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An Interactionist Analysis of Cartesian Indebtedness and Footprints in Philosophy

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Abstract: This paper argues that Descartes is indebted to the common philosophical patrimony and also made some imprints on philosophy. On the dualistic nature of substance, Descartes is indebted to Pythagoras, Plato, and Augustine, and on the pineal gland theory, he is indebted to Galen, a member of the Jesuit movement. On the proof of God's existence, Descartes is indebted to Aristotle (principle of causality) and Anselm (ontological argument). On the choice of the mathematics (deductive method), Descartes is indebted to Thales, Pythagoras, Plato, Galileo, Beckman (A Dutch mathematician) and Michel de Montaigne, a member of the Jesuit movement. Descartes is indebted to Bacon for his methodic doubt. For the choice of meditation as a book title, Descartes is indebted to Epictetus and St. Ignatius (the founder of the Jesuit movement). The paper further argues that post-Cartesian philosophers are indebted to Descartes. A good example is Edmund Husserl whose philosophy is often referred to as 20th century Cartesianism. Further critical review of the philosophical questions reveals that reality is monistic although, mind and body represent different aspects of reality. In essence, mind-body interactionism is disapproved; instead, Descartes is considered the point of interaction of between different philosophers and philosophies. Descartes's proof of God's existence, though rational, is an attempt by Descartes to protect his life against the attack of the church. Finally, the paper argues that Descartes' rational method is as valid as the empirical method, only that the rational should apply to spiritual phenomena and the empirical method to material phenomena. The paper adopts the Content-Analytic method of study for the purpose of clear understanding.

Keywords: Descartes, Philosophic Patrimony, Indebtedness Footprint and Interactionism.

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Introduction

To be a philosopher is to generate or respond to fundamental or perennial questions of philosophy. It follows, therefore, that all philosophies are reactions to the prevailing thought forms. It was indeed these lines of thought that influenced Hannah Arendt to argue that human beings do not act but only react to prevailing circumstances. A retrospect into the history of philosophy shows that philosophy began as a response or reaction to the prevailing religious and traditional thought form where the gods were placed

at the center of knowledge as well as, the what of reality. However, we were told (at least from the Eurocentric conception of the origin of philosophy) that philosophy began when Thales of Miletus responded to these prevailing circumstances by questioning the *status quo* and postulating water as the ultimate substance that could account for the cosmos. Anaximander, responding to the same question, argued that the material cause and first element of things was the infinite. He was the first to introduce the name, "material cause" (Kolak, 1998, p. 4). It is clear from the forgoing that Anaximander was the first to use the concept of material cause, which later became more manifest in Aristotle's philosophy. Anaximander considers this ultimate substance or stuff as the infinite boundless or the "Aperion". For his own part, the third in this series of Ionian philosophers, Anaximenes, when confronted with the same question, said it was fire or air. For him, "it differs in different substances in virtue of its rarefaction and condensation when it is dilated so as to be rarer, it becomes fire... winds, and on the other hand are condensed air (Kolak, 1998, p. 6). It is logical to argue that since philosophers respond to the philosophies of their predecessors, no philosophy can be devoid of some form of influence(s) owing to the philosopher's reading of other philosophers' works.

In effect, this is why many philosophers hold that all philosophies are footnotes to Plato and Aristotle. Popkin and Stroll, (1993) put it thus: "it has been claimed that all of the kinds of metaphysics are actually merely permutations of the views of Plato and Aristotle" (p. 121). Jacques Derrida in agreement with this view emphasized the need to go back to Plato and Aristotle's philosophy. In his words, "I think we need to read them again and again and I feel that, however old I am, I am on the threshold of reading Plato and Aristotle. I love them and I feel I have to start again and again and again. It is a task which is in front of me, before me" (Gaston, 2007, p. vii). This claim, to some extent, is true but what probably is yet to be understood by these sets of scholars is that Plato and Aristotle themselves did not philosophize in a vacuum, hence, they are also indebted to other philosophers, particularly Parmenides and Heraclitus. Perhaps, their views could only be viewed as valid only to the extent that their philosophies marked the beginning of what we could term a genuine classical collegiate system as was taught in Plato's Academy. However, the same trend continued as Plotinus who was influenced by Plato's thoughts bridged the gap between Platonism and Augustinianism. St. Augustine in the citation below shows his reason for selecting Neo-Platonist philosophies.

> It will be recalled that I selected the Platonists, who are deservedly considered the outstanding philosophers, first, because they could see that not even the soul of man, immortal and rational (or intellectual) as it is, can attain happiness apart from the light of that God by whom both itself and the world were made, and second, because they hold that the blessed life which all men seek can be found only by him who, in the purity of chaste love, embraces that one supreme good which is the unchangeable God. (Augustine, 1958, p. 186).

He, thus, transformed Plato's philosophy to a Christian philosophy. He is, therefore, indebted to Plotinus and, by extension, Plato as he reinterpreted Plato's worlds of form and matter as heaven and earth respectively. For his own part, the Islamic scholar Averroes (IBN RUSHD) and Maimonides (Moses Ben Marmon) bridged the gap between Aristotle's philosophy and Aquinas' philosophy. While Averroes brought Aristotle's philosophy to the limelight in the Islamic religion, Maimonides did so in the Jewish tradition. Maimonides' most famous work is now generally regarded as one of the greatest philosophical works of the Middle Ages: *Dalalat al-Ha'rin* (Guide for the perplexed 1191). In this book, he tries to bring Judaism to align with Neo-platonic Aristotelianism as taught by al- farabi (Abu Nasr, 870-950) and Avicenna (Kolak, 1998, p.320). In effect, our interest here is to show that Maimonides is indebted to Aristotle while Aquinas, in turn, is indebted to him or to Aristotle through him. As Kolak (1998), puts it, "The work had tremendous influences over both Jewish and Christian scholastics especially Albertus Magnus and Thomas Aquinas, as well as, over subsequent centuries, Spinoza, Mendelssohn, and Leibniz" (p. 320). Aquinas, therefore, used Aristotle's philosophy as the basis for his proof of God's existence. These series of reactionary philosophy and bequeathing of ideas to successors continued through all philosophies until Descartes who is considered the father of modern philosophy and even beyond him to the present-day philosophies. Clemenson, (2007) shows that Descartes is indebted to most

of the scholastics and even back to Aristotle and Plato. "The La fleche text follows the traditional division of real being into the ten categories (substance and the nine accidents of quantity, quality relation etc." (p.17). Descartes himself even bequeathed something to his successors like Husserl and others such as Malebranche and Gilbert Ryle.

Husserl, like Descartes, considered the ego as the source of all knowledge. Although, they differ in that for Descartes, the ego is the first Axiom which enabled him to draw conclusions about reality, but in Husserl it is the matrix of experience (Olatunji A. Oyeshile in Akanmidu ed. 2006, p. 49). Our interest, therefore, is not to write the history of philosophy but to show, as has been partly shown, that all philosophies are actually responses or reactions to other existing philosophies and, as such, no philosophy could be said to be devoid of influence; hence, all philosophers must be indebted to at least one preceding philosopher. Thus, indebtedness may not only be seen in similarities of thought but even in choice of vocabularies and discourse of the same theme. This is our focus because philosophy is about the genus (Universal) but we will limit the voice of our pen to Descartes' responses to the fundamental questions of philosophy and his indebtedness to the common patrimony of philosophy. By this, we shall show how Descartes is indebted to philosophers such as Anaximander, Aristotle, Aquinas and Bacon among others.

The paper focuses on Descartes, since it is almost universally accepted that Descartes is the founder of modern philosophy and many scholars consider his works as very original, thus, making him to be perceived as someone who philosophized in a vacuum.

Philosophical Questions and Descartes' Responses

The Nature of Philosophical Questions

The nature of a philosophical question is not too easy to determine. This is because even the nature of philosophy itself is shrouded in controversy. Some scholars believe that philosophy is a guiding principle or a way of life. Some are of the view that philosophy bakes no bread, but adds values. Some see it as a discipline that must put food on the table, for it to be considered worth its salt. There are also those groups such as members of the Vienna Circle who believe that the sole purpose of philosophy is the analysis of human language. These differences so stated also play out when an attempt is made at characterizing philosophy or defining philosophy. Socrates, for instance, defines philosophy as the "reflective examination of the principles of the just and happy life". For Kant, it is the "articulation of the spirit of the age". Wittgenstein saw it first as "I know not what" and later as "the logical clarification of our thoughts". But despite all disputations on this definition and the nature of the philosophical enterprise, all philosophers agree on the point that philosophy must ask some fundamental questions. That is, philosophers must ask some metaphysical questions about the why and what of things. After all, we are told that philosophy started as a result of man's wonder about his environment. Metaphysics, therefore, asks such questions as what is the ultimate stuff of the universe. What is being? Is reality one or many? What is the nature of the human mind? Is man free or determined? What or who is God? The question of philosophy therefore, is primarily the question of metaphysics. Philosophy after raising these fundamental questions of metaphysics does not stop at that but goes further to set criteria upon which those questions can be answered. Epistemological questions such as how do we come to the knowledge of the natural world? How do we know the nature of the mind? Can we really know anything? What is truth? In fact, most times the epistemological questions are implied in the metaphysical questions. This is why Moore and Bruder (2002) say "you don't generally find metaphysics and epistemology very far apart" (p. 16). That we want to confine the ink of our pen to the metaphysical and epistemological questions does not mean that these are the only questions that the philosopher (Descartes) was faced with, hence, there are logical, ethical and axiological questions; only that the metaphysical and epistemological questions are fundamental in the philosophical project.

Descartes' Responses to the Metaphysical Questions

In Cartesian philosophy, there are two different classes of substance. The first is the "ego" (self) or mind, the second is body. Descartes after employing his metaphysics of doubt which we hope to discuss later in

this paper stumbled on the first indubitable axiom (ego). "What of thinking? I find here that thought is an attribute that belongs to me: it alone cannot be separated from me. I am; I exist, that is certain" (Descartes, 1641, p. 305).

Popkin and Stroll (1993) explain the nature of this first substance when they observed that "the mental substance has as its essential property that it thinks…." (p. 129). Descartes appears clearer in asserting that the self is a substance when he attempted to deduce God from the self thus:

> for although the idea of substance is within me owing to the fact that I am substance, nevertheless I should not have the idea of an infinite substance, since I am finite, if it had not proceeded from some substance which was veritably infinite" (Descartes, 1641, p. 312).

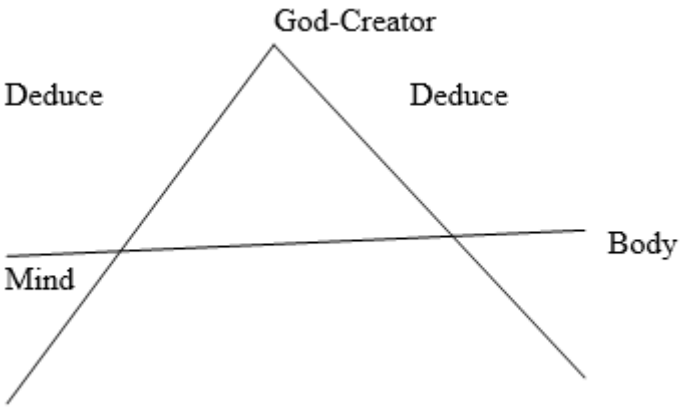
For him, therefore, God's existence is implied in the cogito substance. God is a creationist substance derived from the cogito. God is infinitely eternal and immutable. According to Descartes, "by the name God I understand a substance that is infinite (eternal and immutable) independent, all-knowing all-powerful and by which I myself and everything else, if anything else does exist have been created" (Descartes, 1641, p. 312). But whether this deduction is enough grounds to prove the existence of God for now, is not our primary concern. Descartes did not stop here; he went further to deduce the second substance which is body, matter or what he calls "res extensa". That is, the external world. Recall that Descartes calls the first substance (ego/self /mind) "res cogitate." "Nothing further now remains but to inquire whether material things exist. And certainly I at least know that this may exist in so for as they are considered as the objects of pure mathematics, since in this respect, I perceive them clearly and distinctly" (Descartes, 1641, p. 322) Stefan Afloroaei, in a recent publication, emphasizes the existential perspective of this Cartesian deductive philosophy thus: "As has been rightly noted one's understanding of the self provides a means to understanding the others (Sein Und Zeit, 26) especially, in the public Milieu." Descartes actually proves the existence of the material world or matter, not from the point of view of the senses which deceived him in the past, but from the point of view of reason since this ideas are still in his mind. He speaks for himself: "And this substance is either a body, that is, a corporeal nature in which there is contained formally (and really) all that which is objectively (and by representation) in those ideas…" (Descartes, 1641, p. 325).

In answering this question of substance which is a traditional question of philosophy, Descartes also responded to other perennial problems of philosophy, i.e. the problem of monism and pluralism, the problem of evil, the problem of appearance and reality etc. He also created a new problem which is the mind-body problem. We shall briefly show how he responded to this problem of substance and created the mind-body problem. This mind-body problem is not entirely a new problem as shown by Samuel Olusegun Steven in his article "Cartesian Dualism: An Evaluation of Wiredu and Gilbert Ryle's Refutations". "The issue of mind-body is as old as the history of Ancient Greek philosophy. This problem can be seen in the Pythagoreans as well as the philosophies of Socrates and Plato (Steven, 2011, pp. 156-165). But we argue that Descartes created this problem because he went further than Pythagoras, Plato and St. Augustine to establish a connection or a point of interaction between the mind and the body. The problem now is, how can two substances of different category interact? Gilbert Ryle actually attached Descartes on this point by saying that Descartes made a "category mistake" "he also calls it the dogma of the ghost in the machine" (Ryle, in Beakley and Ludlow eds. NY, p. 80). *Meditation* VI speaks volume of the mind-body problem.

> In order to begin this examination, then, I here say, in the first place, that there is a great difference between mind and body, inasmuch as body is by nature always divisible, and the mind is entirely indivisible, for, as a matter of fact, when I consider the mind, that is to say myself inasmuch as I am a thinking thing, I cannot distinguish in myself any parts, but apprehend myself to be clearly one and entire, and although the whole mind seems to be united to the whole body, yet if a foot, or an arm or some other part, is separated from my body, I am aware that nothing has been taken away from my mind. (Descartes, 1641, p. 327).

Descartes in the foregoing citation characterizes mind and body as indivisible and divisible entities respectively. But the problem inherent in his account of the mind-body problem is the point of interaction. Stumpf and Fieser (2003) emphasize Descartes' inability to solve the problem when they argue that "…Descartes' strict dualism made it difficult for him to describe how the mind and body could interact upon each other. If each substance is completely independent, the mind must dwell in the body as a pilot in a ship" (p. 232). Descartes offers the pineal gland as the point of interaction between the mind and the body. But it remains to be seen as a logical and evidential justification of interactionism in dualism. Indeed, this problem, in my opinion, still remains unresolved despite a plethora of criticisms against Descartes and attempts at resolving it by Descartes' successors such as Spinoza, Leibniz, Malebranche, Locke, Berkeley, Hume, Kant, Ryle etc.

The problem of one and many as is evident in Cartesian metaphysical construction is interconnected or closely linked to the problem of substance from which Descartes created the mind-body problem. Essentially, it raises the question whether reality is one, two or many. This is after close observation of reality as presented in appearance. But Descartes' position is that reality is dualistic. However, someone may erroneously describe Descartes position as pluralistic since, apart from the mind and the body, there is another creative substance called God.



Such pluralistic description is wrong because it does not take into account the mental (spiritual) and bodily (material) parameters for the bifurcation of entities. It is therefore, safe to say that for Descartes, reality is dualistic.

For Descartes, Evil is not a privation as Augustine told us but simply the wrong application of the mathematical or deductive method of reasoning. The evil demon is responsible for the wrong ideas since he deceives us. "In the process of systematically establishing everything which he can doubt in order to discover if there is anything of which he can be certain, Descartes appeals to the figure of the 'Demon'" (Crome, 2005, p 1). In the light of our understanding, we could locate Descartes' response to the problem of appearance and reality by focusing attention on Descartes *Meditation* I, in which he doubted the things that could be brought to the sphere of the doubtful. It is crystal clear that Descartes is not in favor of the Aristotelian world of appearance, given his level of discontent with the things presented by the senses, even though, in the later part of his *Meditation,* he logically proved the existence of matter. Reality, according to Descartes, lies primarily in the self or ego from where other forms of reality (matter and form) spring forth. It follows that appearance, if not established by light reasoning, is illusory and, as such, could not be the real.

Descartes' Responses to the Epistemological Questions

The Question of Method and Descartes Metaphysics of Doubt

In his *Discourse on Method,* Descartes notes that "The greatest minds are capable of the greatest vices as well as the greatest virtues, and those who proceed very slowly may, provided they always follow the

straight road, really advance much faster than those who, though they run, forsake it." (Descartes, 1637, p. 265). Descartes, again, has this to say in the *Rules for the Direction of Mind*: "Consequently, if we reckon correctly, of the sciences already discovered, arithmetic and geometry alone are left, to which the observance of this rule reduces us" (Descartes, NY, p. 224). It is crystal clear from the two foregoing citations that Descartes believes so much that philosophy must have a method. This was influenced by prevailing dispute upon his advent into the philosophical arena, namely the debate between Galileo's deductive and Bacon's inductive method. Our concern here is in Descartes' interest in choosing a method for philosophy. Descartes began his composition of the *Meditation*s by expressing a need to disregard all of his beliefs from childhood until his present state at the time. However, he did not fully reject every aspect of religion or attack the belief in God's existence. Instead, he doubted his senses and anything they revealed (Venable, NY, p. 6). Descartes decided to embark on a voyage of doubts, but in a thematic way that it could lead to the establishment of certainty. It was both a metaphysics and an epistemology of doubts. It is a metaphysics of doubt because it was a doubt at the foundation of reality and also a doubt beyond many assumptions of reality. It was an epistemology of doubt because it set the criteria for the knowledge of reality.

Indeed, we argue that Descartes' methodic doubt as often misconceived by scholars is not doubt in content, though methodic; it is deceptive in the sense that it is doubt in pretense. "Descartes in the *Discourse* posed two fundamental questions and then proposed a new method. The questions were; how will I know what is certain (absolutely true) when I confront it? And how will I use that truth to construct a new system which is also true..." (Richards, NY, p. 5). Descartes, in answering these questions, established and constructed a method that is as certain as the mathematical method of geometry and arithmetic. Indeed, his persuasion accounts for the second citation in the paragraph thus: "Consequently, if we reckon correctly of the sciences already discovered, arithmetic and geometry alone are left to which the observance of the rules reduce us" (Descartes, NY, p. 224). It means, therefore, that Descartes adopted the mathematical method of Galileo as against the inductive method of Bacon. But before he got to this point, Descartes engaged in a thematically organized doubt where he doubted everything he knew, particularly, those presented to him by the senses. It is for this reason, therefore, that we refer to his method as the metaphysics of doubt. His whole philosophical enterprise had its foundation in this doubt and goes beyond the given (senses) to establish reality through deduction. In other words, it was a purposeful doubt geared towards the discovery of reality.

The Productive Role of the Mind in the Cartesian Project

In the Cartesian epistemological project, the mind performs a productive role. There are two forms of knowing. These are intuition and deduction. Descartes tells us that knowledge begins from intuition. The self or ego (cogito) is apprehended with immediacy after a long period of doubt. Lawrence Ogbo Uguanyi in his article "Does Idealism Adequately Address the Concerns of Epistemology?" puts it thus: "in the Cartesian theory, knowledge is achieved through intuition and deduction. Intuition provides ideas of reality that are free from doubt about that which we understand. While deduction is the process by which we arrive at truth through an uninterrupted action of the mind" (Ugwuanyi, 2005, pp. 143-154). According to Descartes, these two operations of the mind also account for the differences between thinking and reasoning. While reasoning goes with deduction, thinking in the Cartesian project leads to the knowledge of the self (mind). Reasoning is a deductive process that moves from the axiom of self to God and then the external world. Put differently, reasoning is a deductive process that leads to the knowledge of God and the external world (body). Descartes argues that the mind is productive. That is, the mind produces ideas of God, and of the external world. This was what Geoffrey Gorham (2002) was reacting to when he raised the question, how could bodies be the origin of our sensory ideas if, as Descartes says in a 1641 letter to Mersenne, these ideas must have been in us before the stimulation of the sense organs…? (pp. 355-388). In his article entitled "Descartes on the Innateness of all ideas" Gorham observes:

> this question has lately received considerable attention in the secondary literature, with the large majority of communicators arguing that, given a sufficiently nuanced account of what it means for sensory ideas to be innate, the universal innateness thesis does not preclude a significant causal role for bodies in sensation[2] the majority position which is that in expounding the hyper-nativist doctrine, Descartes intends to imply that bodies are not the efficient causes of our ideas (Gorham, pp. 355-388).

Notwithstanding commentators' views on the causal hermeneutics of the universal innateness principle, our understanding is that the mind performs a productive role in the formation of knowledge. This, of course, is contrary to the later empiricists' claim that the mind performs a passive mechanical role. For Descartes, ideas are generated from within and not from without as the empiricists had claimed. Kant responded to this controversy by mediating, in the sense that he sees the mind as performing an active role rather than a productive or passive role. But the question remains to be re-examined, what is the role of the mind in the knowing process? We shall attempt to answer this philosophical question later in this paper. But for now, let us state clearly that in the Cartesian epistemological project, the mind performs a productive role. Ideas are generated from within. This position, indeed, has placed Descartes as one of the classical idealists and as the founder of the rationalist school of thought. That the mind can know things without actually experiencing them is called rationalism" (Mannion, 2006, p. 77). To sum up our point here, Descartes responded to the epistemological question of method from the mathematical footprints of Galileo with an element of Bacon's idols or prejudices. Descartes thinks that knowledge should be grounded on a sure foundation, hence, he adopted the mathematical method. In a systematic way that Bacon had proposed, Descartes doubted all his previous knowledge and came to the discovery of the axiom (self) which could not be doubted. It, therefore, became clear to him that reason is the only sure tool for the establishment of a reliable knowledge; apart from intuition. The mind, therefore, is instrumental to the production of ideas.

Descartes' Indebtedness to the Common Philosophical Patrimony

As has been agued in the introduction to this paper, the notion of substance could be traced back to Thales who is the first acclaimed Western philosopher. This theme runs through Thales, Anaximander, Anaximenes, and Pythagoras to Socrates, Plato and Aristotle and beyond them to Descartes. However, each of them gave different account of the nature of this substance. For the Ionian philosophers, substance is monistic and materialistic (matter). For others, such as Plato and Pythagoras, it is dualistic and spiritual or mythical. Descartes inherited this line of thought. Hakim (2006) shows Descartes' indebtedness thus:

> For Plato, as an example, the changing nature of this world required the unchanging nature of the world of ideas as the free substance of the real. St. Thomas saw in the substance the primary reality that, if destroyed, would destroy all reality as well. The notion of independence of substance, renewed in modern times by Descartes was brought to its apex by Spinoza. (p. 93).

Hakim, however, shows that substance in Aristotle has a different nature compared to that of Plato and Descartes. "But for Aristotle, substance is knowable in and through accidents or qualities, such as shape, color, movement" (Hakim, 2006, p. 93). Joseph Omoregbe (1996) presents it thus: "According to Aristotle, and the Scholastic philosophers, substance as opposed to an accident, is whatever exist on its own; that is, whatever exists in itself and not in another being. For Descartes, substance is an entity which requires nothing but itself in order to exist. This definition of substance says more than the Aristotelian-Scholastic notion of substance" (Omoregbe, 1996, pp. 169-170). Even though we have somewhat attempted to show in this paper that the mind-body problem was created by Descartes, we could trace it back to the Pythagorean nexus between matter and soul. As Steven (2011) rightly observed "The issue of mind-body is as old as the history of Ancient Greek philosophy. This problem can be seen in the Pythagoreans as well as the philosophies of Socrates and Plato" (pp. 156-165). Similarly, Clemenson (2007) traced the question of substance and mind-body dualism to Socrates, Aristotle, Scholastics, and

Jesuit or La Fleche scholars. In his words, "in Socrates the genus substance is less perfect than the genus body and its specific difference, corporeal; body is less perfect than organism and its specific difference living; organism is less perfect than Animal..." (Clemenson 2007, p. 19). It was as a result of the trace of indebtedness to the common patrimony of philosophy that Clemenson (2007) wrote:

> What was Descartes most important philosophical innovation? If asked this question in an examination most philosophy student would probably name the cogito, or perhaps the doctrine of mind-body dualism, yet neither originated with Descartes. A version of the cogito may be found in Augustine and mind-body dualism is as old as belief in metempsychosis. Descartes originality lies not so much in this or that doctrine or argument, but in a way of philosophizing that takes mental representation or ideas as the starting point of philosophical inquiry. (Clemenson, 2007, p. 1).

In fact, it has been argued that Descartes borrowed the notion of pineal gland which he used to account for the interaction between mind and body from a Jesuit scholar known as Galen. "Numerous publications have stressed out the theories about the pineal organ before" (6-11). "The first comprehensive description of the pineal gland is found in Galen's *On the Usefulness of the Part of the Body*, eight book…" (Berhouma 2013, p. 1). According to him, the name "pineal gland" was derived from the Greek "Konario" or the Latin name "glandula pinealis." However, at that time, a gland was considered to have purely mechanical support role to vessels, particularly veins. In fact, the pineal gland theory is not even original to Galen, but we were told that Descartes adopted it from his reading of Galen's work.

The Cartesian notion of matter and form which may also represent mind and body is also not original to Descartes. It could be traced back to Pythagoras, Heraclitus, Plato, Augustine and the Jesuit scholars. Descartes used the dream hypothesis and the wax experiment to show that matter is not real. He adopted the platonic thesis of participation in the form. Although, he did not exactly use Plato's language, we understand his notion of matter (body) as participating in his notion of self or ego. This dualism is a close copy of Plato dualism, hence, they are both based on the laws of reason (mathematics), but they differ in that for Plato, knowledge begins from matter or senses (hearsay), but for Descartes knowledge begins from the mind or self.

Descartes' proofs of God's existence was a consequence of fear and trembling for his life. Descartes was aware that Galileo faced the inquisition and died after his refusal to renounce and abandoned his findings on the heliocentric theory of the world. Descartes, therefore, wrote to accept the doctrine and beliefs of the church in order that he may live.

> For although it is quite enough for us faithful ones to accept by means of faith the fact that the human soul does not perish with the body, and that God exists, it certainly does not seem possible ever to persuade infidels of any religion, indeed we may almost say, of any moral virtue, unless to begin with, we prove these two facts by means of natural reason (Descartes, 1641, p. 295).

Descartes having set out to prove the existence of God employed three different arguments out of which none is original to him. The first argument, in their order of presentation in the *Meditations*, is the causal argument. Descartes, in trying to account for the cause or origin of deception, sought to investigate if God actually exists.

> But in order to be able altogether to remove it, I must inquire whether there is a God as soon as occasion presents it, and if I find that there is a God, I must inquire whether he may be a deceiver; for without a knowledge of these two truths I do not see that I can ever be certain of anything. (Descartes, 1641, p. 308).

He, however, concludes that God exists and that he (God) is not a deceiver. Instead, the evil demon is the one responsible for the fake ideas we get from the senses. Descartes adopted Aristotle's notion of cause

and effect, and potency and actuality in establishing the validity of God's existence.

> By the name God I understand a substance that is infinite (eternal, immortal), independence, all knowledge, all powerful... For although the idea of substance is within me owing to the fact that I am a substance, nevertheless, I should not have the idea of an infinite substance – since I am finite – if it had not proceeded from some substance which was veritably infinite (Descartes, 1641, p. 312).

Stumpf and Fieser (2003) put it thus: "how can I, a finite substance, produce the idea of an infinite substance?" The idea of perfection is so clear and distinct that I am convinced that it could not proceed from my imperfect nature. From these three points, he concludes that his idea of a perfect and infinite being comes from outside – from a perfect being who exists from God. (Stumpf and Fieser, 2003, p. 231). This argument as we can see follows Aristotle's notion of cause and effect and conception of the nature of substance. Aristotle defined substance from two points of view. First, from the point of view of the categories and secondly, from the point of view of existence. According to him, going from the point of view of the categories, substance in the "truest and primary and most definite sense of the world, is that which is not predicable of a subject nor present in a subject" (Aristotle, 1992, p. 6). From the point of view of existence, Aristotle defines substance as that which is capable of independent existence. "That which causes other things to exist but in itself is not caused by anything". Descartes borrowed Aristotle's notion of cause to prove Gods existence and the source of his perfect idea of the cogito.

> In addition to the argument from causation, by which he proved the existence of God, Descartes following Augustine and Anselm, offered his version of the ontological argument. In his argument Descartes sought to demonstrate the existence of God by exploring what the idea of God implies (Stumpf and Fieser, 2003, p. 231).

St. Anselm's ontological argument states that "God is the greatest conceivable of all beings". Anselm argues that everyone has within him/her the idea of the greatest being. Descartes adopted this line of argument. For him, there is in every mind the idea of a being that is infinite and immutable. This being, therefore, must be God. Stumpf and Fieser (2003) tells us that Descartes could not use Aquinas' cosmological proofs since he (Descartes) is an idealist (p.232). But this may not be entirely true since Descartes also adopted a modified version of Aquinas cosmological argument by deducing God as the originator of the perfect indubitable ideas in his mind. Having established his own existence as a thinking being and things as presented by the senses, there must be a source of these things. God, therefore, is the creator.

Descartes' choice of the mathematical method was also incubated and nurtured by certain individuals and philosophical conditions. Thales, Pythagoras and some other philosophers before Descartes had given preference to the mathematical method. But Descartes' major influence when it comes to his choice of the mathematical method appears to be Galileo and members of the Jesuit school. Another strong influencer was Isaac Beeckman whom Descartes himself acknowledged in the following kind words "You alone; roused me from the state of indolence" (Cottingham, NY, p.xxi). "In another letter he spoke of the gigantic task, which, inspired by Beeckman's ideas, he had set himself: that of devising a method which would provide a general solution of all possible equations involving any sort of quantity" (Cottingham, NY, p. xxi). One can conclude as Cottingham argues that the most significant result of Descartes' visit to Holland was his friendship with this Dutch mathematician Isaac Beeckman. Hence, he influenced Descartes a great deal. Now, let us turn to Galileo. Prior to the advent of Descartes, there were strong contentions as to which method is the best method for science. Scientists were divided into three camps. While Francis Bacon and some others were in favor of the inductive method, Galileo Galilei and few others were in favor of the deductive method. The third group were skeptics who felt that knowledge is not possible. In the face of this controversy, Descartes emerged. Do not forget that Descartes had to withdraw the publication of one of his works when he learnt that Galileo had been summoned to the inquisition. This goes to show that Descartes was inclined to adopting Galileo's method. Descartes, following these influences and his study of mathematics, adopted the rational geometrical and

arithmetical methods for its precision, certainty, clarity and certitude. According to James O. Richards, another scholar that influenced Descartes' choice of the mathematical method was Michel de Montaigne whose essays Descartes read during his study days at La fleche. One of his essays, "The Apology of Raymond Sebond," struck Descartes with particular force because of the line "…some one thing is found which we are completely certain, we can be certain about nothing" (Richards, NY, p. 2).

Another remarkable footprint of Descartes' philosophy is the methodic doubt. But this again, was influenced by Francis Bacon's idols and distempers of knowledge. Bacon in his *Novum Organum* claimed that human knowledge is distorted by the four idols of the mind. Bacon speaks for himself: "Four species of idols beset the human mind, to which (for distinction's sake) we have assigned names, calling the first idols of the tribe, the second idols of the den, the third idols of the market and the fourth idols of the theatre" (Bacon, 1920, p. 109). Having read what his contemporary Bacon had to say about distortion of knowledge, Descartes decided to doubt every previous knowledge the senses had offered him. This, in our view, prepared the ground for Descartes' metaphysics and epistemology of doubt.

Descartes is indebted, in general, to the Jesuit school and, in particular, to St. Ignatius of Loyola, the founder of the Jesuit school and author of the spiritual exercises which were promulgated in the Jesuit school and churches, for his choice of the word "meditation" as a title for his philosophical work (Hill, 2006, pp 1-2018). The title "meditation" presently has various specific uses, most often referring to a Buddhist spiritual discipline. But in the seventeenth century, when Descartes was writing, it referred to a genre of catholic devotional writing. Hill (2016) avers that meditational writings had two important characteristics. First of all, they were concerned with teaching and guiding practices and, secondly, 'they were concerned with transforming the self.' Hill traces the tradition of meditational writings back to the time of the Stoics. Descartes in trying to engineer self-transformation argues that anyone who should read the meditation should be one who is willing to meditate with him.

Descartes' Footprints and Successors

Descartes philosophy also made marks on some of his successors. Almost all philosophers within the Cartesian existential epoch and beyond to the present day studied Descartes' philosophy. While some saw Descartes' philosophy as the 'ground norm' of epistemology, others rejected some strands of his philosophy. For example, Spinoza and Leibniz, and even later rationalists agreed with Descartes on the primary role of reason in the interpretation and understanding of reality (substance). On the other hand, the empiricists Locke, Berkeley, Hume and even the later ones, such as members of the Vienna Circle repudiate Descartes for placing reason over and above experience. Yet, their philosophies at one point or the other still accommodate some ingredients of Cartesian philosophy. The philosophers mentioned above are not the only scholars. Some even chose to reflect on Cartesian philosophy to deliberately adopt some strands of his thoughts. This includes those who appear to have totally rejected his philosophy such as Gilbert Ryle who repudiates Descartes for judging two different entities with the same measure. He describes this error as a "category mistake" or a "ghost in the machine". However, we shall demonstrate that Descartes imprinted his footprints in philosophy through his impact on his prodigies such as Edmund Husserl.

Through the methodic doubt, Descartes got to the essence (quiddity) of his existence and it was Descartes' imprints on Husserl that led him to his phenomenology. This is why "Husserl refers to phenomenology as twentieth-century Cartesianism" (Oyeshile, 2006, p. 48). "It is Descartes who helps Husserl see that in order to find an absolute foundation on which to build its autonomous science, philosophy must 'purify' itself of every assumption concerning the transcendent world, even those purportedly confirmed by scientific investigation" (Matheson Russell, 2006, p. 53). Oyeshile (2006) was therefore correct when he wrote "Husserl believes that Descartes must bear the honor of being the genuine patriarch of phenomenology' (Oyeshile, 2006, p. 48). We are not arguing here that Husserl's philosophy is totally Cartesian, for Husserl, apart from being indebted to Descartes, could also be said to be indebted to Franz Brentano and Immanuel Kant in the areas of descriptive phenomenology and transcendental reduction respectively. Just as in Descartes, Husserl believes the ego is the source of all

knowledge. However, he repudiates Descartes for moving beyond the conscious self-substance (Oyeshile, 2006, p. 49). Descartes, according to Husserl, emphasizes only the ego cogito (I think). Husserl is of the view that a more accurate description of experience should be done in three terms thus: 'ego cogito cogitatum' (I think something). In other words, Husserl says, thinking must be thinking of something (Oyeshile, 2006, p. 49). The point that no philosopher thinks in a vacuum is further emphasized by Obioha's citing of Husserl's phenomenological method thus:

> Epoche is the Greek word for bracketing. The method of phenomenology consists in focusing on my part or all of my experience and then observing, analyzing, abstracting and describing that experience by removing myself from the immediate and lived engagement in it. I must observe the experience in question from a distance.... (Obioha, 2009, pp. 21-34).

It is clear enough that Husserl adopted the Cartesian method of doubt and renamed it phenomenological epoche. Husserl aligned himself with the Cartesian quest for absolute certainty upon which philosophy can be reformed into one all-inclusive science (Hermberg, 2006, p. 42). We can still find Descartes' footprint today in the works of more contemporary scholars such as Bourdieu, Foucault, Derrida and Deleuze. This accounts for Mullarkey's assertion that, 'without a doubt, Bourdieu lies at the pinnacle of one kind of French thought – the mathematical Cartesianism of res extensa re-conceived through set theory (Mullarkey, 2006, p. 110). Again, David Armstrong took after Descartes in his discourse on the nature of mind but as we mentioned earlier, we do not intend to make long note here but to show that there is Descartes footprint in post-Cartesian philosophies up to the present epoch.

A Response to the Philosophical Questions

Starting from our initial premise that the fundamental questions of philosophy are primarily metaphysical and epistemological, and adopting the common notion of metaphysics as defined by Aristotle as "the science of the causes and first principles of 'ousia'" or as understood by the popular coinage of Andronicus of Rhodes where it is interpreted as beyond nature, we can conclude that metaphysics is the search for the ultimate reality (foundation of reality) or an attempt at going beyond the given. Any how we conceive it, it simply means an attempt at interpreting the empirical or giving in an unempirical term or form. We, here, argue as most ancient, medieval and modern scholars have, that there is only one substance but with two different aspects or attributes. In other words, reality is monistic but dualistically monistic. There is the mental as well as the physical components of reality. This, however, is not an adoption of Cartesianism in its spirit and letter, neither is it an admission/acceptance of the scholastic deity called God. As Amanda Hale rightly observes, it is quite a leap for Descartes to conclude that if he can know of the wax that it is clear and distinct, then, it must be true that he can know himself (Hale, NY, p. 25).

Descartes, on the basis of clear thought, went beyond himself to admit of the existence of God. We think that the thought of God only appeared to Descartes as a way to secure his life for, as we have argued earlier, Descartes' logic of God's existence was a logical leap based on fear, conscious of the trial and condemnation of Galileo by the inquisition. In fact, Cottinghan quoted him correctly when he wrote "'I desire to live in peace' he wrote to his friend and chief correspondent, Marin Meisenne" (Cottingham, NY p. xxi). We argue this position not neglecting Descartes most detailed defense of the universal innatism thesis given in the 1648 comments on a certain broadsheet. His point-by-point response to the list of criticisms published the previous year by his erstwhile disciple, Regius (Gorham, 2002, pp. 355-388). In responding to the question of whether there is God or not, we agree with Descartes and his predecessor, Anselm, that there exist in human consciousness a being so great that could be called God, but as Kant argues, it is possible that Descartes misapplied his rational faculty by going beyond the empirical.

On the question of evil, we do not subscribe to the Augustinian account that evil is a privation of good or the Cartesian view of evil as a product of sense deception, but as we observed earlier that reality is monistically dualistic, so also, every aspect of reality has that nature of duality. By this position, we agree

with Spinoza's double aspect theory. That is, good and bad are two different aspects of the same reality, they are assigned the names good and evil by our mental construction of human experiences. We think that we have indirectly responded to the question of appearance and reality by discussing the nature of substance. Our position is that there are two aspects of reality. Those that appear (phenomena) and those that do not appear (noumena).

Conclusion

To be a philosopher is to generate or respond to the fundamental questions of philosophy which primarily are metaphysical and epistemological. This paper has successfully argued that no philosopher philosophizes in a vacuum, hence there must be some elements of heritage bequeathed to such a philosopher by his predecessors(s) which goes to show the scholar's indebtedness. The paper focused on Descartes and the choice of Descartes was mainly because of his perception as the founder of modern philosophy which often creates a misleading impression that his originality is such that he could be said to have come from the moon. Descartes' leaning on the shoulders of Plato, Aristotle, Galileo, and the Jesuit scholars presented a dualistic philosophy based on the mathematical method. This philosophy also created room for the existence of a logically deducible creationist God. This Logic was slanted towards a pragmatics of life preservation. The mind-body problem often associated with Descartes was not exclusively his own creation. We find in Pythagoras and the Pythagoreans glimpses of this problem. The word "pineal gland," which Descartes located his mind-body interactionism, was actually borrowed from Galen, a Jesuit scholar. Galileo and Beeckman were primary influencers of the Cartesian mathematical-cum-rational method.

Descartes also influenced scholars and impacted the philosophical landscape. The core philosophy of Edmund Husserl and by extension phenomenology sprang out of Descartes' intellectual deposits. Descartes' footprints are also found in the works of the post-modernist scholars such as Foucault, Derrida and Deleuze. They and David Armstrong are another set scholars that benefited from Descartes' intellectual current. In all, this paper has been able to demonstrate that Descartes or Cartesian philosophy is the interaction point between pre-Cartesian and post-Cartesian philosophy. Descartes is the philosophical pineal gland where the past philosophies/ideas and the present philosophies meet.

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