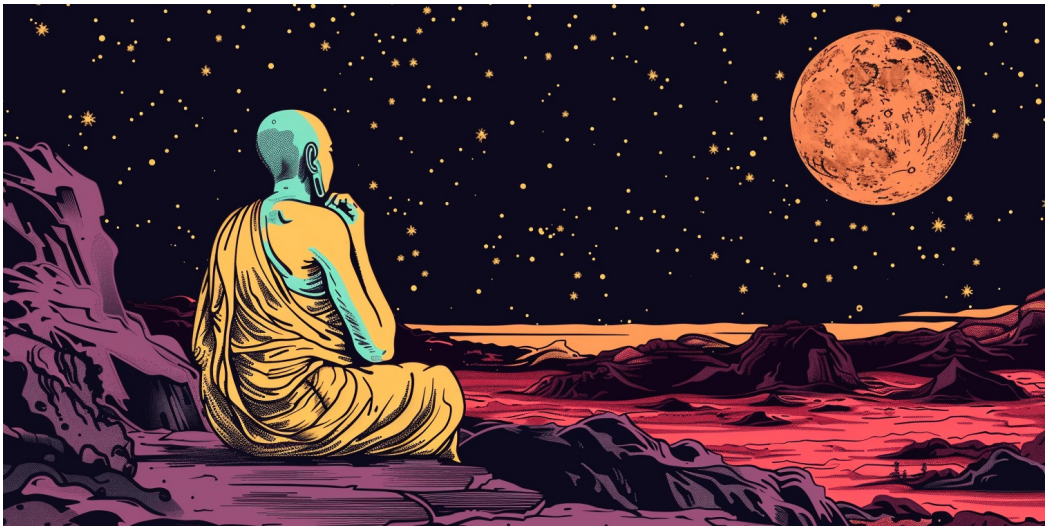

Mindful Mechanisms: Drawing Parallels Between the Quantum Domain and the Three Bodies (Trikaya) of Buddhist Ontology

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Abstract

This study illuminates the intriguing parallels between Buddhism, consciousness, and the principles of quantum physics. It engages in a nuanced exploration of the Buddhist concept of *pratītya-samutpāda*, or 'dependent origination,' and its resonance with quantum theory's elucidation of the interconnectedness and non-locality in the universe. The paper presents a cross-disciplinary dialogue, bridging the spiritual wisdom of Buddhism with quantum theory's frontier understanding of reality through observation and consciousness at the *Trikaya* realms, and discusses consciousness's place within this nexus. By doing so, the study endeavours to enhance our comprehension of the subjective 'self' in relation to the temporality of the objective 'reality' as portrayed in both spiritual and scientific discourses. This intersectionality offers new insights and perspectives on the nature of consciousness and reality, potentially stimulating further research in physics and philosophy.

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Introduction

In this discourse, this paper navigates the intersectionality between quantum physics and the spiritual tenets upheld by Buddhism's interpretation of consciousness, self, and reality. The overlap between the principles of Buddhism, consciousness, and quantum physics suggests a profound, shared understanding of the universe's fundamental nature and our place within it. Despite originating from different investigative methods, quantum science and Buddhism converge towards a shared understanding of reality, albeit interpreted differently. While quantum science is grounded in empirical evidence, Buddhism relies on introspective practices to decipher the nature of existence.

At the heart of quantum physics is the paradoxical understanding of the nature of reality that transcends classical, deterministic worldviews. Similarly, Buddhism offers an insightful perspective on the nature of consciousness and the illusory construct of the self. It posits that the reality experienced by the conscious mind is an interpretation of the mind itself, not an absolute, independent entity. This resonates with the quantum concept of superposition and the role of the observer in determining the state of quantum systems.

> *The dominant explanation of quantum physics, known as the Copenhagen Interpretation, also suggests that atoms are not 'things', but are 'observable phenomena'. This is a fascinating topic because it places the human mind, or human perception, in the midst of what we call 'matter' and 'objective reality'. If doubts can be raised regarding their 'solidity', then many other conceptual barriers will fall down as a result (Ricard & Thuan, 2009, p. 79).*

Moreover, the Buddhist principle of 'dependent origination' (*pratītya-samutpāda, yuan qi*), positing that all phenomena arise in dependence upon other phenomena, aligns with the quantum entanglement concept, where particles become interconnected, and the state of one can instantaneously affect the other, irrespective of the distance between them (Wang et al., 2022). The term *pratītya-samutpāda*, originally articulated by the Buddha, simply meant arising through connections between things (Abelsen, 1993). Subsequently, this further denotes that all phenomena arise through interrelationships with other phenomena (Anālayo, 2021). Over time, this understanding expanded to "all phenomena are in dependent origination, so no things have permanence, and there are no targets for attachment" (Nakazawa, 2023).

Furthermore, exploring the intersection between these fields could lead to a deeper understanding of observation (or guan) and consciousness. The first line of the Heart Sutra (xin jing) , , , when translated, reads, *Avalokiteśvara Bodhisattva* when practising the deep *prajñāpāramitā*, clearly saw that all five *skandhas* are empty, thus crossing over all suffering. The Bodhisattva recognizes the emptiness of the five aggregates (form, feeling, perception,

mental formations, and consciousness) that constitute what is conventionally referred to as the ‘self’ in Buddhism. The emptiness here refers to the lack of intrinsic, independent existence of these aggregates; they are empty of a self-nature. This recognition is not a mere intellectual understanding but an experiential realization through deep meditative and mindfulness practices. When *Avalokiteśvara Bodhisattva* discerns this truth, he transcends the illusion of separateness and permanence, leading to the cessation of suffering, the ultimate goal of the Buddhist path.

Furthermore, the *Bodhisattva*'s enlightened vision can be seen as an exploration of consciousness at a profound level. In realizing the emptiness of the five aggregates, he essentially deconstructs the conventional understanding of individual consciousness, revealing its contingent and interdependent nature. The practice of *prajñāpāramitā* fosters this internal observation and discernment, allowing for the clear seeing of the truth of reality beyond surface appearances and sensory perceptions, which are often sources of delusion and hence, suffering (Watanabe, 2016).

In sum, the first line of the Heart Sutra encapsulates a deep understanding of consciousness, emphasizing the necessity of internal observation and realization of the ultimate truth for the cessation of suffering. It underscores that consciousness, in its truest sense, is not a standalone, inherent entity but an interdependent, ever-changing phenomenon deeply entwined with the reality it perceives and constructs.

Quantum theory has implications for the study of consciousness, suggesting that it may be fundamentally interwoven with the physical world, much like the Buddhist idea of ‘interbeing’ where consciousness is not isolated but intricately interconnected with all existence (Nhat Hanh, 1996). Nhat Hanh's (1996) philosophical construct of ‘interbeing’ provides a profound viewpoint on interconnectedness and mutual dependence. The theory posits that entities do not exist independently but are the products of a complex web of relationships with other entities, imbuing everything with an intrinsic sense of interconnectedness. This concept shatters the illusion of isolated existence or autonomous identity, leading us to understand that we are not alone in our tribulations, nor are we detached or self-governing entities. Nhat Hanh's (2020) emphasis on infusing mindfulness practices originated from ‘interbeing’, promoting a conceptual framework that intertwines meditation techniques with proactive societal participation. In addition, Nhat Hanh (2020) advocated for the practical application of these principles within routine circumstances, aspiring to contribute positively towards human welfare and well-being.

Nhat Hanh's (2020) approach, often referred to as ‘Engaged Buddhism’, fosters a seamless amalgamation of contemplative methods and civic involvement, thereby directing the path towards an enlightened existence that balances personal well-being with collective progress. Our existence, and the challenges that come with it, are interconnected with others and the world around us. This framework, thus, helps redefine our understanding of ‘self’ in the context of a larger network of relationships, nurturing a more holistic perspective towards individual experiences. Furthermore, ‘interbeing’ prompts a sense of collective responsibility, where our actions reverberate throughout the system, influencing others and the world. This pivotal notion underscores the importance of empathy, compassion, and collective action in our shared global community.

The structure of this research paper is divided into several core sections, each designed to unravel a facet of our exploration of the intersectionality between Buddhism, consciousness, and quantum physics. This paper begins with an

introduction that establishes the groundwork for the ensuing discourse, providing a comprehensive overview of our primary aims and the scope of our investigation.

The first section delves into a meticulous examination of quantum physics, primarily focusing on the principles of quantum entanglement and nonseparability in relation to Buddhist philosophy, with a specific emphasis on the concept of 'interbeing' as introduced by Thích Nhất Hạnh. This section aims to elaborate on the notions of interconnectedness and mutual dependency, thereby drawing parallels with the principles of quantum physics and demonstrating the overlaps between these seemingly disparate realms.

In the subsequent section, this paper undertakes an in-depth examination of consciousness and its critical role in formulating diverse planes of reality, ranging from the perspectives of humanity, encapsulated by the concept of (*ren jian guan*) in the form realm (*she jie*), to the Dharma realm (*fa jie*). The exploration ventures into the implications of observation within the frameworks of quantum mechanics and, more extensively, within the ambit of human experience and consciousness. This investigation delves into the paradigm of the 'self' as an interconnected 'interbeing' within the broader tapestry of reality. This discourse further clarifies how the lens of conscious mindfulness sculpts our understanding of the cosmos.

Following this, our focus transitions to the harmony between Buddhism and quantum physics, underlining their potential to lay the foundation for an innovative holistic model that seamlessly amalgamates scientific insights and spiritual philosophies. This segment underscores how the echoes of similarity between these two realms can cultivate a unified and nuanced comprehension of the true nature of reality. Delving into the exploration of existence, a pivotal focal point and distinct characteristic of philosophical discourse, Buddhist texts provide a multitude of teachings and dialogues regarding the inception, progression, mechanisms, and ultimate reality of our world. This paper is devoted to forging a Buddhist philosophical perspective on spacetime, emphasising the ontological reality of our world and how this reality is clarified.

Envisioning the sentient existence in our world as being layered across different realms, Buddhism and quantum physics each offer distinctive ways of understanding reality. From the Buddhist viewpoint, there is a profound exploration of the various realms of existence — from the form realm (*she jie*) through to the *Dharma* realm (*fa jie*). Each realm offers a unique perspective on reality, with varied levels of understanding and perceptual limitations. The form realm signifies our physical world, governed by physical Newtonian laws and constraints. Conversely, the *Dharma* realm represents the ultimate reality, the realm of truth that transcends the limitations of our physical existence. In parallel, quantum physics offers a complex, nuanced view of reality. Quantum mechanics, while abiding by the principle of locality in our macroscopic world, presents us with quantum entanglement that defies these conventional spacetime constraints, effectively exhibiting nonlocal characteristics (Pan et al., 2001). Similarly, quantum superposition transcends the limits of classical understanding by allowing quantum entities to exist in multiple states simultaneously until observed (de Ronde, 2018).

This exploration of different realms in Buddhist philosophy and quantum physics opens up unique dimensions in

understanding the reality of our world. It brings into focus the potential for a more holistic understanding of reality. This viewpoint transcends the limitations of our physical world and invites us to delve into the subtler, interconnected layers of existence. This research aims to establish a bridge between these different perspectives, offering an integrative viewpoint that combines Buddhist philosophy's teachings and quantum physics discoveries, to foster a deeper, more nuanced understanding of our existence within the cosmos.

Finally, we delve into the implications of these resonances for developing a new holistic paradigm that integrates science and spirituality. This exploration invites a re-evaluation of our understanding of the cosmos, the human experience, and the nature of existence and reality. The synergies between Buddhism and quantum physics could lead to a more unified understanding of reality, fostering a more profound comprehension of our place within the universe. This conversation aims to bridge the gap between the material and the spiritual, between the tangible world of science and the intangible realm of spirituality and the unobservable quantum level. It offers the potential for a more integrative and holistic view of the universe that acknowledges existence's physical and metaphysical dimensions.

Discussion

The Concept of ‘Interbeing’ in *Dharmakāya* and Quantum Entanglement

Quantum entanglement presents one of the most profound and counter-intuitive phenomena in quantum physics (van Kampen, 2008). When two or more particles become entangled, their properties become deeply interconnected, such that a change in the state of one particle instantaneously influences the state of the other, regardless of the spatial distance separating them (Avner, 2021). This instantaneous interaction defies the conventional understanding of space and time, indicating a deep level of interconnectedness at the quantum level that transcends our standard concepts of locality.

Wholeness in quantum physics refers to the concept that a quantum system must be understood as a complete entity rather than merely a collection of individual parts. This principle is derived from quantum superposition and wave-particle duality, suggesting that all particles in a quantum system are intrinsically linked, part of a larger system that cannot be fully understood in isolation. In essence, this highlights a fundamental unity and completeness in quantum systems. In Buddhism, the *Dharmakāya* refers to the ‘truth body’ or ‘reality body’ (*fa shen*) (Sebastian, 2010). The *Dharmakāya* constitutes the unmanifested, ‘inconceivable’ aspect of a buddha out of which buddhas arise and to which they return after their dissolution. Buddhas are manifestations of the *Dharmakāya* called the *nirmāṇakāya*, ‘transformation body’ (Bernstein, 2019).

While the tenets of quantum physics and Buddhist philosophy emerge from starkly contrasting realms of exploration—one the empirical domain of science, the other a spiritual introspective tradition—they exhibit surprising congruity, particularly in their perceptions of the universe's intrinsic wholeness. Bohm's (2002) quantum theory postulated that the universe, at its most foundational level, is an indivisible whole. Bohm's (2002) interpretation of quantum physics, termed ‘wholeness’, counters classical physics’ reductionist view, which treats the universe as a mechanical system of isolated objects

interacting in fixed ways. Bohm's (2002) quantum wholeness concept, derived from the phenomena of quantum superposition and wave-particle duality, proposes a fundamental unity that weaves all particles in a quantum system into an integral whole. The wholeness principle suggests that the components of a quantum system are not independently existing entities but are deeply interwoven facets of an inseparable unity. It challenges the traditional notion of parts within a system, asserting instead that understanding a quantum system necessitates recognizing it as a unified entity, the entirety of which is encapsulated in every part. This principle is remarkably demonstrated in the quantum entanglement phenomenon, where particles become inextricably connected, with the state of one instantaneously influencing the state of the other, regardless of the distance separating them. This non-locality emphasizes the inseparability and wholeness inherent in quantum systems (Peat, 1992).

Similarly, the Buddhist philosophical construct of *Dharmakāya*—the 'reality body' or 'truth body'—epitomizes a similar sense of wholeness. In essence, *Dharmakāya* can be viewed as the Buddhist conceptual equivalent of quantum wholeness—it implies that all phenomena in the universe are interdependent manifestations of a single, unified reality. The *Dharmakāya* is not composed of independent elements; instead, it underlies and permeates all phenomena, lending them their transient existence (Liu & Berger, 2014). Like quantum particles in the wholeness construct, individual phenomena in the Buddhist perspective do not exist in isolation—they emerge from, exist within, and ultimately dissolve back into the *Dharmakāya* (Bauer, 2013).

In Buddhist philosophy, *Dharmakāya*, or the ‘reality body’, is considered the essence of the enlightened mind, transcending the limitations of time, space, and individual consciousness (Danylova, 2017). It represents the ultimate, unmanifested, and inconceivable truth of the universe. *Dharmakāya* is omnipresent, pervading all phenomena. This omnipresence can be understood as spiritual non-locality, as the *Dharmakāya’s* influence and essence extend universally, independent of spatial or temporal constraints. Non-locality is a consequence of quantum entanglement, describing the phenomenon where measurements on an entangled particle can instantaneously affect the state of its partner, irrespective of the distance separating them. This concept challenges the classical understanding of space, suggesting an underlying layer of reality where spatial separation becomes irrelevant. Inseparability, meanwhile, emphasizes the interconnectedness of the components of a quantum system (Sanpera et al., 1998). This principle suggests that the properties of quantum entities are not independent but interdependent, derived from their relations to other entities in the system. In a sense, inseparability underscores that the ‘whole’ in a quantum system is not merely the sum of its parts but includes the complex interrelationships among them.

In quantum physics, non-locality refers to the phenomenon where entangled particles remain instantaneously interconnected, regardless of the physical distance separating them. This means an action performed on one particle will instantly affect the other, irrespective of how far apart they are. This phenomenon, predicted by quantum mechanics and confirmed by Aspect's (1976) experiments, challenges our conventional understanding of space and time, hinting at a deeper level of reality where separateness is an illusion.

In Buddhist philosophy, the *Dharmakāya* (*fa shen*) - often referred to as the ‘reality body’ or ‘truth body’ - is a critical element in the *Trikāya*[1] doctrine that illustrates the three bodies (or realms) of a Buddha. The *Dharmakāya* symbolizes the

ultimate, non-dualistic reality beyond conventional, discriminative thought. It embodies the unmanifested, inconceivable aspect of a Buddha and constitutes the source from which all Buddhas emerge and into which they dissolve. One can understand *Dharmakāya* as a kind of quantum reality with non-locality within Buddhist metaphysics. This reality body pervades all space and time, underlies all phenomena, and is not confined to a specific location. It encapsulates the universal truth of interdependence and the fundamental oneness of all existence. The quantum non-locality implies a profound interconnectedness between particles at a quantum level. The *Dharmakāya* reflects a similar interconnectedness of all beings and phenomena in the universe.

The manifestations of the *Dharmakāya*—the *nirmāṇakāya* (transformation body) and the *sambhogakāya* (manifested body)—are comparable to the seemingly separate particles in quantum physics. Though they appear distinct in the conventional realm of experience, they are intrinsically linked to the *Dharmakāya* and each other in the ultimate realm, resonating with the quantum concept of entangled particles being aspects of a larger, indivisible whole.

The *Trikaya* theory in Buddhist metaphysics and the triadic schema of quantum (unmanifested)-particle (transformative)-matter (manifested) in quantum physics, though operating in disparate domains, share intriguing similarities. They both posit a profound unity underlying the apparent diversity and multiplicity in the observable and unobservable universes. In Buddhism, the *Dharmakāya* (*Dharma* body) represents the unmanifest, absolute truth underlying all phenomena. Similarly, the quantum realm is the fundamental level of reality from which the tangible, perceivable world arises. *Dharmakāya* and the quantum field are the foundational substrates from which all other phenomena manifest. The *Sambhogakāya* (Enjoyment body) and *Nirmāṇakāya* (Transformation body) are the forms through which the *Dharmakāya* is experienced and interacted with, akin to the quantum and particle aspects, respectively, in quantum physics. The *Sambhogakāya* is the manifested material level of reality compared to the *Nirmāṇakāya*, which resembles the particle aspect in the process of transformation and eventual formation. *Sambhogakāya* represents the particulate nature of matter. These parallels suggest a shared perspective on the nature of reality across the boundaries of spiritual and scientific discourse.

> *'If... all of scientific knowledge were to be destroyed, and only one sentence passed on to the next generation, what statement would contain the most information in the fewest words? I believe it is the atomic hypothesis,... that all things are made of atoms little particles that move around in perpetual motion, attracting... [or] repelling... one another' (Feynman, 1994, p. 4)*

Both systems also recognize a profound interconnectedness within the observable universe. Buddhism speaks of the interpenetration and interdependence of all phenomena, embodied in the concept of dependent origination or, in quantum terms, entanglement. Quantum physics expresses a similar deep interconnectedness through the phenomenon known as entanglement. Both these paradigms, although derived from ostensibly divergent knowledge systems—one religious and philosophical, the other empirical and scientific—illuminate the complex interwoven tapestry of the universe in complementary ways. Dependent origination is a cornerstone of Buddhist thought, encapsulating the idea that all physical or psychological phenomena arise, persist, and cease in dependence on other phenomena (Anālayo, 2021). This principle denies the existence of isolated, independent entities; instead, it posits a world in which cause and effect are interlaced in

an intricate matrix of conditions. Consequently, it is a crucial foundation for understanding the Buddhist approach to the notions of non-self (*anātman*[2]) and emptiness (*śūnyatā*).

Non-self and Emptiness

Sūnyatā, in Buddhist philosophy, represents the concept of emptiness or voidness that characterizes the ultimate reality (Richards, 1978). However, it is crucial to understand that *Sūnyatā* is not interpreted as a negation or denial of existence. Instead, it is seen as a primordial, undifferentiated state from which all apparent entities, distinctions, and dualities originate. In other words, *Sūnyatā* signifies a profound existential condition underpinning reality's fabric. It is not an emptiness that suggests non-existence or nothingness in a conventional sense. Instead, it refers to a deep state of 'non-self-essence', a refutation of intrinsic or independent existence.

The concept of *anātman*, or 'non-self', forms a critical cornerstone in Buddhist philosophy.*Anātman* denies the existence of a permanent, unchanging self (*ātman*) within sentient beings, contending instead that what is perceived as 'self' is a transient, fluctuating aggregation of physical and mental phenomena, namely the five *skandhas* or aggregates—form (*rūpa*), sensation (*vedanā*), perception (*saṃjñā*), mental formations (*saṃskāra*), and consciousness (*vijñāna*) (Mosig, 2006). This idea implies that our sense of selfhood arises from a dynamic interplay of these constituent elements, each subject to constant change and devoid of inherent, independent existence. Therefore, an unchanging, autonomous self is considered an illusion—a product of ignorance.

In a striking parallel, the principle of non-separateness—or entanglement—is a foundational element of quantum physics. Quantum entanglement is a phenomenon whereby pairs or groups of particles interact in ways such that the quantum state of each particle cannot be described independently of the others, even if the particles are separated by vast distances (Favalli & Smerzi, 2020). This means that the behaviour of one particle is immediately connected to the behaviour of the other(s), regardless of the space between them. It depicts a deep interconnectedness and interdependence that challenges conventional notions of individuality and separateness.

When viewed together, *anātman* and quantum entanglement resonate remarkably with each other, despite emerging from seemingly disparate realms of thought. Both concepts dismantle the notion of autonomous entities, asserting a profoundly interconnected and interdependent reality instead. In both cases, separateness and independence are illusions contingent on the fluctuating aggregation of interconnected phenomena—outcomes of constrained views of sensation (*vedanā*), perception (*saṃjñā*), mental formations (*saṃskāra*) that fail to recognize the underlying unity and interconnection of all phenomena. This encapsulates the principle of *pratītya-samutpāda* or dependent origination, positing that all phenomena arise, persist, and cease in dependence on other phenomena. Therefore, *Dharmakāya* and *Sūnyatā* are deeply interconnected within the framework of Buddhist philosophy. The realization of *Sūnyatā*, the emptiness of inherent existence, can be considered a pathway to understanding the *Dharmakāya*, the ultimate reality or truth. From the perspective of *Dharmakāya*, all phenomena, in their emptiness, are the expressions of the ultimate truth. Thus, the understanding of *Sūnyatā* can be seen as a direct insight into the*Dharmakāya*—the true nature of phenomena beyond their apparent, conventional existence. In this sense, the relationship between *Dharmakāya* and *Sūnyatā* can be seen as a

dynamic interplay between the understanding of ultimate truth and the realization of the empty nature of phenomena. They are complementary facets of the path to enlightenment in *Mahāyāna* Buddhism, intertwining the experiential understanding of the interconnected emptiness of all phenomena (*Sūnyatā*) with the intellectual apprehension of the ultimate, immanent reality (*Dharmakāya*).

Further, the notion of *Sūnyatā* as the undifferentiated ground of being suggests that all apparent entities, dichotomies, and distinctions emerge from this unified field of potentiality. The multiplicity and diversity of experiential reality arise from this space of emptiness or voidness, reinforcing the core Buddhist principles of dependent origination and interconnectedness. Thus, *Sūnyatā* is a central Buddhist concept that encapsulates the dynamic and interdependent nature of existence, where all perceivable phenomena are seen as contingent, interconnected manifestations arising from a unified, undifferentiated, and empty ground of being. Understanding *Sūnyatā* provides a lens to view reality beyond surface appearances and reaches into the essential interconnected fabric of existence.

In quantum physics, the notion of vacuum differs markedly from the traditional understanding of ‘void’ or ‘emptiness’. Rather than being a tranquil, devoid state, the vacuum, in a quantum context, is an active state teeming with fluctuating energy (Milonni & Shih, 1991). This understanding emerges from the principles of quantum field theory, the fundamental theoretical framework underpinning the behaviour of particles in the quantum realm. The quantum field is perceived as akin to a quantum-mechanical system characterized by infinitely many degrees of freedom. Consequently, an interacting system of quantum fields mirrors a complex solid-state physics system capable of existing in diverse energy states, specifically the ground state and various excited states (Aitchison, 1985). The excited states of the field system are distinguished by the presence of excitation quanta, constituting the particles—electrons, quarks, photons, and others (Mac Gregor, 1990)—that form the fabric of our material world (or, in Buddhist terms, *sambhogakāya*, which is the manifested body).

Conversely, the ground state of the field system is devoid of these excitation quanta and hence, devoid of particles. This ground state, absent of any particles, defines the quantum vacuum. In this context, the quantum vacuum or void is far from an empty, null state. Instead, it represents the lowest energy state of a quantum field, a condition of minimal excitation (Aitchison, 1985). Hence, the quantum vacuum serves as a baseline for quantum fields, against which other states, with varying quantities of excitation quanta or particles, can be compared; thus, implying that there will always be brief fluctuations in energy, leading to the temporary formation of particle-antiparticle pairs (Conrad, 1993) (or in Buddhist terms, *nirmāṇakāya*, which is the transformation body). These ‘virtual particles’ blink in and out of existence, borrowing energy from the vacuum under the stipulations of the Heisenberg Uncertainty Principle before annihilating each other and returning the energy to the vacuum (Puthoff, 1990). These fluctuations are not merely theoretical; they have observable consequences. The creation and annihilation of photons echo these Buddhist principles of form (or existence) and emptiness (or non-existence). In quantum field theory, energy fluctuations in a quantum field's vacuum (or ground state) can temporarily create particle-antiparticle pairs—manifestations of ‘form’ or ‘existence’. These particles then annihilate each other, returning their energy to the vacuum and restoring equilibrium—mirroring the notion of ‘emptiness’ or ‘non-existence’. This process symbolizes the cyclical nature of *Samsara*[3], where beings are continually born, live, die, and are reborn.

Moreover, the return of energy to the quantum vacuum to maintain equilibrium can be likened to attaining *Nirvana*[4] in Buddhism. The energy fluctuations lead to the temporary creation of particles, which are then annihilated to restore balance; the journey through *Samsara*, characterized by desire, aversion, and ignorance, ultimately leads to the cessation of these afflictions upon attaining *Nirvana*, restoring spiritual equilibrium. This analogy offers a fascinating dialogue between quantum physics and Buddhism, suggesting a deep congruence between these disparate domains and potentially providing a more holistic understanding of the universe's fundamental nature.

It is a testament to the unpredictability and counter-intuitive nature of the quantum world (represented by *Dharmakāya* (Dharma body), which is the unmanifest, absolute truth underlying all phenomena and from which all apparent entities, distinctions, and dualities originate); thus demonstrating how the conventional understanding of concepts such as 'vacuum' or 'emptiness' can be challenged and redefined in the light of quantum theory.

Linking these quantum concepts to the Buddhist philosophical principles of *Sūnyatā* (emptiness), *pratītya-samutpāda* (dependent origination), and *Dharmakāya* (truth body) can provide intriguing parallels. *Sūnyatā* is akin to the quantum void, a state of 'emptiness' devoid of independent, inherent existence, analogous to the dimensionless void in quantum mechanics. From this state of emptiness, all phenomena, much like particles in quantum theory, arise dependent on conditions, illustrating the principle of *pratītya-samutpāda*. The *Dharmakāya*, or the ultimate reality, parallels the quantum world's underlying unified field, from which the universe's diverse phenomena emerge. The *Dharmakāya*, much like the quantum field, represents the ultimate reality from which all phenomena, in their emptiness (*Sūnyatā*), arise.

The shared emphasis on interdependence and inseparability in quantum physics and Buddhist philosophy underscores a striking convergence of insights across these disparate domains. This intersection invites a dialogue between the two, opening potential avenues for a more holistic understanding of the universe's fundamental nature and bridging the apparent chasm between science and spirituality.

However, while these parallels are intriguing, they should not be overstated. Quantum physics and Buddhist metaphysics are rooted in distinct intellectual traditions and address different questions. Nonetheless, the dialogue between them can provide fruitful insights into a more profound understanding of the physical universe and our spiritual existence. Although these concepts originate from disparate disciplines—ancient Eastern philosophy and contemporary Western science—they display a striking resonance. Both dependent origination and quantum entanglement illustrate the inherent interconnectedness within the cosmos. They reject a simplistic, deterministic worldview for a more nuanced understanding of existence as an interdependent web of relationships. Their apparent similarities are more likely a testament to their shared interest in the nature of reality than evidence of direct correlation or influence. They are constructs of different cultural and intellectual contexts with unique epistemologies and ontologies. Yet, the fascinating convergence of these ideas—whether framed as the profound unity in diversity posited by dependent origination or the fundamental interconnectedness articulated through quantum entanglement—can pave the way for a deeper, holistic understanding of the nature of existence, bridging the gap between science and spirituality.

Reality and the Other Realms

Within the broader context of Buddhist cosmology, the term *sahā* world (*sapo shijie*) is delineated as an impure land, signifying a realm imbued with human desires, delusions, and afflictions. *Sahā* means the earth; it derives from a root meaning 'to bear' or 'to endure' (Kloetzli, 1989). These contaminations, born out of worldly attachments, cravings, and ignorance, contribute to a landscape riddled with suffering, both physical and mental, which is a fundamental acknowledgement in the Buddhist understanding of life's reality as embodied in the First Noble Truth – that of suffering (*dukkha*) (Anderson, 2016). On the other hand, the Pure Land, or *jing tu*, presents a stark contrast. Conceptualized as an ideal realm of existence or a state of enlightenment within *Mahāyāna* Buddhism, the Pure Land is believed to be a place (or more accurately, a state of mind) free from the afflictions and impurities that plague the *sahā* world (Sharf, 2002). It represents the consummation of spiritual purification, achieved through the cultivation of wisdom and merit, where beings are no longer shackled by *samsaric* cycles of birth and death, suffering and delusion. However, it is essential to highlight that these 'lands' or realms are not separate physical locations but different states of consciousness or modes of existence within the Buddhist framework. In the Lotus Sutra, or *Saddharma-puṇḍarīka*, the *sahā* world, despite its characteristic turmoil and distress, is paradoxically identified as a pure land, the Eternally Tranquil Light Land (Watson, 1993). In the sixteenth chapter, 'Life Span of the *Tathagata*', *Shakyamuni* Buddha proclaimed, "Continually, I have resided in this *sahā* world, disseminating the Dharma, educating, and transforming beings", signifying that the Buddha land, the realm of enlightened existence, indeed coexists within the *sahā* world.

The concept of the *sahā* world aligns with the first Noble Truth of Buddhism, *dukkha*, recognizing the inherent suffering in life. *Sahā* is also characterized as an impure land, a realm contaminated by earthly desires and illusions, standing in contrast to a pure land. Despite this, the sutra's assertion that the *sahā* world is simultaneously a pure land signifies the profound intertwinement of the *sahā* world with the pure land. This entanglement transcends binary distinctions between purity and impurity, suggesting the possibility of realizing enlightenment amid the throes of suffering and delusion inherent in the *sahā* world.

From a quantum perspective, this can parallel the idea that our observable reality, with all its chaos and unpredictability, is not separate from the deeper, more fundamental level of reality. With its wave-particle duality, uncertainty, and non-locality, the quantum world underlies and manifests as our everyday reality. From the Buddhist perspective, the *sahā* world, filled with earthly desires and suffering, is the experiential reality arising from the five *skandhas* or aggregates—form (*rūpa*), sensation (*vedanā*), perception (*saṃjñā*), mental formations (*saṃskāra*), and consciousness (*vijñāna*). This realm, the form realm (*she jie*), while ostensibly contrasting the pure land in its manifest suffering, is intrinsically originating from the Dharma realm (*fa jie*). The Lotus Sutra proposes that the *sahā* world is a pure land, illustrating the inherent unity of the seemingly disparate realities (Watson, 1993). Buddhism posits that the form realm, marked by suffering, and the *Dharma* realm, embodying ultimate truth, are not separate or opposing entities. Instead, they coexist and interpenetrate, analogous to the wave-particle duality in quantum physics. According to wave-particle duality, fundamental entities such as light and matter exhibit particle-like and wave-like properties (Chang, 2021). For instance, light can manifest as discrete packets of energy (particles or photons) and continuous electromagnetic waves

(Rashkovskiy, 2016). This dual behaviour does not imply that light is either a particle or a wave but possesses both properties.

Applying this analogy, the *sahā* world and the pure land, or the form and *Dharma* realms, can be viewed as two manifestations of the same ultimate reality, much like quantum entities' wave and particle aspects. This is not a case of one reality masking another or transforming into another, but rather, both realities exist simultaneously and interpenetrate each other, revealing the non-dual nature of existence. Nagatomo (2000) advised that to see the non-contradictory nature, “one must read it by effecting a perspectival shift to a non-dualistic, non-egological stance”.

In essence, the inherent duality observed in both Buddhism and quantum physics signifies that what is perceivable as distinct or opposing entities is merely different manifestations of the same underlying reality. These parallel forms of duality prompt an introspective exploration of reality beyond its ostensible manifestations. They suggest that underlying the perceptible universe, a more profound layer of interconnectedness, unity, and non-duality exists. Consequently, such understanding disrupts conventional dichotomous thinking, fostering a shift towards acknowledging the integral and inseparable relationships that constitute the fabric of reality.

Perception of Reality (*saṃjñā*), Mental formations (*saṃskāra*), and Consciousness (*vijñāna*)

Buddhist philosophy posits the existence of multiple realms of reality, each encompassing a unique aspect of existence and perceptible through different facets of cognition. Central to these realms is the *Dharma* realm (*fa jie*), which embodies the ultimate truth of reality. This realm is not readily accessible to ordinary perception but is perceived through what is referred to as the ‘Buddha eyes’[5] (, *fo yan*), a metaphorical term for the enlightened state of cognition. The *Dharma* realm symbolises the metaphysical reality beyond the physically manifested world, much like the quantum realm in quantum physics. It represents the realm of ultimate reality beyond conventional concepts of time, space, and causality. It is a realm where all phenomena are interconnected and interdependent, reflecting the principle of dependent origination (*pratītya-samutpāda*).

The twelvefold chain of dependent origination, also known as the twelve *nidānas,* provides a detailed exemplification of the broader principle of dependent origination. This sequence highlights the causal interconnections between various phenomena. It clarifies that the presence of certain conditions catalyses the emergence of consequent conditions, which subsequently engender additional conditions, thus illustrating the cyclical nature of existence within *Samsara*, the perpetual cycle of birth, death, and rebirth, an ongoing process of reincarnation characterized by suffering (*dukkha*) and driven by desire, aversion, and ignorance. The twelve *nidānas* can be comprehended from multiple perspectives, depending upon the depth and scope of the analysis:

- From one perspective, they can be interpreted as causally interconnected stages in the ceaseless process of *karma*'s moment-to-moment creation and fruition. Each thought, word, or action—driven by intention—generates *karma*, which propels the continuity of consciousness and shapes subsequent experiences, embodying the dynamic, self-perpetuating cycle of cause and effect.
- From another perspective, the twelve *nidānas* can be viewed as causally linked stages in the cycle of rebirth within the

context of *Samsara*, the process of birth, death, and rebirth. The twelve *nidānas* trace the cycle from ignorance and volitional formations—leading to consciousness and subsequent phases of psycho-physical existence—to old age, death, and rebirth. In this context, the twelve *nidānas* depict the process through which beings are ensnared in the cycle of *Samsara*, underscoring the Buddhist insight into the origins of suffering and the path to its cessation.

At their core, the twelve *nidānas* are an intricate elucidation of the principle of dependent origination. They offer an in-depth understanding of the complex principle of conditionality, depicting the multifaceted web of causal relationships and dependencies that shape human experiences. These interlocking causes and conditions, as detailed in the twelve *nidānas*, fuel the perpetuation of the cycle of *saṃsāra* - the ceaseless cycle of birth, death, and rebirth, underscored by the inherent suffering in conditioned existence (Jones, 2009).

The *nidānas* start with ignorance (1. *avidyā*), which seeds the subsequent chain of causation leading to old age, death, and rebirth. Through ignorance, one engages in actions or *karma* (2. *samkhāra*), which lays the foundation for consciousness (3. *vijñāna*). This consciousness then conditions name-and-form (4. *nāmarūpa*), which, in turn, conditions the six sense bases (5. *ṣaḍāyatana*), contact (6. *sparśa*), feeling (7. *vedanā*), craving (8. *tṛṣṇā*), clinging (9. *upādāna*), becoming (10. *bhava*), birth (11. *jāti*), and finally old age and death (12. *jarāmaraṇa*). However, the twelve *nidānas* do not only depict the mechanisms through which *saṃsāra* persists (Jones, 2009). They also hint at a pathway to liberation or *nirvāna*. By comprehending and interrupting this chain at certain links - particularly ignorance, craving, and clinging - the cycle of *saṃsāra* can be broken. The existence of a particular phenomenon gives rise to another; with the manifestation (*uppada*) of the initial phenomenon, the subsequent one emerges. Without the initial phenomenon, the subsequent one does not materialize. Concurrently, the discontinuation (*nirodha*), as a condition of the initial phenomenon, instigates the cessation of the subsequent one (Macy, 1991). This disruption is the basis of the Buddhist path to enlightenment, where one eradicates ignorance with wisdom, counters craving and clinging with detachment, and ceases the relentless cycle of birth, death, and rebirth.

In the context of the principle of conditionality, the *nidānas* serve as a profound and practical demonstration of this doctrine. The conditional relationships between the *nidānas* highlight the Buddhist view of reality as a process subject to causation, where every state is contingent upon its preceding conditions. Moreover, the temporal complexity embedded in these causal relationships, as Brahmavamso (2005) suggested, reflects the nuanced nature of causality in the Buddhist worldview. Thus, the twelve *nidānas* provide a comprehensive illustration of the principle of dependent origination, elucidating the interconnectedness and interdependence that pervades our experiences and cognition, fuels the cyclical nature of *saṃsāra,* and, most importantly, paves the way for liberation.

Consciousness: A Shared Domain of Inquiry

Within this context, the three facets of cognition—perception of reality (*saṃjñā*), mental formations (*saṃskāra*), and consciousness (*vijñāna*)—merit special attention.

Saṃjñā, a concept central to Buddhist psychology, broadly refers to the cognitive processes that mediate the recognition

and differentiation of phenomena. It is a pivotal component in the chain of dependent origination (*pratītya-samutpāda*), specifically nestled between sensation (*vedanā*) and mental formations (*saṃskāra*). In its functional role, *saṃjñā* navigates the vast stream of sensory and cognitive information, applying labels, categories, and constructs to the encountered phenomena. It extracts details from the multitude of incoming stimuli, interpreting them through the lens of past experiences and pre-established cognitive structures. *Saṃjñā* is the faculty that aids us in distinguishing one object from another and attributing meaning to those objects. It is responsible for identifying patterns, drawing connections, and deriving meaning from the otherwise chaotic and overwhelming flow of sensory inputs. However, this ability to discern and interpret also harbours the potential for misperception and misunderstanding. As constructed by *saṃjñā*, the perceived reality is not a passive reflection of the external world but an active construction heavily influenced by personal cognitive schemas, biases, and preconceptions. Thus, it is liable to misconstrue the true nature of reality, mistaking the transient, conditioned, and 'non-self' nature of phenomena for permanence, independence, and selfhood. In the enlightened mind, *saṃjñā* is transformed. Instead of perpetuating delusion, it can discern the three marks of existence (impermanence, suffering, and non-self) and comprehend all phenomena' profound interdependence and emptiness. This enlightened recognition, fueled by wisdom and clear comprehension, facilitates a deeper understanding of reality, moving beyond the surface appearance of phenomena and touching their ultimate truth. In summary, *saṃjñā* is a critical process in the human cognitive repertoire, crucial for navigating and making sense of the world. While it can lead to misunderstanding and suffering due to inherent cognitive biases, it also holds the potential, when refined and enlightened, to foster wisdom and insight into the true nature of reality.

The role of *saṃjñā* in Buddhist philosophy parallels the observer effect in quantum mechanics, both of which underscore the integral role of observation in shaping reality. Within quantum physics, the observer effect postulates that observation not only records but also alters the observed phenomena (Baclawski, 2018). This principle is evident in the wave-particle duality of quantum entities, where particles like photons or electrons exhibit particle or wave properties depending on the nature of the observation.

The wave-particle duality, a foundational principle of quantum mechanics, describes how every particle or quantum entity exhibits the properties of particles and waves. The classic illustration of this phenomenon is the double-slit experiment, where individual particles (such as photons or electrons) demonstrate wave-like interference patterns when fired towards a barrier with two slits. A particle, typically conceptualized as a discrete object with a definite location, suddenly behaves in a way that defies our usual understanding of reality when it exhibits wave-like behaviour. For instance, when a photon is not observed, it appears to pass through both slits simultaneously, interfering with itself and creating an interference pattern like a wave. However, when the photon is observed or measured, it behaves as a particle and passes through only one slit (Bouwmeester & Zeilinger, 2000). This apparent contradiction between wave and particle behaviour is considered illusionary because neither description fully encapsulates the true nature of quantum entities. Instead, these entities exist in a superposition of states until they are measured or observed. The act of measurement 'collapses' the superposition into a single state, which is what is observed.

Dharmakāya—the *nirmāṇakāya* (transformation body) and the *sambhogakāya* (manifested body)—are comparable to the seemingly separate particles in quantum physics. The wave function in quantum mechanics, when in a state of

superposition, presents an intriguing parallel to the notion of *nirmāṇakāya,* the transformation body arising from *Dharmakāya*. In a superposition state, a quantum system embodies a spectrum of potentialities, simultaneously existing in all possible states (Wang et al., 2022). It is only upon measurement or observation that the wave function collapses, and the system is found in one definite state, which is the *sambhogakāya* (manifested body). This vast array of potentialities, suspended in the unobserved quantum realm, could be likened to *Dharmakāya*, much like the quantum field. It represents the ultimate reality from which all phenomena arise in their emptiness (*Sūnyatā*). Both imply a state of undifferentiated possibilities that give rise to the multiplicity and diversity of phenomena in the observed or experienced world. The collapse of the quantum wave function into a particular state upon observation can be seen as a microcosmic enactment of the principle of dependent origination. Each observable state of a quantum system arises dependent on certain conditions (the specifics of the quantum system and the act of measurement itself), embodies a particular existence for a span, and then ceases to exist, either naturally or due to a new measurement.

The dynamism inherent in the progression from quantum superposition to its collapse appears to resonate with the Buddhist conceptualizations of *Dharmakāya*—the non-manifested, undifferentiated field of potentiality—and its transformation into the *nirmāṇakāya* (transformation body) and subsequently the *sambhogakāya* (manifested body). This progression can be compared to the manifestation of distinct particles within the framework of quantum physics. This underscores a profound metamorphosis: the shift from the latent potentiality residing in *Dharmakāya*, akin to the quantum void, through the transitional phase symbolized by *nirmāṇakāya*, embodying a transitional phase in a spectrum of possibilities, to the actualization represented by the *sambhogakāya*. This transformation is emblematic of the intricate dance between the unmanifested and the manifested, a process integral to both the quantum and experiential realities. This multifaceted transformation, from *Dharmakāya* to *nirmāṇakāya* to *sambhogakāya*, essentially represents the journey from potentiality to actuality. This echoes the evolution of a quantum system from a state of superposition to one of a distinct, observable state, reflecting a harmonious synergy between the underlying principles of quantum physics and Buddhist philosophy. Nonetheless, it is essential to note that these parallels, while conceptually intriguing, remain largely metaphorical and thematic, illuminating shared motifs of potentiality, transformation, and the interplay between the unmanifested and manifested realities rather than exact correspondences.

Within this transformative process, consciousness (*vijñāna*) and mental formations (*saṃskāra*) play crucial roles. *Saṃskāra* are cognitive or volitional actions born out of individual perceptions and responses. They, in turn, shape future perceptions and responses, thus creating individual realities. This shaping of reality mirrors how an observer's measurement shapes the reality of a quantum system, collapsing the quantum superposition to a distinct state. *Vijñāna*, representing awareness or cognition, is the enlightened state that enables an understanding of this interconnected and interdependent transformation process like Nhat Hanh's (1996) philosophical construct of ‘Engaged Buddhism’. It is through this enlightened *vijñāna*—akin to observing through the ‘Buddha eyes’—that one can comprehend the interconnectedness and interdependence of the *Dharma* realm. This enlightened state of *vijñāna* allows for comprehending *Dharmakāya*, the ultimate emptiness where all phenomena reside as potentialities. This emptiness reflects the fundamental Buddhist understanding that material entities are devoid of inherent, independent existence. They exist instead as dependently originated phenomena (Nakazawa, 2023), echoing the quantum understanding of particles

as manifestations of underlying fields of potentiality.

The wave-particle duality in quantum physics can be viewed as illustrative of this concept of emptiness. A particle is not an independent entity but can also be seen as a wave—a spread-out field of potentialities (Jansen, 2015). The 'particle' only comes into being when a measurement is made; a conscious observation occurs. This ties back to the role of consciousness (*vijñāna*) in shaping reality, both in the quantum sense and in the formation of individual realities through *saṃskāra*. Thus, the transformation from *Dharmakāya* to *nirmāṇakāya* to *sambhogakāya*, viewed through the lens of enlightened *vijñāna* and shaped by *saṃskāra*, presents a profound parallel to the observer effect in quantum physics, illustrating a profound harmony between these Eastern philosophical concepts and contemporary physics. Both demonstrate that the essence of existence lies not in static, independent entities but in dynamic, interconnected processes shaped by observation and consciousness.

In conclusion, these three facets of cognition—*saṃjñā*, *saṃskāra*, and *vijñāna*—play crucial roles in perceiving and understanding the *Dharma* realm. In contrast to the manifest, suffering-filled *sahā* world, or form realm, which is readily perceivable, the *Dharma* realm remains hidden from ordinary perception. This dichotomy parallels the distinction in quantum physics between the observable classical reality and the unobservable quantum reality. The former is accessible through ordinary sensory perception (through the five *skandhas*) and deterministic laws, while the latter, much like the *Dharma* realm, can only be accessed through a different mode of cognition or consciousness.

It is through the attainment of enlightenment, symbolised by the 'Buddha eyes,' that one can perceive the *Dharma* realm. This enlightened state of cognition allows one to transcend the dichotomies of conventional perception and realise the interconnectedness and interdependence of all phenomena - the ultimate truth of the *Dharma* realm. By illuminating the interpenetration (or quantum entanglement) of the form realm and the *Dharma* realm, Buddhism suggests a profound shift in our understanding of reality - from the conventional perception of separate, independent entities to the enlightened recognition of interconnectedness and interdependence. This transformation in cognition parallels the shift in quantum physics from classical determinism to quantum interconnectedness and non-locality.

Classical reality is our everyday, observable reality, characterized by determinism and locality, analogous to the *sahā* world. Quantum reality, on the other hand, is the underlying realm of potentialities, marked by inherent uncertainty, non-locality, and superposition, paralleling the *Dharma* realm. Rather than being separate from quantum reality, classical reality emerges from it, much as the form realm exists within the *Dharma* realm. The quantum phenomena underlie classical events, and the principles of the *Dharma* realm permeate and give rise to the experiences in the form realm. Thus, the *sahā* world, with all its suffering and imperfection, is a manifestation of the more profound *Dharma realm*.

Similarly, the chaotic and unpredictable classical world is a manifestation of the underlying quantum world. In this way, the co-existence of the *sahā* world within the *Dharma* realm in Buddhism finds an intriguing parallel in the co-existence of classical reality within the quantum realm in quantum physics. Despite their apparent differences, both pairs of realms are inseparably interconnected, with the deeper realm (the *Dharma* or quantum realm) shaping and giving rise to the manifest realm (the form realm or classical reality).

Conclusion

Though quantum science and Buddhism operate on divergent investigative methods and base themselves on disparate ontologies and epistemologies, both offer unique insights that converge towards a shared understanding of interconnectedness and unity.

Quantum science, fundamentally empirical, is characterized by its dedication to observational and experimental methodologies. It is rooted in the ontological belief that the universe's fundamental reality comprises quantum entities such as particles and fields. The epistemology of quantum science emphasizes empirical evidence, mathematical formalism, and logical consistency to generate predictive and explanatory theories about the natural world. Quantum mechanics, despite its seemingly counter-intuitive principles, has proven to be one of the most successful scientific theories in its ability to predict and explain physical phenomena.

On the other hand, Buddhism is a spiritual tradition centred around experiential insight and the cultivation of wisdom and compassion. Its ontological perspective posits a fundamentally interdependent reality devoid of independent, inherent existence, a concept encapsulated by the doctrine of *pratītya-samutpāda* or dependent origination. The epistemology of Buddhism emphasizes personal introspection, meditation, and direct experiential insight into the nature of existence. The focus is on the transformative understanding of suffering, impermanence, and the ‘non-self’ nature of reality, the dissolution of separateness aiming towards the liberation of sentient beings from the cycles of birth and death.

Despite these differences, quantum physics and Buddhism intersect in exploring reality's fundamental nature. Quantum phenomena such as entanglement, non-locality, and superposition resonate deeply with the Buddhist principles of interconnectedness, interdependence, and the non-dual nature of reality. In their ways, the scientific study of quantum mechanics and the spiritual investigation of Buddhism illuminate the underlying unity of existence, inviting us to reconsider conventional notions of separateness and duality. The intersectionality between Buddhism and quantum physics provides a platform for a more unified understanding of reality. Further exploration into these convergences may enable the integration of scientific and spiritual insights, fostering a more profound comprehension of our place within the universe.

However, it is essential to note that these comparisons should not be viewed as suggesting that Buddhism ‘predicted’ quantum physics or vice versa. Instead, these resonances highlight the capacity for both scientific and spiritual approaches to converge towards a deeper understanding of reality, each from their unique ontological and epistemological perspectives. This dialogue between science and spirituality offers the potential for a more holistic and integrative worldview, fostering a profound understanding of our place within the cosmos.

Statements and Declarations

Conflict of Interest Statement

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For a more comprehensive overview of his work and contributions, please refer to https://peopleworldwide.com/davidleong.html

Footnotes

[1] The *Trikāya* doctrine (*san shen jiaoyi*) is a key concept in Mahayana Buddhism that expresses the multifaceted nature of a Buddha. The term '*trikāya*' combines two Sanskrit words: 'tri,' meaning 'three,' and *'kāya'*, meaning ‘body’. The

doctrine of the three bodies proposes that a Buddha manifests in three different forms, or bodies (*kāya*), namely, the *Dharmakāya* (*fa she*n), the Sambhogakāya (*bao shen*), and the Nirmanakāya (*hua shen*).

[2] In Buddhism, anātman or anattā means non-self.

[3] In Buddhism, the term '*Samsara*' refers to the perpetual cycle of birth, death, and rebirth, an ongoing process of reincarnation characterized by suffering (*dukkha*) and driven by desire, aversion, and ignorance. In this sense, Samsara encapsulates the transient and cyclical nature of existence, wherein beings are trapped in an endless loop of life, death, and rebirth, experiencing continual suffering.

[4] '*Nirvana*', on the other hand, signifies the ultimate spiritual goal in Buddhism, representing the cessation of this cycle of rebirth and the end of suffering. It is perceived as a state of perfect peace, liberation, and enlightenment, free from desire, aversion, and ignorance—the driving forces of Samsara. The attainment of *Nirvana* marks the extinguishing of the individual's attachment to the self and the realization of the inherent emptiness or '*śūnyatā*' of all phenomena. It can be likened to the restoration of equilibrium, an escape from the tumultuous fluctuations of *Samsara*.

[5] The 'Buddha Eyes' represents the all-seeing eyes of theBuddha. There are 'five eyes' described in Buddhist texts (*pañcacakṣu*). They are: the eye of flesh (*māṃsacakṣu*), which refers to the humanly eye faculty having the ability to see all forms presented in the *sahā* world; the divine eye (*divyacakṣu*) has the ability to see the births and deaths of all beings through the practice of meditation in past lives; the wisdom eye (*prajñācakṣu*), sees the truth of *dharmata*; the Dharma eye (*dharmacakṣu*), through the knowledge and realisations of the*Dharma* scripture has clear perception of all phenomena; the Buddha eye (*buddhacakṣu*), through the primordial wisdom sees all aspects of everything that can be known and there is all-knowing.

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