

The Axiology of Consciousness in Mocombeian Consciousness Field Theory

Paul C. Mocombe

West Virginia State University, West Virginia, USA

The Mocombeian Foundation, Inc., Florida, USA

This work explores the axiology of consciousness in Mocombe's consciousness field in the material world. The paper critically assesses Mocombe's consciousness field theory (CFT) within the larger body of contemporary ontological debates regarding the nature, origin, and constitution of consciousness in the universe. The work goes on to highlight the manifestation of Mocombe's consciousness field in the material resource framework that is the earth, and the nature and origins of ethics and values.

Keywords: structuration theory, phenomenological structuralism, structure/agency, mythopraxis, quantum mechanics, social class language game, Haitian epistemology, Haitian/Vilokan idealism, consciousness field theory

Introduction

The literature on the ontological nature and origins of consciousness suggests a reliance on material and post-material theorizations; those perspectives that view consciousness as emerging primarily as an emergent property of complex brain neuronal computation (A), (B) as spiritual quality of the universe, distinct from purely physical actions, and (C) as composed of discrete "proto-conscious" events acting in accordance with physical laws not yet fully understood. The former, (A), is a materialist perspective, which emphasizes the laws of classical physics to posit consciousness as the by-product of the neural correlates of the physical substrates of the material brain (Chalmers, 1996). The latter two (B and C) are post-materialist approaches to understanding consciousness, which emphasize the emergence of consciousness as an external phenomenon that exists outside of the physical substrates of the brain either in the form of panpsychism or cosmopsychism/panspiritism. Both post-materialist perspectives use the concepts and theories of quantum mechanics (i.e., superposition, entanglement, multiverse, etc.) to either complete the materialism of the (A) camp, i.e., the (C) camp, or to ground 14 paranormal and parapsychological (near-death experiences, telepathy, telekinesis, out-of-body experiences, physic mediumship, etc.) empirical data as proof for the external nature of consciousness, i.e., the (B) camp, which is received and facilitated by the brain (Chalmers, 1996; van Lommel, 2010; Mocombe, 2021a; 2021b).

All three positions are problematic in that they are unable to resolve the quantum decoherence and hard and binding problems of consciousness, however (Chalmers, 1996). In the materialist camp (A), they are unable to account for how the neural correlates of the physical substrates of the material brain bind to give us the phenomenal subjective experience of consciousness, i.e., the binding problem (Chalmers, 1996). Just the same,

in the post-materialist camps (B and C), they are unable to account for the quantum decoherence problematic; that is, the latter positions are unable to account for either how consciousness in everything, panpsychism, emerges/combines, or decombines from a god or the cosmos, panspiritism and cosmopsychism, respectively, in the material brain to give rise to consciousness (van Lommel, 2010). Hence, what remains missing in the academic literature is a detailed examination of how consciousness emerges in the world from its ontological basis to its social psychological (phenomenal subjective) manifestation in human social interactions, social structure, while resolving the problematics of the two approaches. Mocombe's consciousness field theory (CFT), which serves as a materialist theoretical framework for his overall theory of phenomenological structuralism, attempts to do just that. In this work, I explore the axiology of consciousness in Mocombe's consciousness field in the material world. The paper critically assesses Mocombe's consciousness field theory within the larger body of contemporary ontological debates regarding the nature, origin, and constitution of consciousness in the universe. The work goes on to highlight the manifestation of Mocombe's consciousness field in the material resource framework that is the earth, and the origins and nature of beauty, values, and purposeful actions within the theory.

Mocombe's Consciousness Field Theory

Mocombe's (2019a; 2019b; 2021a; 2021b) consciousness field theory, which is part of his larger theory of phenomenological structuralism, resolves the quantum decoherence and hard and binding problematics of all three camps by positing the ontological origins and nature of individual consciousness to be an emergent fifth force of nature that is cycled and recycled throughout the multiverse as a resonating channel or station of, and on, a frequency wavelength via its embodied elementary particle, psychion, which has spin, mass, charge, and phenomenal properties, i.e., qualia (see Figures 1, 2, 3, 4, 5, 6, 7; and Table 1).

Mocombe's (2016; 2019a; 2021a; 2021b) theory of phenomenological structuralism consciousness is an emergent (fifth) force of the universe, composed of an elementary particle, psychion, with mass, charge, spin (a boson with spin $S = 1$), and phenomenal properties, qualia, that is received by the brain, from, or in, multiple, entangled, and superimposed local consciousness fields, Schumann waves, and integrated by its (the brain's) electromagnetic field as psychon to constitute mind, practical consciousness, and the self, as resonating channels or stations of, or on, frequency wavelengths, in material worlds of the multiverse (see Figure 5 and Table 1 for the elementary value of quantum energy for brain and Schumann waves, and their mapping, respectively; and the frequency of the psychonic wave) (Kozłowska & Kozłowski, 2016, p. 795). The phenomenal properties, qualia, of the psychions of a consciousness field, following matter disaggregation, disconnection as psychon from the Schumann waves, throughout the multiverse, either collapse, as a resonating channel or station of a frequency wavelength, upon other superimposed and entangled versions (wavelengths) of themselves throughout the multiverse, or are integrated, along with the other four forces (gravity, electromagnetism, and the weak and strong nuclear forces), in the absolute vacuum of a superverse to create (via quantum fluctuation, tunneling, and inflation) future beings with consciousness (the phenomenal properties of lived-experience in the form of qualia, informational content of subatomic particles, i.e., psychions) (see Figure 7). As such, the psychions of the consciousness field, as psychons, they are local and connected to (entangled) multiple superimposed worlds with, and through, Schumann waves (see Figure 3); once assimilated in the absolute vacuum, they are psychions, the elementary particle of consciousness, an interconnected, endless, and nonlocal fifth force of nature, with qualia or

phenomenal properties, which, initially, emerges following matter aggregation and disaggregation, disconnection from Schumann waves, in the multiverse. It (the psychions of the consciousness field) is an endless assimilation of all past, present, and future information (practical activities and memories) of beings of the multiverse cycled and recycled via the absolute vacuum (empty nonspatial and nontemporal phenomenon in which elementary particles, quarks, and constituents of matter and forces of nature have become one), which fluctuates as a probability wave function, to give rise to entangled and superimposed worlds, each with their own Schumann waves and consciousness fields, which produce future beings with consciousness, an individualized resonating channel or station, psychion, on the frequency wavelength of the Schumann wave and the absolute vacuum (Mocombe, 2021a; 2021b).

As highlighted in Figure 7, the absolute vacuum is a fifth dimensional superverse or cosmic soup where all the elementary particles are one, and fluctuate, as a probability wavefunction, tunnel, and inflate to produce four dimensional spacetimes (multiverses) where consciousness emerges as individuated psychonic fields or resonating channels/stations produced by the firing of neurons in the brain where the elementary particle, psychion, of consciousness are embodied and tied to the frequency wavelength of Schumann waves of entangled and superimposed worlds, which are tied to the oscillating frequency wavelength of the absolute vacuum, which transmits the signal of phenomenal subjective consciousness to the psychions. Each individual consciousness has their own resonating psychionic channel or station (which is measurable on electroencephalography (EEG) machines) on the frequency wavelength of the earth's Schumann wave, which is tied to the frequency wavelength of the absolute vacuum, which transmits phenomenal consciousness to the psychionic channel (see Figure 4). Figure 6, the Garyian equation, the first evidence for the consciousness field, represents the equation of, and for, individual consciousness: Φ is the symbol for consciousness; 10^{-15} eV₍₄₎, adopted from Kozłowska and Kozłowski, the formula represents the elementary value of quantum energy for brain and Schumann waves (see Figure 5); $f_{(0)}$ represents the resonating psychionic channel or station of individual phenomenal consciousness received from the absolute vacuum. The absolute vacuum houses and incorporates, as phenomenal property, qualia, all of the past, present, and future, lived experiences of all individual consciousnesses as a fifth force of nature and resonating frequency wavelength, which is transmitted to, Schumann waves of entangled and superimposed multiworlds, and received and facilitated by, in human beings, the material brain, brainstem, and central nervous system. Table 1 highlights the Hz level range of the psychonic wave, the second evidence for the existence of the consciousness field, in relation to other human brain waves. Finally, the third evidence for the existence of the consciousness field is parapsychological proofs of near-death experiences and reincarnation highlighted by post-materialist researchers. For Mocombe, one of, or all, three things occur to the phenomenal properties, qualia, of the psychions of a consciousness field, following matter disaggregation (death) throughout the multiverse: (1) They are recycled/reincarnated to give rise to future beings with the same consciousness; (2) collapse upon other superimposed and entangled versions (resonances) of themselves throughout the multiverse; (3) and/or are integrated, along with the subatomic particles of the other four forces (gravity, electromagnetism, and the weak and strong nuclear forces), in the absolute vacuum of a superverse to create (via quantum fluctuation and tunneling) future beings with consciousness. In terms of the latter, the psychions of the consciousness field, once assimilated in the absolute vacuum, are an interconnected, endless, and nonlocal fifth force of nature, which, initially, emerges following matter aggregation and disaggregation in the multiverse. It is an endless assimilation of all past, present, and future information (practical activities and memories) of beings of the multiverse recycled

via the absolute vacuum (empty space in which elementary particles, quarks, and constituents of matter and forces of nature have become one), which fluctuates as a probability wave function, to give rise to entangled and superimposed worlds, each with their own consciousness fields, which produce future things and beings with consciousness.

Theory and Method

On this physics, Mocombe builds his systemic philosophy, sociology, and psychology called phenomenological structuralism by tying the emergence of the field of consciousness, the consciousness field, composed of psychions, to human biological, sociological, and psychological development and experiences, which constitute the phenomenal properties (qualia) of the psychions, which form the tripartite structure (ego, personal, and collective unconscious) of the emerging human mind manifested as their practical activities. Within this Mocombeian ontological understanding of consciousness, ethics, goodness, beauty, and purpose, the overall study of axiology is both *a priori* and *a posteriori*.

Stemming from phenomenological philosophy, axiology is one of four branches of philosophy that deals with the study of ethics and aesthetics, what is beautiful and good and how we determine what is good, beautiful, and purposeful, or values in general. In essence, axiology juxtaposes theories of the good, beautiful, and purposeful, which are *a priori*, formal, universal, and objective, such as Kantian deontological ethics and aesthetics; and those that prescribe *a posteriori*, informal, particular, and subjective approach to values such as utilitarianism. Scheler and many other phenomenologists, building on Kant, attempt to synthesize the two positions through an emotive theory of values that grounds the good, beautiful, and purposeful based on the synthetic *a priori* universality of consciousness and subjective, *a posteriori*, conscious experiences of material reality. Mocombe's consciousness field theory builds on the latter.

For Mocombe, axiology is *a priori*, formal, universal, and objective in that the contents of what is beautiful and ethical are universally encoded as qualia of psychion in the absolute vacuum, which constitutes a permanent aspect of the multiverse, like Plato's form, and recycled throughout the multiverse, by the absolute vacuum, for eternity. The latter, *a posteriori*, however, stems from the initial subjective experiences of material resource framework by species, which have both ontogenetic and sociogenetic ethics and values associated with two forms of system and social integration, which are permanently encoded in the materiality of the absolute vacuum. Hence, on the one hand, consciousness has the ontogenetic values of subjective experiences of individual consciousnesses throughout their life cycles in the multiverse; these values emerge emotively, *a posteriori*, from the experience of the material resource framework, but become *a priori* in the absolute vacuum. On the other hand, the species has sociogenetic values, which they internalize overtime as a result of those who control the resources of the material resource framework and constitute purposeful actions for maintaining the mode of production by which they constitute their existence, which are of two types, the Protestant Ethic and the spirit of capitalism and the Vodou Ethic and the spirit of communism (Mocombe, 2019a, 2019b).

Psychologically and sociologically speaking, in other words, the field of consciousness or consciousness field is the basis for psychological, sociological, and axiological development of the human species. The field is an emergent fifth force of nature composed of the psychion, which is the energy substance that constitutes and transmits, as a wave, the ego essence (subjective experiences of material realities) of an individual person to the neurons of brains and central and peripheral nervous systems (see Figures 3 and 4). The ego essence, psychion, is composed of all of the personal and collective sense experiences (personal and collective unconscious of the

ego), the phenomenal properties or qualia, of the individual person, which becomes embodied in the neurons in the brain as a result of matter aggregation across multiple simultaneous existing past/present/future worlds/universes. The structure of the mind, in the end, is composed of the ego and the personal and collective unconscious, which becomes embodied, as the qualia of psychions, via the neurons of the aggregated brain and its EM field across replicated simultaneous past/present/future worlds of the multiverse. The EM field's

source is the electrical dipoles within the neuronal membranes caused by the motion of ions in and out of those membranes during action potentials and synaptic potentials. The periodic discharge of neurons—firing or action potentials—generates EMF waves that propagate out of the neuron and into the surrounding inter-neuronal spaces where they overlap and combine to generate the brain's global EM field that is routinely measured by brain scanning techniques such as electroencephalography (EEG) and magnetoencephalography (MEG). (McFadden, 2020, p. 5)

The EM field integrates and holds together, like a glue, the ego essence, individuated consciousness of being, their psychion, which emerges out of its own (emergent) force, the consciousness field, from the absolute vacuum. The ego, in other words, is the (material) essence, psychion, of the individual being. It is a composite of their past/present/future experiences, which emerge as the personal and collective unconscious, i.e., qualia, of the ego. The latter two as such are the past/present/future biological, psychological, sociological, and axiological sense experiences of the ego over all of its lived-experiences across the multiverse. Following matter disaggregation, the psychion, either collapses onto other versions (wave patterns) of itself still in existence in the multiverse or returns to the consciousness field of the absolute vacuum. The individual, doing embodiment, only becomes aware of itself as an ego with personal and collective tastes that individuate them from other objects and persons when they encounter conflict, or not, throughout their lifespan, in becoming and being-in-worlds (sociologically) constituted and reified via five (sociological) systems, i.e., mode of production, language, ideology, ideological apparatuses, and communicative discourse, in relation to three other structuring structures, i.e., the impulse of their psychion, the (biological) drives of the body and brain, and actions associated with structural actions tied to their ability to defer meaning in ego-centered communicative discourse, enframed by two forms of organizing the material resource framework that is the earth, i.e., the Vodou Ethic and the spirit of communism and the Protestant Ethic and the spirit of capitalism.

Discussion and Conclusion

Hence ethics and aesthetics in Mocombe's consciousness field theory (CFT) are twofold, sociogenetics and ontogenetics, which are both a priori and a posteriori. In terms of the latter, goodness and purposeful actions emerged from the human being's initial emotive experience of a material resource framework, which becomes sociologized based on one of two forms of system and social integration, i.e., the Vodou Ethic and the spirit of communism and the Protestant Ethic and the spirit of capitalism, and the collective experience of those who own the means and modes of organizing the material resource framework. The qualia of both are encoded as a priori content of the absolute vacuum, which goes on to create future worlds with consciousness based on the content of these two forms of system and social integration and who comes to control the resources of the material resource framework. The West, in their attempt to universalize knowledge, seek, and have sought, to synthesize the two positions via Hegelian and Marxian dialectics.

In other words, according to Mocombe, early on in the multiverse, before the aggregation of matter into physical worlds, there was no consciousness; consciousness emerged as a result of aggregated matter, with sense perceiving apparatuses, affectively, perceptively, and cognitively, the dimensions of consciousness, experiencing

aggregated material realities with Schumann waves where they, initially, sought pleasure and unpleasure between themselves and the material reality through three (ready-to-hand, unready-to-hand, and present-at-hand) phenomenal stances of the (human) brain, i.e., what Heidegger calls the analytics of Dasein, which would give rise to the contents (qualia) of consciousness. Ready-to-hand refers to the unconscious experience of material reality as it appears to the human actor; unready-to-hand refers to the contemplative problem-solving aspect of the human actor when experiencing material reality; and the present-at-hand structural stance refers to self-awareness of the human actor.

Local (human) consciousness emerged from the electrical firing in the aggregated (material) brain (which gives rise to the initial states and structures of consciousness), and the rest of the central and peripheral nervous systems, connected to sense perceiving apparatuses, which produced a psychonic wave, which became tied to the Schumann wave of aggregated material reality created by the absolute vacuum, the nonlocal probability wavefunction out of which the multiverse emerged, where ultimately consciousness comes to reside nonlocally. Upon death or the disaggregation of material reality, the elementary particles of the psychonic waves of aggregated matter become a psychion, with the qualia (contents of consciousness), phenomenal properties, from their (affective, perceptive, and cognitive) experiences as subatomic particle, that either collapses (as a resonating channel of a frequency wavelength) in other Schumann waves of the multiverse where the same matter exists or collapses into the absolute vacuum, if all of the same forms of the aggregated matter have been disaggregated, of the multiverse with the other elementary particles of the original four forces of nature.

At the nonlocal level consciousness is a wavefunction, an elementary particle of the absolute vacuum or zero-point field whose subatomic (elementary) particle, psychion, has phenomenal properties or qualia, informational content of recycled consciousness, mass, charge, and spin, which produces a consciousness field tied to the nonlocality of the absolute vacuum. The field, and its subatomic particles, psychions, are locally connected, as psychon, to material realities via their Schumann waves, material realities produced by, and connected to, the absolute vacuum, as resonating frequency wavelength channels/stations. They, psychions, the elementary particle of consciousness with phenomenal properties, mass, charge, and spin, are embodied as, psychon, a resonating channel/station on the wavelength frequency of the absolute vacuum and entangled Schumann waves via the brain, brainstem (ARAS system), and central and peripheral nervous systems, which serves as a receiver and facilitator (antenna) of consciousness in material realities with Schumann waves. The psychion, psychon once integrated or embodied by the human brain and brainstem, is neurochemically integrated in the brain via the dopaminergic ventral tegmental area (VTA) in conjunction with the functional connectivity from the brainstem areas regulating arousal to the cortical networks supporting internal and external awareness. “The energetic-metabolic processes focusing on [adenosine triphosphate] ATP, glucose, and γ -aminobutyrate/glutamate are [also] indispensable for functional connectivity (FC) of normal brain networks that renders consciousness possible” (Chen & Zhang, 2021, p. 1). Once internal and external awareness is determined subatomically (embodiment as a resonating channel/station on the frequency wavelength of the absolute vacuum and entangled Schumann waves with qualia, i.e., phenomenal properties, mass, charge, and spin), structurally (via the brainstem and the central nervous system), and neurochemically (dopamine, ATP, etc.), the firing of neurons, from the energy (current) of the subatomic particle, psychion/psychon, produces a psychonic wave that (affectively, perceptively, and cognitively) ties, via its charge and resonance, the human being to the electromagnetic wave, Schumann wave, of the earth or material reality thereby localizing and individuating consciousness, which is now local and nonlocal and dependent upon the brainstem, brain, and central and

peripheral nervous systems, and their physical substrates, acting on consciousness, to receive and facilitate an initial affective phenomenal conscious experience in material reality where the individual seeks a balance and harmony (homeostasis) between their bodies and material reality via pleasure and unpleasure (Local, given embodiment and connection to the Schumann wave of material reality, which is nonlocally connected to the consciousness field, which is produced by the absolute vacuum). The qualia of this initial affect, emerge and grow, cognitively, emotionally, etc., and become individuated consciousnesses, which are, each individuated consciousness, resonating (distinct) channels/stations on the frequency wavelength of entangled and superimposed Schumann waves, material realities, which are produced by and connected to the absolute vacuum via a fifth force of nature, i.e., the consciousness field and its subatomic (elementary) particle, psychion.

Hence, consciousness, early on (at the very beginning of the evolution of aggregate matter), emerges from the initial neuronal activities of the brain, brainstem, and central and peripheral nervous systems experiencing local material reality, which produces its first phenomenal essence, i.e., qualia, which is the effect of pleasure and unpleasure (Solms, 2019; Mocombe, 2021a; 2021b). This initial essence, which produces other emerging essences (emergent essence), phenomenal experiences, qualia, via the brain, body, and the central and peripheral nervous systems, held together by the brain's electromagnetic field, once constituted from experience of material realities with Schumann waves, is absorbed and recycled throughout a global consciousness field (cosmopsychism) created by the absolute vacuum, zero-point field, following matter disaggregation, of the multiverse to continuously produce beings with (local) consciousness, psychion/psychon, that have phenomenal properties or qualia, which becomes embodied in the physical substrates of the brain to facilitate consciousness, which can be impaired if the mechanical brain is damaged or under the influences of drugs, alcohol, etc. Hence neural correlates of the brain come to facilitate and act on consciousness, which following matter aggregation is a fifth force, psychion, of nature with phenomenal properties, mass, charge, and spin, resonating as an individuated channel or station of the material brain from the absolute vacuum or zero-point field in entangled and superimposed Schumann waves of material realities.

In this Mocombeian view, consciousness is not fundamental as argued in the post-materialist camp; instead, it is an emergent (material) property, emergent panpsychism (once emerged from first aggregated simple beings firing neurons consciousness becomes an emergent essence of the multiverse) that morphs into the cosmopsychism, of the multiverse, as argued in the materialist camp, which is constituted and expressed, in the human sphere through subatomic particle aggregation, mode of production, language, ideology, ideological apparatuses, communicative discourse, and praxis.

Simple and complex beings', resonating as different channels/stations or wavelengths of the same frequency and phase, Schumann waves of entangled and superimposed material realities throughout the multiverse, experience (sensation) of aggregated matter created by the initial four forces of nature from the absolute vacuum give rise to their initial (affective) qualia whose constitutive subatomic particle, psychion, is the elementary particle (with phenomenal properties, mass, charge, and spin) that constitutes emerging consciousness fields as resonating psychonic waves. Consciousness, from this perspective, is an emergent fifth force of nature with an elementary particle, psychion, which produces a consciousness field, from the absolute vacuum, tied to the electromagnetic waves, Schumann waves, of superimposed and entangled physical worlds via the brain's psychonic waves produced from the firing of neurons. The firing of neurons in the structures (ARAS system) of the brain, and the central nervous system, produces the psychonic electromagnetic wave, composed of the psychion with qualia, sense experiences of aggregate matter, which ties the individual to the Schumann waves,

the electromagnetic fields of (superimposed and entangled) physical worlds of the multiverse, which emerge from, and tied to, the absolute vacuum or zero-point field of nonlocal space where the elementary particles of the forces of nature are one in the form of a probability wavefunction. The absolute vacuum transmits individual consciousness as a resonating frequency wavelength, channel or station with phenomenal properties, qualia, on the Schumann resonance of the earth and the psychonic wave of the individual, which share the same frequency with different amplitude. The brain is a receiver and facilitator of consciousness with the elementary particle, psychion, of consciousness serving as the resonating channel or station of individuated consciousness, and the Schumann and psychonic waves serving as the bandwidth; the absolute vacuum produces a carrier wave, i.e., the psychonic waves of individual consciousness, that is modulated in frequency by the signal that is to be transmitted in the form of the psychonic wave of the psychion to individual consciousness. Following matter disaggregation across and throughout the multiverse, the psychion, subatomic particle of consciousness, and its qualia, phenomenal property, are subsequently integrated into the absolute vacuum, the wavefunction of the multiverse, which in its inception was only four forces, where all the fundamental forces of nature emerged, of the multiverse to give rise to future worlds with conscious simple and complex beings whose qualia, phenomenal properties, are never destroyed (emergent panpsychism), but are the frequency of an individual consciousness recycled throughout the multiverse. For Mocombe what accounts for the unity of experience is the psychion, subatomic particle, of the emergent psychonic/panpsychic subatomic field of the multiverse that has phenomenal properties, qualia, which get embodied as a resonating neuronal particle of the aggregated brain, which experiences a material resource framework as an “I”, a channel/station of, or on, a frequency wavelength, whose phenomenal properties, subjective experiences of material reality, following matter disaggregation either return back to the field or collapse in other worlds, with their own consciousness fields, where the same matter exists as distinct resonating frequency channels of wavelengths (individual psychionic waves connected to Schumann waves of multiverses connected to the absolute vacuum as frequency wavelengths, which can be measured in Hertz).

The consciousness field is a classical field produced by accelerating psychionic charges that contain and transmit all the phenomenal properties, qualia, of the absolute vacuum to the Schumann waves of material realities, and the psychonic waves of brains, brainstems, and central and peripheral nervous systems connected to the latter, Schumann waves, which are connected to the former, absolute vacuum or zero-point field as a frequency signal. The field is the combination of a psychonic field or wave (produced by the psychionic elementary particle), an electric field, and a magnetic field. The psychonic field or wave, like the magnetic field, is produced by moving charges or currents, and the electric field stationary charges. The consciousness field can be regarded as a smooth, continuous field, that propagates in a wavelike manner, and interacts with charges and currents. The reciprocal information transfer between the absolute vacuum, which constitutes a fifth dimension, the Schumann waves of entangled and superimposed material realities with consciousness fields, which exist in the four dimensions of spacetime, and the psychion/psychon of subjects of experience takes place via the distinct resonances of everyone, which is a rhythmic channel/station on the frequency wavelength that is entangled and superimposed between the absolute vacuum, Schumann waves, and the psychonic waves of subjects of experience.

Out of the aforementioned material, biological, and psychological processes, two (sociological) modes of organizing the material resource framework of the earth would characterize human societies, in various forms, since their initial being-in-the-world: the Vodou Ethic and the spirit of communism; and the Protestant Ethic and the spirit of capitalism. The former is in line with how we ought to organize our way of being-in-the-world-with-

others to fit in accordance with sustaining balance and harmony with the physics' of the multiverse, its material resource frameworks, and subsistence living; the latter, the Protestant Ethic and the spirit of capitalism, the basis upon which the (Western) left and right, contemporarily, constitute society and recursively organize and reproduce their being-in-the-world, is problematic and dangerous as it is a product of ideology and conflict with the material resource framework of our universe.

In other words, the logic here is that Karl Marx's materialism is the product of the first group of embodied human-beings' initial encounter with the material world. Upon that initial ready-to-hand (Heidegger's term, which I translate as unconscious processes) encounter, driven by the drives of the body and impulses of subatomic particles, two present-at-hand (conscious) worldviews, social class language games, emerged and became reified via five systems, i.e., mode of production, language, ideologies, ideological apparatuses, and communicative discourse. In a fruitful and bountiful environment, as early humankind encountered ready-to-hand in Africa prior to their migration elsewhere, a harmonious (affective) disposition towards the world took hold, which was juxtaposed against an antagonistic disposition arising from a lack of resources, etc., as was found among Europeans who migrated out of Africa to Europe. According to Cheik Anta Diop (1981; 1988; 1989), as a result of these experiences African and most people of color on the earth, the Taino people of the Caribbean, for example, who inherited hospitable environments, shared certain linguistic and cultural commonalities that formed a tapestry that laid the basis, present-at-hand, i.e., cognitively, for African cultural unity, which was reified and diametrically opposed to the European cultural unity that would develop, unready-to-hand and present-at-hand, in the barren and harsh environments of Europe as early humans migrated out of Africa.

What Diop called the Southern Cradle-Egyptian Model (African) was: (1) abundance of vital resources, (2) sedentary-agricultural, (3) gentle, idealistic, peaceful nature with a spirit of justice, (4) matriarchal family, (5) emancipation of women in domestic life, (6) territorial state, (7) xenophilia, (8) cosmopolitanism, (9) social collectivism, (10) material solidarity—alleviating moral or material misery, (11) idea of peace, justice, goodness, and optimism, and (12) literature emphasizes novel tales, fables, and comedy, emerged, present-at-hand, among the people of color in tropical climates with bountiful resources. This Southern Cradle-Egyptian Model was diametrically opposed to an unready-to-hand and present-at-hand Northern Cradle-Greek Model (European): (1) bareness of resources, (2) nomadic-hunting (piracy), (3) ferocious, warlike nature with spirit of survival, (4) patriarchal family, (5) debasement/enslavement of women, (6) city state (fort), (7) xenophobia, (8) parochialism, (9) individualism, (10) moral solitude, (11) disgust for existence, pessimism, (12) literature favors tragedy. The European/Greek model over time became reified and recursively reorganized and reproduced, present-at-hand, as the Protestant Ethic and the spirit of capitalism under the leadership of Pastors, merchants, and owners in their encounter with Christianity; and the former, African model, as the Vodou Ethic and the spirit of communism under the leadership of priests, priestesses, healers, and elders (oungan, manbo, gangan, and granmoun in the Kreyol language of African/Taino/Haitian Vodou).

The material contents and praxes of both models, following their initial sociogenetic, a posteriori constitution, are permanently, a priori, encoded as qualia in the absolute vacuum along with all of the ontogenetic experiences of every individual consciousnesses across the multiverse, which manifest in material resource frameworks as personal tastes and judgements.

To validate the ontological validity of a posteriori and a priori nature of axiology in Mocombe's consciousness field theory and overall theory of phenomenological structuralism, future research must seek evidence for the consciousness field through paranormal and parapsychological phenomena such as near-death

experiences, psychic medium, and reincarnation. The former, near-death-experiences, would validate the two sociogenetic forms of existence, i.e., the pathological-pathogenic form of the Protestant Ethic and the spirit of capitalism, which is associated with evil, ugliness, hell, etc., and the Vodou Ethic and the spirit of communism associated with goodness, beauty, heaven, communalism, etc. The latter two, psychic medium and reincarnation, would substantiate the claim for the accumulative tastes and judgements of individual consciousness across all of its lived-experiences, which explains de ja vu and other proclivities.

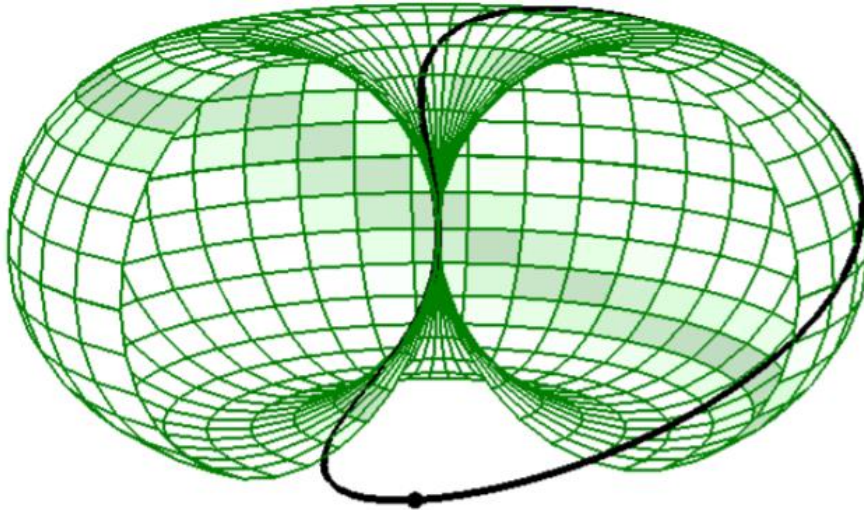


Figure 1. The univon model composed of a superluminal primordial information quantum (spring). The mathematical horn torus surface on which the spring travels is cut away to show the interior. The black closed curve on the surface of the horn torus is the trajectory of the univon's spring (indicated by the black dot.)

$$x(t) = R(1 + \cos(\omega t))\cos(\omega t)$$

$$y(t) = R(1 + \cos(\omega t))\sin(\omega t)$$

$$z(t) = R\sin(\omega t)$$

$$R = \hbar / Mc = 2.9 \times 10^{-97} \text{ m}$$

$$\omega = Mc^2 / \hbar = 1.0 \times 10^{105} \text{ radians/s}$$

$$M = \text{mass of observable universe} = 1.2 \times 10^{54} \text{ kg}$$

Figure 2. The parametric equations of the univon model composed of a circulating spring. The calculated maximum speed of the circulating spring is $c\sqrt{5} = 2.236c$ (at the equator of the mathematical torus) while its minimum speed is c (at the center of the mathematical torus).

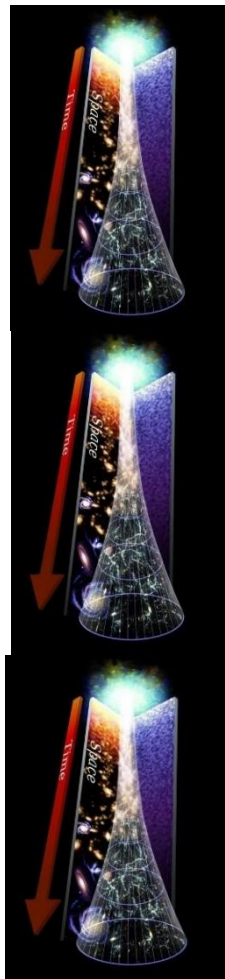


Figure 3. For Mocombe, building on BHBBT, the superverses with entangled and superimposed (via black holes) multiverses share the same informational content. So, the hypothesis here is that one superverse created (from the absolute vacuum) a universe, and its informational content is entangled and superimposed on top of another superverse with the informational content of the previous universe emerging in it via black holes. Hence what you have is a layer of multiverses and superverses, superimposed and entangled, whose informational contents are shared or recycled via black holes, which organize and structure the multiverses similarly. As such, quantum fluctuation and big bangs are constantly occurring and producing the same worlds, ad infinitum. So, when physicists look out to the cosmic microwave background (CMB), they are looking at the remnant from an early stage of our universe, which came forth from its older version a layer above it, and so on ad infinitum. Put more concretely, the physicists are in a superverse, of our universe, in our milky-way galaxy, looking out to the black hole of a milky-way galaxy from the superverse/multiverse above us with its own consciousness field.

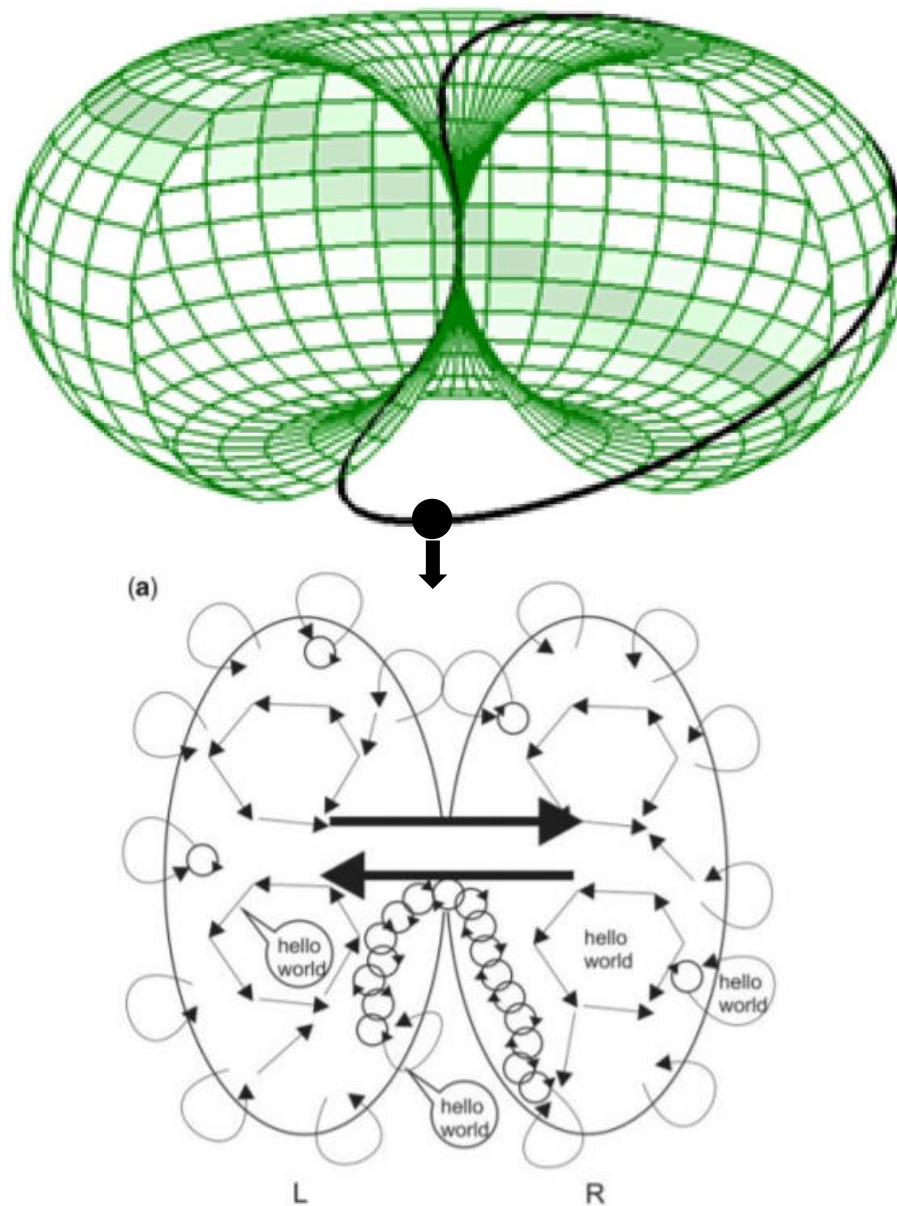


Figure 4. This figure represents how the psychions are embodied, as psychions, from the consciousness field (CF) in the neurons of brains (figure a, adopted from McFadden, 2020, represents the human brain—left (L) and right (R) hemispheres—and its EM field, which holds together and integrates the qualia of psychions, informational content of the superverse/multiverses, which becomes individuated consciousness recursively organized and reproduced as practical consciousness), which produces an EM field that holds together and integrates the qualia of the psychions as individuated consciousness on channels or stations of frequency wavelengths from the absolute vacuum. For Mocombe, building on BHBBT, the superverses with entangled and superimposed (via black holes) multiverses share the same informational content. So, the hypothesis here is that one superverse created (from the absolute vacuum) a universe, and its informational content is entangled and superimposed on top of another superverse with the informational content of the previous universe emerging in it via black holes. Hence what you have is a layer of multiverses and superverses, superimposed and entangled, whose informational contents are shared or recycled via black holes, which organize and structure the multiverses similarly. As such, quantum fluctuation and big bangs are constantly occurring and producing the same worlds, ad infinitum. The informational contents, qualia, of these multiverses and worlds are encoded and transmitted as psychions (channel frequency of wavelengths) and embodied in the neurons of brains, which create an EM field that holds and integrates the psychions as individuated consciousness.

$$\hbar\omega = 10^{-15} eV \quad (4)$$

Figure 5. Adopted from Kozłowska and Kozłowski. The formula represents the elementary value of quantum energy for brain and Schumann waves.

$$\Phi = 10^{-15} eV_{(4)} \pm f_{(0)}$$

Figure 6. Garyian consciousness wave equation for individual consciousness. The formula represents the elementary value of quantum energy for brain and Schumann waves plus or minus the resonating frequency channel or station of subjective phenomenal consciousness.

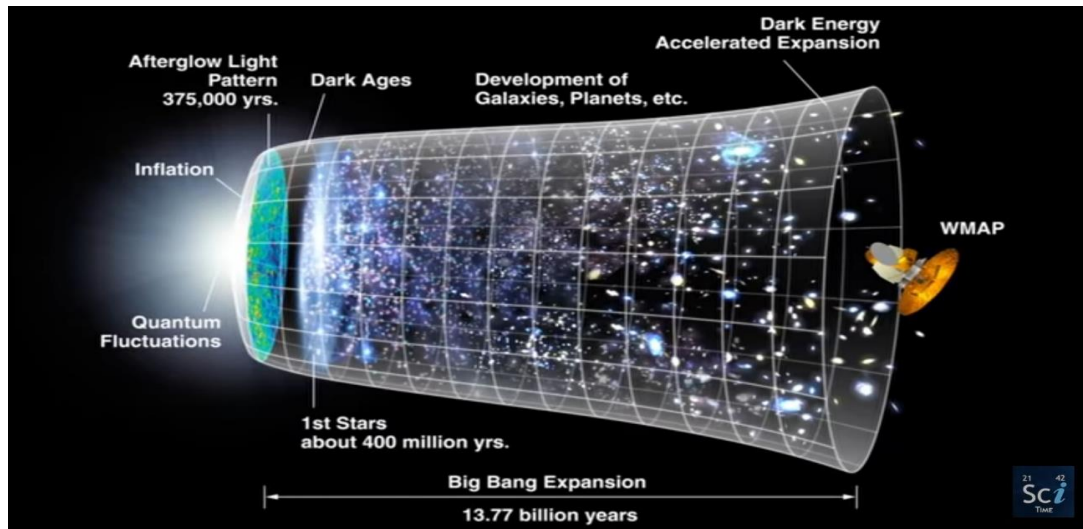


Figure 7. For Mocombe, one superverse created (from the absolute vacuum) a universe, via quantum fluctuation, tunneling, and inflation, and its informational content is entangled and superimposed on top of another universe with the informational content of the previous universe emerging in it via black holes as highlighted in Figure 3. Figure 7 highlights the stages by which these multiverses emerge and unfold from the absolute vacuum. Hence what you have is a layer of multiverses, superimposed and entangled, whose informational contents are shared or recycled via black holes, which organize and structure the multiverses similarly. As such, quantum fluctuation and big bangs are constantly occurring and producing the same worlds, ad infinitum. So, when physicists look out to the cosmic microwave background (CMB), they are looking at the remnant from an early stage of our universe, which came forth from its older version a layer above it, and so on ad infinitum. Put more concretely, the physicists are in a superverse, of our universe, in our milky-way galaxy, looking out to the black hole of a milky-way galaxy from the superverse/multiverse above us with its own consciousness field.

Table 1

Characteristics of Brain Waves

Frequency band	Frequency	Brain states
Gamma (γ)	35 Hz	Concentration, problem solving
Beta (β)	12-35 Hz	Anxiety dominant, active mind, external attention, relaxed
Alpha (α)	8-12 Hz	Very relaxed, passive attention
Theta (θ)	4-8 Hz	Deeply relaxed, inward focused
Delta (δ)	0.5-4 Hz	Sleep, dreaming
Psychionic/psychonic (Φ)	0-0.5 Hz	Transmission from the absolute vacuum to Schumann wave

References

- Aru, J., Suzuki, M., Rutiku, R., Larkum, M. E., & Bachmann, T. (2019). Coupling the state and contents of consciousness. *Frontiers in Systems Neuroscience*, 13, 43. doi:10.3389/fnsys.2019.00043
- Askenasy, J., & Lehmann, J. (2013). Consciousness, brain, neuroplasticity. *Frontiers in Psychology*, 4, 412. doi:10.3389/fpsyg.2013.00412
- Baars, B. J. (1988). *A cognitive theory of consciousness*. New York, NY: Cambridge University Press.
- Bachmann, T. (2015). On the brain-imaging markers of neural correlates of consciousness. *Frontiers in Psychology*, 6, 868. doi:10.3389/fpsyg.2015.00868
- Bachmann, T., & Hudetz, A. G. (2014). It is time to combine the two main traditions in the research on the neural correlates of consciousness: C= LxD. *Frontiers in Psychology*, 5, 940. doi:10.3389/fpsyg.2014.00940
- Beauregard, M., Schwartz, G. E., Miller, L., Dossey, L., Moreira-Almeida, A., Schlitz, M., ... Tart, C. (2014). Manifesto for a post-materialist science. *Explore*, 10(5), 272-274.
- Beauregard, M., Trent, N. L., & Schwartz, G. E. (2018). Toward a postmaterialist psychology: Theory, research, and applications. *New Ideas in Psychology*, 50, 21-33.
- Berkovich-Ohana, A., Dor-Ziderman, Y., Trautwein, F. M., Schweitzer, Y., Nave, O., Fulder, S., & Ataria, Y. (2020). The Hitchhiker's guide to neurophenomenology—The case of studying self boundaries with meditators. *Frontiers in Psychology*, 11, 1680. doi:10.3389/fpsyg.2020.01680
- Block, N. (2005). Two neural correlates of consciousness. *Trends Cogn. Sci.*, 9, 46-52. doi:10.1016/j.tics.2004.12.006
- Block, N., & MacDonald, C. (2008). Phenomenal and access consciousness. *Proc. Aristotelian Soc.*, CVIII, 289-317. doi:10.1111/j.1467-9264.2008.00247.x
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste* (R. Nice, Trans.). Cambridge MA: Harvard University Press.
- Bourdieu, P. (1986). The forms of capital. In J. E. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241-258). Westport: Greenwood Press.
- Bourdieu, P. (1990). *The logic of practice* (R. Nice, Trans.). Stanford, California: Stanford University Press.
- Chalmers, D. J. (1995). Facing up to the problem of consciousness. *J. Conscious. Stud.*, 2, 200-219.
- Chalmers, D. J. (1996). *The conscious mind: In search of a fundamental theory*. Oxford: Oxford University Press.
- Chalmers, D. J. (2000). What is a neural correlate of consciousness? In T. Metzinger (Ed.), *Neural correlates of consciousness: Empirical and conceptual questions* (pp. 17-39). Cambridge, MA: MIT Press.
- Chalmers, D. J. (2006). Strong and weak emergence. In P. Clayton and P. Davies (Eds.), *The reemergence of emergence* (pp. 244-255). Oxford, UK: Oxford University Press.
- Chennu, S., & Bekinschtein, T. A. (2012). Arousal modulates auditory attention and awareness: Insights from sleep, sedation, and disorders of consciousness. *Frontiers in Psychology*, 3, 65. doi:10.3389/fpsyg.2012.00065
- Chen, S., Wu, X., Wang, L., Wang, Y., Wu, B., Ge, M., ... Yang, Z. (2018). Disrupted interactions between arousal and cortical awareness networks in MCS and VS/UWS patients: Evidence from resting-state functional imaging connectivity. *Neuroscience*, 382, 115-124.
- Chen, Y., & Zhang, J. (2021). How energy supports our brain to yield consciousness: Insights from neuroimaging based on the neuroenergetics hypothesis. *Frontiers in Systems Neuroscience*, 15, 648860. doi:10.3389/fnsys.2021.648860
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). London, UK: Sage Publications.
- Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). London, UK: Sage.
- Crick, F. (1994). *The astonishing hypothesis: The scientific search for the soul*. New York: Touchstone.
- Crick, F., & Koch, C. (1990). Toward a neurobiological theory of consciousness. *Semin. Neurosci.*, 2, 263-275.
- Crick, F., & Koch, C. (1998). Consciousness and neuroscience. *Cereb. Cortex*, 8, 97-107. doi:10.1093/cercor/8.2.97
- Crick, F., & Koch, C. (2003). A framework for consciousness. *Nat. Neurosci.*, 6, 119-126. doi:10.1038/nn0203-119
- Demertzi, A., Liew, C., Ledoux, D., Bruno, M. A., Sharpe, M., Laureys, S., & Zeman, A. (2009). Dualism persists in the science of mind. *Annals of the New York Academy of Sciences*, 1157, 1-9. doi:10.1111/j.1749-6632.2008.04117
- Demertzi, A., Schnakers, C., Soddu, A., Bruno, M. A., Gosseries, O., Vanhaudenhuyse, A., & Laureys, S. (2011). Neural plasticity lessons from disorders of consciousness. *Frontiers in Psychology*, 1, 245. doi:10.3389/fpsyg.2010.00245
- Dennet, D. C. (1992). *Consciousness explained*. London: Penguin.

- Dennet, D. C. (2016). Illusionism as the obvious default theory of consciousness. *Journal of Consciousness Studies*, 23(11-12), 65-72.
- Dennett, D. C. (2018). Facing up to the hard question of consciousness. *Phil. Trans. R. Soc. B Biol. Sci.*, 373, 342. doi:10.1098/rstb.2017.0342
- Diop, Cheikh A. (1981). *Civilization or Barbarism: An authentic anthropology*. New York: Lawrence Hill Books.
- Diop, Cheikh A. (1988). *Precolonial Black Africa*. Chicago: Chicago Review Press.
- Diop, Cheikh A. (1989). *The African origin of civilization: Myth or reality*. Chicago: Chicago Review Press.
- Erickson, D. L. (2011). Intuition, telepathy, and interspecies communication: A multidisciplinary perspective. *NeuroQuantology*, 1, 145-152.
- Eriksson, J., Fontan, A., & Pedale, T. (2020). Make the unconscious explicit to boost the science of consciousness. *Frontiers in Psychologism*, 11, 260. doi:10.3389/fpsyg.2020.00260
- Feinberg, E. T., & Mallatt, J. (2016). The nature of primary consciousness. A new synthesis. *Consciousness and Cognition*, 43, 113-127.
- Feinberg, T. E., & Mallatt, J. (2020). Phenomenal consciousness and emergence: Eliminating the explanatory gap. *Frontiers in Psychology*, 11, 1041. doi:10.3389/fpsyg.2020.01041
- Fesce, R. (2020). Subjectivity as an emergent property of information processing by neuronal networks. *Frontiers in Neuroscience*, 14, 548071. doi:10.3389/fnins.2020.548071
- Gamez, D. (2014). The measurement of consciousness: A framework for the scientific study of consciousness. *Frontiers in Psychology*, 5, 714. doi:10.3389/fpsyg.2014.00714
- Gauthier, R. (2020). Big bangs created by univon particles from a conscious quantum field—Towards the next scientific revolution. Retrieved from <https://www.academia.edu> (accessed on 1 April 2020)
- Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Cambridge: Polity Press.
- Greyson, B. (2010). Implications of near-death experiences for a postmaterialist psychology. *Psychology of Religion and Spirituality*, 2, 1. doi:10.1037/a0018548
- Gutland, C., Cai, W., & Fernandez, A. V. (2021). Editorial: Integrating philosophical and scientific approaches in consciousness research. *Frontiers in Psychology*, 12, 683860. doi:10.3389/fpsyg.2021.683860
- Habermas, J. (1984). *The theory of communicative action: Reason and the rationalization of society* (Volume 1). (T. McCarthy, Trans.). Boston: Beacon Press.
- Habermas, J. (1987). *The theory of communicative action: Lifeworld and system: A critique of functionalist reason* (Volume 2). (T. McCarthy, Trans.). Boston: Beacon Press.
- Halligan, P. W., & Oakley, D. A. (2021). Giving up on consciousness as the ghost in the machine. *Frontiers in Psychology*, 12, 571460. doi:10.3389/fpsyg.2021.571460
- Hameroff, S., & Penrose, R. (2014). Consciousness in the universe: A review of the “orch or” theory. *Physics of Life Reviews*, 11, 39-78.
- Har-Lev, Y. (2021). Five-dimensional universe. *Academia Letters*, 1428, 1-3.
- Havlík, M., Kozáková E., & Horáček, J. (2017). Why and how. The future of the central questions of consciousness. *Frontiers in Psychology*, 8, 1797. doi:10.3389/fpsyg.2017.01797
- Huels, E. R., Kim, H., Lee, U., Bel-Bahar, T., Colmenero, A. V., Nelson, A., ... Harris, R. E. (2021). Neural correlates of the shamanic state of consciousness. *Frontiers in Human Neuroscience*, 15, 1-16.
- Hunt, T. (2011). Kicking the psychophysical laws into gear: A new approach to the combination problem. *Journal of Consciousness Studies*, 18(11-12), 96-134.
- Hunt, T., & Schooler, J. W. (2019). The easy part of the hard problem: A resonance theory of consciousness. *Frontiers in Human Neuroscience*, 13, 378. doi:10.3389/fnhum.2019.00378
- Jones, M. W. (2013). Electromagnetic-field theories of mind. *Journal of Consciousness Studies*, 20(11-12), 1-26.
- Kastrup, B. (2017). An ontological solution to the mind-body problem. *Philosophies*, 2(10), 1-18.
- Kastrup, B. (2018). The universe in consciousness. *Journal of Consciousness Studies*, 25(5-6), 125-155.
- Kennedy, M. (2007). Defining a literature. *Educational Researcher*, 36(3), 139-147. doi:10.3102/0013189X07299197
- Keppler, J. (2020). The common basis of memory and consciousness: Understanding the brain as a write-read head interacting with an omnipresent background field. *Frontiers in Psychology*, 10, 2968. doi:10.3389/fpsyg.2019.02968
- Keppler, J., & Shani, I. (2020). Cosmopsychism and consciousness research: A fresh view on the causal mechanisms underlying phenomenal states. *Frontiers in Psychology*, 11, 371. doi:10.3389/fpsyg.2020.00371

- Kim, H., Hudetz, A. G., Lee, J., Mashour, G. A., Lee, U., & ReCognition Study Group. (2018). Estimating the integrated information measure phi from high density electroencephalography during states of consciousness in humans. *Frontiers in Human Neuroscience*, 12, 42. doi:10.3389/fnhum.2018.00042
- Kitson, A., Chirico, A., Gaggioli, A., & Riecke, B. E. (2020). A review on research and evaluation methods for investigating self-transcendence. *Frontiers in Psychology*, 11, 547687. doi:10.3389/fpsyg.2020.547687
- Koch, C. (2004). *The quest for consciousness: A neurobiological approach*. Englewood CO: Roberts & Company.
- Kozłowska, M. J., & Kozłowski, M. (2016). Psychon. *Journal of Consciousness Exploration & Research*, 7(10), 794-800.
- Lacalli, T. (2020). Evolving consciousness: Insights from turing, and the shaping of experience. *Frontiers in Behavioral Neuroscience*, 14, 598561. doi:10.3389/fnbeh.2020.598561
- Levine, J. (1983). Materialism and qualia: The explanatory gap. *Pac. Philos. Q.*, 64, 354-361.
- Lou, H. C., Thomsen, K. R., & Changeux, J. (2020). The molecular organization of self-awareness: Paralimbic dopamine-GABA interaction. *Frontiers in Systems Neuroscience*, 14, 3. doi:10.3389/fnsys.2020.00003
- Manzotti, R. (2019). Mind-object identity: A solution to the hard problem. *Frontiers in Psychology*, 10, 63. doi:10.3389/fpsyg.2019.00063
- Maung, H. H. (2019). Dualism and its place in a philosophical structure for psychiatry. *Medicine, Health Care and Philosophy*, 22. doi.org/10.1007/s11019-018-9841-2
- McFadden, J. (2020). Integrating information in the brain's EM field: The CEMI field theory of consciousness. *Neuroscience of Consciousness*, 6(1), 1-13.
- McLeod, S. A. (2007). Mind body debate. Retrieved from <https://www.simplypsychology.org/mindbodydebate.html>
- Meijer, K. F. D., & Geesink, J. H. H. (2017). Consciousness in the universe is scale invariant and implies an event horizon of the human brain. *NeuroQuantology*, 15(3), 41-79.
- Miller, S. M. (2014). Closing in on the constitution of consciousness. *Frontiers in Psychology*, 5, 1293. doi:10.3389/fpsyg.2014.01293
- Mobbs, D., & Watt, C. (2011). There is nothing paranormal about near-death experiences: How neuroscience can explain seeing bright lights, meeting the dead, or being convinced you are one of them. *Trends in Cognitive Sciences*, 15(10), 447-449.
- Mocombe, P. C. (2019a). *The theory of phenomenological structuralism*. Newcastle Upon Tyne: Cambridge Scholars Publishing.
- Mocombe, P. C. (2019b). Haitian epistemology, phenomenological structuralism, and resolving the binding and hard problems of consciousness. *Archives in Biomedical Engineering & Biotechnology*, 2(4), 1-10.
- Mocombe, P. C. (2021a). Consciousness field theory. *Archives in Neurology & Neuroscience*, 9(4), 1-6.
- Mocombe, P. C. (2021b). The consciousness field. *Advances in Bioengineering & Biomedical Science Research*, 5(1), 11-16.
- Moser, J., Bensaid, S., Kroupi, E., Schleger, F., Wendling, F., Ruffini, G., & Prei H. (2019). Evaluating complexity of fetal MEG signals: A comparison of different metrics and their applicability. *Frontiers in Systems Neuroscience*, 13, 23. doi:10.3389/fnsys.2019.00023
- Nannini, S. (2018). The mind-body problem in the philosophy of mind and cognitive neuroscience: A physicalist naturalist solution. *Neurological Sciences*, 39, 1509-1517. doi.org/10.1007/s10072-018-3455-6
- Nelson, K. R., Mattingly, M., Lee, S. A., & Schmitt, F. A. (2006). Does the arousal system contribute to near death experience? *Neurology*, 66, 1003-1009. doi:10.1212/01.wnl.0000204296.15607.37
- Newberg, A., & Newberg, S. (2010). Psychology and neurobiology in a postmaterialist world. *Psychology of Religion and Spirituality*, 2(2), 119-121.
- Niikawa, T. (2020). A map of consciousness studies: Questions and approaches. *Frontiers in Psychology*, 11, 530152. doi:10.3389/fpsyg.2020.530152
- Owen, M., & Gula, M. P. (2019). Physically sufficient neural mechanisms of consciousness. *Frontiers in Systems Neuroscience*, 13, 24. doi:10.3389/fnsys.2019.00024
- Ouwensloot, G., Derksen, J., & Glas, G. (2020). Reintroducing consciousness in psychopathology: Review of the literature and conceptual framework. *Frontiers in Psychology*, 11, 586284. doi:10.3389/fpsyg.2020.586284
- Paoletti, P., & Ben-Soussan, T. D. (2020). Reflections on inner and outer silence and consciousness without contents according to the sphere model of consciousness. *Frontiers in Psychology*, 11, 1807. doi:10.3389/fpsyg.2020.01807
- Pennartz, C. M. A., Farisco, M., & Evers, K. (2019). Indicators and criteria of consciousness in animals and intelligent machines: An inside-out approach. *Frontiers in Systems Neuroscience*, 13, 25. doi:10.3389/fnsys.2019.00025
- Pepperell, R. (2018). Consciousness as a physical process caused by the organization of energy in the brain. *Frontiers in Psychology*, 9, 2091. doi:10.3389/fpsyg.2018.02091

- Pockett, S. (2014). Problems with theories that equate consciousness with information or information processing. *Frontiers in Systems Neuroscience*, 8(225), 1-3.
- Polák, M., & Marvan, T. (2018). Neural correlates of consciousness meet the theory of identity. *Frontiers in Psychology*, 9, 1269. doi:10.3389/fpsyg.2018.01269
- Polák, M., & Marvan, T. (2019). How to mitigate the hard problem by adopting the dual theory of phenomenal consciousness. *Frontiers in Psychology*, 10, 2837. doi:10.3389/fpsyg.2019.02837
- Porta, L. D., Matias, F. S., Dos Santos, A. J., Alonso, A., Carelli, P. V., Copelli, M., & Mirasso, C. R. (2019). Exploring the phaselocking mechanisms yielding delayed and anticipated synchronization in neuronal circuits. *Frontiers in Systems Neuroscience*, 13, 41. doi:10.3389/fnsys.2019.00041
- Rivas, T. (2003). Three cases of the reincarnation type in the Netherlands. *Journal of Scientific Exploration*, 17(3), 527-532.
- Rock, A. J., & Storm, L. (2015). Testing telepathy in the medium/proxy-sitter dyad: A protocol focusing on the source-of-psi problem. *Journal of Scientific Exploration*, 29(4), 565-584.
- Sahlins, M. (1976). *Culture and practical reason*. Chicago, IL: University of Chicago Press.
- Sahlins, M. (1982). The apotheosis of captain cook. In M. Izard and P. Smith (Eds.), *Between belief and transgression* (pp. 73-102). Chicago: University of Chicago Press.
- Sahlins, M. (1985). *Islands of history*. Chicago: University of Chicago Press.
- Sahlins, M. (1989). Captain cook at Hawaii. *The Journal of the Polynesian Society*, 98(4), 371-423.
- Sahlins, M. (1990). The political economy of grandeur in Hawaii from 1810-1830. In E. Ohnuki-Tierney (Ed.), *Culture through time: Anthropological approaches* (pp. 26-56). California: Stanford University Press.
- Sahlins, M. (1995a). *How "Natives" think: About captain cook, for example*. Chicago: University of Chicago Press.
- Sahlins, M. (1995b). *Historical metaphors and mythical realities*. Ann Arbor: University of Michigan Press.
- Safron, A. (2020). An Integrated World Modeling Theory (IWMT) of consciousness: Combining integrated information and global neuronal workspace theories with the free energy principle and active inference framework; toward solving the hard problem and characterizing agentic causation. *Frontiers in Artificial Intelligence*, 3, 30. doi:10.3389/frai.2020.00030
- Schwartz, G. E. (2012). Consciousness, spirituality, and postmaterialist science: An empirical and experiential approach. In L. J. Miller (Ed.), *The Oxford handbook of psychology and spirituality* (pp. 581-594). Oxford: Oxford University Press.
- Schwartz, G. E., Woollacott, M., Schwartz, S. A., Baruss, I., Beauregard, M., Dossey, L., ... Tart, C. (2017). The academy for the advancement of postmaterialist sciences: Integrating consciousness into mainstream. *Explore*, 14(2), 111-113.
- Searle, J. R. (2004). *Mind: A brief introduction*. New York, NY: Oxford University Press.
- Shani, I., & Keppler, J. (2018). Beyond combination: How cosmic consciousness grounds ordinary experience. *Journal of the American Philosophical Association*, 4(3), 390-410.
- Sheldrake, R., & Smart, P. (2003). Experimental tests for telephone telepathy. *Journal of the Society for Psychical Research*, 67, 184-199.
- Sheldrake, R., & Avraamides, L. (2009). An automated test for telepathy in connection with emails. *Journal of Scientific Exploration*, 23(1), 29-36.
- Sheldrake, R. (2014). Telepathy in connection text messages with telephone calls, and emails. *Journal of International Society of Life Information Science*, 32(1), 7-15.
- Sikkens, T., Bosman, C. A., & Olcese, U. (2019). The role of top-down modulation in shaping sensory processing across brain states: Implications for consciousness. *Frontiers in Systems Neuroscience*, 13, 31. doi:10.3389/fnsys.2019.00031
- Silberstein, M., & Chemero, A. (2015). Extending neutral monism to the hard problem. *Journal of Consciousness Studies*, 22(3-4), 181-194.
- Singer, W. (2019). A naturalistic approach to the hard problem of consciousness. *Frontiers in Systems Neuroscience*, 13, 58. doi:10.3389/fnsys.2019.00058
- Solms, M. (2019). The hard problem of consciousness and the free energy principle. *Frontiers in Psychology*, 9, 2714. doi:10.3389/fpsyg.2018.02714
- Spindler, L. R. B., Luppi, A. I., Adapa, R. M., Craig, M. M., Coppola, P., Peattie, A. R. D., ... Stamatakis, E. A. (2021). Dopaminergic brainstem disconnection is common to pharmacological and pathological consciousness perturbation. *PNAS*, 118(30), 1-11.
- Srinivasan, N. (2020). Consciousness without content: A look at evidence and prospects. *Frontiers in Psychology*, 11, 1992. doi:10.3389/fpsyg.2020.01992
- Stapp, H. P. (2005). Quantum interactive dualism: An alternative to materialism. *Journal of Consciousness Studies*, 12(11), 43-58.

- Strauss, C., & Quinn, N. (1997). *A cognitive theory of cultural meaning*. New York, NY: Cambridge University Press.
- Storm, L. C., & Rock, A. J. (2015). Testing telepathy in the medium/proxy-sitter dyad: A protocol focusing on the source-of-psi problem. *Journal of Scientific Exploration*, 29(4), 565-584.
- Taylor, S. (2020). An introduction to panspiritism: An alternative to materialism and panpsychism. *Zygon*, 55(4), 898-923.
- Timmermann, C., Roseman L., Williams, L., Erritzoe, D., Martial, C., Cassol, H., ... Carhart-Harris, R. (2018). DMT models the near-death experience. *Frontiers in Psychology*, 9, 1424. doi:10.3389/fpsyg.2018.01424
- Thompson, E., & Varela, F. J. (2001). Radical embodiment: Neural dynamics and consciousness. *TRENDS in Cognitive Sciences*, 5(10), 418-425.
- Tononi, G., Sporns, O., & Edelman, G. M. (1994). A measure for brain complexity: Relating functional segregation and integration in the nervous system. *Proc. Natl. Acad. Sci. U.S.A.*, 91, 5033-5037.
- Tyler, C. W. (2015). The emergent dualism view of quantum physics and consciousness. *Cosmos and History: The Journal of Natural and Social Philosophy*, 11(2), 97-114.
- Tyler, C. W. (2020). Ten testable properties of consciousness. *Frontiers in Psychology*, 11, 1144. doi:10.3389/fpsyg.2020.01144
- Van Lommel, P. (2010). *Consciousness beyond life: The science of the near-death experience*. New York: HarperCollins Publishers.
- Van Lommel, P., van Wees, R., Meyers, V., & Elfferich, I. (2001). Near-death experience in survivors of cardiac arrest: A prospective study in the Netherlands. *Lancet*, 358, 2039-2045.
- Van Leeuwen, T. M., Singer, W., & Nikolic, D. (2015) The merit of synesthesia for consciousness research. *Frontiers in Psychology*, 6, 1850. doi: 10.3389/fpsyg.2015.01850
- Vimal, R. L. P. (2008). Proto-experiences and subjective experiences: Classical and quantum concepts. *Journal of Integrative Neuroscience*, 7(1), 49-73.
- Wendt, A. (2018). The mind-body problem and social science: Motivating a quantum social theory. *Journal Theory of Social Behavior*, 48, 188-204.
- Winter, U., LeVan, P., Borghardt, T. L., Akin, B., Wittmann, M., Leyens, Y., & Schmidt, S. (2020). Content-free awareness: EEG-fcMRI correlates of consciousness as such in an expert meditator. *Frontiers in Psychology*, 10, 3064. doi:10.3389/fpsyg.2019.03064
- Zhou, J., Liu, X., Song, W., Yang, Y., Zhao, Z., Ling, F., ... Li, S. J. (2011). Specific and nonspecific thalamocortical functional connectivity in normal and vegetative states. *Conscious. Cogn.*, 20, 257-268. doi:10.1016/j.concog.2010.08.003