

ORIGINAL ARTICLE

The Problem of Mind-Body Dichotomy: A Critique of the Cartesian Approach

John Gabriel Mendie¹ | Udofia, Stephen Nwanaokuo²

¹P.hD Candidate, Department of Philosophy,
University of Calabar, Cross River State.
jgmendie@gmail.com

² Department of Philosophy,
University Of Ibadan, Ibadan, Nigeria.

ABSTRACT

The mind-body problem is a perennial philosophical problem that seeks to uncover the relationship or causal interaction that exists between the corporeal and incorporeal aspects of the human person. It thrives under the assumption that the human person is made up of two distinct entities, that is, mind and body, which explains their assumed causal relation. As attractive as this may seem, not all philosophers agree to this feigned idea of interaction and bifurcation of the human person. One philosopher of note, who sorts to address this problem in the 17th century, is René Descartes. For Descartes, minds and bodies are distinct kinds of substances, where bodies are spatially extended substances (a *res extensa*) and minds are unextended substances characterised primarily by thought (a *res cogitans*). But, if minds and bodies are radically dissimilar, how could they causally interact? This paper, therefore, attempts to examine the philosophical foundations of Cartesian dualism. It also articulates the major arguments adopted by Descartes through his methodic doubts to address the mind-body problem. The paper concludes by highlighting some fundamental criticisms of Cartesian Interactionism in the light of recent trends in parapsychology and neuroscientific research.

Keywords: Human person, mind-body Problem, cartesian interactionism, parapsychology, neuroscience

INTRODUCTION

Rene Descartes (1596-1650), the French-born mathematician turned philosopher, was chiefly concerned with the disharmony that pervaded the house of philosophy. This disharmony, to him, unlike in the exact sciences of physics, geometry, and mathematics (his original background), gave the audience to skepticism to hold sway over every position philosophers had hitherto advanced even before his arrival to the scenery of philosophical discourse. Descartes' diagnosis of the skeptical challenge was that the skeptical confront was apparently

unassailable because prior philosophies had been anchored on shaky foundations (Steiner 2010). If this is the case, it should follow, for Descartes that if a solid foundation can be found upon which an epistemological edifice can be erected, then the arguments of the skeptics will no longer hold any water. Upon critical reflections, and have employed the *methodic doubt* as his *instrumentum laborat* (working tool) Descartes concluded that what this indubitable foundation upon which a philosophy immune from skepticism can be built on, is the *ego* or mind (Bos 2010). Thus, the fact that one is involved in a process of doubt, cannot be logically doubted. The certainty of the doubting and the doubter is, therefore, self-evident. The mind which is effecting this self-evident activity and all beliefs emanating from it, therefore, becomes apodictic and self-evidently justified (Steiner 2010). From the indubitability of the subsistence of the mind, Descartes was able, in a manner akin to the mathematical sciences, to deduce the existence of the physical world which he believes *interact* with the mentalistic world of the mind. It is this aspect of the Cartesian philosophical project of mind-body interaction that this paper seeks to appraise. Before cutting into the chase, it will be apposite to commence our discourse with a brief review of the idea of personhood.

ON THE ONTOLOGY OF THE HUMAN PERSON IN TRADITIONAL (WESTERN) PHILOSOPHY

Ontology, or the study of being *qua* being, is the aspect of metaphysics that critically reflect on that which exists in reality (Akpan & Etta 2013). The word ontology is used to refer to the philosophical investigation of existence, or being. Such investigation may be directed towards the concept of being, asking what 'being' means or what it is for something to exist; it may also be concerned with the question 'what exists?', or 'what general sort of things are there?' (Ikegbu & Bisong 2013) It is common to speak of a philosopher's ontology, meaning the kind of thing they take to exist, or the ontology of a theory, that is, the things that would have to exist for that theory to be true. With respect to the 'human person', philosophers have been concerned about putting rational arguments forward in support of their respective views to what really constitutes human nature, as opposed to illusions and myths. These concerted efforts have yielded some relevant ontological questions such as: What is a 'person' made up of? Is a person a physico-chemical entity amenable to pure scientific analysis? Is a person a purely spiritual or physical entity, or a union of both spiritual and physical substances? A plethora of answers have been put forward by philosophers down the ages and across cultures to attempt these questions.

Plato, for instance, argues for a dualistic understanding of human nature. For him, a person is made up of soul and body (Warren 2017). The soul is in the body not like form in matter, but as a mover in a mobile body. The soul is to the body what a captain is to a ship, that is, the captain governs the ship, but the captain is a being that is ontologically distinct from the ship and can exist when not on the ship. Hence, Plato was an uncompromising spiritualist for he reduced human nature to a purely spiritual entity (Warren 2017). This explains why he had often been charged with *the error of existence* for relegating and excluding matter from the economy of *existence*. Aristotle argues for a rather complementary position by positing that, although human nature is made up of a subsisting soul (form) and a corruptible body (matter), the soul is the life-giving principle (*primum principium vitae*) of the body and the body is the

principle of individuation through which the soul achieves its basic function of intellection. Both components are substantially and hypostatically united to make up a person.^{iv} Thomas Aquinas, borrowing from Aristotle, also argues for a hylemorphic understanding of the human person. In his view, a person is substantially a union of soul (*μορφή*) and body (*ὄλη*), which though distinct are not separate (Warren 2017).

On his part, David Hume believes that spiritual and material substances are evenly inconceivable. His idea of personhood or human nature is summed up in his *bundle theory*, which states that, the mind is nothing but a bundle or collection of different perceptions, which succeed each other in an inconceivable rapidity, and are in perpetual flux and movement (Kail 2013). Thus, the human person is *ipso facto* nothing but a bundle of perceptions. In contemporary times a laboratory analysis of a person's anatomy will only reveal that a person is nothing other than a physico-chemical entity. If this is the case, how come our ordinary language seems to endorse a contrary view that there is something else – fundamentally different from physico-chemical properties – that make us up, say spirit, mind, an ego or conscious-self that is not amenable to scientific and laboratory analysis? This ordinary language refutation of the position that we are merely physico-chemical entities is also endorsed by religion with its attendant teachings of ‘after-life’, God, angels, and so on. The physico-chemical ontology of the human person, among many other criticisms, seems to imply that a human person is no different from other physical entities in nature and hence is amenable to the mechanical laws of nature. If man is amenable to the mechanistic and, consequently, ‘deterministic’ laws of nature, then there is no ‘freewill’ basis for his or her moral actions and choices. Other objections against the physico-chemical ontology of the human person is that of the data of phenomena like ‘Extra Sensory Perception’, ‘magic’, ‘Psycho-kinesis’, ‘Telepathy’, ‘Witchcraft’, and so on, that have been suggested by scholars and researchers like Albert Mosley and Sophie Oluwole, among a host of many others. In light of the preceding, if it is true that these phenomena subsist then the human person is *not* only a physico-chemical entity.

Before we conclude our discussion in this part of the essay, it is crucial to note that “the view that the human person is essentially a physico-chemical entity (with diverse formulations) is a version of *materialistic monism*. Another version of such formulations is that of *idealistic monism*. This latter view of personhood holds that man, essentially, is *only* a spiritual entity. We need not rehearse the difficulty in maintaining a view like this since it apparently denies that we have no physical bodies – and by extension the corporeal world *is* unreal. Interestingly, one may ask, where René Descartes fits into all these, taking to mind his bent towards a dualistic ontology. In what follows, the paper, attempts this question with a brief retrieval of the central arguments of Descartes’ ontology of the human person.

DESCARTES’ ONTOLOGY OF THE HUMAN PERSON: A RETRIEVAL OF THE CENTRAL ARGUMENTS

Without prejudice to the title of this section, let us quickly bear in mind that throughout the *Meditations*, Descartes’ primary concern is epistemology, so he never stops tinkering with his theory of knowledge. As such, in the final three meditations, he moves from the epistemological problem of certainty to metaphysical questions about reality. These include the existence of God, the existence of the physical world, and the mind-body relationship (Vycinas

1966). It follows from the above that the Cartesian ontology of the human person can only be understood if we first discussed briefly, his theory of knowledge. Descartes, it will be recalled, had commenced his philosophical career with his disillusionment that there was *no* certain knowledge in the discipline. But as an ‘epistemic optimist’, he was not merely content to accept this apparent conclusion. He thought it will be prudent to ‘sift’ every piece of ‘knowledge’ he had hitherto acquired before he will affirm this pessimistic conclusion that knowledge was impossible.

To perform this pretty onerous task of sifting all his former beliefs, Descartes chose to employ the attitude of the skeptics – those who deny that objective knowledge of reality (in any guise) is impossible. This attitude has been called, by commentators, the *methodic doubt*. While employing this ‘methodic doubt’, Descartes concludes, first, that all his former beliefs that derive from common sense experience, cannot provide him with certain knowledge on two grounds: one, sense experience often deceive us (optical illusions, for example). According to him, is it not “prudent never to trust completely those who have deceived us even once?” (Descartes 2016). Besides this, even if we seem so sure of ourselves as being conscious beings, Descartes is quick to remind us of the sheer resemblance of dream and ‘real life.’ In light of this fact, he rhetorically queries us again: how do we *know* for certain that this so-called present ‘real life’ is not a long dream from which we might one day wake up from? Second, and lastly, Descartes avers that the seemingly apodictic proofs and conclusions of the mathematical sciences are not immune from doubt. His justification for this rather startling supposition is that it is not impossible, logically speaking, to imagine that an *evil genius* has hitherto been feeding us with perpetual phantasmagoria about the ‘truths’ of our mathematical conclusions. But, are all things then uncertain, Descartes wonders? Descartes’ answer to this question is, No. To him, even if all things are uncertain, the ‘subject’ behind this ‘doubting’ (or thinking) must be *real*, certain. This ‘I’ or *Ego* that doubts (thinks) must, therefore, exist – *cogito ego sum, simpliciter!* In an apparent reversal of the denial that there was *no* certain belief, Descartes now maintains that there is at least one certain belief – that is, the ‘I’ or ‘Ego’ or ‘Mind’ which is responsible for this self-evident activity of doubting. To Descartes, therefore, “even though there may be a deceiver of some sort who bends all his effort to keep me perpetually deceived, there can be no slightest doubt that I exist” (Descartes 2016). Like the rationalists before him, Descartes, having gotten this indubitable knowledge of the subsistence of his mind, subsequently erects a knowledge edifice on it. His ‘deduction’ of other apodictic beliefs, like the physical world and God, from the indubitable subsistence of his mind, simultaneously represents his position on the ontology of the human person. To this, we now turn our beam in the subsequent paragraphs.

What encapsulates Descartes’ ontology primarily is his dualistic view of the human person. This is clear in his avowal that in him is found an “intelligence” whose nature was distinct from his body. He writes:

I find in myself faculties employing modes of thinking peculiar to themselves, to wit, the faculties of imagination and feeling, which I can easily conceive myself clearly and distinctly as a complete being; while, on the other hand, they cannot be so conceived apart from me that is, without an intelligent substance in which they reside...I observe also in me some other faculties such as that of change of position, if it is true that they exist, they must be attached to some

corporeal or extended substance, and not to an intelligent substance. There is certainly further in me a certain passive faculty of perception, that is, of receiving and recognizing the ideas of sensible things, but this would be useless to me seeing that it does not presuppose thought. It is thus necessarily the case that this faculty resides in some substance different from me. And this substance is either a body, that is, a corporeal nature... (Donkoh 2016, pp. 565).

As expressed above, we can draw a distinction between the body and mind by expounding their characteristics in the aforementioned enunciation. Body, for Descartes, would be a substance characterized primarily by *extension*; defined by a certain figure; can be confined in a certain place; can be perceived either by touch, by sight, by hearing, by taste, or by smell; and can be moved in many ways by something foreign to it. While *Mind*, would be a substance characterised primarily by Thought. With this in mind, it would be sufficient to say that Descartes considered mind and body as two distinct substances.

In view of this submission, three quintessential questions can be raised regarding Descartes' ontology:

1. If the body is a material substance or entity with *extension* as its essential feature, and the mind is a substance too, with *thought* as its own essence, then, how can interaction, that is, the "union" and "intermingling," between such ontologically different entities occur? If the mind is unextended and matter is extended, how do they interact?
2. The second question follows directly from the first: where does this interaction take place, even if interaction could be valid?
3. A third question rests on the supposition of substance as defined by Descartes; where Descartes understood substance to be "nothing other than anything which exists in such a way as to depend on no other thing for its existence" (Benini & DeLeo 1999). By this definition, can we strictly call mind and body substances contrary to Descartes' aboriginal expression?

The notion of *mind* occupies a conspicuous stead in Descartes' ontology of the human person. The mind is a substance in which thought immediately resides. Descartes preferred the word *mind* to *soul* on the ground that he saw the latter as not only ambiguous but as often applied to something corporeal (Voss 2011). The mind however is a thing that thinks; an intelligence, intellect or reason. It is also the "first actuality" or "the principal form of man" which must be understood to apply only in virtue of which we think. Although Descartes demeans the word soul, we still see an interchangeable use of it in reference to the intrinsic principle of thought in the human being (mind). Apart from *thoughts*, nothing else can be attributed to the soul. There are two principal kinds of thought: actions of the soul on one hand, and its passions, on the other. Of the first kind, Descartes calls volitions, considering that we experience them as proceeding directly from our soul and as seeming to depend on it alone. The passions constitute those various perceptions or modes of knowledge present in us. They are called passions judging from the view that it is often not our souls that make them as they are, but in turn receives them from the things that are represented by them. A further division of the volition gives us the first part, those which consist of the actions of the soul which terminate in the soul itself, while the other consists in those actions which terminate in the body, as in locomotion (Glimcher 2018).

In Descartes, there is the power of the soul with respect to the body and the power of the soul, with respect to its passions. The former, within the limits of volition, is strictly within

the power of the soul, and can only be changed indirectly by the body. The latter is absolutely dependent on the actions which produce them, and can be changed by the soul only indirectly, except when it is itself the cause (Glimcher 2018). Descartes goes further to distinguish between two faculties or principal properties of the soul, namely: the perception of the intellect (the act of sensory perception, imagination, and pure understanding) and the determination of the will (desire, aversion, assertion, denial, and doubt) (Glimcher 2018). In his argument for the immortality of the soul, Descartes maintains that since the mind is distinct from the body, and since the human soul is in its nature *per se* entirely independent of the body, it is consequently immortal and incorruptible (Glimcher 2018).

Rebuffing the arguments of some ancient philosophers about the plurality of souls in human beings, Descartes argues that there is only one soul in human beings, *the rational soul*; for no action can be reckoned human unless they depend on *reason*. The vegetative power and the power of moving the body, which is called the vegetative and sensory souls in plants and animals, exist also in human beings; but in the case of human beings, they should not be called souls because they are not the first principle of their actions, and they belong to a totally different genus from the rational soul. With this argument in mind, Descartes affirms that the essence of man is mind (thoughts). He writes: "I knew nothing clearly as belonging to my essence excepting that I know no other thing which pertains to my essence. I do not admit in myself anything but mind, therefore, I am a thing that thinks or a thing that has in itself the faculty of thinking" (Miller & Miller 1982). Descartes' distrust, therefore, covers everything, including his own body, an entirely different substance. Since he has already defined that he is, a thinking thing, he, therefore, finds it necessary to reject other aspects of his perceived existence to add up to his thesis: *Cogito ergo sum* (I think, therefore, I am). From the foregoing, it is clear that the essence of man for Descartes is *mind*; this indicates a systematic rejection of the body and its attributes in the philosophical *corpus* of Descartes. Descartes further writes, "of these things (the body and its attributes), I found none of which I can say that it pertains to me. I am, I exist, that is certain. If I ceased entirely to think, I should likewise cease altogether to exist, hence to speak accurately, I am not more than a thing which thinks, that is to say, a mind or a soul or an understanding or a reason. I am however a real thing and really exist; a thing that thinks" (Koyré & Franklin 1979). This implies that all those that relate to the nature of body are nothing but dreams (and chimeras) and there is no argument for him, which the existence of the body can be necessarily deduced.

Having espoused the nature of the mind, the essence of man, the place of matter, and other related themes in his ontology, the *onus* was on Descartes to explain the causal relationship or interaction of mind and body. To this, he writes: "I contented myself with supposing that God formed the body of man altogether like ours, in the outward figure of its members as well as in the interior confirmation of its organs, without making use of any matter other than that which I had described...(therefore) God created a rational soul and united it to the body in a particular manner" (Koyré & Franklin 1979, pp. 54). This union or interaction takes place in what Descartes calls the seat of interaction: *the pineal gland*. This gland corresponds to his description of the existence of, a small gland in the brain where the soul exercises its functions more particularly than in the other parts of the body. What influenced Descartes' choice was his

convictions via observation, that all the other parts of our brain, except the pineal gland, are double, as also are all the other organs of our external sense (Armstrong 2002). We can easily understand that images or other impressions are unified in this gland by means of the animal spirits^{xxv} which fills the cavities of the brain. But they cannot exist in this way in any other place in the body, except as a result of being in its gland.

As seen *ex post facto*, despite the separate, irreducible, subsistence of mind and body, Descartes believes that they causally affect or causally *interact* with each other (Edor 2017). The mind *wills* to sing and the mouth necessarily carries out the order. Similarly, the body, say nostrils, perceives the aroma of scrambled eggs and bread, and the mind starts to *feel* hungry, and so on. Essentially, “my mind is capable of putting my body into motion and vice versa” (Smart 2013). The obvious consequence of this position, which Descartes himself saw, is to ask exactly *how* an unextended, non-physical, mind can ‘affect’ (or ‘interact’ with) an extended, physical, body. And granted that they interact, exactly *where* is the location of this alleged interaction? Descartes’ answer that the *pineal gland*, which is located at the base of the brain (effectively explains this *how* and *where* questions of interaction) – provokes further problems. Let us suspend our critique of the Cartesian thesis of mind-body interaction till the next section of our discourse. In the interim, suffice it to say that the rationale behind Descartes’ position on the of the human person is his background as a *persona* of faith (religion) and science. His catholic background privileges the doctrines of ‘after-life’ and freedom of the will, while his scientific background thrives on the assumption that all inanimate objects in the physical world (including man’s body) follow a deterministic course. It was in a bid to reconcile these counter theses, which he found quite persuasive, that Descartes advanced his interactionist thesis of the mind-body relationship.

THE CARTESIAN PROJECT OF MIND-BODY INTERACTION: A CRITICAL ANALYSIS

The principal merit that can be adduced in favor of the Cartesian interactionist theory of psycho-physical dualism which our former analysis seems to have thrown up is that it preserves the notion of ‘free will (volition)’ upon which the twin worlds of ethical theorizing and religious beliefs are founded. It also presents supplementary knowledge on the ontological status of the mind and its functional attributes. Beyond this, however, the theory throws up a plethora of insuperable difficulties. As earlier intimated, Descartes’ position that mind-body interaction takes place in the ‘pineal gland’ is problematic. It is asked: is the pineal gland a physical or non-physical thing? If it is the former, then exactly how does a non-physical mind ‘act’ on it, and vice versa? To date, this problem assails the staunchest protagonist of the view of Descartes. Until Descartes, or his adherents can show us “how a non-spatial (unextended) substance, which cannot thereby be in motion, can cause the motion of an extended substance, or how motions in our bodies can cause changes in consciousness,” (Armstrong 2002) his views will still be clouded in a penumbra of irreconcilable difficulties.

On his part, Gilbert Ryle, writing in the 20th century, gave a sustained criticism of the Cartesian theory of interactionism. As a prelude to his own favored theory of mind which has been tagged *Logical Behaviorism*, Ryle took it as a necessary condition, the task of dismantling the Cartesian epistemological *cum* metaphysical edifice. According to Ryle, the Cartesian

theory of mind-body interaction, which he calls the *official doctrine*, is guilty of a special charge, namely, the ‘Category Mistake.’ In submitting that the human mind is like a ‘ghost in a machine,’ Descartes, Ryle thinks, painted a fundamentally flawed picture of the human person because he “represents the fact of mental life as if they belonged to one logical type or category (or range of types or categories), when they actually belong to another” (Beattie 2012). Hence:

It is perfectly proper to say, in one logical tone of voice that there exist minds and to say...that there exist bodies. But these expressions do not indicate two different species of existence, for ‘existence’ is not a generic word like ‘colored’ or ‘sexed.’ They indicate two different senses of ‘exist,’ somewhat as rising has different senses in ‘the tide is rising’, ‘hopes are rising’, and ‘the average age of death is rising’ (Beattie 2012, pp. 54).

To Ryle, the mind is not to be construed in terms of an occult entity but, rather, is to be gleaned from the actual ‘behaviors’ of a person. “The cleverness of the clown”, Ryle states, “may be exhibited in his tripping and tumbling” (Vacariu 2016, pp. 73). Against Ryle’s criticism of Cartesian interactionism, Olatunji Oyeshile argues that, “it is... doubtful whether Ryle has succeeded in explaining the mind-body relationship as well as the ontological status of the mind” (). The doubt Oyeshile is speaking of here, derives from the fact that Ryle’s Behaviorist program of mind, fails to square with the data of acting or mimicry and other ‘make-believe’ behaviors. Aside from Ryle’s criticism of Cartesian interactionism above, there are pockets of other difficulties to note. For instance, some critics of Cartesian interactionism think its bifurcation of the human person into two parts (mental and physical) violates Ockham’s principle of parsimony according to which we are forbidden from the postulation of many entities when it is unnecessary to do so (Vacariu 2016). Also, it has been pointed out that Cartesian interactionism apparently violates the principle of conservation of energy. According to this view, energy ought to be lost if indeed a bodily event produces (by way of an ‘interaction’) mental effects. Since there has been no report of any depletion in the amount of energy in the universe, according to energy scientists, it must follow that no such interactions take place (Vacariu 2016).

Much worse for Descartes is his presumption that apodictic beliefs are derivable. Richard Rorty and W.V.O. Quine, among others, dismiss Descartes’ quest for an infallible epistemology as pseudo quest, for it ignores the facticity of man’s fallibility. Cartesian interactionist thesis, a product of the ‘infallible notion of mind,’ seems to be an exercise in futility. This is the case because:

It fails to properly investigate the essence of the whole foundationalist programme which is to argue against the fallibilists. Since man is fundamentally a fallible being, it can be very difficult to seek to establish that man can have an infallible idea (say, the infallible idea off an apodictic mind) (Malachowski 2010, pp. 86).

Richard Rorty, writing in his hugely influential work, *Philosophy and the Mirror of Nature* (1979) also rejected Descartes’ theory of mind-body interaction. According to him, “... the conception of the ‘mind’ as a separate substance in which mental processes are located, far from being a concept based on direct experience, is an ‘invention’ of Descartes, which has misled philosophers since his time” (Malachowski 2010). In ‘deconstructing’ Cartesian interactionism,

Rorty postulates a hypothetical world, “*antipodea*” whose inhabitants have no concept of mind. These *antipodeans*, according to Rorty, express their mentalistic feelings by referring, instead, to the neural states of their brains and central nervous system (CNS) (Malachowski 2010). Of course, I am not unaware of the many criticisms that have been leveled against Rorty’s ideas here. But what is worth stressing, with respect to our purposes in this essay, is that Rorty rejects Cartesian psycho-physical dualism and also clearly favors the scientific worldview of personhood.

The ‘problem of other minds’, or *solipsism*, is another criticism that has been leveled against Cartesian interactionism. According to advocates of this criticism, one immediate consequence of Descartes’ theory is that one can only have knowledge of oneself or a selfenclosed world, while the external world and other people (or minds) being currently figments of imagination. If Descartes’ position is rightly interpreted as solipsism, then the question that necessarily emanates from this is: Do not other persons also exist in the sense Descartes exist? If they *do* exist, then it follows that they too, like Descartes, have minds. If this is the case, then a more insuperable question that inevitably arises from this answer is: What are the possibilities of our having knowledge of other minds in the same way in which we also have knowledge of our own mind? This ‘problem of other minds’ that Cartesian interactionism engenders is not merely about whether other persons have minds but, more technically, about how we *know that* they do have minds. As broached by J.L. Austin, “I may say I believe other minds exist but that does not mean that I know them all. (This is because) in philosophical discourse the existence of your alleged beliefs is not challenged, but the existence of your alleged knowledge is challenged” (Searle 2014, pp. 35). It is important to note that neither René Descartes nor his protagonists have been able to put forward adequate answers to these difficulties. Their various theories, for example, the Analogical, Linguistic and Intuitive theories are all riddled with theoretical difficulties and as a result have made this problem, till date, seemingly unassailable.

One last criticism of Descartes’ theory of mind-body interaction that is worthy of note has been raised by Gabriel Vacariu. Vacariu thinks that “even if most people consider, ontologically, the mind as a physical entity, many of them do not admit the epistemological reduction of the mind to the brain” (2016, pp. 73). He argues that the ‘error’ of these (‘reductionist’) researchers derive from their belief in a mono-ontological world (or ‘unicorn’ world, as he calls it) when the reality is actually that of a ‘multiverse’ ontological world. In this erroneous belief in the subsistence of a ‘unicorn’ world, argues Vacariu, is both Descartes and (his chief opponents) cognitive neuroscientists. On the basis of Vacariu’s sweeping rejection of the views of modern science, as well as Cartesian interactionism, he advances the view that the phenomena of ‘mind’ and ‘body’ (or brain) belong to ‘Epistemologically Different Worlds’ (EDWs). From the EDWs’ perspective, states Vacariu, the phenomena of mind and brain exist separately and can only be apprehended (or known) in different terms. The one is, internal and can only be *had* through ‘representation,’ whereas the other can be *observed* through the perceptual or laboratory mechanisms of positron emission tomography (PET), and functional magnetic resonance imaging (fMRI). Given this reality, therefore:

It is not possible to locate *epistemologically different ontological substances* within the same world (as Descartes wanted). In this case, the position of elements must be preserved: new conditions of observation require new entities within the new worlds, but what kind of worlds? It is not about ontological, many, multiverse or possible worlds, but about “*epistemological different worlds*” (EDWs) (Miller & Lin 2010, pp. 98).

To this philosopher, therefore, the mind-body problem, an ‘error’ from Cartesian interactionism, is a pseudo-problem. So, is cognitive neuroscience (including psychology, psychiatry, and so on), as well as all versions of identity/materialistic theories (for example, Central State Materialism, Logical Behaviorism, Brain Process materialism, and so on). Mental states could only *correspond* to entities that belong to other EDWs; they are not identical, produced, or supervene on states of another hyperontological status. With the EDWs perspective, we have to move from ontological and/or epistemological frameworks in analyzing different classes of entities to a hyperontological framework. Thus, the EDWs perspective rejects the Cartesian dualism, the identity theory, and all the nonreductionist approaches. Other traditional theories that can also be pitched against Cartesian interactionism and its cognates include: ‘*Psychophysical Parallelism*,’ ‘*Panpsychism*’ ‘*Actualism (phenomenism)*,’ ‘*Agnosticism*’ ‘*Epiphenomenalism*,’ ‘*Occasionalism*’ and ‘*Pre-established Harmony*.’ We will not discuss these positions in detail in this paper. Our justification for this deliberate desert is because, they all suffer, more or less, from the same defects that Descartes’ own theory had— especially from the point of view of *physicalism*.

PARAPSYCHOLOGY, NEUROSCIENCE, AND CARTESIAN INTERACTIONIST THEORY OF MIND.

Parapsychology is the scientific investigation of paranormal and psychic phenomena including telepathy, clairvoyance, near-death experiences, precognition, psychokinesis, reincarnation, synchronicity, apparitional experiences and other paranormal claims (Irwin 2007). Philosophers of mind, or parapsychologists, researchers in the allied fields of neuroscience (scientific study of the nervous system) and artificial intelligence (AI), since the last century (and especially the present) have been able to put forward luminous statements of research whose theoretical coherence and experimental qualities now threaten the views of people like Descartes and other so-called ‘religious philosophers (of mind).’ In this circle of influence are personages like Gilbert Ryle and his theory of ‘Logical Behaviorism’ (that we earlier considered); J.J.C. Smart and U.T. Place and their theory of ‘Brain Process Materialism, and David M. Armstrong’s ‘Central State Materialism.’ Others are Jerome Schaffer, Keith Campbell, Herbert Feigl, as well as Alan Turing and F.H. George in the field of artificial intelligence (AI). Interestingly, some of these recent trends, through their theoretical coherence and experimental qualities seem to advance a physicalist outlook to the mind-body problem. Physicalism, simply put, is the position that everything is physical. It is a thesis about the nature of reality. Contemporary philosophers, sometimes refer to physicalism, as expressing the thesis that everything supervenes on, or is necessitated by, the physical. This could mean that everything, no matter how it appears to us, will ultimately be accounted for physically. In philosophy of mind, ‘Identity theory of mind’ represents a very strong version of a physicalist

account of the mind. According to J.J.C. Smart, the identity theory of mind holds that states and processes of the mind are identical to states and processes of the brain. Strictly speaking, it need not hold that the mind is identical to the brain (Smart 2013).

As espoused by U.T. Place, Herbert Feigl, and J.J.C. Smart, the identity theory of the mind, is sometimes referred to as, brain process materialism, because these philosophers, hold that sensations are identical with brain processes. The theory, denies the existence of any irreducible non-physical property of the mind. U.T. Place, in his *Magnum opus*, “*Is Consciousness A Brain Process?*” argues that the thesis ‘consciousness, is identifiable with certain processes in the brain’, and is a reasonable scientific hypothesis. Place, suggested, that we can identify consciousness with a given pattern of brain activity (Beattie 2012). Three years after Place’ article, J.J.C. Smart published an article titled, *Sensations and Brain Processes*. In this article, Smart, defends Place’s position and hopes to put the argument that, ‘consciousness is identifiable with brain process’, in a more nearly unobjectionable form. His basic claim in the article is that “in so far as a sensation statement is a report of something, that something is, in fact, a brain process, sensations are nothing over and above brain processes” (Smart 2013: 54).

The identity theory (*Central-State Materialism*), as fleshed out by David Armstrong in his “*A Materialist Theory of the Mind*”, maintains that mental states, beliefs, and desires, are identical with the states of the central nervous system. Armstrong further argues that, if the mind is thought of as ‘that, which has mental states,’ then we can, on this theory (of centralstate materialism) say, that the mind is simply, the central nervous system, or less accurately but more epigrammatically, the mind is simply the brain (Armstrong 2020). Mental states here are identifiable with physico-chemical states of the central nervous system. Suffice it to say here that all these permutations are direct responses to the undoing of previous dualistic (i.e Platonic and Cartesian) attempts to factor out a dependable *corpus* in the herculean task of unearthing the ontology of human person.

CONCLUSION

We set out in this paper to discuss the Cartesian approach and contributions to the mind-body problem. In discussing this, the paper critically examined the central arguments of Cartesian interactionism and carefully highlighted some criticisms besetting Descartes’ approach. The paper also identified some recent trends in parapsychology and neuroscientific research to stifle the Cartesian project. Admittedly, a relationship among self, mind, and body in humans is still not clearly known in philosophy and science because of the absence of germane human data that adequately facilitates an objective explanation. Teachings connected to their relationship in religions have been given in general and subjective terms. Consequently, philosophers and scientists have been investigating to find objective proofs related to their relationship. Recent findings in neuroscience, by their physicalist approach, seem to construe the mind-body problem as a pseudo-problem. But, their monistic and materialistic account of human person fails to square with the data of phenomena like precognition (in dreams, for example), out of body experiences, near-death experiences, telepathy, and many other concerns. Given their inadequacies, Descartes ought to be credited for articulating foundational knowledge on the ontological status of the mind and its functional attributes. Beyond this, neither Descartes nor his detractors can be said to have adequately succeeded in offering an

objectively reliable account of the human person. Thus, the project of personhood or the discourse on human nature remains a perennial philosophical mission.

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