ISSN: 3065-4874
Review Article
Journal of Psychiatry and Neurochemistry Research

From Myth to Neuroscience: Tracing the Conceptual Evolution of the Soul in Philosophy, Psychology, and Psychiatry

Valentin V. Fursov[1,2,3*], Ilia V. Fursov[4], Ivan V. Fursov[5], & Anikey V. Fursov[6]

[1]*D.I. Mendeleev University of Chemical Technology, Moscow, Russia*
[2]*N.I. Pirogov Russian National Research Medical University, Moscow, Russia*
[3]*Peoples' Friendship University of Russia, www.rudn.ru, Moscow, Russia*
[4]*Mkhitar Gosh Russian Armenian International University, www.ariu.org,Yerevan, Armenia*
[5]*Lomonosov Moscow State University, Moscow, Russia*
[6]*Moscow Financial and Industrial University «Synergy», Moscow, Russia*

[*]Corresponding author: Valentin V. Fursov, D.I. Mendeleev University of Chemical Technology, Moscow, Russia.

Submitted: 23 December 2025 **Accepted:** 30 December 2025 **Published:** 06 January 2026

Citation: *Fursov, V. V., Fursov, I. V., Fursov, I. V., & Fursov, A. V. (2026). From Myth to Neuroscience: Tracing the Conceptual Evolution of the Soul in Philosophy, Psychology, and Psychiatry. J of Psych and Neuroche Res, 4(1), 01-06.*

Abstract

The concept of the «soul» originates in ancient philosophy and mythology, yet retains indirect relevance in contemporary scientific discourse. Although modern science often treats it as an epiphenomenon or conceptual atavism, the soul remains foundational for key psychological constructs and is linguistically embedded in disciplines such as psychology, psychiatry, and neuropsychology.

This duality reflects a broader disciplinary divergence: while philosophy continues to engage with the soul as a legitimate object of inquiry, psychology, psychiatry, and neuroscience explicitly exclude it from their conceptual frameworks. However, emerging trends in post non classical science and neo classical philosophy suggest a reconsideration of ancient insights in light of new empirical data.

Advances in cognitive science and neuroscience have reignited interest in the relationship between brain processes and subjective experience. This has prompted a gradual shift away from the classical Cartesian understanding of the psyche toward novel conceptualizations grounded in:

- *behavioral neurobiology;*
- *cognitive neuroscience;*
- *integrative neurobiological approaches.*

These developments are increasingly engaging with pre scientific conceptions of the soul, reevaluating them through the lens of contemporary brain research.

The present article traces the evolution of the soul concept across historical and disciplinary boundaries — from mythological origins and ancient philosophical systems to modern cognitive and neuroscientific paradigms. It demonstrates how contemporary neuroscience is fostering a renewed, evidence based dialogue with age old questions about the nature of subjective experience and consciousness, particularly through advances in human brain research.

Keywords: Soul, Mythology of the Soul, Philosophy of the Soul, Cartesian Dualism, Neuroscience, Neuropsychology, Cognitive Neuroscience, Psychiatry, Conceptual Evolution.

Introduction

The "soul", being one of the central philosophical categories, the ideological basis of the vast majority of not only Abrahamic religions, but also all theological systems based on faith in the "spiritual world", at some point turned out to be practically expelled from the field of science, both humanitarian and natural. This situation, given the antiquity of the concept of "soul", is so paradoxical that even a special semi-natural semi-humanitarian science, which emerged as one of the last of the philosophical disciplines: psychology, even having a literal translation as the "science of the soul", immediately after its birth, tried with all its might to abandon and separate itself from the study and consideration of the very category of the soul and reached mind-boggling heights in this, replacing the concept of "soul" with another one that has no semantic or "physical" meaning, but has the same root at its core: "psyche".

It turns out that for centuries, millennia, people have been mistaken, absolutely seriously recognizing the objectivity and reality of the existence of the soul, and in just over a hundred years science has advanced so far that it has transferred the soul to the field of epiphenomena, to the field of religious, biased consciousness, to the field of myths.

Most ancient philosophical theories are centered around the soul, or psyche. Etymologically, the word psyche comes from the verb ear - which means "cool, blow" - as an indicator of life itself. Considering the area under discussion from a bird's-eye view, and leaving aside minor details, we trace the development of the movement of science towards a comprehensive concept of the soul, considering the spirit that animates the world and spreads to land, sea and space, through moral and mental dispositions, as an organ of the supreme mind. The soul has always been regarded as the incorporeal "breath" of life that animates (from the Latin anima, cf. "animal") a living organism. According to ancient thinkers, the soul was not only responsible for mental or psychological functions such as thinking, perception, emotions, feelings, and morality, but was also involved in all life functions characteristic of any living organism [1].

In the Homeric epic, the way the soul is perceived in relation to life applies primarily to human beings. The soul is a spirit that resides in the human body and leaves it after death by exiting through the mouth. After death, the soul is transferred to Hades, the underworld, where it remains lifeless and immaterial, intangible, but retains the form of the physical body to which it belonged during earthly life and becomes a kind of reflection of it [2].

The philosophical constructions of the Orphics and Pythagoreans differ from a Homerian idea of the soul, recorded by Plato. However, such later theories did not fundamentally affect the everyday perception and prejudices about the soul. Related traditions are traditions of Charon and the god Hermes (or Mercury) – nicknamed phychopomp or those who transfer souls to the underground world, where the soul is represented in the form of bird or insect. The attractiveness of these traditions becomes evident in Plato's works about the soul and Eros, as well as late poets antiquity, such as Ovid's "Metamorphoses" and the elegant fable of Apulea, Eros and Phyche [3, 4].

The very myth of Phyche, according to one of the leading foreign researchers of mythology and religion, Joseph Campbell (1904-1987), is a human search for what is true, meaningful and important. He claims that what we are looking for is "the experience of being alive, so that our life experience resonated within our inner being and reality, so that we really feel the delight of living existence." According to supporters of this approach, polytheistic myths of antiquity can also give insprehens in the field of psychological science [5].

"Eros and Psyche", a story dating back to Ovid's metamorphoses, Attributed to Lucius Apulius Madaurentis or Platonicus (2nd century AD). Psyche, an unsurpassed beauty, was the youngest daughter of the Tsar. Her fans neglected Venus (Aphrodite) and worshipped instead Psyche. Somehow Aphrodite became envious of the beauty of a mortal girl Named Psyche. The goddess, gripped by jealousy, ordered her son to pierce a girl's heart with a golden arrow, so that she falls in love with himself the disgusting man in the world.

Eros agreed to fulfill his mother's wish, but when he saw Psyche, he himself fell in love with her. Beautiful Psyche became the wife of the invisible and mysterious Eros, who flew to her every day, though, only at night and in darkness, while warning her beloved that she should not bring fire to the bedroom and see it without the cover of night.

Psyche fell in love with Eros, despite the fact that she had not even seen him before. However, the jealous sisters persistently tried to convince her that she had married a terrible monster who was going to harm her. So they slowly led her to the idea of killing her husband. One fateful night, curiosity and fear got the better of her, and Psyche decided to hide an oil lamp in her bedroom along with a knife [6].

When Eros fell asleep, she lit a fire in the lamp, preparing to see the monster, but instead saw an extraordinarily handsome young man sleeping on her bed. At the sight of his beauty, Psyche was struck - so that a few drops of hot oil from the lamp fell on his skin. Eros woke up in pain and noticed a knife in his beloved's hands. Seeing such betrayal, he immediately flew away… Psyche, in desperation, went to look for her lover all over the world. The mythological adventures of Eros and Psyche have been immortalized by dramatists and composers.

Psyche, a mortal woman, was freed from death by Zeus, the father of the gods, who took pity on her and granted her immortality. The mythological imagery of Psyche in ancient art is represented by butterfly wings, abundantly depicted in ancient ceramics. Freed from death, the soul's body could fly freely, soar, freeing itself from the fetters of the chrysalis. The sarcophagus found in Patras depicts two children holding a doll, possibly to depict the funerary nature of the scene . Butterfly in the Greek epic, it is often personified with Psyche and is considered the soul of the deceased. The ancient Greeks called the initial stage of butterfly metamorphosis scolex ("worm"), and the pupa – which is the next stage of metamorphosis from a caterpillar – was called nekydallon, which means " dead man's shell".

The metamorphosis of the butterfly has inspired many to use butterflies as a symbol of the soul's exit from the body [7]. Thus,

the myth of Psyche simultaneously denotes the soul and the butterfly. This concept came to mean the story of a soul united with the divine Eros, but which, nevertheless, must undergo suffering before achieving immortality. While the butterfly symbolizes reverence, the moth has become an unwitting symbol of what is ugly and negative.

Joris Hoefnagel (1542-1601), a Flemish miniature painter known for his illustrations of natural history objects, illustrated butterflies as human souls, and Salvador Dali used the symbol of death in the form of a butterfly "Death's Head" of the genus Acherontia, which clearly depicts the contour of the skull on the back [8].

The father of modern neuroscience, Santiago Ramón y Cajal, hunted for neurons in the "garden of gray matter" and, as an accomplished artist, meticulously catalogued the many "subtle and complex forms" they took. One of Cajal's favorite topics was the study of the human cerebral cortex; he figuratively called the most common neurons in this region of the brain, the pyramidal cells or "psychic cells," "the butterflies of the soul" (las mariposas del alma) [9]. He observed robust dendritic trees and branched axons and recognized them as indispensable components of the neuron, the fundamental morphofunctional unit of the nervous system.

He wrote about it this way: "At that time, I felt the liveliest, even romantic curiosity about the mysterious structure of the organ of the soul. People, I told myself, dominate Nature due to the architectural perfection of their brains… To know the brain, I told myself in my idealistic enthusiasm, is equivalent to discovering the material course of thought and will… Like an entomologist hunting for brightly colored butterflies, my attention was attracted by a flower garden of grey matter, which contained cells with graceful and elegant shapes, mysterious butterflies of the soul, the beating of whose wings may someday (who knows?) clarify the mystery of mental life… Even from an aesthetic point of view, the nerve tissue contains the most attractive charm. Are there trees in our parks more elegant and luxurious than the Purkinje cells of the cerebellum or the psychic cells of the cerebral cortex, that is, the famous brain pyramid?" [10].

Attempts to localize thought processes in the brain go back to ancient philosophy, starting with Alcmaeon. Martha Nussbaum, a modern american classical philosopher, reminded us that philosophy was created not as a fruitless, abstract, intellectual exercise, but as an active, energetic attempt to cope with life: the Hellenistic philosophical schools of Greece and Rome – Epicureans, skeptics and Stoics – all understood philosophy as a way to solve the most painful and responsible problems of human life. They saw in the philosopher a compassionate doctor who could heal a person immersed in the struggle with mental ailments.

Already from the stage of defining sensations and feelings, the soul penetrates into philosophical psychology. Plato is the first ancient thinker who gave this problem a clear meaning. He defines sensation in general as communication of the soul and body in relation to external objects. This faculty belongs to the soul, and the instrument to the body. In general, they together become, through the imagination, capable of perceiving external objects. Plato considered the psyche to be the essence of man and divided the soul into three categories (regions): Logos (located in the head), Thymos (located in the chest), and Eros (located in the stomach) , comparing them to a social caste system. Plato's triune soul is essentially similar to the class or estate structure of a state, where, in order to function well, each component must make its contribution so that the entire organism functions correctly [11, 12].

The ancient Greeks asserted that pneuma (air) was the vital principle of living beings. In the rete mirabile (a network of blood vessels present in the brains of some animals but absent in humans), this transformed into animal spirit, which was then refined in the ventricles of the brain before circulating as the basis of nervous activity. Empedocles, and apparently Pythagoras, believed that plants possessed a soul and that human souls could animate plants. The ancient Greek physician Herophilus dissected the human brain and hypothesized that the soul resided in the brain ventricles. Galen agreed with the views of Hippocrates and Herophilus but disagreed with Aristotle; the latter placed sensation in the heart. Galen favored the parenchyma of the brain, rather than the ventricles, as the location of the soul [13].

In Metaphysics, Aristotle tells us that natural philosophers were a group of innovative Minds mainly interested in explaining the structure of all matter in terms of specific basic substances. These scientists made the first attempt to interpret natural phenomena, rejecting supernatural causes or mythical ones. explaining and introducing a new critical spirit of rational discourse. They explored various aspects of the physical and biological world, and also tried to solve the problem of the nature of the soul.In addition, they delved into the question of the relationship between mental activity and the body [14].

Aristotle thought soul wasn't a special substance; thus, body couldn't neither be separated from it nor develop without it. If we were to take the Aristotelian affective and intellectual soul as a paradigm of psychological processes, behavior would consist of realizing body functions. Individual behavior would arise as movement (because growth is a biological movement) occurring in relation to other entities (such as ideas, organisms or physical bodies). However, the behavior wouldn't be identical to such movements and changes: it would be the fulfillment of many possible functions set in a specific situation.

In modern science, the attitude towards the concept of soul is ambiguous. And if philosophy as a science still has the soul as an object of its consideration, then psychology does not have the concept of soul in its subject field. The same situation exists in modern psychiatry and neuroscience. However, neuroscience is more friendly towards this concept since it was formed in the post-non-classical period and is based on a more modern paradigm field.

The attitude towards the concept of soul in Russian science is even more complicated. Here we still carry within ourselves the stereotypes of the Soviet period, when any scientific paradigm had to fit into the Procrustean bed of Marxist-Leninist philosophy. The Russian scientific community, often without realizing it, carries within itself on a subconscious level corresponding ideological attitude. Historically, the debate about the soul to-

day has been shifted to the area of religious consciousness and theological science. classical science operates with the surrogate concept of “psyche”. Such substitution of concepts does not offer any significant benefit to science, except for the separation from its historical roots. From our point of view, the concept of psyche does not carry any etymological load and does not clarify anything novel. And if we give such a term a scientific reality, it is no more than as one of the expressions of what is called “soul”.

At present there is a crisis in the human sciences. It is increasingly written and said that they are no longer able to correctly describe the phenomena of religion, culture, soul, consciousness. This formulation of the question has been repeatedly put up for discussion both in the twentieth century and in the coming millennium.

This situation has been traced back to the 17th century and is associated with the name of René Descartes. Hence, it received the name "Cartesian boomerang" (from Descartes' Latin name - Cartesius). Descartes legalized the split between the "extended thing," related to the world of nature, and the "thinking thing," born of the world of reason. He demonstrated that these substances are described in different languages. Descartes introduced the concepts of the subject and the method of scientific knowledge, which became classical, and imposed a prohibition on all natural connections between the subject, object, and the languages of their description. According to Descartes, these languages do not correspond to each other, and they are fundamentally mutually untranslatable. Consequently, within the framework of classical science, scientific knowledge about the world of nature is possible at the cost of scientific ignorance about the world of psychic life. The separation of the extended and the thinking leads to the fact that the holistic phenomenon of human life is now described as two parallel series of phenomena without the possibility and formal right to speak about their connection: on the one hand, physicochemical processes in the language of classical science, and on the other, the processes of inner experiences in the language of symbols and metaphors. Without any doubt, the underlying basis of this situation is the older dualism of body (flesh) and consciousness (spirit) that comes from Christianity. It has even deeper roots.

It is known that the field of neurobiology develops as a leading scientific discipline today. Its goal is to rigorously understand the relationship between mind and brain. In integrative neurobiology, each level of neural organization is organically viewed as part of a continuum of levels [15]. By building models on one particular dimension, scientists often see that particular dimension as the epicenter of all brain functions. This approach is referred to as “neural epicentrism”. This is a fundamental obstacle to integrative neurobiology.

However, this position has begun to change quite noticeably today. Integrative neurobiology reflects how many brain processes are interconnected within and between themselves, and how they are described and understood by various scientific disciplines. Because our description of the central nervous system is still incomplete, such an integrative perspective is beginning to lead us out of the jungle of excessive detail, shedding light on the workings of the nervous system as a whole .

Interdisciplinary neurobiological research unites many approaches, including cognitive, behavioral, genetic, and computational modeling of neuropsychiatric processes. Studies using causal experimental designs to investigate the functions of neural circuits (which subserve fundamental aspects of the behavioral domain) remain infrequent. Mental disorders are defined by the time of their onset in childhood or early adulthood, highlighting the concept of differential vulnerability of the nervous system. Understanding the etiology of mental states through basic science may lead to improved treatments for neuropsychiatric disorders.

Thus, combining, for example, developmental and neuroanatomical patterns of gene expression with imaging data makes integrative neuroscience a large-scale science that will ultimately require the interaction of a broad neuroscience base [16]. A primary challenge here is the integration of cellular neurophysiology into macroscopic brain imaging; issues such as the consistency of activation patterns across laboratories remain unresolved [17].

Our limited understanding of the brain may have less to do with what exactly is being measured, but rather with the level of sophistication with which of analysis. Interdisciplinary efforts are providing the impetus to break down private-scientific boundaries and encourage a freer flow of information between disciplines. In this respect, the study of the psyche as a behavioral abstraction may mean reconstructing an integrative system of approaches that goes beyond the tendency towards “neural epicentrism”. And as one of the leading neurosurgeons once said Wilder Penfil: “Those who hope to solve the problem of the neurophysiology of the mind, are like people at the bottom of a mountain. They stand in the clearings that have been made at the foot of hills and look up at the mountain they are about to climb. But 12 the summit is hidden in eternal clouds, and many think it can never be to conquer it. Of course, if there comes a day when man achieves a complete understanding of his own brain and mind, it may be his greatest conquest, his ultimate achievement."[18]. And here, as the saying goes, the new is the well-forgotten old. Ancient knowledge still has high potential and value for modern science.

Conclusion

The rapid development of neuroimaging and neuroscientific methodologies has catalysed a paradigm shift in understanding the biological underpinnings of mental processes. Contemporary research has successfully identified neural correlates for numerous psychological phenomena — including morality, decision making, and agency — that are central to human experience and psychiatric practice.

However, this neuroscientific progress has simultaneously rekindled foundational debates in psychiatry and philosophy:

- the mind–body dualism;
- the nature of consciousness;
- the conceptual status of the «soul» in clinical and theoretical frameworks.

Within this discourse, two contrasting interpretive paradigms persist:

Neurobiological Reductionism

Posits that consciousness and subjective experience are emer-

gent properties of neural networks. From this perspective, psychiatric disorders are conceptualized as dysfunctions of brain circuits, reinforcing a strictly materialist framework for diagnosis and treatment.

Dualistic and Integrative Approaches

Highlight unexplained neurobiological phenomena (e.g., qualia, self awareness) to argue for non reducible aspects of mind. Some scholars link these to spiritual or transcendent dimensions, suggesting that traditional concepts like the «soul» may offer heuristic value for understanding resilience, meaning making, or therapeutic change.

Implications for Psychiatry

This intellectual tension raises critical questions for the field:

- Can strictly neurobiological models fully account for the subjective dimension of psychiatric disorders (e.g., existential distress, spiritual crises)?
- Might ancient philosophical and religious frameworks — re evaluated through a clinical lens — provide complementary insights into:
- mechanisms of psychotherapy (e.g., narrative healing, ritual);
- resilience factors in trauma recovery;
- the role of meaning and purpose in mental health?

Toward an Integrative Future

We propose that psychiatry stands at a crossroads:

On one hand: continued advancement in neuroscience promises precision in biomarker identification and targeted interventions.

On the other: there is growing recognition that human suffering and healing cannot be reduced to neural circuits alone.

A fruitful path forward may lie in dialogical integration:

- retaining neuroscientific rigor while
- engaging with pre scientific wisdom (philosophical, religious, cultural) as a source of:
- novel hypotheses about consciousness;
- alternative therapeutic metaphors;
- frameworks for understanding patient narratives.

For example:

- Stoic philosophy's emphasis on cognitive control resonates with CBT principles.
- Buddhist mindfulness practices have been empirically validated for anxiety and depression.
- Narrative traditions in indigenous healing may inform trauma informed care.

To Summarize what has been said

The «soul debate» is not a relic of antiquity but a living inquiry with direct relevance to psychiatry. By bridging neuroscientific advances with humanistic traditions, the field can:

- deepen its understanding of consciousness and subjectivity;
- expand therapeutic toolkits;
- address the existential dimensions of mental illness that resist purely materialist explanations.

This synthesis does not undermine scientific progress — rather, it enriches psychiatry's capacity to heal by honoring the complexity of human experience. Future research should explore how ancient insights, when rigorously examined, might illuminate unsolved puzzles in psychiatric nosology, treatment resistance, and recovery.

Funding

No funding

Acknowledgments

The author expresses sincere gratitude to the following scholars for their invaluable guidance, insightful comments, and scholarly support: Prof. Dr. philos. sci. Alexandra D. Getmanova, Prof. Dr. philos. sci. Boris N. Bessonov, Prof. Dr. philos. sci. Alexander E. Cherezov and Nadezhda I. Dobrova (Moscow, Russia).

Conflicts of Interests

No conflicts of interests of any sort beyond.

Informed Consent

None to declare

References

1. Mareeva, E. V. (2003). The soul as an object of philosophical reflection (historical and philosophical analysis) (Doctoral dissertation, Philosophical Sciences). Moscow State University of Culture and Arts.
2. Skobeleva, V. A. (2009). The evolution of concepts of the soul in ancient Greek culture (Doctoral dissertation, Cultural Studies). Nizhnevartovsk State University of Humanities.
3. Maykov, V. V. (1994). Cartesian boomerang, or the Achilles' heel of modern science. Svobodnoye Dykhanie, 17–29.
4. Campbell, J. (1988). The power of myth. Doubleday.
5. DeFelipe, J. (2010). Cajal's butterflies of the soul: Science and art. Oxford University Press.
6. Gagliardi, R. A. (2016). Butterfly and moth symbolism list 3. Insects.org. http://www.insects.org/ced4/symbol_list3.html
7. DeFelipe, J. (2005). Cajal y sus dibujos: Ciencia y arte. Arte Neurológico, 18, 213–230.
8. Ramón y Cajal, S. (1988). Recollections of my life. Gryphon.
9. Soury, J. (1899). Le système nerveux central: Structure et fonctions; histoire critique des théories et des doctrines. G. Carré & Naud.
10. Gordon, E. (2011). Integrative neuroscience and personalized medicine. Oxford University Press.
11. Crivellato, E., & Ribatti, D. (2007). Soul, mind, brain: Greek philosophy and the birth of neuroscience. Brain Research Bulletin, 71(4), 327–336. https://doi.org/10.1016/j.brainresbull.2006.09.020
12. Ribes Iñesta, E. (2004). Behavior and abstraction, not ostension: Conceptual and historical remarks on the nature of psychology. Behavior and Philosophy, 32, 55–68.
13. Grillner, S., Kozlov, A., & Kotaleski, J. H. (2005). Integrative neuroscience: Linking levels of analyses. Current Opinion in Neurobiology, 15, 614–621. https://doi.org/10.1016/j.conb.2005.08.017
14. Insel, T. R., Volow, N. D., Landis, S. C., Li, T. K., Battery, J. F., & Sieving, P. (2004). Limits to growth: Why neuroscience needs large-scale science. Nature Neuroscience, 7(5), 426–427. https://doi.org/10.1038/nn0504-426
15. Gordon, E. (2003). Integrative neuroscience. Neuro-

psychopharmacology, 28(Suppl. 1), S2–S8. https://doi.org/10.1038/sj.npp.1300136
16. Fromm, E. (1973). The anatomy of human destructiveness. Holt, Rinehart and Winston.
17. Editorial. (1875). Beyschlag's "Psyche." Art Journal, 1, 306–307.
18. Miller, R. B. (2004). Facing human suffering: Psychology and psychotherapy as moral engagement. American Psychological Association.