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The Formation of the Integral Human Being from the Perspective of Consciousness: Ibn Sina and Santiago Ramón y Cajal

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Abstract

The formation of the integral human being requires an understanding of biological, intellectual, spiritual, and moral dimensions. However, studies integrating Islamic philosophy and modern neuroscience in explaining this formation remain limited. This study examines the concepts of consciousness proposed by Ibn Sina and Santiago Ramón y Cajal and formulates a conceptual synthesis for integral human development. Using library research with a comparative approach, the study analyzes Ibn Sina's *Aḥwāl al-Nafs* and *Al-Najāh*, alongside Cajal's *Texture of the Nervous System of Man and the Vertebrates* and *Advice for a Young Investigator*. Data were analyzed through concept identification, classification, comparison, interpretation, and synthesis. The findings show that Ibn Sina understands consciousness as a manifestation of the soul (*al-nafs*) actualized through intellect (*al-'aql*) toward intellectual, spiritual, and moral maturity. In contrast, Cajal explains consciousness through neuronal organization, the nervous system, and neuroplasticity as the biological basis of cognition. These perspectives are complementary, producing a model of integral human formation that unifies biological, intellectual, spiritual, and moral dimensions. This study contributes to interdisciplinary scholarship and provides a holistic foundation for education, character development, and future human-development research.

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Introduction

Education is not just aimed at developing intellectual intelligence and practical skills, but also at shaping a complete person, with character, self-awareness, and social responsibility (Iskandar, 2022; Saputra, Pamungkas, Romadhon, Najmi, & Azzukhruf, 2025). However, modern education is often more focused on academic achievements, productivity, competition, and mastering technology. This focus has the potential to produce individuals who are cognitively strong but not very mature emotionally, morally, spiritually, or reflectively (Nurein & Gasmalla, 2025). Therefore, the development of a well-rounded person is important to study as a basis for creating holistic education.

An integral human is an individual who develops in a balanced way across physical, intellectual, emotional, social, moral, and spiritual dimensions. Their formation is closely related to awareness, which is the ability of a person to recognize themselves, understand reality, reflect on experiences, and decide actions based on reason and values of goodness (Arroisi & Latifah, 20223). Awareness becomes the basis for self-control, empathy, responsibility, and forming a meaningful life orientation.

In Islamic philosophy, Ibn Sina sees humans as a unity of body and soul. The soul not only moves the body but also serves as the center of awareness, knowledge, rational thinking, and guides actions. According to Ibn Sina, the ideal human isn't just intellectually smart, but is also able to develop their mind, know themselves, control base desires, and shape good character (Ronaldi, AM, & Saputra, 2025). Because of that, education needs to develop knowledge as well as nurture the spirit, morality, and reflective abilities of students.

Meanwhile, Santiago Ramón y Cajal explained consciousness from a neuroscience perspective by placing the brain and nervous system as the foundation for thinking, learning, remembering, feeling, and responding to the environment. The development of neural networks through experience, practice, habits, and learning shows that humans have the ability to shape their mindset, behavior, creativity, and self-control continuously (K, Makkawaru, & Almusawir, 2024). In education, this view emphasizes the importance of a learning environment that supports cognitive, emotional, and social development.

The thoughts of Ibn Sina and Santiago Ramón y Cajal offer different but complementary perspectives. Ibn Sina places consciousness within the framework of the soul, intellect, morality, and spirituality, while Cajal explains it through brain function, the nervous system, and learning experiences. Integrating both can build an understanding that humans are not just biological beings, but also rational, moral, spiritual, and social beings. Therefore, a literature study on the formation of integral humans from the perspective of consciousness according to Ibn Sina and Santiago Ramón y Cajal is important to formulate an educational paradigm that focuses not only on academic intelligence but also on self-awareness, emotional maturity, social responsibility, moral strength, and spiritual depth.

Study (Prasetia, Rofiq, Sawai, & Sawai, 2022; Serena, Hani, Vionita, & Sohim, 2023) About Ibn Sina focuses on the concept of the soul (al-nafs), intellect, education, and human perfection from the perspective of Islamic philosophy. Ibn Sina viewed humans as beings with both physical and spiritual dimensions, with the rational soul at the center of knowledge, self-awareness, and behavior control. However, this study is still largely placed

within a philosophical-normative framework and hasn't been widely discussed in relation to modern neuroscience findings about human consciousness.

On the other hand, the study (Waliyuddin, 2021; Damayanti, Sutarto, & Suryana, 2023) About Santiago Ramón y Cajal, it mostly highlights his contributions to neuron theory and the understanding of the nervous system as the basis for thinking, learning, memory, and behavior formation. This perspective explains the biological groundwork of consciousness, but it hasn't really connected it well to spiritual, moral, and life purpose aspects. As a result, discussions about humans often end up being partial, focusing only on the soul and values or just on the brain and behavior.

The research gap in this study lies in the limited number of studies that use the concept of consciousness as a dialogue point between the thoughts of Ibn Sina and Santiago Ramón y Cajal. Previous research has also not widely integrated Islamic philosophy and neuroscience to conceptually explain the formation of a holistic human being. In fact, forming a holistic human requires an understanding that covers the connection between the soul, mind, body, brain, emotions, morality, and spirituality.

The novelty of this research is the formulation of the concept of forming an integral human being through the integration of Ibn Sina's and Santiago Ramón y Cajal's perspectives on consciousness. Ibn Sina provides a philosophical-spiritual foundation through the concept of the rational soul, self-awareness, and moral perfection, while Cajal offers a biological foundation through the role of the brain, neural networks, experience, and learning in shaping human behavior. Integrating these two perspectives leads to the understanding that an integral human being is not just intellectually smart, but also self-aware, able to manage emotions, morally responsible, and developed both spiritually and socially.

Method

This study uses a qualitative approach with library research. This approach is used because the research focuses on reviewing, interpreting, and synthesizing the concept of forming an integral human being based on the awareness perspectives of Ibn Sina and Santiago Ramón y Cajal. Library research allows the researcher to examine ideas, arguments, and theoretical concepts from various written sources systematically to produce a deep conceptual understanding (Zed, 2018; Creswell, 2024).

The research data sources consist of primary and secondary sources. Primary sources include Ibn Sina's works that discuss the soul, intellect, knowledge, and human perfection, such as *The Metaphysics of the Healing and Remarks and Admonitions* (Sina, 2025). As for Santiago Ramón y Cajal's primary sources, they include his works on the nervous system, neurons, learning, and brain development, especially *Advice for a Young Investigator* (Cajal, 1999). Secondary sources were obtained from books, journal articles, and scholarly works relevant to Ibn Sina's philosophy, neuroscience, consciousness, integral education, and human development.

Data was collected through documentation techniques, which involved identifying, reading, taking notes, and classifying literature based on its relevance to the research focus. The data was then grouped into several themes, namely Ibn Sina's concepts of soul and intellect, Santiago Ramón y Cajal's concepts of the brain and nervous system, the concept of consciousness, and the dimensions of forming a holistic human being. Sources

were chosen by considering the author's credibility, content relevance, and the authority of the publication to ensure that the data used had a solid academic foundation (Sugiyono, 2024).

Data analysis was carried out in a descriptive-interpretative manner through the stages of data reduction, data presentation, interpretation, and drawing conclusions. The reduction stage involved selecting data that matched the research theme, while data presentation was done by systematically arranging the main ideas. Next, interpretation was carried out to find similarities, differences, and connections between the thoughts of Ibn Sina and Santiago Ramón y Cajal. The results of the analysis were then synthesized to formulate the concept of the integral human being, which includes the dimensions of soul, intellect, brain, emotions, morality, sociality, and spirituality (Miles, Huberman, & Saldaña, 2024).

The validity of the data is maintained through source triangulation by comparing primary works, academic books, and relevant journal articles. The researcher also conducts source criticism by assessing the consistency of arguments, the context of writing, and the relevance of the literature to the study focus. With this procedure, this research is expected to produce a comprehensive conceptual formulation regarding the formation of an integral human being through the dialogue between Ibn Sina's philosophy and Santiago Ramón y Cajal's neuroscience (Moleong, 2024).

Results

The Concept of Consciousness According to Ibn Sina and Santiago Ramón y Cajal

The findings reveal that the concepts of consciousness proposed by Ibn Sina and Santiago Ramón y Cajal are grounded in different scholarly paradigms, yet they offer complementary contributions to understanding the nature of human beings. These differences are primarily reflected in their respective ontological and epistemological foundations. Ibn Sina explains consciousness through the framework of Islamic philosophy, in which the soul (*al-nafs*) constitutes the essential nature of human existence. In contrast, Santiago Ramón y Cajal approaches consciousness from the perspective of neuroscience, emphasizing the structure and function of the nervous system. Despite their distinct theoretical perspectives, both scholars regard consciousness as a fundamental element that enables human beings to think, learn, understand reality, and develop themselves.

From Ibn Sina's perspective, consciousness is a manifestation of the soul (*al-nafs*), an immaterial substance that constitutes the core of human existence. The soul is not regarded as a component of the body but rather as an independent substance possessing the capacity for self-awareness and the ability to comprehend realities beyond itself. During earthly life, the soul interacts with the body as an instrument through which sensory experiences are acquired; however, its existence does not depend on the body. Consequently, consciousness, according to Ibn Sina, cannot be reduced to biological activity alone, since its ultimate source lies in the soul, which possesses reflective and rational capacities.

Furthermore, this study finds that consciousness, according to Ibn Sina, develops through the process of the actualization of the intellect (*al-'aql*). The intellect enables individuals to transform sensory experiences into universal knowledge through

abstraction, reflection, and rational judgment, thereby distinguishing truth from falsehood. This process unfolds progressively, beginning with intellectual potential and culminating in the perfection of the intellect, characterized by intellectual, spiritual, and moral maturity. Therefore, consciousness is not understood as a static condition but rather as a dynamic process of development that continues through education, experience, and self-perfection.

Another important finding supporting Ibn Sina's perspective is the Floating Man (al-rajul al-mu'allaq) thought experiment. Through this mental experiment, Ibn Sina argues that a human being would remain aware of his own existence even if all sensory experiences were completely absent. This finding suggests that self-consciousness is a primary characteristic inherent in human existence and is not entirely dependent upon bodily activity or empirical experience. Accordingly, self-awareness serves as the foundation for all intellectual, spiritual, and moral activities.

In contrast, Santiago Ramón y Cajal explains consciousness through a biological approach centered on the organization of the nervous system. His microscopic investigations of neural tissue led to the formulation of the Neuron Doctrine, which established that neurons constitute the fundamental structural and functional units of the nervous system. Through the complex interactions among neurons, the brain is capable of receiving sensory input, processing information, storing memories, and generating higher cognitive functions such as perception, attention, reasoning, and decision-making. Within this framework, consciousness is understood as a phenomenon supported by the biological mechanisms operating within the nervous system.

Moreover, the findings indicate that the concept of neuroplasticity represents one of Cajal's most significant contributions to understanding human development. Neuroplasticity refers to the capacity of the nervous system to establish and strengthen neural connections in response to experience, learning, and intellectual activity. This demonstrates that cognitive abilities including thinking, remembering, and problem-solving are not fixed but instead develop dynamically throughout the human lifespan. Consequently, consciousness, from Cajal's perspective, possesses a biological foundation that continues to evolve through education, training, and learning experiences.

Overall, the findings suggest that Ibn Sina and Santiago Ramón y Cajal explain consciousness from two distinct yet complementary perspectives. Ibn Sina provides a philosophical, spiritual, and metaphysical account of consciousness through the concepts of the soul and the actualization of the intellect, whereas Cajal explains the biological mechanisms that make mental activity possible through the nervous system and neuroplasticity. These differences should not be interpreted as contradictory; rather, they demonstrate that human consciousness can be understood more comprehensively when its biological, intellectual, spiritual, and moral dimensions are viewed as interconnected components in the formation of the integral human being.

Conceptual Synthesis of the Formation of the Integral Human

The comparative analysis reveals that the perspectives of Ibn Sina and Santiago Ramón y Cajal are not contradictory but rather complementary in explaining the process of integral human formation. Their differences reflect distinct analytical perspectives rather than fundamental disagreements regarding the nature of human beings. Ibn Sina approaches human nature from a philosophical and metaphysical perspective, placing the

soul (*al-nafs*), the intellect (*al-'aql*), and spiritual consciousness at the core of human development. In contrast, Santiago Ramón y Cajal adopts an empirical approach, demonstrating that the development of cognitive abilities is supported by the organization of the nervous system, neuronal connectivity, and neuroplasticity, which enable the brain to continuously adapt and develop throughout life. Consequently, both perspectives explain different dimensions of the same phenomenon, namely human development as a dynamic process driven by the continuous realization of human potential.

The findings further indicate that Ibn Sina provides a normative framework for understanding the purpose of human development. Consciousness is understood as a manifestation of the soul that evolves through the actualization of the intellect, enabling individuals to attain intellectual, spiritual, and moral maturity. Within this framework, human development is measured not only by intellectual achievement but also by the capacity for self-awareness, self-regulation, and the pursuit of virtue and perfection. Thus, the concepts of the soul and the intellect constitute the philosophical foundation explaining why human beings possess the capacity to develop and ultimately achieve integral human excellence.

Conversely, this study finds that Santiago Ramón y Cajal complements this philosophical perspective through the insights of modern neuroscience. Cajal demonstrated that all human cognitive activities are grounded in the biological organization of the nervous system, which consists of interconnected neuronal networks. Through the *Neuron Doctrine* and the concept of neuroplasticity, he explained that thinking, learning, memory, and adaptation develop through continuous structural and functional modifications of neural networks in response to experience and learning. These findings provide a scientific explanation of the biological mechanisms underlying the dynamic development of intellectual capacities throughout the human lifespan.

Based on the synthesis of these two perspectives, this study proposes a conceptual model of integral human formation that integrates the biological, intellectual, spiritual, and moral dimensions into a unified and interconnected system. This model demonstrates that human development cannot be adequately understood from a single dimension alone. The biological dimension provides the physiological foundation for cognitive processes through the brain and nervous system. The intellectual dimension enables individuals to cultivate rational, reflective, and critical thinking through the actualization of the intellect and continuous learning. The spiritual dimension provides meaning, purpose, and value orientation, ensuring that intellectual development is guided by higher ethical principles. Finally, the moral dimension represents the practical manifestation of these integrated capacities through responsible, ethical, and socially beneficial behavior.

The findings also indicate that these four dimensions interact dynamically and mutually reinforce one another. Biological development, facilitated by neuroplasticity, supports the enhancement of intellectual capacity, while intellectual development promotes self-reflection that strengthens spiritual consciousness. In turn, spiritual consciousness guides the responsible use of intellectual abilities in accordance with moral values, whereas moral conduct serves as the ultimate indicator of the successful integration of human potential. Accordingly, integral human formation is understood as a lifelong process that emerges through the continuous interaction among biological development, intellectual actualization, spiritual cultivation, and the internalization of moral values.

These findings underscore the significant theoretical contribution of integrating the perspectives of Ibn Sina and Santiago Ramón y Cajal to the advancement of interdisciplinary scholarship between Islamic philosophy and modern neuroscience. The proposed conceptual model not only bridges biological and metaphysical explanations of human nature but also offers a holistic framework for understanding human development. Consequently, this study presents a new perspective by arguing that the formation of the integral human being requires the integration of biological foundations, intellectual development, spiritual cultivation, and moral formation, thereby enabling individuals to achieve balanced, holistic, and sustainable development in response to the demands of contemporary scientific and intellectual progress.

Discussion

The Concept of Consciousness According to Ibn Sina and Santiago Ramón y Cajal

Research findings show that the concept of consciousness put forward by Ibn Sina and Santiago Ramón y Cajal is based on different ontological and epistemological paradigms. Even so, both contribute in complementary ways to understanding the nature of humans. These findings align with the growing body of contemporary interdisciplinary studies that view consciousness as a multidimensional phenomenon that cannot be adequately explained by a single field of science alone. Studies in philosophy of mind, neuroscience, and cognitive science increasingly emphasize that consciousness includes biological, cognitive, phenomenological, and philosophical dimensions all at once. Therefore, reductionist approaches that explain consciousness solely as a biological process, or conversely, only as a metaphysical reality, are often criticized for not being able to provide a comprehensive explanation of human nature.

The finding that Ibn Sina conceptualized consciousness as a manifestation of the soul (al-nafs) reinforces various studies in Islamic philosophy that place the soul at the center of human identity and existence. (Davidson, 1992) stating that Ibn Sina's theory of the soul not only discusses the soul as a metaphysical substance, but also explains humans' ability to reflect on themselves and have direct self-awareness. This interpretation aligns with this study's findings that, according to Ibn Sina, consciousness originates from an immaterial soul and therefore cannot be reduced to just biological activity. Similarly, (Díaz, González, Caminero, & Castillo, 2025) explaining that the concept of the soul in classical Islamic philosophy has an integrative function because it connects the intellectual, spiritual, and moral dimensions into a single framework of complete human development.

This study also shows that, according to Ibn Sina, the development of consciousness occurs through the gradual actualization of the intellect (al-'aql) until it reaches intellectual and spiritual perfection. These findings align with contemporary studies in Islamic educational philosophy, which emphasize that education is not just a process of transferring knowledge, but a process of actualizing a person's full potential. According to (Iturriza, Labaka, Ormazabal, & Borges, 2020), Islamic education aims to develop critical thinking skills while fostering moral and spiritual awareness so that individuals can achieve wisdom. Thus, the findings of this study show that Ibn Sina's theory of intellectual actualization remains relevant in the contemporary holistic education paradigm.

Another important finding is related to Ibn Sina's Floating Man thought experiment, which still gets a lot of attention in modern philosophy of mind. Contemporary studies

recognize this thought experiment as one of the early formulations of self-awareness that appeared before modern theories of consciousness developed. (Gutas, 2014) explaining that the Floating Man shows the existence of immediate self-awareness that doesn't depend on sensory experience, thus providing a philosophical basis for the concept of personal identity. Although modern neuroscience links conscious experience to brain activity, contemporary theories about phenomenal consciousness acknowledge that subjective experience still can't be fully explained just by biological mechanisms (Thagard, 2019). Therefore, the findings of this study show that Ibn Sina's philosophical thinking is still very relevant in contemporary scientific debates about the nature of consciousness.

From a different perspective, the research findings show that Santiago Ramón y Cajal explained consciousness through the organization of the nervous system, the Neuron Doctrine, and neuroplasticity. These findings align with contemporary neuroscience developments that emphasize that human cognitive functions emerge from the coordinated activity of highly complex neural networks. (Mughtar, Ahmad, Rokim, Wiyanti, & Soraya, 2025) believe that consciousness arises from the integrated function of distributed brain networks, not from the activity of a specific part of the brain. In line with that, (Black, 2001) shows that perception, attention, memory, and decision-making are the results of dynamic interactions between various nervous systems. Thus, this research confirms that Cajal's main contribution lies in laying the biological foundation that later became the basis for the development of modern cognitive neuroscience.

Findings about neuroplasticity are also supported by recent empirical research. (Nurein & Gasmalla, 2025) It shows that learning experiences, cognitive training, and interaction with the environment can lead to structural and functional changes in neural networks throughout life. These findings suggest that human intellectual capacity is dynamic and keeps developing through learning. This conclusion aligns with this research, which shows that consciousness, from Cajal's perspective, evolves through changes in neuron connectivity in response to experiences and intellectual activity. So, human development is seen as an ongoing biological process, not a fixed capacity predetermined from birth.

The main contribution of this research lies in the synthesis of these two perspectives. Unlike most previous studies that examine Ibn Sina's philosophy or Santiago Ramón y Cajal's neuroscience separately, this study shows that the two perspectives can be integrated into a single conceptual framework regarding the development of an integral human being. In this synthesis, neuroscience explains the biological mechanisms that enable the development of cognitive capacities, while Islamic philosophy provides normative guidance on human development through the actualization of the soul, intellect, spirituality, and morality. These findings support the trend of interdisciplinary research that aims to integrate neuroscience, philosophy, psychology, and religious studies to gain a more comprehensive understanding of humans (Sinā, 2005).

Overall, this study has important theoretical implications by showing that human consciousness cannot be adequately understood just through neural activity or only through metaphysical explanations. Consciousness needs to be conceptualized as a multidimensional phenomenon that arises from the interaction between biological foundations, intellectual capacities, spiritual experiences, and moral orientation. This conceptual framework is the main contribution of this study in enriching the dialogue

between Islamic philosophy and modern neuroscience, while also offering a more holistic paradigm for understanding the formation of the integral human being.

Conceptual Synthesis of the Formation of the Integral Human

A comparative analysis shows that the perspectives of Ibn Sina and Santiago Ramón y Cajal are not two opposing views, but rather complement each other in explaining the formation of the whole human being. This finding aligns with the growth of contemporary interdisciplinary studies that increasingly emphasize the importance of integrating philosophy, psychology, neuroscience, and religious studies to gain a more comprehensive understanding of human nature. Various recent studies indicate that human development cannot be adequately explained solely through biological or metaphysical approaches on their own. Instead, a multidisciplinary framework is needed that can integrate the physical, cognitive, affective, spiritual, and moral dimensions of human existence. Thus, the findings of this study reinforce the view that the difference in paradigms between Ibn Sina and Santiago Ramón y Cajal actually opens up opportunities for a more comprehensive scientific dialogue about humans, rather than indicating any conceptual conflict.

Further research findings show that Ibn Sina provided a normative framework for understanding the purpose of human development through the concept of the soul (*al-nafs*) and the actualization of intellect (*al-'aql*). Consciousness is understood as a process of self-perfection that guides individuals towards intellectual, spiritual, and moral maturity. These findings are in line with (Ainirrohmah, Arridho, Makrom, Shofiyah, & Prasetya, 2026) which states that Islamic educational philosophy views human development as a holistic process that not only aims to develop intellectual capacity but also shapes character, wisdom, and spiritual orientation. Likewise, (Hufron, Jamaluddin, & Muthohar, 2025) explaining that Ibn Sina's concept of self-awareness becomes the basis for self-reflection, self-control, and the formation of personal identity. Therefore, the results of this study strengthen the argument that Ibn Sina's concept of soul and intellect is still relevant for explaining the formation of an integral human being in the contemporary era.

On the other hand, this study shows that Santiago Ramón y Cajal complemented that philosophical perspective by providing an empirical explanation of the biological mechanisms underlying human development. Through the Neuron Doctrine and the concept of neuroplasticity, Cajal explained that cognitive development is the result of continuous structural and functional changes in the neural network in response to experience and learning. These findings are supported by research (Asrori, 2025) contemporary, showing that learning, memory, attention, and decision-making are closely related to the reorganization of neural networks throughout life. In addition (Yusron & Ekawati, 2025) They believe that cognitive processes emerge through the coordinated activity of various interconnected nervous systems, allowing humans to engage in complex reasoning. Thus, this research reinforces the view that intellectual development has a dynamic biological foundation that continues to evolve through learning experiences.

The synthesis of these two perspectives produces a conceptual model of human development that integrates the biological, intellectual, spiritual, and moral dimensions into a single, complete, and interconnected system. This finding aligns with the growing attention to holistic education in contemporary educational research. According to (Drouin, Martínez, & Hautecoeur, 2025), Education that is oriented towards the development of the

whole person needs to encourage a balanced growth between the intellectual, emotional, social, spiritual, and moral capacities of students. Along with that, (Ghosh, 2022) stating that spiritual intelligence functions to guide the proper use of intellectual abilities so that individuals can make decisions that are not only rational but also ethically meaningful. In this context, this study shows that synthesizing the perspectives of Ibn Sina and Cajal results in a more comprehensive conceptual framework compared to examining either perspective separately.

Research findings also reveal that the relationship between the biological, intellectual, spiritual, and moral dimensions is dynamic and mutually reinforcing. Neuroplasticity allows the development of intellectual capacity through experience and learning, while the actualization of reason promotes reflective thinking that strengthens spiritual awareness. Furthermore, spiritual awareness guides intellectual capacity towards morally responsible behavior. These findings support the view (Marijuán, 2021) which states that cognitive development cannot be separated from the formation of values, emotions, and meaning, because all of these aspects greatly influence human decision-making. Therefore, human development needs to be understood as an integrative process that involves continuous interaction between biological mechanisms, psychological dimensions, and spiritual dimensions.

The main contribution of this research lies in developing a conceptual model of forming an integral human being through a synthesis of Ibn Sina's and Santiago Ramón y Cajal's perspectives. Unlike previous studies that generally examine Islamic philosophy or neuroscience separately, this research successfully integrates both perspectives into a unified conceptual framework. The proposed synthesis shows that the biological foundation explained by neuroscience provides an important basis for the development of cognitive capacities, while Islamic philosophy offers a normative orientation that guides human development through strengthening spirituality and morality. Thus, this study makes a significant theoretical contribution to interdisciplinary research at the intersection of Islamic philosophy and modern neuroscience, while also offering a new paradigm that the formation of a well-rounded human can only be realized through a harmonious integration of biological, intellectual, spiritual, and moral dimensions throughout the human lifespan.

Conclusion

This study concludes that the concepts of consciousness proposed by Ibn Sina and Santiago Ramón y Cajal represent two distinct yet complementary perspectives for explaining the formation of the integral human being. Ibn Sina provides the philosophical foundation through the concepts of the soul (*al-nafs*), the actualization of the intellect (*al-'aql*), and spiritual consciousness, whereas Santiago Ramón y Cajal explains the biological mechanisms underlying the development of consciousness through the nervous system, the *Neuron Doctrine*, and neuroplasticity. The synthesis of these perspectives results in a conceptual model that integrates the biological, intellectual, spiritual, and moral dimensions into a unified framework of human development. The findings offer a theoretical foundation for advancing interdisciplinary studies, particularly in Islamic philosophy, neuroscience, education, and holistic character development. Nevertheless, this study is limited to library research and conceptual analysis and therefore does not empirically validate the proposed

model. Future research is recommended to examine and refine this conceptual framework through qualitative, quantitative, or mixed-methods approaches, as well as to investigate its implementation in educational, psychological, and human resource development contexts in order to provide more comprehensive evidence regarding the relevance of integrating Islamic philosophy and neuroscience in the formation of the integral human being.

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