

Mysticism, Sufism, and Neurotheology: Bridging Spirituality and Modern Science

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Abstract:

This article examines the integration of mysticism, spirituality, Sufism, and neurotheology as a means to bridge the spiritual and biological dimensions of human religious experience. Mysticism is interpreted as the pinnacle of transrational religious experience, while spirituality is viewed as a progressive development of ethical and inner consciousness. Sufism, as the mystical path of Islam, offers a structured and practical framework of spiritual ascent through concepts such as *maqamat* (stations), *ahwal* (states), *dhikr* (remembrance), and *fana'* (ego dissolution). This study employs a qualitative approach, utilising a literature review and philosophical-interpretive content analysis, to examine classical Sufi texts and contemporary neuroscientific research. The findings suggest that Sufi practices are associated with specific neurological activities, including activation of the prefrontal cortex, increased theta waves, and decreased activity in the default mode network. The integration of Sufism and neurotheology supports the development of transdisciplinary models in spiritual education and psychological therapy, while maintaining epistemological boundaries and the depth of spiritual meaning. This article contributes to the interdisciplinary discourse of religious studies, opening up space for a constructive dialogue between revelation and science.

Keywords: Sufism; mysticism; spirituality; neurotheology; consciousness; dhikr; religious experience

INTRODUCTION

In the study of religions, the phenomenon of religious experience is an important dimension that cannot be ignored (Qorib, 2022). For a long time, humans have tried to understand the transcendental dimension of their existence, both through theological, philosophical, and ritual praxis approaches (Aždajić, 2024). Mysticism and spirituality emerge as two main paths in understanding the relationship between humans and God. Both represent the deepest aspects of religious experience, although they have fundamental differences in the orientation of their approaches (Smart, 1996). Mysticism tends to emphasize the direct existential union between the subject and the Supreme Reality, while spirituality gives more space to the reflective and ethical inner process in achieving divine closeness. In the Islamic tradition, Sufism is present as a concrete manifestation of mysticism and spirituality. The practice of Sufism not only speaks of deep inner experiences but also entails an existential transformation through *tazkiyatun nafs*, or the purification of the soul. Figures such as Al-Ghazali and Ibn 'Arabi show that the Sufi spiritual path is not merely an individualistic practice, but rather an ontological project that reshapes human self-orientation towards God and the reality of life (Chittick, 1989). Sufism thus becomes a distinctive form of Islamic spirituality that is structured and tested throughout history.

At the same time, the development of modern science opens up new space to understand spiritual experiences from a scientific perspective. Neurotheology as an interdisciplinary field tries to bridge spirituality and neuroscience. This approach aims not to judge the right or wrong of faith, but to see how religious experiences are manifested in the neurological activity of the human brain (A. Newberg & Waldman, 2009). This is relevant to addressing the doubts of some academic circles regarding the validity of mystical experiences as a subject of scientific study.

Neurotheology shows that spiritual practices such as dhikr, meditation, and contemplation can be measured empirically through technologies such as fMRI and EEG (A. Newberg, 2018). Studies show that when a Sufi performs dhikr or performs muraqabah, there is activation in certain parts of the brain such as the prefrontal cortex and anterior insula which are associated with self-control and spiritual awareness (Saraei et al., 2023). These findings suggest that religious experiences are not mere illusions but have a neurological basis that can be traced scientifically.

Thus, there is a need to build a framework for dialogue between the spiritual heritage of Islam—in this case Sufism—and the findings of contemporary science. This relationship is not to reduce the sacred to the biological, but rather as an effort to expand the understanding of the human dimension as a whole. If mysticism speaks of inner silence, and neurotheology speaks of brain activity, then the meeting of the two can be an epistemic mizan that connects the two poles of knowledge that have so far been considered separate (Szugycizki, 2023).

Furthermore, this article also responds to the tension between the normative-doctrinal approach in the study of religion and the phenomenological-critical approach that attempts to approach religious experience as an existential fact. Through the study of Sufism and the neurotheological approach, this article attempts to mediate the two approaches by offering a synthetic path: that faith and spiritual experience can be both personal and objective, transcendent and measurable, mystical and scientific (Chatlos, 2025).

Methodologically, this approach also opens up new space in the study of religion. While religious experiences have tended to be interpreted symbolically or metaphorically, neurotheology presents an opportunity to study these experiences with the help of scientific instruments. This is in line with the spirit of contemporary philosophy of religion which rejects the dichotomy between science and religion, between reason and revelation, between body and spirit (Ferngren, 2022).

In this context, Islamic spiritual practices such as muraqabah, dhikr, and fana' are not only seen as devotional rites, but also as neuropsychological activities that impact consciousness, emotions, and personal transformation (Fatima & Ullah, 2023). The practice of dhikr, for example, is known to be able to influence brain plasticity and strengthen areas related to calmness and self-control, a finding that is very relevant amidst the challenges of modernity that tend to give rise to existential anxiety.

Therefore, this research is important to broaden the horizon of our understanding of religious experience, especially from the perspective of Islam and neuroscience. This article aims to analyze the interrelationships between mysticism, spirituality, Sufism, and neurotheology, with a focus on how Sufi practices can be understood both spiritually and scientifically. By juxtaposing the rich Sufi heritage with a rigorous scientific approach, this paper aims to show that dialogue between religion and science is not only possible but also urgent in the current academic context.

METHOD

This research uses a qualitative approach with a literature study design and philosophical-critical content analysis (Mann, 2015). This approach was chosen because the topics discussed are in the realm of conceptual and reflective studies, namely the relationship between spiritual experience, Sufism teachings, and discoveries in contemporary neuroscience. The main emphasis is on the interpretation and synthesis of the meanings of classical religious texts and modern scientific literature, in order to identify epistemological and practical meeting points between two scientific domains that have traditionally been considered separate: religion and science.

Primary sources in this study include classical Sufi works, which discuss tazkiyatun nafs (purification of the soul), muraqabah (awareness of God's presence), and the concept of ma'rifatullah; as well as Futuhat al-Makkiyya Ibn 'Arabi's works that explain the existential experience of the unity of being (wahdatul wujud) and fana' in the context of Islamic spirituality. These works were chosen because they are representative in describing the path of Islamic mystical experience that has been tested historically and philosophically (Chittick, 1989).

Secondary sources in the form of contemporary studies in the fields of neurotheology and spiritual neuroscience are taken from leading scientific journals, such as *Zygon: Journal of Religion and Science*, *The*

Journal of Neuroscience, Psychology, and Economics, as well as popular academic works by figures such as Andrew Newberg, Eugene d'Aquili, and Patrick McNamara, who are known as pioneers in the study of the correlation of brain activity and spiritual experience (A. Newberg & Waldman, 2009). The literature search also included neurophysiological studies of meditation, mindfulness, and dhikr practices in the Islamic tradition, including reports of brain scans (fMRI, EEG) and their effects on brain structure.

The analysis was conducted using the philosophical hermeneutic method, namely reading texts that attempt to explore the hidden meaning of terms, symbols, and narratives contained in Sufism teachings, then critically juxtaposed with empirical data from neuroscience research. This process is not positivistic, but interpretive, emphasizing the connection of meaning between text and context, between spiritual experience and human biological reality (Ricoeur, 1976). The goal is not to reduce spiritual values into statistical figures, but to show that divine experience also has manifestations in the physical dimension that are legitimate to be studied.

Furthermore, a comparative approach is also used to analyze the differences and intersections between the four main concepts in this study: mysticism, spirituality, Sufism, and neurotheology. Each concept is examined in the ontological (the nature of spiritual reality), epistemological (how to obtain spiritual knowledge), and axiological (the value and purpose of the experience) dimensions. With this approach, it is hoped that it can be shown how these concepts support each other and give meaning to each other in the spiritual and scientific realms.

To maintain conceptual validity, this study uses source triangulation techniques through comparisons between the views of classical Sufis, theories of religious philosophy, and experimental research results in the field of neuroscience. This is important to avoid overly speculative or purely religious biased interpretations. Source selection is carried out selectively based on scientific authority and thematic relevance to the research objectives.

The data processing technique is qualitative analytical, with the following stages: (1) identification and categorization of the main themes of Sufism and neurotheology literature; (2) mapping the relationship between spiritual experience and the brain's working system; (3) synthesis of thought that bridges the spiritual and biological dimensions of humans. This approach allows for the emergence of a new understanding of religious experience as a transdisciplinary entity.

This method also allows for exploration of the practical implications of the theories studied. One of these is the hypothesis that intensive dhikr practice over a period of time can cause significant changes in brain structures associated with spiritual awareness, such as increased thickness of the anterior cingulate cortex or decreased activity of the ego-related DMN network (Zhu, 2025). This hypothesis is not tested experimentally in this article, but is presented as an opportunity for further research combining theological and neuroscience approaches.

Thus, the method used in this study is qualitative reflective and transdisciplinary, which is based on a combination of philosophical reasoning, the richness of spiritual traditions, and scientific empirical data. This is in line with the spirit of contemporary religious philosophy which no longer separates between normative and descriptive knowledge, between revelation and reason, but instead seeks common ground between the two as a path to a more complete understanding of human existence.

RESULTS AND DISCUSSION

Mysticism and Spirituality

Mysticism is one of the highest forms of religious experience that has been the center of attention in the discourse of the philosophy of religion and the study of spirituality from classical to contemporary times (Kotva, 2022). In a general sense, mysticism can be understood as a process of unification between the subject (human) and the Supreme Reality (God), which goes beyond the limitations of reason, language, and the symbolic structure of religion. This term comes from the Greek word *muein*, meaning "to close the eyes," and refers to inner silence and isolation from the hustle and bustle of the world as a path to divine intimacy (Kim, 2023). In the context of the philosophy of religion, mysticism is not merely a subjective emotional experience, but also an epistemological process rooted in the transformation of consciousness and existential union with the Absolute (Smart, 1996).

One of the most distinctive characteristics of mysticism is its transrational nature. Mysticism rejects reduction to purely rational or conceptual categories. This was emphasized by William James in *The Varieties of Religious Experience* that mystical experiences have four main characteristics: ineffability (ineffability), noetic quality (containing knowledge), transience (temporary), and passivity (experiences occur outside of one's full control)) (James, 1902). In this case, mysticism does not reject reason, but goes beyond it. It moves in a region

that can only be captured by spiritual intuition and deep existential awareness. Therefore, mystical experiences are often difficult to explain in ordinary language because what is experienced is not an object, but *presence*.

In the Islamic tradition, this mystical experience is clearly seen in the practice of Sufism. The concept of *fana'*, which is the melting of oneself into the being of God, is one form of *unio mystica* in the Islamic version. The practice of *fana'* does not mean physical disappearance or absolute loss of identity, but rather the loss of the ego as the center of consciousness, which is replaced by the awareness of the absolute presence of God (Nasr, 2007). Thus, mystical experience in Islam is not merely a subjective experience, but is an integral part of a very systematic path of spiritual enlightenment.

In contrast to mysticism which emphasizes direct union with the Supreme Reality, spirituality in the context of religious philosophy refers more to the journey of consciousness towards closeness to God or gradual self-unity. Spirituality is not only a process of internalizing divine values, but also a life orientation that makes the transcendent dimension the main axis in everyday life. This means that spirituality does not always demand peak experiences as in mysticism, but rather the process of character formation and spiritual ethos that are integrated into the practice of human life (Tacey, 2004). In this sense, spirituality is more inclusive, open to anyone, even those who are not tied to a rigid religious belief system.

The spiritual journey, as described in various traditions, involves stages of soul cultivation involving moral awareness, compassion, self-control, and the search for meaning. In this context, spirituality becomes a vessel for the purification of the soul through universal values that transcend the boundaries of formal religion. Figures such as Abraham Maslow even include the spiritual aspect as the pinnacle of self-actualization in his theory of the hierarchy of human needs (Maslow, 1971). This shows that spirituality has a strong psychological basis in human existential development. It is not surprising that today, spirituality is an important part of positive psychology therapy, value education, and even ethical leadership.

However, the distinction between mysticism and spirituality is not dichotomous. Both are often present in a continuity of religious experience. Mysticism can be seen as the culmination of a long and profound spiritual process (Bao Dai Loi, 2024). Instead, spirituality becomes a path that prepares the individual to be open to the possibility of experiencing the mystical dimension (Królikowska, 2024). In this framework, the relationship between the two is dialectical: spirituality provides an ethical and practical framework, while mysticism provides an ontological vision and a radical existential enlightenment. In philosophical terms, spirituality is a transformational praxis, while mysticism is an ontological epiphany (Ferraro, 2024).

One useful approach to understanding the complexities of mysticism and spirituality is to examine the thought of the great figures of the world's various religious traditions. From West to East, from Islam to Hinduism, there are similar patterns of experience and concepts in how humans approach the divine. This shows that while the outward forms and symbolic systems differ across traditions, the structure of mystical experience is universal (Qadir & Tiaynen-Qadir, 2024).

In the Islamic tradition, Ibn 'Arabi occupies a central position as an influential mystical thinker. His works such as *Futuhat al-Makkiyah* and *Fusus al-Hikam* became the philosophical foundation of Islamic mysticism (Taufiqurrahman, 2021). The concept of *wahdatul wujud* (unity of existence) that he popularized emphasized that all realities flow and originate from the Absolute Being, namely God. For Ibn 'Arabi, the true spiritual path is to dissolve the illusion of duality between God and creatures. In this framework, *fana'* is not merely the dissolution of the ego, but the revelation of the true nature of reality which is God Himself (Chittick, 1989).

A similar concept can be found in the Hindu Advaita Vedanta tradition, particularly in the thought of Adi Shankara. He taught that *Atman* (the individual soul) is essentially identical with *Brahman* (the ultimate reality). All forms of duality are *maya* (illusion), and the spiritual task of man is to free himself from ignorance through intuitive knowledge gained through meditation and contemplation (Deutsch, 1980). This similarity shows that in a mystical context, both Islam and Hinduism adhere to the principle of ontological non-dualism, although its expression is different.

In the Christian tradition, figures such as Meister Eckhart are known for teaching about the "birth of God in the human soul." He believed that in total inner silence, God is not only present but also "reborn" in the soul of the completely surrendered person. He wrote, "The soul must be empty of everything so that God can work in it." (McGinn, 2014). This is in line with the Sufi teachings on *tajrid* (self-emptying) which is a prerequisite for achieving *fana'*. In all these traditions, the path to God requires the elimination of the ego, not through the rejection of the world, but through spiritual penetration into the deepest structures of consciousness.

Zen Buddhism offers a different but equally profound form of mysticism. In Zen, the concept of *satori* or sudden enlightenment describes a moment of transcendence when the duality between subject and object

collapses. Enlightenment is not achieved through rational discourse, but through silent and spontaneous meditative practice. Zen even rejects reliance on texts and doctrines as a means of attaining truth. In this sense, Zen mysticism parallels the transrational approach also promoted by the Sufis (Starlyte, 2024).

Spirituality, meanwhile, does not always culminate in a mystical experience as in the case of these figures. It is more flexible, open to a gradual process that does not have to reach ontological union. Figures such as Thomas Merton, Rumi, and Rabia al-Adawiyah show that spirituality can also be present in the form of everyday life based on love, compassion, and reflective life practice. Love in spirituality is not just an emotion, but an ontological force that connects the soul to its Absolute Source (Nagesh, 2024). In Rumi's poetry, love is not just a feeling, but "the life of life", the quickest path to God (Hosseini & Hosseini, 2021).

From this perspective, spirituality is more ethical and applied, while mysticism is ontological and contemplative (Sherman, 2014). But the two cannot be separated. Mysticism requires a foundation of spirituality so as not to become an elitist experience empty of practice, while spirituality requires a mystical horizon so as not to be reductive and trapped in shallow morality (Szugyiczki, 2023). It is in this context that the relationship between the two becomes mutually enriching and mutually strengthening.

Thus, figures from various traditions show that the human search for the Transcendent has a universal structure. Whether in the form of Ibn 'Arabi's *fana* experience, Adi Shankara's Atman-Brahman, Meister Eckhart's birth of God in the soul, or Zen's *satori*, all lead to one goal: the elimination of the ego for the presence of divine reality. On the other hand, spirituality as an ethical and transformational process provides a practical path that allows everyone to engage in this journey, without having to experience a mystical peak (Szugyiczki, 2023). The combination of the two is a path that not only frees the soul, but also organizes life in moral and existential integrity.

In the modern context, discussions about mysticism and spirituality are no longer limited to the realm of religion or theology. Both are now of interest in various disciplines, from psychology, philosophy, to neuroscience. This shows that spirituality and mystical experience are not something obsolete or exclusively religious, but are very relevant to answering existential crises, disorientation of meaning, and fragmentation of values in an increasingly materialistic world (Bennett & Hacker, 2022). Mysticism offers a horizon of existential depth, while spirituality provides a transformative path that can be practiced in everyday life.

Modern society often experiences a disconnection from meaning due to a fast-paced life that is oriented towards pseudo-productivity. In this situation, spirituality is present as a contemplative space that offers inner healing and self-integration. Practices such as meditation, mindfulness, and reflective forms of worship such as *dhikr* and solemn prayer not only have theological value, but also have a direct impact on psychological health and emotional balance (Aldbyani, 2025). This explains why many modern therapeutic approaches are beginning to integrate spiritual elements as part of recovery and character building.

Mysticism on the other hand, although not directly attainable by everyone, remains a source of inspiration in forming a deeper and more transcendent vision of life. The presence of mysticism in classical texts and the testimonies of Sufis and mystics is a reminder that human existence is not finished only in the physical or intellectual aspects, but contains a depth that demands continuous search. Even for those who do not literally experience mystical union, reading about these experiences can awaken a more alive and meaningful spiritual experience (Taylor, 2024).

In the realm of education and personality development, spirituality is also a major concern. Several modern pedagogical approaches emphasize the importance of spiritual intelligence (SQ) as a form of intelligence that allows a person to understand the purpose of life, give meaning to suffering, and manage relationships with the highest values. This intelligence, which is not identical to IQ or EQ, is rooted in sensitivity to the transcendent. In this framework, spirituality is not just a matter of religion, but also touches on the deepest anthropological realm of humans: the longing for meaning and existential connection with something greater than oneself (Zohar et al., 2000).

This relevance becomes even more apparent when we include interdisciplinary perspectives such as neurotheology. This approach demonstrates that mystical and spiritual experiences can not only be described phenomenologically, but also mapped biologically. Brain-scanning technologies such as fMRI and EEG have been used to study neural activity during religious meditative, contemplative, or ecstatic states. The results show specific patterns of brain activity—such as increased theta and alpha waves, suppression of the Default Mode Network (DMN), and activation of the prefrontal cortex—that correlate with profound spiritual experiences (A. Newberg & Waldman, 2009).

The implications of these findings are not only important for the scientific realm, but also strengthen the validity of mystical experiences in academic discourse. Mysticism, which was previously considered too

subjective and unverifiable, can now be approached through neurological data that can be measured and tested. This certainly does not mean that mystical experiences are reduced to mere brain activity, but rather that the human body and brain do have a natural capacity to receive and respond to the presence of the Divine. Mysticism and spirituality, thus, find new justification within a scientific framework, without having to lose their sacred and ontological nature (Youvan, 2024).

Interestingly, in many cases, neuroscience data actually supports what spiritual traditions have long taught. Intensive dhikr, for example, has been shown to increase brain plasticity and strengthen connections between parts of the brain responsible for self-control, empathy, and inner peace. The same is true for Zen meditation, Christian contemplative prayer, and silent rituals in various traditions (McLuckie, 2023). This suggests that diverse spiritual paths actually lead to similar types of neurological transformations. This opens up the possibility of building a “common language” between religion and science, between Sufism and technology, between mysticism and neuroscience.

Ultimately, mysticism and spirituality are not luxuries that only a few religious elites possess, but are an integral part of human nature. The depth of mystical experience and the nobility of spiritual values play an important role in shaping the new consciousness of modern humans who thirst for meaning, wholeness, and peace (Kumari et al., 2023). In a world marked by high technology but a crisis of values, a renewed focus on spirituality and mysticism is an urgent and profound need.

Sufism as a Mystical Path in Islam

Sufism in the Islamic tradition is not merely a branch of theology or ethics, but a complete and systematic spiritual path towards the experience of divinity. It is a distinctive manifestation of Islamic mysticism that contains not only a contemplative dimension, but also a strictly practical dimension. In the deepest sense, Sufism is a spiritual method for purifying the soul (*tazkiyatun nafs*), deepening awareness of God (*ma'rifatullah*), and forming an inner wholeness that is in harmony with the divine will. Sufis view this life not merely as a field of formal law, but as a field of existential testing to achieve spiritual maturity, the culmination of which is *fana'*—the total dissolution of the ego in the presence of God (Nasr, 2007).

The roots of Sufism can be traced back to the lives of the Prophet's companions who lived in simplicity and sincerity of worship, but its systematic form developed in the early centuries of Islam through ascetic and contemplative practices. Early figures such as Hasan al-Basri, Rabia al-Adawiyah, and Sufyan al-Tsauri laid the spiritual foundations of Islam that emphasized sincere love for God without worldly or afterlife interests. However, over time, Sufism developed into a mystical tradition rich in symbolism, metaphysics, and detailed methods of cultivating the soul. This is evident in the concepts of *maqamat* (spiritual stages) and *ahwal* (spiritual states) which were designed to map the process of self-transformation of a *salik* (spiritual traveler) towards the peak of divine presence (Chittick, 1989).

Maqamat are stages that must be traversed with conscious effort and spiritual discipline, including repentance, asceticism, patience, gratitude, trust, and surrender. Each *maqam* demands a process of internalizing divine values in their entirety in behavior, thoughts, and inner attitudes (Bisri, 2022). For example, the *maqam* of *zuhud* is not merely distancing oneself from the world, but making the world a means, not an end. In this dimension, Sufism does not reject life, but places it proportionally within the framework of eternity (Yawar, 2020). Meanwhile, *ahwal* such as *mahabbah* (divine love), *fana'* (self-melting), and *baqa'* (determination in God) are not the result of direct effort, but rather a gift from God after the seeker passes through the stages of *maqamat* with great perseverance. This combination of human effort and divine gift is what makes Sufism unique and irreducible to the framework of pure rational logic.

In the practical dimension, Sufism emphasizes the importance of *dhikrullah* (remembering God), *muraqabah* (awareness of God's presence), and *khalwat* (inner seclusion). These three practices are basic methods for deconstructing the ego and opening up space for the divine presence in consciousness. *Dhikr*, whether recited aloud or silently, not only has an impact on the peace of the soul, but also trains focus, inner discipline, and sensitivity to the divine presence (Irhas et al., 2023). *Muraqabah* as a practice of full awareness of God, demands the awareness that every thought, movement and will is always under the supervision and grace of Allah (Othman & Jaafar, 2023). This is a form of Islamic mindfulness that has roots long before the discourse of mindfulness emerged in the world of modern psychology.

The uniqueness of Sufism as a mystical path in Islam also lies in its organizational structure through the *tarekat*. Each *tarekat* has a lineage (*silsilah*) that continues to the Prophet Muhammad, showing the continuity of the transmission of spiritual knowledge that is maintained spiritually and institutionally. The *tarekat* is not only a

worship community, but also a spiritual laboratory where a student is intensively guided by the mursyid (Fatkhuri, 2022). In many cases, the relationship between the Sufi disciple and the Sufi master is not an ordinary pedagogical relationship, but a transformative relationship involving the total formation of the spiritual personality. Therefore, Sufism is both a science and an art—a science in the depth of its concepts, and an art in its spiritual practice that demands extraordinary sensitivity, love, and patience.

In Sufism, the understanding of reality is neither materialistic nor dualistic. The world is not seen as the opposite of God, but as a reflection of His Being. This is where the concept of *wahdatul wujud* plays a central role in Sufi metaphysics. This idea, popularized by Ibn 'Arabi, states that there is no true being other than the Being of God; everything that exists is merely a manifestation of Him in various forms. Man, nature, and the entire cosmos are not autonomous entities, but epiphanies of the infinite divine reality (Chittick, 1989). Thus, the path of Sufism is not an escape from the world, but rather a spiritual penetration into the deepest reality that transcends external forms.

This concept has a great impact on the way the Sufis interpret life. A Sufi will not see himself as a being separate from God, but rather as an emanation of His being. Therefore, spiritual practice does not aim to “approach God” in a spatial sense, but to “realize” that this self is nothing other than the place of God’s manifestation. It is in this context that the experience of *fana'* becomes important. *Fana'* does not mean the loss of existence, but the loss of the perception of oneself as an independent entity. Rather, there arises an awareness that this entire existence belongs to and is an emanation of the One (Nasr, 2007).

Some Sufis describe this experience in highly poetic yet theologically charged language. Bayazid al-Bustami once said, “*Subhani, maa a'zama syaani!*” (Glory be to Me, how great is My state!), which in a general context seems like a claim of arrogance. But for a Sufi, it is an expression of the realization that he has completely dissolved in the reality of God, so that there is no longer a separate ‘I’. Something similar is found in Hallaj’s famous statement, “*Ana al-Haqq*” (I am the Truth), which some scholars have accused of heresy, but which Sufis interpret as the pinnacle of spiritual union with Al-Haqq, the name of the All-True God (Baldock, 2005).

Sufism also has a wealth of symbols and language that is unique. For example, the terms “wind,” “fire,” “sea,” and “light” are often used by Sufis to describe certain spiritual conditions. The sea can be a symbol of the infinite Being of God; fire is a symbol of divine love that burns the ego; light is a symbol of divine knowledge that penetrates the darkness of the heart. This symbolism is not intended as a mere literary allusion, but as an expressive medium of experiences that cannot be expressed in ordinary words. A Sufi speaks with symbols not because he wants to be poetic, but because what he experiences is ineffable—beyond language (Corbin, 1998).

In addition to symbolism, Sufism also recognizes a unique spiritual authority structure, namely the mursyid or spiritual teacher. The role of the mursyid is very central in the formation and supervision of the student’s transformation process. Not only giving advice, the mursyid also guides the student’s heart towards the path of self-knowledge and God (Munjin & Windariyati, 2021). In many orders, students cannot advance to the next level without the blessing and approval of the mursyid. This shows that Sufism highly values manners, closeness, and spiritual transmission that cannot be replaced by reading books or public religious studies (Habib & Ullah, 2025). A murshid not only teaches doctrine, but radiates a presence that serves as a divine mirror for his students.

With all this richness, Sufism presents itself as a spiritual path that is not only theologically profound, but also practically effective (Knysh, 2019). It is not just a high mystical theory in the clouds, but a way of life that shapes personality, organizes social relations, and directs all aspects of human existence towards unity with God. In the Islamic world which is often trapped in the formalism of *fiqh*, Sufism is the breath of life that revives the spirit of religion in its most authentic and existential form.

In the development of contemporary academic discourse, the emergence of the neurotheology approach opens up new space for understanding spiritual experiences that have so far only been interpreted in symbolic or phenomenological terms. Neurotheology does not pretend to explain God biologically, but focuses on how the human nervous system processes, experiences, and responds to transcendent reality. In this context, Sufism as a mystical path of Islam becomes very relevant to be reread with the help of a modern neuroscience framework. Practices such as *dhikr*, *muraqabah*, *khalwat*, and *fana'*, which have so far been in the domain of spirituality, are now beginning to receive empirical validation through careful and systematic neuroscience studies (A. Newberg & Waldman, 2009).

Neuroimaging studies show that when someone performs *dhikr* with high intensity and deep devotion, there is increased activity in the prefrontal cortex—the part of the brain associated with decision-making, self-awareness, and emotional control (Mahmood, 2023). This activation indicates that *dhikr* is not just a verbal ritual, but also a means to strengthen internal connections that calm the central nervous system and increase spiritual focus. In addition, this activity also reduces the function of the default mode network (DMN) - a brain network that

is active when someone is immersed in egocentric thoughts (Hafsteinsson, 2020). In Sufi language, this is a form of self-emptying (*tajrid*) or the process of becoming *fana'*, where the ego is dissolved in the presence of God.

This phenomenon also occurs in the practice of *muraqabah*, which is full awareness of God's presence in every moment of life. In this practice, a *salik* trains to continue to "watch his heart" so that he is always in the presence of the divine. When examined neurologically, this practice shows an increase in theta and alpha brain waves that are often associated with meditation in other traditions (Kaushik et al., 2020). This wave indicates a mental state of calm, focus, and openness to spiritual insight. It confirms that within the structure of human consciousness there is a natural potential for transcendence, which can be triggered and nurtured through spiritual techniques such as those developed in Sufism.

Not stopping there, the practice of *khalwat* or spiritual isolation has also been tested in various neuroscience experiments. Isolation in silence, contemplation, and meditation not only trains spiritual focus, but also helps reduce stress hormones, increase dopamine and serotonin levels—chemicals associated with feelings of happiness and calm. These findings prove that Sufism is not only a path to God, but also offers enormous therapeutic potential in answering the psychological challenges of modern humans who are often hit by anxiety, depression, and loss of meaning (McNamara, 2009).

More interestingly, in various orders, spiritual practices such as *dhikr khafi* (silent *dhikr* in the heart) or *sama'* (listening to spiritual music) also have a strong correlation with gamma wave activity patterns in the brain, which are associated with ecstasy, experiences of unity, and non-dualistic awareness. The Chishti order, for example, uses spiritual music and chanting to stimulate spiritual ecstasy. This is similar to the neuroscience finding that high-frequency auditory stimulation can trigger synchronization of the right and left brain, which in mystical experiences is felt as a release of the boundary between "I" and "the other." (Ooms, 2024). In Sufi language, this is an inner event in which a single reality (*tauhid*) is fully present within the self.

All of this suggests that Sufism, far from being merely a cultural heritage or a form of traditional religious expression, actually encompasses a wealth of practices that are highly relevant to study and apply in the context of modern science and therapy. The neurotheological approach is a bridge that explains that Sufism is not only about piety, but also touches on the deepest aspects of the biological structure and human consciousness (Holden, 2024). In an academic world that is increasingly moving towards interdisciplinarity, opening a dialogue between neuroscience and spirituality is not only necessary, but urgent.

However, it must be emphasized that the scientific approach should not replace the existential depth of the Sufi experience itself. fMRI and EEG data are only external representations of something that is essentially inner. Mysticism in Sufism must still be interpreted within the horizon of love, obedience, and servitude, not merely as a neural phenomenon (Knysh, 2019). The integration of Sufism and modern science will only be meaningful if it does not castrate the sacred dimension that is its true spirit. In other words, the neuroscientific mapping of Sufi spiritual experience must not obscure the fact that *dhikr*, *fana'*, and *mahabbah* remain existential responses to the presence of God, not merely functions of cortical activity.

Thus, Sufism is not only a historical legacy of Islam, but also a living and productive source of knowledge. It can speak to the modern world in a profound spiritual language, while being open to scientific dialogue. It is in this epistemological field that Sufism can be placed: as a mystical path rooted in revelation and sharia, but also in touch with the pinnacle of philosophical reflection and the latest discoveries of science (Poya & Rizapoor, 2023). The path of the Sufis, once considered exclusive and esoteric, is now proven to hold vast possibilities for enriching our understanding of man, consciousness, and God.

Integration of Sufism and Neurotheology: Theoretically and Applicatively

The integration of Sufism and neurotheology marks a new chapter in the dynamics of religious and scientific studies. Both originate from areas that are traditionally considered methodologically distinct: Sufism from the spiritual and theological traditions of Islam, and neurotheology from the development of neuroscience and cognitive psychology. However, the development of interdisciplinary studies in the last two decades shows that this separation is no longer adequate to explain the complexity of human religious experience. In the midst of the crisis of meaning in modern society, this integrative approach is not only relevant but also urgent to be used as a new framework in understanding the relationship between humans, God, and consciousness (A. Newberg et al., 2001).

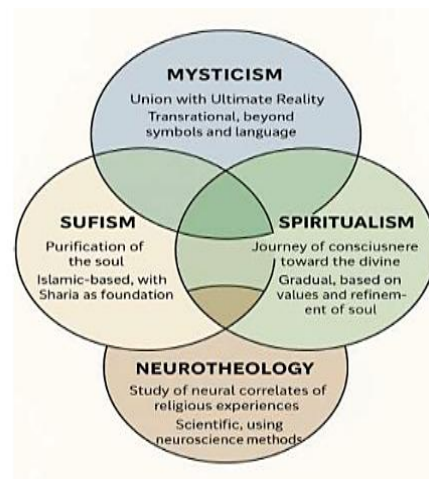
Epistemologically, Sufism and neurotheology meet at the point of seeking knowledge about the highest reality, although through different paths (Holden, 2024). In Sufism, knowledge of God (*ma'rifatullah*) is not a purely rational or speculative product, but rather the result of deep inner experience, through self-purification and ego-emptying (Ihsan et al., 2024). This process is known as *kashf*—divine revelation in the clear heart.

Neurotheology, meanwhile, offers an empirical approach to understanding how the human brain experiences these spiritual phenomena. Research in this area suggests that religious experience may be mediated by the activation of certain parts of the brain, such as the prefrontal cortex, the limbic system, and even the attention-regulating neural networks that are active when a person is in a contemplative state (McNamara, 2009).

Although the methods used are different, both approaches recognize that spiritual experience is not a psychological illusion or rational deviation, but a reality that can be explained—both inwardly and biologically. In this respect, Sufism provides the rich content and narrative of religious experience, while neurotheology offers the tools to read it scientifically (Hewitt, 2020). This opens up space for an epistemological synthesis: that knowledge does not only come from external (objective) observation, but also from systematic and consistent inner (subjective) transformation. It is at this point that the Sufism and neurotheology approaches can strengthen each other, not negate each other.

From an ontological perspective, Sufism believes that the highest reality is God, and all existence is merely a manifestation of His Being (Arroisi, 2022). In this framework, human consciousness is understood as a mirror of the Divine presence, and spiritual experience is a form of activation of the natural potential to know God. Neurotheology, although it does not make ontological claims about the existence of God, contributes to explaining how the experience of God's presence arises in the activity of the nervous system. This is in line with the thought of the Sufis that mystical experience is not a figment of the mind, but a form of genuine spiritual contact (Knysh, 2019). When a seeker reaches the state of *fana'*, then from a neuroscience perspective, he experiences a drastic decrease in the default mode network (DMN), which is related to ego consciousness.

Figure 1
Integration of Sufism and Neurotheology



The application of integration between Sufism and neurotheology in real life can answer various challenges faced by modern society, especially in the fields of value education, mental health, and spiritual development. Sufism as a science of *tazkiyatun nafs* has long offered a methodology for the formation of spiritual personality (Ghofar et al., 2018), whereas neurotheology opens up the possibility of studying the effectiveness of these methods through an objective scientific approach (Gaitán & Castresana, 2021). Both, if developed together, can form an educational and therapeutic framework that is not only based on spiritual values, but can also be measured and verified physiologically.

In the world of education, this integration can be implemented through a curriculum that combines contemplative practices typical of Sufism, such as *tafakur* and *muraqabah*, with knowledge of the working mechanisms of the brain and its effects on students' emotions, behavior, and concentration. Spiritual education based on Sufism does not only emphasize memorization and formal worship, but also fosters depth of inner attitude, honesty, spiritual discipline, and awareness of God's presence in daily activities (Karimullah, 2023). If modeled well, this approach has the potential to produce a generation that is not only intellectually intelligent, but also emotionally mature and spiritually stable.

Furthermore, the integration of Sufism and neuroscience has a major impact on the development of spiritual therapy based on *dhikr* and divine consciousness. In several studies, *dhikr* not only increases inner peace, but also influences the increase in dopamine and serotonin hormones, two important compounds in mood regulation

and stress reduction (Irhas et al., 2023). The practice of muraqabah, when combined with neurofeedback techniques, allows for the measurement of the brain's response to silence and spiritual awareness, so that it can be developed as an additional therapy for patients with anxiety disorders, depression, and even post-traumatic stress disorder.

This model has begun to be applied on a limited basis in several alternative therapy institutions, especially in the Middle East and South Asia. In Indonesia itself, this concept has great potential to be implemented in Islamic psychology clinics, modern Islamic boarding schools, and hospitals based on Islamic values (Mujahid, 2021). Dhikr that is done in a structured way, not just verbal repetition, but as a deep spiritual practice, can be used as one form of Islamic psychotherapy based on a neuroscience approach. This will strengthen the position of Sufism as a science that not only fosters the soul, but also heals inner wounds in a real and measurable way.

In addition to education and therapy, this approach is also important in strengthening social rehabilitation programs and personality development. In correctional institutions, for example, the Sufism approach that emphasizes self-awareness, confession of sins, and renewal of vertical relationships with God can be a tool for forming a new understanding of life. By involving a neuroscience approach, the progress of this transformation process can be tracked physiologically and psychologically. The practice of dhikr and meditation carried out regularly in the rehabilitation room can increase a sense of peace, reduce aggression, and strengthen motivation to improve oneself (Mujahid, 2021).

In this context, Sufism is not only positioned as a personal spiritual path, but also as social capital and a tool for social transformation. Values such as patience, sincerity, and universal love instilled through the teachings of Sufism can be a source of inspiration in building a more inclusive and compassionate society (Abubakar, 2025). Integration with neurotheology ensures that the changes are not merely ideological or moralistic, but have a real biological and psychological basis (Gaitán & Castresana, 2021). Therefore, the synergy between the two can be the foundation for creating a comprehensive spiritual education and therapy approach that is firmly rooted in Islamic teachings while being open to scientific renewal.

Although the integration of Sufism and neurotheology opens up many positive possibilities, a critical attitude is still needed in reading the epistemological and methodological boundaries of this approach. Sufism was born from the realm of deep inner experience, where symbolic language, transcendental experience, and personal relationship with God become the main focus of the search (Knysh, 2019). In contrast, neurotheology relies on an empirical approach based on observation and measurement of brain phenomena (A. B. Newberg, 2016). These two approaches come from different horizons, and therefore, the dialogue between them must be conducted with full awareness of this fundamental difference. The integration effort must be coherent, not mutually exclusive, and not reduce the sacred to mere neural activity.

One of the main challenges is the tendency towards scientism, namely the view that places science as the only source of truth. In this context, there is a risk that the spiritual dimension of Sufism will be treated as a laboratory object that can be explained entirely through neurobiology, without paying attention to its existential depth and transcendent meaning (Rodrigues et al., 2023). Mortal experience, for example, cannot be completely reduced to a decrease in brain activity in the default mode network. Likewise, divine love in Sufism cannot be equated with a surge of the hormone oxytocin. Mystical experience cannot be equated with a biological response, although both can be present simultaneously. Therefore, integration must be carried out with a reflective approach that combines spiritual hermeneutics and empirical epistemology in a balanced way.

Sufism also has dimensions that cannot be reached by scientific instruments—namely the dimensions of inspiration, *tajalli*, and inner disclosure that cannot always be verified by measuring instruments. This is not a weakness, but rather the natural character of science that originates from the search for the deepest meaning of human beings towards divine reality. Therefore, a good neurotheological approach does not force scientific proof of all elements of Sufism, but seeks intersections that can be explained, while still respecting what is beyond the reach of science. In the terminology of the philosophy of science, this is called epistemological complementarity—the cooperation of two approaches to reveal different sides of a complex reality (Polkinghorne, 1998).

This awareness is important so that Sufism does not lose its spirit in the process of academicization or scientification. One thing that must be maintained is that the practice of Sufism is based on spiritual transformation through inner practice, not just theory. Sufism cannot be understood completely only from the outside; it demands inner involvement, disciplined practice, and spiritual guidance (Knysh, 2019). Therefore, neurotheology that wants to come into contact with Sufism must pay attention to the methodological aspects that are typical of the spiritual world—for example, the importance of the *mursyid*, manners in learning, and sincerity

of intention in undergoing suluk. This is an integral part of the epistemology of Sufism that should not be ignored just because it does not fit with laboratory logic.

In the realm of scientific development, this integration can be directed at two major focuses. First, the development of a transdisciplinary spiritual education model that combines Sufism teachings with a neuropsychological approach (Haryanto & Muslih, 2024). This can be realized in the form of a character education curriculum based on *tazkiyatun nafs* which does not only rely on moral instructions, but also touches on the emotional and neurological dimensions of students. Second, collaborative research between Islamic studies academics and neuroscience experts to explore the influence of *dhikr* practices on changes in brain structure, mental stability, and increased social empathy (Mahfuh & Truna, 2024). Both of these directions require research governance based on values, spiritual ethics, and academic freedom.

Ultimately, the dialogue between Sufism and neurotheology is not merely a matter of theory and method, but also concerns the courage to build a bridge between the spiritual heritage of Islam and the findings of modern science. This integration opens up new horizons in the study of religion that are no longer trapped in the dichotomy between revelation and reason, between faith and empiricism (St. Pierre, 2016). On the contrary, this approach demands intellectual perseverance and spiritual clarity to see that the visible and the inner are actually interconnected in a deep web of meaning.

Sufism, with all its rich teachings and practices, has not lost its authority in the era of science. In fact, it has become increasingly relevant when it is able to dialogue with new realities creatively and humbly. Neurotheology, on the other hand, finds spiritual depths and transcendental dimensions that can enrich their reading of the structure of human consciousness (Rodrigues et al., 2023). In clean and civilized cooperation, the two can form a more humane, complete and meaningful horizon of knowledge.

CONCLUSION

Based on the results and discussion above, mysticism, spirituality, Sufism, and neurotheology are four interconnected paths of understanding in explaining human religious experience. Mysticism represents the peak of religious experience that is transrational and existentially united with the Highest Reality. Spirituality, on the other hand, marks a continuous process of inner journey through moral values, reflection, and closeness to God. Both of these approaches have profound relevance in the formation of spiritual awareness and character of modern humans who are experiencing a crisis of meaning.

Sufism as a mystical path in Islam offers a systematic and practical approach to spiritual transformation. With the concepts of *maqamat*, *ahwal*, *dhikr*, *muraqabah*, and *fana'*, Sufism facilitates the process of purifying the soul and opening consciousness to the divine presence. Sufi experiences that have been discussed in a symbolic and metaphorical framework can now be explained through a neurotheological approach, which empirically observes the correlation between brain activity and spiritual phenomena. Findings in the field of neuroscience, such as increased theta and alpha waves, decreased ego activity (default mode network), and activation of the prefrontal cortex during meditation and *dhikr*, indicate a biological basis for deep spiritual experiences.

The integration of Sufism and neurotheology opens up great opportunities in the development of transdisciplinary approaches in the study of religion, education, and mental health. From a theoretical perspective, this integration strengthens the understanding that religious experience is not merely subjective or metaphysical, but has a neurological dimension that can be studied scientifically. From a practical perspective, Sufism can be used as a spiritual therapy approach in dealing with stress, trauma, and anxiety, as well as a character education model based on contemplation and self-awareness.

However, this integration requires epistemological caution so as not to reduce spirituality to a mere biological phenomenon. Sufi mysticism cannot be fully explained by neural data, because it touches on the realm of meaning, divine love, and inner experience that goes beyond the objectification of science. Therefore, the dialogue between Sufism and neurotheology must be carried out in a complementary and non-negating framework. Neurotheology can read how the brain responds to the divine presence, but the deepest meaning of that experience remains a spiritual domain that can only be understood through practice, manners, and self-transformation.

Nevertheless, this article contributes to the development of a discourse on religious studies that is not only theological and philosophical, but also empirical and interdisciplinary. It shows that the Sufi heritage of Islam has a high vitality to enter into dialogue with modern science without losing its original character. Sufism can be a spiritual laboratory that is not only relevant for believers, but also for anyone who is seeking integrity in the midst

of a world full of disorientation. This integration is not only an academic form, but also an ethical and spiritual project that opens up new horizons in understanding humans, consciousness, and divinity.

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