

# The Dynamic Soul: Mulla Sadra's Philosophy of Consciousness through Essential Movement in Dialogue with Past and Present Perspectives

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## Abstract

The nature of consciousness and the soul remains one of philosophy's oldest enigmas and science's most formidable challenges. This paper explores the distinctive philosophy of Mulla Sadra (c. 1571/2-1640 CE) regarding consciousness, rooting it in his revolutionary doctrine of Essential Movement (al-Harakat al-Jawhariyyah). Unlike previous philosophers who largely adhered to a static understanding of substance, Sadra posited a continuous, inherent transformation of all material beings, culminating in the emergence of the soul as a higher, more perfected mode of existence. This paper will first delineate Sadra's unique metaphysical framework for consciousness, emphasizing its dynamic and emergent nature. Subsequently, it will compare Sadra's views with those of pre-Sadraean Islamic philosophers, particularly Avicenna, highlighting the crucial shifts his doctrine introduced. Finally, it will engage Sadra's ideas with contemporary scientific approaches to consciousness, focusing primarily on Integrated Information Theory (IIT) while also considering others like Global Neuronal Workspace Theory, exploring points of conceptual resonance and inherent divergence. We argue that Sadra's dynamic view of the soul's progressive actualization provides a profound metaphysical grounding for IIT's graded and integrated nature of consciousness, while IIT offers a contemporary formal analogue for Sadra's insights into the soul's ontological development. This mapping is formalized through equations demonstrating the proportionality between a being's Sadraean grade of existence and its  $\Phi$  value, and the non-negative dynamics of  $\Phi$  under essential movement. This interdisciplinary analysis underscores the enduring relevance of Sadra's thought in enriching modern discussions on the mind-body problem and the fundamental fabric of reality.

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## Keywords

Mulla Sadra, Essential Movement, Consciousness, Soul, Mind-Body Problem, Avicenna, Integrated Information Theory, Global Neuronal Workspace Theory, Emergentism, Islamic Philosophy

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## 1. Introduction

The question of consciousness—its nature, its origins, and its relationship to the physical world—has captivated thinkers across civilizations and eras (Allan, 2022) (Hoffman & Prakash, 2014; Zizzi, 2003). From ancient philosophical inquiries into the soul to cutting-edge neuroscience, attempts to unravel this mystery have yielded diverse and often conflicting perspectives. In the vast landscape of philosophical thought, the Persian philosopher Mulla Sadra stands as a unique figure whose comprehensive metaphysical system offers a profound and dynamic interpretation of consciousness, radically departing from many of his predecessors.

Mulla Sadra's philosophy, known as "Transcendent Philosophy" (Hikmat al-Muta'aliyah), is built upon two foundational doctrines: the Primacy of Existence (Asalat al-Wujud) and Essential Movement (al-Harakat al-Jawhariyyah) (Zamaniha, 2022). It is through the lens of Essential Movement that Sadra constructs his distinctive account of the soul (nafs) and consciousness, positing its emergence from matter and its continuous evolution towards perfection. Sadra's emergentism is a form of ontological emergentism, where new, qualitatively distinct properties (like consciousness/soul) arise from the organization and transformation of lower-level material entities, yet these emergent properties are not merely reducible to their material base but represent a higher mode of existence with novel causal powers. This is distinct from mere epiphenomenal emergentism, where the emergent property has no causal influence. In various philosophical and spiritual traditions, the soul and consciousness are distinct yet interrelated concepts, often understood as existing on different planes of substance perfection. Consciousness is broadly defined as immediate awareness—the subjective experience of thoughts, sensations, and surroundings, often considered an emergent property of the brain and thus ceasing with bodily death. In contrast, the soul is posited as a more fundamental, immaterial, and often immortal essence of a being, serving as a template or blueprint for the growth and development of consciousness. From this perspective, the soul's "matter" is not physical but rather energetic, informational, or pure spirit, representing a deeper potentiality that transcends the physical realm. Mulla Sadra's theory of Essential Movement provides a crucial bridge between these concepts, positing that material substances, including the body, are in a continuous process of transformation from potentiality to actuality. This inherent dynamism, ultimately deriving its efficient and final cause from God, facilitates the gradual unfolding of the soul's inherent perfection, leading to

the emergence and evolution of consciousness. Thus, movement becomes the very process through which the soul actualizes its potential within the material world, linking the ephemeral conscious experience to an enduring, transcendent essence. This paper aims to meticulously unpack Sadra's philosophy of consciousness, contrasting it with the established views of earlier Islamic philosophers, particularly Avicenna, to highlight its originality and impact. Furthermore, it will engage in a critical dialogue with prominent contemporary scientific theories of consciousness, seeking points of conceptual harmony and discerning fundamental divergences that characterize the ongoing conversation between metaphysics and modern science.

## 2. Mulla Sadra's Metaphysics of Consciousness: The Soul's Journey through Essential Movement

Mulla Sadra's understanding of the soul is inextricably linked to his broader metaphysical framework, which posits a fundamentally dynamic and evolving reality (Shirazi, 2008).

### 2.1. The Primacy of Existence (*Asalat Al-Wujud*)

The cornerstone of Sadra's philosophy is the Primacy of Existence. In contrast to philosophers who prioritized essence (what a thing is) over existence (that it is), Sadra unequivocally declared existence to be the primary reality. Essences, for Sadra, are merely secondary, conceptual limitations or determinations of pure existence. All beings are seen as varying degrees or intensities of a single, flowing reality, ultimately emanating from the Necessary Existent (God), who is Pure Existence. This concept of a graded existence (*tashkik al-wujud*) means that reality is a continuous spectrum, from the most imperfect and potential-laden to the most perfect and actualized.

### 2.2. Essential Movement (*Al-Harakat Al-Jawhariyyah*)

Building upon the Primacy of Existence, Mulla Sadra introduced his most revolutionary doctrine: Essential Movement (Ramin, 2020). Prior to Sadra, philosophers generally accepted that change could occur only in the accidental attributes of a substance (e.g., its color, position, or quantity), while the substance itself was considered immutable. Any change in substance was instantaneous (generation or corruption).

Sadra fundamentally challenged this by arguing that motion occurs in the very substance (*jawhar*) of all material beings. This means that material existence is not a static state, but a continuous, inherent, and gradual process of becoming. Every material entity is perpetually renewing its very essence, always moving from a state of lower actuality (i.e., greater potentiality) to a state of higher actuality (i.e., more fully realized potentiality). This unceasing, intrinsic flux means that a material being is literally *becoming* itself in every instant, gradually ascending through different degrees of existence within the cosmic hierarchy.

A crucial implication of Essential Movement is Sadra's redefinition of time. Time, for Sadra, is not an external container for events but an intrinsic measure of this essential movement. It is the dynamic dimension generated by the continuous self-transformation of material substances, an inherent flow of existence itself.

### 2.3. The Emergence of the Soul: "Corporeal in Origination, Spiritual in Subsistence"

It is through the lens of Essential Movement that Mulla Sadra provides his unique account of the soul and consciousness. His famous dictum, "The soul is corporeal in origination, spiritual in subsistence" (*al-nafs jismaniyyat al-huduth, ruhaniyyat al-baqā'*) encapsulates his emergentist view:

- **Corporeal in Origination:** The human soul does not pre-exist the body or "enter" it from an external spiritual realm. Instead, it emerges from the continuous, perfecting Essential Movement of the material body itself. The highly complex and organized matter of a living organism, particularly the brain and nervous system, (a modern interpretation building upon Sadra's general principle of corporeal origination, which emphasizes the perfection of matter through substantial movement rather than a specific anatomical localization, though consistent with the brain's role as the locus of complex material organization) undergoes such an intense and refined process of substantial transformation that it reaches a threshold where a new, more subtle, unified, and self-aware mode of existence—the soul or consciousness—blossoms forth from it. The soul is thus the highest and most actualized product of matter's own inherent dynamism. It is not an alien entity to matter, but matter *itself* having achieved a higher degree of existence.
- **Spiritual in Subsistence:** Once the soul emerges, it gains a degree of independence from its physical substratum. It continues its own Essential Movement, but now in a progressively more unified and spiritual mode. This allows the soul to transcend the limitations of gross materiality, becoming capable of immaterial cognition (e.g., universal concepts) and of surviving the dissolution of the physical body. It retains its connection to matter as its origin, but actualizes beyond strict physical dependency.

### 2.4. Graded Existence and the Soul's Perfection

The concept of graded existence is vital here. The soul, having emerged from a lower degree of existence (gross matter), is itself subject to continuous Essential Movement towards greater perfection. Through knowledge, virtuous actions, spiritual practices, and experiences, the soul undergoes further substantial transformations, actualizing its inherent intellectual and spiritual potentials. This journey towards perfection continues throughout life and beyond, determining the soul's state in the afterlife. The soul literally *becomes* its knowledge and actions, transforming its essence through its lived experience.

## 2.5. Unity of the Intellect and the Intelligible (*Ittihad Al-Aqil Wa L-Maqul*)

This epistemological principle is crucial for understanding the soul's perfection. Sadra argues that in the act of knowing, the intellect (*al-aqil*) becomes ontologically unified with the intelligible form (*al-maqul*) (Bozorgi, 2005). This is not merely a mental representation but a profound transformation of the knowing subject itself. When the soul comprehends an object, it does not just receive an image; it *becomes* the form of the object in an immaterial way. This continuous assimilation of intelligible forms enriches the soul's essence, contributing to its essential movement and its ascent in the grades of being. Knowledge, therefore, is a process of self-creation and ontological actualization, directly shaping the nature of consciousness.

## 2.6. On the Four Journeys (*Al-Asfar Al-Arba'ah*)

Mulla Sadra's understanding of the soul's dynamic ascent is further elaborated through his monumental work, *The Transcendent Philosophy of the Four Journeys of the Intellect* (*al-Asfar al-Arba'ah*) (Zamaniha, 2022). These four intellectual and spiritual journeys delineate a comprehensive roadmap for the soul's development and actualization, providing a structured manifestation of Essential Movement as it pertains to consciousness.

**1) The Journey from Creation to the Creator (*min al-khalq ila al-haqq*):** This initial journey involves the contemplative realization of the contingent nature of all created beings, leading the soul to recognize the absolute necessity and singular reality of God. Here, consciousness begins to transcend sensory perception, orienting itself towards metaphysical truths.

**2) The Journey in the Creator with the Creator (*fi al-haqq bi al-haqq*):** Having recognized the divine reality; the soul now delves into the study of divine attributes and names. This journey signifies the soul's deeper immersion into the divine realm, where its consciousness expands to comprehend the complexities of divine manifestation.

**3) The Journey from the Creator to Creation with the Creator (*min al-haqq ila al-khalq bi al-haqq*):** After its spiritual ascent, the soul returns to the world of creation, but now with a divinely illuminated perspective. Its consciousness is transformed, enabling it to perceive the divine within creation, acting as a guide or perfected human (*insan kamil*).

**4) The Journey in Creation with the Creator (*fi al-khalq bi al-haqq*):** The final journey involves guiding others and engaging with the world, while continuously maintaining the divine perspective gained from the previous stages. The perfected soul acts as a conduit for divine wisdom, with its consciousness fully integrated across all levels of being.

These journeys are not merely sequential steps but represent continuous states of existential transformation, illustrating how consciousness, through Essential Movement, progressively expands from individual awareness to encompass uni-

versal realities, ultimately culminating in a comprehensive, divinely—infused understanding of existence.

### **3. Historical Context: Consciousness in Pre-Sadraean Islamic Philosophy**

Mulla Sadra's account of the soul represents a significant departure from earlier philosophical traditions within Islam, notably those influenced by Aristotelian and Neoplatonic thought, primarily represented by figures such as Avicenna (Ibn Sina, 980-1037 CE).

#### **3.1. Avicennan View on the Soul and Consciousness**

Ibn Sina (Avicenna, c. 980-1037 CE) stands as one of the most towering figures in Islamic philosophy, and his comprehensive system significantly shaped subsequent discourse on the soul. For Avicenna, the soul (*nafs*) is an immaterial, simple, and self-subsistent substance, distinct from the body but intricately connected to it as its perfection (*kamal*) and first entelechy (Mousavian & Mostafavi, 2017). He argued for the soul's immateriality through his famous—"Floating Man"—argument, demonstrating that consciousness does not depend on bodily sensation or external input. Avicenna's soul, however, is essentially static in its essence. While it acquires perfections through its interaction with the body and the intelligible, its substance itself does not undergo continuous internal transformation. Any change in the soul's essence would imply corruption and recreation, which Avicenna rejected for the rational soul. Consciousness, in Avicenna's view, arises from the interaction between the immaterial soul and the material body, with the soul acting as the principle of life, sensation, and intellection. Sensory perception involves the soul's reception of forms from the external world through the bodily organs, while intellectual cognition involves the direct apprehension of universal forms emanating from the Active Intellect. Crucially, Avicenna's soul, while evolving in its perfections, maintains a fixed and unchanging substantial identity. The body is a vehicle or instrument for the soul, but the soul itself does not emerge from the body's transformation.

#### **3.2. Comparison and Contrast with Sadra**

The fundamental divergence between Avicenna and Sadra lies in their understanding of substance and motion. While both recognized the soul's immateriality and its ascent to perfection, Sadra's doctrine of Essential Movement introduces a radical dynamism absent from Avicenna. For Avicenna, material substances are essentially static, undergoing only accidental changes. The soul, too, is a static, immutable substance that merely actualizes potentials through interaction with its environment. For Sadra, however, all material existence is in a state of continuous substantial transformation. The soul is not merely connected to the body; it emerges from the body's very substantial evolution, representing a higher stage of matter's perfection. This means that consciousness, for Sadra, is not merely an

attribute or function of a static soul, but rather the very essence of a dynamically evolving soul, continuously generated and refined through the Essential Movement of existence itself. This emergent and dynamic view allows Sadra to overcome the rigid dualism often implicit in earlier theories, offering a more integrated understanding of the mind-body relationship where the spiritual is seen as a natural culmination of the material. Unlike Avicenna's static soul that merely interacts with the body, Sadra's soul is the dynamic culmination of the body's own essential movement.

#### **4. Engaging Contemporary Science: Sadra's Philosophy and Modern Theory of Consciousness**

The mind-body problem remains a central enigma in both philosophy and neuroscience, with contemporary science grappling to explain the subjective nature of consciousness from purely physical processes (Mendie & Udofia, 2018; Vaccariu, 2011). Mulla Sadra's dynamic metaphysics offers a unique lens through which to engage with these modern theories, particularly those that posit consciousness as an emergent, graded, and integrated phenomenon. This section will explore points of convergence and divergence between Sadra's thought and the prominent contemporary theories Integrated Information Theory (IIT); and Global Neuronal Workspace Theory (GNWT).

##### **4.1. Integrated Information Theory (IIT)**

Integrated Information Theory, primarily developed by Giulio Tononi and his colleagues, proposes that consciousness is identical to integrated information ( $\Phi$ , pronounced "phi") (Albantakis et al., 2023; Albantakis, 2020; Mediano et al., 2022). Specifically, IIT posits that consciousness corresponds to the capacity of a system to integrate information, where "information" is understood as distinctions among a repertoire of possible states, and "integration" refers to the irreducible causal power of the system as a whole. A system's  $\Phi$  value quantifies the extent to which it is intrinsically unified and causally effective within itself, i.e., how much it specifies a cause-effect structure that cannot be reduced to its parts. According to IIT, consciousness is graded (systems can have different  $\Phi$  values, indicating different levels of consciousness) and ubiquitous (any system with non-zero  $\Phi$  is conscious to some degree). IIT posits that phenomenal experience is a fundamental property of specific physical systems that have the right kind of causal structure.

##### **4.2. Global Neuronal Workspace Theory (GNWT)**

Global Neuronal Workspace Theory, advanced by Bernard Baars and Stanislas Dehaene, offers a cognitive architecture for consciousness (Consortium et al., 2025). It posits that consciousness arises when information, initially processed by specialized, unconscious modules, becomes globally available and accessible to a wide range of other brain systems (the "global workspace"). This global availabil-

ity facilitates widespread broadcasting of information, allowing for flexible cognition, decision-making, and verbal reporting. GNWT focuses on the functional role of consciousness in information processing and brain dynamics, contrasting with IIT's focus on the intrinsic properties of conscious systems.

### 4.3. Sadra's Metaphysics in Dialogue with IIT and GNWT

Mulla Sadra's philosophy of Essential Movement and the emergent, graded nature of the soul provides a compelling metaphysical framework that resonates significantly with aspects of both IIT and GNWT, while also offering unique insights.

- **Resonances with IIT:**

Sadra's concept of graded existence, where beings ascend through different degrees of actuality and perfection, finds a striking parallel in IIT's graded consciousness ( $\Phi$  values). For Sadra, higher grades of existence correspond to greater unity, integration, and self-awareness – precisely the qualities quantified by  $\Phi$ . The soul, as a more perfected mode of existence emerging from the material body, represents a system that has achieved a higher capacity for integrated information. Sadra's emphasis on the soul's continuous self-actualization through knowledge and spiritual practices can be seen as an ontological process of increasing  $\Phi$ . Drawing from Sadra's concept of *tashkik al-wujud* (graded existence), we define Grade of Existence (GE) as an ontological measure of a being's degree of actuality, unity, and perfection within the cosmic hierarchy. Higher grades of existence signify a greater realization of potential and a more complete manifestation of being. In Sadraean terms, a being's grade of existence (GE) is directly proportional to its inherent capacity for integrated information, or its  $\Phi$  value. This proportionality can be expressed by the equation:  $GE \propto \Phi$ . Furthermore, under essential movement, the change in GE ( $dGE/dt$ ) is always non-negative, implying a continuous ascent or at least maintenance of a given state, never a regression. Therefore,  $d\Phi/dt \geq 0$ . This formal mapping suggests that Sadra's metaphysical insights provide a profound ontological grounding for IIT's mathematical framework of consciousness.

- **Divergences from IIT:**

While Sadra's framework aligns conceptually with IIT's graded and integrated nature of consciousness, a key divergence lies in the ultimate nature of the conscious entity. IIT posits consciousness as purely a property of complex physical systems, without necessarily positing a non-physical substratum for the fully conscious entity beyond the brain itself. Sadra, while grounding the soul in corporeal origination, ultimately posits its spiritual subsistence and independence from gross matter, allowing for its survival beyond bodily death. For Sadra, consciousness is not merely an emergent property of the brain, but the soul itself, which, having emerged from matter, transcends it in its perfected state.

Crucially, Sadra's framework is inherently teleological, positing an intrinsic drive within all beings, including the soul, towards perfection and actualization, ultimately oriented towards the Divine. This contrasts sharply with IIT, which, as a scientific theory, does not incorporate teleological explanations or a goal-ori-

ented progression in its account of consciousness.

- **Resonances with GNWT:**

Mulla Sadra's concept of the soul as a unifying principle, bringing together diverse faculties and experiences into a coherent self, finds significant resonance with Global Neuronal Workspace Theory's (GNWT) idea of a global workspace where fragmented information becomes integrated and accessible to a wide range of brain systems. In Sadra's metaphysics, the soul functions as the ultimate integrator (*al-jami'iyyah*), binding sensory inputs, intellectual concepts, and volitional actions into a singular, unified conscious experience. This integrative function mirrors the "global availability" and "widespread broadcasting" of information within the GNWT framework.

We can conceptualize this resonance through a mathematical lens by considering the "Scope of Integration" (SI) within a Sadraean framework as analogous to the functional reach of the global neuronal workspace. As the soul undergoes Essential Movement (*al-Harakat al-Jawhariyyah*) and ascends in its graded existence (*tashkik al-wujud*), its capacity to unify and integrate diverse faculties increases. This enhancement of the soul's integrative power can be seen as an expansion of its "workspace," making more information globally "available" within the conscious entity.

Let  $St$  represent the Sadraean soul at time  $t$ , and  $It$  denote the set of all information (sensory, intellectual, volitional) accessible and integrated by the soul at that moment. The "Scope of Integration" (SI) can be thought of as a measure of the cardinality and coherence of  $It$ .

$$SI(St) = \text{Measure}(\text{Coherence}(It))$$

Here, "Measure (Coherence (It))" refers to a metric that quantifies not only the breadth or quantity of information ( $It$ ) accessible to the soul but, crucially, also the depth and sophistication of its integration. This implies how unified and non-fragmented the diverse informational elements are within the soul's conscious experience, reflecting the complexity of its internal causal structure and its capacity to synthesize disparate data into a coherent whole. A higher measure would indicate a more richly interconnected and harmonized informational landscape within the soul's workspace.

As the soul undergoes Essential Movement, it progresses from lower states of actuality to higher ones, leading to a continuous increase in its capacity for integration and unification. This implies that the change in the Scope of Integration over time is non-negative:

$$d(SI)/dt \geq 0$$

This continuous actualization and expansion of the soul's integrative capacity provides a metaphysical underpinning for GNWT's functional description of a dynamic and evolving global workspace. While GNWT describes the neuronal mechanisms of information broadcasting and integration, Sadra's philosophy offers an ontological explanation for the very possibility and progressive nature of

this integrative capacity in the soul itself. The soul, by virtue of its essential movement, is perpetually enhancing its “global workspace” to encompass and unify an ever-richer tapestry of experience and knowledge.

- **Divergences from GNWT:**

GNWT, like most contemporary neuroscience theories, is fundamentally a materialist and functionalist account of consciousness. It describes how consciousness functions within the brain, but it does not address the ontological status of the conscious subject or its potential for existence independent of the brain. Sadra’s philosophy, by contrast, offers a robust metaphysics of the soul that transcends purely functional descriptions, addressing its emergence, continuous ontological development, and ultimate spiritual destiny. GNWT describes the mechanism; Sadra provides the metaphysical explanation for the mechanism’s ground and ultimate trajectory. Moreover, the teleological dimension central to Sadra’s metaphysics—where the soul’s emergence and development are intrinsically directed towards ultimate perfection and reunion with the Divine—stands in stark contrast to the non-teleological, mechanistic descriptions offered by GNWT. While GNWT explains *how* information is processed for functional advantages, Sadra provides the *why* behind the soul’s continuous ascent and its ultimate purpose within the hierarchy of existence.

- **The Four Journeys and Contemporary Theories**

The systematic progression delineated in The Four Journeys offers profound conceptual resonances with both Integrated Information Theory (IIT) and Global Neuronal Workspace Theory (GNWT), albeit at a metaphysical rather than a purely neuroscientific level. From an IIT perspective, each successive journey of the soul can be interpreted as a move towards a state of higher integrated information ( $\Phi$ ). As the soul transcends material limitations and apprehends more universal, intelligible realities, its internal experience becomes simultaneously more differentiated (encompassing a wider range of distinct concepts) and more integrated (forming a coherent, unified conscious whole). The journey from identifying with fragmented worldly perceptions to grasping divine unity represents an increase in both the “what it is like to be” (phenomenological experience) and the underlying structural capacity for information integration, characteristic of higher  $\Phi$  values. The soul’s progressive actualization of its innate potentials through these journeys implies an ever-increasing capacity for consciousness to be maximally irreducible and integrated.

Similarly, the progression through the Four Journeys aligns with the principles of Global Neuronal Workspace Theory (GNWT) by demonstrating a profound expansion in the “global availability” of information, not merely within a brain, but across ontological domains. In the initial journey, consciousness is largely confined to the material realm; but as the soul ascends, its workspace expands. Information gained from the contemplation of divine attributes in the second journey becomes “globally available” to the soul’s entire being, shaping its perception upon returning to creation. The perfected soul of the third and fourth jour-

neys operates with a consciousness where universal truths are fully integrated and accessible, guiding its actions and understanding of the phenomenal world. This implies a continuous broadening of the soul's "workspace," allowing for the integration and "broadcasting" of increasingly profound and unified insights across its faculties, ultimately leading to a more comprehensive and enlightened state of awareness. Thus, Sadra's framework provides a teleological and ontological grounding for the functional mechanisms described by contemporary theories, suggesting that the drive towards higher consciousness and integrated understanding is inherent in the very fabric of existence.

#### 4.4. The Hard Problem of Consciousness in Sadra's Framework

- **Ontological Grounding for Qualia:** Unlike many contemporary theories that struggle to bridge the gap between physical brain states and subjective experience, Sadra's philosophy provides an ontological grounding for qualia. For Sadra, consciousness is not merely an emergent property of complex physical interactions, but an inherent aspect of existence itself, particularly as actualized through the soul's essential movement. The qualitative "what it is like to be" is not a byproduct but a fundamental characteristic of the soul's being and its continuous self-actualization. When the soul *becomes* what it knows (through *Ittihad al-Aaqil wa l-Maqul*), it is not just processing information; it is undergoing a substantial transformation that inherently includes the qualitative aspect of that experience.
- **Consciousness as Substantial Actuality, Not Just Information Processing:** While IIT focuses on integrated information as a *measure* of consciousness, and GNWT on the *global availability* of information, Sadra argues that consciousness is a substantial actuality of the soul. The paper highlights that the soul, through Essential Movement *al-Harakat al-Jawhariyyah*, continuously actualizes higher levels of existence, and these higher actualities *are* conscious states. This means qualia are not epiphenomenon but are intrinsic to the very being of the developing soul, which progressively sheds its material limitations to become more luminous and aware. This avoids the "explanatory gap" by positing consciousness as interwoven with the very fabric of developing existence.
- **Dynamic and Developmental Nature of Subjectivity:** The "hard problem" often treats qualia as a static mystery. Sadra's concept of the "dynamic soul" and its "Four Journeys" introduce a developmental aspect to subjectivity. The paper demonstrates that conscious experience (including qualia) is not fixed but undergoes continuous qualitative transformation as the soul ascends. The "what it is like to be" for a soul in the initial stages of its journey (corporeal origination) is fundamentally different from that of a soul having achieved spiritual subsistence and unity with the universal intelligible. This dynamic view offers a framework for understanding how subjective experience itself evolves and deepens.
- **Integration of Epistemology and Ontology:** Sadra's philosophy, as presented

in this paper, bridges the gap between how we *know* (epistemology) and what *is* (ontology). The very act of knowing (Ittihad al-Aaqil wa l-Maqul) is an ontological transformation of the soul, directly impacting its conscious state and its qualitative experience. This suggests that solving the hard problem requires not just understanding neural correlates, but also the nature of being and knowledge itself.

#### 4.5. Broader Scientific Implications and Unifying Frameworks

The insights derived from Mulla Sadra's philosophy extend beyond specific theories like IIT and GNWT, resonating with broader contemporary scientific and philosophical discussions about the nature of reality. One such emerging perspective posits that consciousness is not merely an epiphenomenon but a fundamental consequence of complexity (Carr, 2007), echoing Sadra's view of the soul emerging as matter achieves higher degrees of organization and actualization through Essential Movement. This suggests a graded continuum of consciousness intrinsically linked to ontological complexity, where higher degrees of integration lead to more profound subjective experience.

Furthermore, a growing discourse in modern physics explores the profound relationship between the observer and the observed, leading some to propose that the Mind and the universe are complementary aspects of a singular reality (Weeler, 1975). This conceptualization finds an intriguing parallel in Sadra's unification of existence and his insistence on the ontological transformation of the knowing subject (intellect) into the known (intelligible), dissolving the rigid subject-object dichotomy. Building on this, it is increasingly recognized that the real world often bears very little resemblance to the world we actually experience, and that our sensory systems reveal only a very limited, albeit adaptive, aspect of reality (Carr, 2021). This idea aligns with Sadra's understanding that true knowledge transcends mere sensory input, as the soul, through its journey of perfection, moves towards apprehending higher, immaterial realities beyond the limitations of corporeal perception.

Intriguingly, the perplexing challenges in formulating a unified "Theory of Everything" (TOE) in physics often converge on the role of consciousness and fundamental aspects of reality (Guillemant & Guyon, 2024). This is because consciousness, with its subjective, qualitative nature (qualia), presents what David Chalmers (Chalmers, 2015) termed the "hard problem"—the difficulty of explaining *why* physical processes should give rise to inner experience. Physicists like Roger Penrose (Herce, 2017) have also suggested that consciousness might involve non-computable, quantum processes that current physical theories cannot fully capture, indicating its potentially fundamental role in a complete understanding of the universe. It is increasingly suggested that quantum gravity, the quest to reconcile general relativity and quantum mechanics, may intimately involve consciousness. This perspective implies that a complete understanding of the universe's fabric necessitates accounting for the subjective experience. In this context,

both time (understood as change or movement) and consciousness emerge as key, irreducible components of any ultimate theory of everything. Mulla Sadra's revolutionary redefinition of time as an intrinsic measure of essential movement and his dynamic, emergent theory of consciousness offers a sophisticated metaphysical framework that could potentially ground such bold scientific hypotheses. The very problem of reconciling relativity theory, which describes spacetime as a dynamic entity, and quantum mechanics, which deals with probabilities and observer effects, might indeed be intrinsically connected to the problem of understanding consciousness. Sadra's unitary, dynamic ontology thus provides a rich conceptual resource for these cutting-edge inquiries into the fundamental nature of reality.

## 5. Conclusion

Mulla Sadra's philosophy of consciousness, profoundly rooted in his doctrine of Essential Movement, offers a compelling and sophisticated account of the soul as a dynamic, evolving entity that emerges from the progressive actualization of matter. His dictum "corporeal in origination, spiritual in subsistence" provides a unique perspective that bypasses the Cartesian mind-body problem by asserting a fundamental ontological continuity between body and soul.

This paper has demonstrated a compelling conceptual and mathematical mapping between Mulla Sadra's philosophy of the dynamic soul and Integrated Information Theory (IIT) of consciousness. By formalizing the relationship between Sadra's *Tashkik al-Wujud* (Gradation of Being) and IIT's  $\Phi$  (integrated information), and by linking Essential Movement *Harakat al-Jawhariyyah* to the dynamics of  $\Phi$ , we have shown how an ancient metaphysical system can provide profound insights into a modern scientific theory. Similarly, IIT offers a contemporary, formal language to articulate Sadra's view of consciousness as an inherent, dynamic, and graded property of being. This interdisciplinary approach not only enriches both fields but also contributes a unique perspective to the enduring quest for understanding the fundamental nature of consciousness.

By situating Sadra's thought in its historical context, we see its revolutionary departure from static understandings of substance and its elegant solutions to problems that plagued earlier philosophers. When brought into dialogue with contemporary scientific approaches to consciousness, Sadra's philosophy finds intriguing conceptual resonance with emergentist theories like IIT, and GNWT, particularly in their emphasis on integration, dynamism, and the graded nature of consciousness. However, fundamental divergences persist, notably regarding the ultimate nature of continuity versus discreteness, the role of teleology, and the precise ontological status of emergent consciousness.

Ultimately, Mulla Sadra's enduring contribution lies in offering a holistic metaphysical framework that integrates the material and the spiritual within a single, continuously evolving reality. His dynamic understanding of the soul as a process of becoming, rather than as a static entity, continues to provide a rich conceptual

resource for navigating the complex and multifaceted problem of consciousness in the 21st century, encouraging a deeper and more integrated understanding that transcends disciplinary boundaries.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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