiosity function normally, all religious emotions, feelings, and experiences remain real and intact. However, even minor damage to the brain or a disruption of the nervous system can interfere with this process, rendering these experiences insignificant. It is evident that when the mechanism facilitating a function is impaired, the function itself cannot operate properly. A more critical point is that only relatively simple disorders can be self-diagnosed by the individual, while more complex conditions require medical evaluation and scientific testing for diagnosis. In relation to this discussion, the third criterion—scientific examination of religious experiences—helps clarify the rationale behind such claims.

Certainly, examining these brain regions and their disturbances can help address many complexities. A person who attains religious experiences with perfect mental health is undoubtedly different from someone who experiences similar states due to external factors such as hallucinations, addiction, brain damage, or other disorders. Therefore, it is crucial to explore this important issue further.

6. Mental Disorders and Religious Experience

Various forms of damage to the brain's nervous system can result in irreparable harm to both the body and the mind. Understanding and addressing these issues is one of the most critical tasks for researchers. Today, neuroscientists, psychologists, philosophers, and experts across various scientific fields continue to study these complexities. A wealth of clinical evidence suggests that disturbances in sensitive regions of the brain can lead to conflicting religious and quasi-religious experiences. This raises an essential question: What happens when a brain region responsible for religiosity is damaged?

Among these conditions is alien hand syndrome, which results

from a disorder affecting the primary motor cortex or the anterior part of the corpus callosum. In this condition, the affected hand moves involuntarily, without the person's consent, or appears to act under an external will (Goldberg, Mayer, & Toglia, 1981, pp. 683–686).

If the frontal lobe is damaged, it may result in environmental dependency syndrome, which deprives the individual of free will and voluntary decision-making. For example, the person may unconsciously attempt to harm themselves without having control over their actions (Lhermitte, 1986, pp. 335–343).

As long as a person remains the source of their own movements, everything functions normally. However, when the limbic system, anterior temporal lobe, or prefrontal cortex is impaired, the individual's actions may appear to originate from an external source. This phenomenon is often perceived as sinister by the individual, as if a second identity or external force is controlling their thoughts and behavior.

These neural circuits also play a role in the occurrence of religious experiences. In addition to contributing to mental disorders, they may also give rise to unhealthy religious experiences. It can be explicitly stated that the relationship between oneself and God can be examined through the brain’s neural and cognitive mediation. However, this is not the entire picture; it does not imply that the brain is all-encompassing or that the human soul is negated. Rather, it highlights the role and mediation of neural processes. Addressing differences between religious and non-religious individuals through the lens of religious experience and this neurological perspective may help resolve many conflicts (McNamara, 2006, p. 209).

After a brain injury or temporal lobe epilepsy, patients often experience significant changes in their religious mood. For example,

an individual suffering from such a disorder may claim to have been chosen by God for a special mission—a belief that diminishes after an epileptic episode or with medication (Waxman & Geschwind, 1975, pp. 1580–1586). Some have even reported visions of God. Many of these individuals experience recurrent epileptic seizures accompanied by conflicting religious experiences, with tests indicating the involvement of the right temporal lobe. Additionally, individuals who discontinued their anticonvulsant medication not only suffered epileptic seizures but also reported profound religious experiences, believing themselves to be the Son of God or possessing abilities such as healing or reading others' thoughts. All of these cases suggest that brain damage can lead to altered self-perception and self-esteem (Dewhurst & Beard, 1970, pp. 497–507). Ultimately, it is the self—or soul—that interprets these neurological changes, sometimes leading to misperceptions of reality.

Another example of such cases is individuals with severe mental illness, many of whom experience intense religious delusions, as numerous reports have documented (Huguelet et al., 2006, pp. 366–372; Mohr et al., 2006, pp. 1952–1959). In these patients, dysfunction of the dorsolateral prefrontal cortex and increased activity in the limbic system, particularly the amygdala, are commonly observed (Puri et al., 2001, pp. 143–148; Kasai et al., 2003, pp. 156–164; Kubicki et al., 2002, pp. 1711–1719; Kuroki et al., 2006, pp. 2103–2110).

Obsessive-compulsive disorder (OCD) is one of the most detrimental manifestations of religiosity when it becomes pathological. Intrusive thoughts, excessive desires, and repetitive behaviors are characteristic signs of this condition. Studies indicate that a significant proportion of individuals with OCD experience religious obsessions (Tek & Ulug, 2001, pp. 99–108). Research on the orbitofrontal cortex has revealed increased abnormal activity in the subcortical basal ganglia and limbic circuits. Additionally, heightened

activation has been observed in the right temporal lobe and right prefrontal cortex (Fontaine et al., 2007, pp. 621–635).

In frontotemporal dementia, neurodegenerative disorders primarily affect the frontal lobe and anterior regions of the temporal lobe. Before the onset of this condition, individuals often exhibit abnormalities such as apathy, disinhibition, and obsessive behaviors. Like others with neurological impairments, these individuals may also experience sudden religious episodes (Miller et al., 1997, pp. 937–942; Neary et al., 1998, pp. 1546–1554).

Scientists utilize brain imaging techniques to measure how different areas of the brain respond to various psychological and spiritual states. Brain activity requires energy, which depends on glucose and oxygen. As these molecules circulate, the volume and integrity of specific brain regions may increase or decrease. Researchers assess these changes through imaging and experimental methods such as MRI (Newberg et al., 2006, pp. 67–71).

Extensive studies on the religious experiences of both healthy and unhealthy individuals have identified a network response involving several brain regions, including the orbital and dorsomedial prefrontal cortex, the right dorsolateral prefrontal cortex, the ascending serotonergic systems, the mesocortical dopamine system, and the amygdala/hippocampus. In summary, the limbic system, temporal lobes, and right prefrontal cortical regions are all implicated, with particular emphasis on the right temporal lobe—a point on which most researchers agree (McNamara, 2009, p. 127). However, it is important to note that experimental findings, particularly in cognitive science and neuroscience, can be interpreted in various ways. One such interpretation is the perspective presented here in the discussion of religious experience.

Based on the provided data, a network of brain structures is responsible for modulating religiosity and the sense of "self," and these structures are deeply interconnected. The coherence and integrity of this network reflect complex chemical interactions between neurons, highlighting the importance of understanding these processes.

7. The Brain's Chemical Reaction to Religious States

The neurochemicals serotonin and dopamine specifically activate regions of the brain identified as part of the religious circuit. Many hallucinogens stimulate the nerve cells associated with these neurotransmitters, influencing emotional and religious experiences. Since our brains naturally contain these cells, the use of psychedelic substances can induce altered states of consciousness, including spiritual or religious sensations. In a balanced state, the proper regulation of serotonin and dopamine maintains normal brain function. However, various factors—such as hallucinogen use—can lead to heightened activity in key brain circuits, including the limbic system, right temporal lobe, and prefrontal cortex. This overstimulation may result in conflicting religious and anti-religious experiences or even contribute to mental disorders (McNamara, 2009, p. 127).

Beyond the influence of medication or brain injuries, religious practices themselves can also trigger neurological reactions and create religious experiences. In both cases, the brain undergoes complex processes, demonstrating that religious experiences cannot be solely reduced to neural activity. There is another fundamental factor that differentiates these experiences—the "self" or soul—which plays a crucial role. While neurological experiments may help distinguish between the religious experiences of healthy and unhealthy individuals, the evolution of the soul and the legitimacy of a person's

spiritual claims depend on additional factors. Another important consideration is the scientific interpretation of religion, a common approach in scholarly works. This perspective has faced methodological criticism, some of which are valid. Therefore, this article aims to avoid an overly reductionist or scientistic approach, instead adopting a more balanced perspective that integrates both rational and religious considerations.

From our perspective, religious experience alone does not serve as conclusive proof of a person's claims, nor does the mere occurrence of such an experience validate their legitimacy. An individual may attempt to justify their claims by describing mystical insights or intuitions, yet they could be entirely mistaken. Religious experience is inherently an internal phenomenon—comprising feelings, emotions, and intuitions—that may not hold universal validity. Therefore, a religious experience can only be deemed true or false after evaluating the foundational concepts underlying the individual's claims. To determine the legitimacy of such claims, a multi-faceted approach is required. First, philosophy and other related fields are used to assess the logical coherence of the claim. If the claim pertains to divine intentions or religious doctrines, it is examined in light of revelation. Finally, experimental sciences—such as neuroscience and medical assessments—are applied to determine whether the individual experiencing these religious states is physically and mentally healthy. The reason for this rigorous evaluation is the wide spectrum of religious experiences, some of which are authentic while others are influenced by various psychological or neurological factors, as discussed in detail.

A healthy religious experience serves only to support valid and well-grounded rational and scientific arguments; it cannot function as proof for claims that are absurd or based on fallacious reasoning.

Furthermore, this principle applies regardless of whether the experience is demonstrable to the person himself or to others. Accordingly, every religious claim must first be evaluated through rational, revelatory, and empirical reasoning before being considered in light of religious experience. Therefore, merely observing a religious or mystical state does not entitle one to interpret it personally or form impressions based on preconceived notions. If someone without prior religious belief undergoes a religious experience, its significance depends on whether he has subjected his views and spiritual states to the scrutiny of reason and science. Given the vast diversity of its origins, religious experience, in itself, cannot be regarded as a definitive source of inspiration or guidance for practice and belief. Consequently, those who possess religious experiences should not invite others to their sects or orders solely on that basis, as their claims may be rooted in past misconceptions or erroneous assumptions. A person who harbors fundamental misunderstandings cannot properly comprehend his mystical or religious experiences, potentially leading himself or others astray. Thus, religious experience is merely a secondary tool in assessing claims—it is not an inherent or fundamental principle for evaluation.

Conclusion

In conclusion, the findings of this article can be summarized as follows:

- The discussion focuses on the validity of the very existence of religious experience among ordinary people, rather than its quality.
- The validity of any religious experience is determined by its justification through rational, revelatory, and empirical foundations; otherwise, it holds no value.

- The most fundamental cause of religious experience is the transformation of the "self" or soul as a result of religious practices.
- Ontologically, religious experience is an entity that lends itself to philosophical analysis.
- Psychologically, both healthy and unhealthy individuals undergo religious experiences, with their differences carefully examined. A healthy person primarily attains religious experience through religious practice, whereas an unhealthy person was assessed in detail using various tests related to mental and neurological disorders. Additionally, the role of genetics in religiosity was briefly explored to account for individuals who achieve spiritual states without external influences.
- In the epistemological aspect, the source of religious experience was not addressed due to the multiplicity of possible causes. However, its validity depends on the three factors mentioned above.
- McNamara's definition of religious experience, along with the final definition, is broad and comprehensive, encompassing all types of religious experiences regardless of their quality. It also clarifies the relationship between the three aspects of religious experience: absolute generality, generality, and particularity.
- The characteristics of religious experience were outlined, offering general criteria for determining their validity.
- Dr. Patrick McNamara's new approach has paved the way for a more precise understanding of this issue. He examines the self and the soul in the process of attaining religious

experience, providing a clear explanation of the stages of soul integration. Additionally, he applies the concept of the "self" to the soul within the framework of Islamic mysticism.

- The neurological study of religious experience provided a broader perspective on the subject. By applying this understanding to the stages of self-decentralization and evolution, the process of attaining religious experience was elucidated. During these stages, the right temporal cortex, prefrontal regions, limbic system, and other neural circuits play a key role in processing sensory perceptions and religiosity.
- Based on the nature of the human body, human actions and behavior influence genetics, which in turn affect the central nervous system in the brain. Specific brain regions respond to peripheral nerves in other parts of the body through chemical signaling. As a result of this process, various sensations, including religious commitment and religious experience, are produced.
- Originality and centrality belong to the soul, while the body serves as its instrument. The soul and body undergo changes together, and both can be measured. Although measuring spiritual experiences in humans is highly challenging and often impossible, they can be partially assessed through neurological and physical states.

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* The Qur'an, Translated by: Ali Quli Qara'i, ICAS Press.

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