UNVEILING EZUMEZU LOGIC AS A FRAMEWORK FOR PROCESS ONTOLOGY AND YORÙBÁ ONTOLOGY

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Abstract

Ezumezu, a prototype African logic, developed by Jonathan Chimakonam as a framework which mediates thought, theory and method in the African place, is according to him, extendable and applicable in places non-African too. This seems to underscore the universal character of the logic. I interrogate, in this piece, the logic to see if it truly mediates thought, theory and method in Yorùbá ontology (African) on the one hand, and process ontology (non-African) on the other hand. Through critical analysis, I discern that each of these thought systems operate beyond the principles of classical logic and this is one of the factors that have vitiated their appreciation and comprehension. Upon critical reflection, however, these thought systems seem to follow the principles of Ezumezu logic hence my aim – to disclose how the logic undergirds theory and method for each of those systems.

Keywords: African Philosophy, Ezumezu Logic, Jonathan Chimakonam, Process Ontology, Yorùbá Ontology.

Introduction

My research aim is to argue that there is a connection among certain thought systems for example, African and non-African, with Ezumezu as the logic that serves as a basis for thought, theory and method. For my task, I limit my investigation to process philosophy and Yorùbá ontology. In the pages that follow, I show how Ezumezu, an Africa-inspired logic system and a recent effort of Jonathan Chimakonam (2019) grounds both African ontology and Process ontology. In the pages ahead, I begin with an exposition of the main thrust of process ontology and disclose some of the conditions responsible for the little attention given to the philosophy in the dominant tradition of philosophy in the Western sphere. These conditions, which to me, are not unconnected to logic and method,, have made process philosophy not so popular among philosophers and in some cases relegated.. A similar attempt is also made concerning Yorùbá ontology. In a way, the two sections constitute the first part of this essay. The deduction in this part is that the shortcomings, perplexities and misrepresentations of each of process ontology and Yorùbá ontology continue to persist because researchers in these systems have yet to disclose explicitly, the method or logic that undergirds their theories and thoughts. This is especially the case because the Aristotelian 'goggles' which critics wear have consistently been used to vitiate these systems. Afterwards, I propose an alternative 'goggle' in Ezumezu – one that is more fitting and helpful in the comprehension of each of these thought systems. Hence, the main kernel of Ezumezu logic will be tersely discussed. For the effectiveness of showing how Ezumezu logic grounds process ontology, I evince the objections Alfred North Whitehead (the first codifier of process thought) levelled against classical logic and the emphasis on complementarity rather than contradiction. More so, I give attention to his circumspection concerning the viability of the classical laws of thought. This circumspection, to me, implies that the traditional laws of thought may need to be revised to be able to cope with some states of affairs. For the validity of the affinity between Ezumezu logic and Yorùbá ontology, I delve into the Ifá literary corpus for the emphasis on complementarity of opposites by Òrúnmìlà (the patron saint of Yorùbá philosophy) with his disciples.

The 'Spell' of Aristotle and the Historical Vitiation of Process Ontology

It is disingenuous to say that process ontology is a recent development linked to Alfred North Whitehead. In the words of Robert Mesle (2008, 8) "Heraclitus observed twenty-five hundred years ago, that you can't step into the same river twice. Indeed, as his student Cratylus argued, you can't even step in the same river once. The river changes even as we step into it, and so do we." An exploration of philosophies in the Western, Asian and even most of the intellectual traditions in Africa accentuates the locus that process ontology has been the groundwork for explaining reality. Notable sages of these traditions that employ the process outlook are not limited to Heraclitus, Cratylus, Orúnmilà, Lao Tzu, Siddharta Gautama, Zoroaster, Pierre Teilhard de Chardin and Henry Bergson. According to Adrian Ivakhiv (2018, 232) "process-relational themes can be found scattered across a wide historical swath and this background is relevant to the resurgence of the tradition today." It is, however, important to state that process ontology received neither its due attention nor proper codification since the history of Western philosophy has given attention more to substance ontology, whose principal character and the logic that undergirds it was shaped by Aristotle (OFUASIA 2015, 33). The world had to wait for Whitehead to codify process ontology as an alternative metaphysics after providing penetrating rebuttals at the dominant substance metaphysics heralded by Aristotle and girded by classical logic (OFUASIA 2017, 145-61).

Process ontology maintains that "the world is composed of events and processes" (MESLE 2008, 8) and reality is understood through becoming. In other words, it perceives the actual world as nascent, evolutionary, and innovative. Process ontology stresses on the "dynamism by which things are perpetually moving forward, interacting, and creating new conditions in the world...Process-relational thought rejects the Cartesian idea that there are *minds*, or things that think, and *bodies*, or matter that acts according to strict causal laws. Rather, the two are considered one and the same, or two aspects of an interactive and dynamically evolving reality" (IVAKHIV 2018, 234). This is "a view that, not coincidentally, finds much resonance within

twentieth-century developments in physics and biology including quantum mechanics, ecology, chaos and complexity theories, and developmental systems theory" (IVAKHIV 2018, 235). The outlook that process undergirds the actual world is implied in the thoughts, theories and methods of thinkers such as Fritjof Capra (1975), Gary Zukav (1979), David Bohm (1980), Ilya Prigogine (1981), Stuart Kauffman (1995), Brian Goodwin (1996), Ken Wilber (1996), Gary Schwarz (2002) and Lee Smolin (2013).

Whitehead (1967, 120), before all of these thinkers had already explained that the history of ideas has been the persistent "struggle of novel thought with the obtuseness of language." Whitehead is insistent that thought, theory and method employed to codify reality "for thousands of years...have given us a misleading picture of its structure" (LAWHEAD 2002, 489). The dominant thought systems, theories and methods in Western philosophy are not only steeped in classical two-value logic, they specifically employ the traditional laws of thought, especially the laws of excluded middle and noncontradiction. This is what Sophie Oluwole (2015) perceives as the groundwork for Oppositional Dualism. For her, "...the thesis which states that each aspect of every paired phenomenon exists independently of the other contradicts the reality of nature and human experience" (OLUWOLE 2015, 166). Even when Whitehead admits that contradictions, oppositions and divisions which are peculiar to classical logic are necessary for our comprehension of reality, he points out that there are other aspects of reality that these laws fail to admit.

Whitehead (1978, v) calls his system "Philosophy of Organism." For him (1978, 88) "the philosophy of organism is an inversion of Kant's philosophy...For Kant, the world emerges from the subject; for the philosophy of organism, the subject emerges from the world – 'superject' rather than a subject." The novel outlook of the philosophy of organism has to do with the replacement of traditional substance by event or process. In traditional metaphysics, every substance is defined according to its 'necessary' properties, which allow it to be distinguished from others and retain its self-identity. It may change in its contingent aspects, but in order to remain the thing it is, it must retain its necessary properties; to lose those properties is to cease being the substance it is (OFUASIA 2015, 34). Whitehead accepts some aspects of this idea, but felt that substance proponents had taken the concept too far. For Whitehead, this traditional way of viewing the world, inclusive of method, is inadequate.

The primary actualities that Whitehead terms actual entities or actual occasions are in his own words, "the final real things of which the world is made. There is no going behind actual entities to find anything more real" (WHITEHEAD 1978, 18). Actual entities replace substance in process ontology. All things that exist, be it an illusion or real, can be explained in terms of actual occasions. Actual occasions for Whitehead are the sources of meaning and why things are the way they are. Thus, Whitehead may be interpreted in this excerpt to be doing away with the traditional notion of substance which maintains identity in the face of flux. To be an actual entity,

in Whitehead's view is to be in process. He states: "actual entities are the only reasons; so that to search for a reason is to search for one or more actual entities" (WHITEHEAD 1978, 18). Actual occasions are not 'things' in the substance sense of traditional metaphysics that we are used to. They are "drops of existence, complex and interdependent" (WHITEHEAD 1978, 18). He is, however, quick to note that actual entities differ among themselves in gradations of importance. In his words: "They differ among themselves: God is an actual entity, and so is the trivial puff of existence in far-off empty space. But, though there are gradations of importance, and diversities of function, yet in the principles which actuality exemplifies all are on the same level" (WHITEHEAD 1978, 18).

For Whitehead (1978, 521), "God is not before all creation, but with all creation." In this system, God affects and is also affected by the world. Every actual occasion (including God) possesses two poles - physical and mental. God as a higher actual occasion has two natures: the primordial and consequent natures. In the former, God envisages all eternal objects and their eventual actualization. Here, God provides possibilities for all entities to choose from since all actual entities have subjective aims. In this regard, "...the subjective aim is constituted by the complete conceptual envisagement of all eternal objects laced with the urge toward their realization in the actualities of the world" (ONWUEGBUSI 2013, 253). These are options open to all actual entities to admit into their essence or not. The reaction of the choices of eternal objects chosen by actual entities informs the consequent nature of God. The consequent nature consists of the reaction of the world on it (God). The former corresponds to the mental pole while the latter corresponds to the physical pole. The implication here is that God is an active participant in the world, contra Aristotle. God occupies a central place in process ontology. In his exposition, Whitehead believes that the world has adequate reasons for maintaining the existence of God. In his words:

...it is not the case that there is an actual world which accidentally begins to exhibit an order of nature. There is an actual world because there is order in nature. If there were no order, there would be no world. Also, since there is a world, we know that there is an order. The ordering entity is a necessary element in the metaphysical situation presented by the actual world. (WHITEHEAD 1957, 104)

All things in the universe are interdependent upon one another. Much as the world depends on God, God also depends on the world. Whitehead (1978, 343) insists that "God is not to be treated as an exception to all metaphysical principles, invoked to save them from collapse. He is their chief exemplification." In a nutshell, every existing reality complement one another. The rock, the water and even the unseen interact persistently to make the world what it is. This is well captured by Robert Mesle (2008, 9) who argues that one of the core contentions of process thought is that there is "urgency in coming to see the world as a web of interrelated processes of which we are

integral parts, so that all of our choices and actions have consequences for the world around us." It is clear that in process metaphysics, reality is one great web of inter-related activities. Reality is complementary in process metaphysics. Attempts to divide the world into two independent aspects: matter and mind have been perceived as a serious flaw by Whitehead. This is what he calls "the bifurcation of nature" (WHITEHEAD 2004, 26-48). A similar idea has also been echoed by Keiji Nishitani (1990) as the depersonalization of the human person and the denaturalization of nature.

Granted that in every "philosophic theory, there is an ultimate which is actual in virtue of its accidents" (AGYAKWA 2002, 50). For Whitehead (1978, 10), this ultimate is termed "Creativity." This contrasts sharply with other systems that are wont to situate God in the highest hierarchy of things. In Whitehead's scheme, God "is at once a creature of Creativity and a condition for Creativity" (WHITEHEAD 1978, 47). Whitehead (1978, 21) says that Creativity is the "universal of universals characterizing ultimate matter of fact." Creativity "lies in the nature of things that the many enter into one complex unity" (WHITEHEAD 1978, 31). One of Chimakonam's supplementary laws of thought, Nmekoka (which would be disclosed later on) corroborates the modus operandi of Whitehead's Creativity. The only role accrued to God is no more than that of being an orderer. Like all other actual occasions, God exemplifies Creativity but also as "organ of novelty, aiming at intensification" (WHITEHEAD 1978, 104) and the "foundation of order...the goal towards novelty" (WHITEHEAD 1978, 135). It is in this sense that a goat does not give birth to a monkey. God as an agent of order guarantees some levels of regularities. Elsewhere Whitehead avers that God is "...the actual but non-temporal entity whereby the determination of mere Creativity is transmuted into a determinate freedom" (WHITEHEAD 1957, 90).

The core thesis of process metaphysics, as briefly disclosed here, has been greatly misunderstood owing to a dearth in the explicit presentation of the logic that undergirds the system. Granted, Whitehead (1948) was circumspect of classical logic which has informed thought, theory and method, throughout philosophical history, he did not provide for process metaphysics the requisite logic to propel its methodic inquiry. Aristotle was intelligent enough to understand how logic mediates thought, theory and method. Aristotle had given to the world, both the metaphysics and logic that are perceived to be not only universal but absolute. Perhaps this is why it has been "regarded almost as a scandal by some logicians that the basic formulations of the three laws of thought could be tampered with" (CHIMAKONAM 2019, 108).

The bivalent logic of Aristotle and the metaphysics (of substance) which it mediates has evolved and informed the world and cast a spell on scholarship. This leaning has been captured by Ivakhiv (2018, 234) who shows that:

A range of interactive and dialectical philosophies have been proposed to mediate between the material and the ideal, but many of these presume the underpinning of a relatively static binary structure of one kind or another, such as matter versus spirit, idea, or mind, or, alternatively, a conception of opposites...in which homeostatic balance rather than evolutionary baseline is considered the baseline norm. (IVAKHIV 2018, 234)

According to Ferguson (1972, 122), "Aristotle uses the term theology for the study of things which are separate and immutable..." In the words of Aristotle (1973, 1069a), "the subject of our inquiry is substance; for the principles and causes we seek are those of substance." Aristotle understands that the world is replete with realities that exhibit flux and stability. He, however, takes the unchanging aspects or attributes of the world as primary. This may be due to the fact that "substance metaphysics owes its success to the mode of thinking that cultivates such a mentality, i.e. in ancient times, perfection was synonymous with changelessness" (MASONG 2013, 14). The thought and theory that changelessness exhibits perfection where change indicates imperfection is mediated by a bivalent logic with the law of excluded middle and non-contradiction. Hence, between change and stability, one must be true, the other false. The history of mainstream and dominant philosophy in the Western tradition has adorned the 'goggles' of Aristotle's classical logic and laws of thought for the formulation of reality.

It is this 'Spell' which was cast by Aristotle over two millennia ago that has been used to vitiate and relegate process metaphysics. If this were not the case, Popper would not have said that Whitehead was "wander[ing] off to such questions as the (Platonic) collectivist theory of morality" (POPPER 1971, 248). It is in a related vein that William Quine while reacting to being tutored by Whitehead reveals: "Whitehead lectured on Science and the Modern World and on Cosmologies, Ancient and Modern. I responded little, even after accustoming myself to his accent. What he said had little evident bearing on the problems that I recognized. His lecture hours were mercifully short and his speech exasperatingly slow. My notes were crowded with doodles...But I retained a vivid sense of being in the presence of the great" (HAHN & SCHLIPP 1986). Where Quine was modest, Donald Davidson did not mince words as he perceived "the "unreadable" Whitehead basically...a fraud as a teacher and philosopher: Truth or even serious arguments was basically irrelevant" (HAHN 1999, 13-4). And thus, has Whitehead's philosophy being given lesser attention.

¹Whitehead's system, not only is it difficult to follow owing chiefly to its nonconformity with classical logic, it is also emphasizes interdependence and togetherness which Popper interprets as collectivists and historicist (See POPPER 1966, 85-7). Collectivism or what he calls "tribal closed society" are intellectually stagnated and has no place for humanitarianism vis-à-vis the open society. This reading of Whitehead by Popper is a carry-over from his analysis of Plato's political thoughts. He seems to take the position that like Plato, Whitehead's system is collectivist, existing to suffer the individual for the sake of the collective.

The foregoing conclusions of the eggheads of analytic philosophy regarding Whitehead and process metaphysics are similar to the ways African ontologies and religions have. I now turn to Yorùbá ontology to unearth how Aristotle's 'Spell' has also foreclosed the possibility of a fair articulation of thought, theory and method in that tradition too.

The 'Spell' of Aristotle and the Misrepresentation of Yorùbá Ontology

I have deliberately narrowed my scope to Yorùbá ontology because I find that it has suffered neglect and original assessment at the hands of experts who have adorned it with Aristotle's logic and method. In other words, this neglect is owing to the Aristotelian 'gazes' that have motivated the [dis]service. By Yorùbá ontology, I mean the study of being in general among the peoples, which does not preclude reflections on the nature of existence and the categorical structure of reality" (LOWE 2005, 670). It needs to be stated however that in "Yorùbá ontology, cosmology and the concept of the human person are the most consequential. Under the former, the Yorùbá place premium on such themes Olódùmarè and its interaction with spirits and divinities. The latter concerns the dilemma, whether or not the human person is both material and spiritual or, following the neuro-physiological reportage, whether human person is only material" (ADEGBINDIN 2011, 1). Whereas the latter is replete in studies such as Abimbola (1976); Balogun (2007); Ekanola (2006); Ofuasia (2016) especially as it pertains the discourse on destiny, I limit my scope to the former.²

With the foregoing preliminary propositions, I begin with the given — the starting point of Yorùbá ontology: Olódùmarè, the Higher God. According to John Bewaji (2007, 369), "the existence of Olodumare is not geotactic, nor is it dependent upon any human whim. This, perhaps, explains why no elaborate arguments of proofs are thought necessary for the existence of God in Yoruba religion. The starting point of wisdom among the Yoruba is the acceptance of the de facto existence of Deity." Whether or not Olódùmarè is a creator God, is still a subject of controversy.

On the one hand, Bolaji Idowu (1962, 39) informs that Olódùmarè "...is known as Eleda – "the Creator", "the Maker"" (Idowu 1962, 39) The Deity is said to be the Origin and Giver of Life, and in that capacity, it is called *Èlemí* – "the Owner of Spirit", or "Owner of Life" (Idowu 1962, 39). A similar stance is taken by John Mbiti (1970, 47). Bewaji (1998, 8) corroborates: "the evidence that Olódùmarè is the creator of everything is displayed in virtually all accounts of the relationship between Olódùmarè and the Universe. Where He did not directly cause or create, He instructed the divinities to create and He supervised. So, He both created the good and the bad, [well-formed] and the deformed, the rainy season and the drought…"

²The discourse on the human person is necessarily tied to destiny. Not that this aspect of the peoples' ontology is not undergirded by Ezumezu, logic, I have only allowed the relationship between Olódùmarè and the world for the sake of space-time limitation and to disclose the affinity with process metaphysics and process theology.

A crucial point to realize in the face of the foregoing is that there was no witness to creation. So, myths and folklores fill this lacuna, as is replete in other ontologies, African and non-African. This is one of the striking motivations for the perspective that "... the Yoruba sage neither regards God as the creator of the world nor as a perfect Being" (OLUWOLE 1995, 18). The attempt to present Olódùmarè as a Creator was a product of the response from religious anthropological scholars like Bolaji Idowu and Peter A. Dopamu, to the ethnocentric charge of paganism, leveled against the religious cultures of traditional Africa by Western ethnocentric scholars. These scholars became "privy to the quixotic intellectual quest to explain away paganism and to fulfill the vision of establishing a religious identity for the Yorùbá that is not inferior to the alien religions" (FAYEMI 2012, 321). The tendency has, therefore, become rife to parade Olódùmarè, as the Yorùbá equivalent of Yahweh and/or Allah of the Abrahamic monotheisms. To argue in this manner exposes some serious critical misrepresentations. One of these exhibits the tendency to robe Olódùmarè with Hellenistic garments (P'BITEK 1971). This provides a misleading picture of the religious cultures in traditional Africa by validating "the widespread, but mistaken belief that Africans are religious in all things" (OLADIPO 1988, 16). God as construed by the Abrahamic monotheisms "brought all things out of nothing." However, in the Yorùbá conception of the Supreme Being the idea of creatio ex nihilo is absent. Indeed, the Yorùbá believe that our earth was made out of what "was once a watery, marshy waste'' (IDOWU 1962, 40). Unlike the West where a transcendent conception of God is rampant, Olódùmarè is an immanent personae and this is why he bears connection with God as construed in Whitehead's metaphysical scheme. "The Yorùbá God does not possess any gender³ as does the Western's masculine God" (OLADIPO 2004, 260). For unlike the God of the Abrahamic monotheisms that is omnipotent, Olódùmarè is not all-powerful and perfect. This is precisely why the perennial problem of evil which has bedeviled the mainstream and dominant Western philosophico-religious tradition is obsolete and alien to the African mind.

Olódùmarè the Higher God is not perfectly adorned with superlatives of knowledge, love and power when compared with the attributes ascribed to the Abrahamic God and this is why the philosophical problem of evil does not infiltrate the thought system (BALOGUN 2009). Speaking on the accidents ascribed to God in the Abrahamic monotheisms, Whitehead (1978, 343) explains: "The deeper idolatry, of the fashioning of God in the image of the Egyptian, Persian and Roman imperial rulers..." Hartshorne (1984, vii)

³The locus that Olódùmarè has no gender, as Olusegun Oladipo (2004, 260) asserts has not gained widespread consensus. I agree with him and this informs my use of the third person pronoun 'It' for the Higher God. It seems to me that the masculine presentation of Olódùmarè may have evolved from attempts of foremost African theologians like Bolaji Idowu and John Mbiti, who both seem to be interested in modeling religious cultures in Africa after the Judeo-Christian traditions. This has then filtered into the thoughts of scholars such as John Bewaji, for instance.

follows Whitehead to affirm that the notion of omnipotence and similar accidents obscure an understanding of God's nature. These comments parallel the Yorùbá understanding that: "both ire (goodness) and ibi (evilness) are not separated as two distinct realities, but rather seen as one of two sides" (FAYEMI 2012, 324). It is on this account that Sophie Bosede Oluwole (1995, 20) contends that: "The Yoruba thinker recognizes evil as real, but he does not regard its existence as proof of God's incompetence or His limited goodness, since He is not conceived as absolute in any of these senses in the first instance." These assertions bear semblance with the main kernels of process ontology and theology.

Evil in process theology is a consequence of persuasive agency wherein actual entities either conform or not conform to eternal objects persistently initiated by God for their prehension and self-determination. In other words, through his persuasive power, God gently lures creatures in the face of any moral situation towards that actualization of the best in that occasion. God offers the choices to them, with claims to rightness and moral goodness. However, since God is persuasive, He does not completely determine that manner by which individuals use their freedom to respond to God's persuasive lure. It is on this account that the individual is responsible for what he chooses to actualize (ONWUEGBUSI 2013, 258-9). If it is the case that God wants what is best for the world, and there is evil in the world, process theology says the evil is a result of deviation from what God intends for the world. Evil surfaces "as a result of the individual deviating from what God intends for him, which is, in fact, the best" (ONWUEGBUSI 2013, 259). In this connection, Godwin Sogolo (1983, 157) chronicling the nature of God among Africans observes that:

He knows more than we do, but unlike the Christian God, He does not know everything. He is more powerful than we are but He is not all-powerful. God, in Africa is more benevolent than we are but He too can do evil and therefore not omni-benevolent. In short, *God in African religion is not transcendental*. [emphasis mine]

The foregoing assertion from Sogolo is replete in the Yorùbá oral tradition, where the Higher God has the tendency to forget. This is clearly stipulated in Odù Qyèkú Méjì, one of the numerous Ifá chapters, which reads:

It was Olódùmarè's forgetfulness

That accounts for the non-separation of the duck's feet.

Sophie Oluwole corroborates the foregoing among the traditional *Yorùbá* when she admits that, "Instead of trying to deny the existence of evil as many Western thinkers have done, the Yoruba sage neither regards God as the creator of the world nor as a perfect Being. The Yoruba God asks some questions and acknowledges the place of a new knowledge." (OLUWOLE 1995, 18)

Another crucial fact is that Olódùmarè has never been alone. The Higher God has always been with the Orisa's (divinities), who have duties and responsibilities affixed on them. In the words of Fayemi (2012, 312): "these divinities are known as the ministers of Olódùmarè. Some divinities are minsters with portfolio while some are without portfolio." Each one of these deities, according to Oguntola (2000, 16) "has wielded power in his or her own area of competence and jurisdiction." They act as agents of social control through which conducts of individuals are regulated in the community. They do this in conjunction with Olódùmarè. These facts attest to the cardinal truth in process-relational philosophy which is: "God is not before all creation, but with all creation" (WHITEHEAD 1978, 521). This underscores a necessary relation between the world and Olódùmarè, without which nothing can be. Regarding the abilities of Olódùmarè, and its stark departure from God in Abrahamic monotheisms, Idowu (1962, 77) says: ". . . there is a story which has it that Olodumare Himself was once perplexed over a very important matter. All the other divinities tried but failed to tell Him the reason for His perplexity; only Orunmila succeeded in putting his finger on the source of the trouble..." The implication is that Yorùbá ontology is an inter-related whole where nothing is left in isolation.

Personally, I deduce that the Yorùbá system is panentheistic since Olódùmarè being immanent is also not perceived as an entity "to be treated as an exception to all metaphysical principles, invoked to save them from collapse. He is their chief exemplification" (WHITEHEAD 1978, 343). The logic that also makes this possible is Ezumezu, which I disclose in the section that follows. It is, however, important to state that there have been previous attempts such as Shotunde, Okoro and Azenabor (2016) to produce a logic and epistemology for the compendium of Yorùbá (African) philosophy – the Ifá literary corpus. However, it needs to be stated that such collective effort lacks "an Africa-inspired and compatible system of logic laid out as philosophy of logic, methodology and a formal system" (CHIMAKONAM 2019, xiii). The approach is also suggestive of the treatment of the traditional laws of thought as the untouchables of philosophy (CHIMAKONAM 2019, 108). In the end, it is difficult to disclose whether or not their intellectual effort passes as a work of African philosophy since it is girded by classical logic.

In the face of this exposition, John Mbiti maintains that the Yorùbá world-view, like other African religious cultures, is monotheistic. This is a case of modeling African religions and ontology after Western models. For Mbiti (1969, 36) "African people recognize God as One." Elsewhere, he insists that "There is only One Creator of the Universe: African Religion is profoundly monotheistic" (MBITI 2004, 222). This presupposition continues in another work affirming that African religion is "a deeply monotheistic religion" (MBITI 2009, 147). Mbiti's affirmation of ATR(s) as monotheistic allows him to use a theological paradigm to assess the diverse African notions of God. In addition, this presupposition allows for the locus that Africans' beliefs regarding God display a common denominator which then makes comparison possible (NIEDER-HEITMANN 1981, 72).

This common denominator is not unconnected to the localization of Christianity in Africa via African traditional religion. This is why Mbiti (1970, 432) affirms that the way Africans recognize and accept Christianity is influenced by their traditional religiosity. For Mbiti (1986: 203) African traditional religiosity serves as the foundation for the Christian presence in Africa. It is also a crucial steppingstone toward the Ultimate Light (MBITI 1969, 1932).

The foregoing is clearly an understanding that is inspired by the infiltration of Aristotle's logic and metaphysics into religion. Just as the logic and metaphysic dictated the thought, theory and practice of the Abrahamic monotheisms, so has it entered the African place. Reacting to the way Aristotle entered the former domain, Kenneth Masong (2013, 15) explains "that central to Aristotle's metaphysics is the question of Being whereas, in the Judeo-Christian tradition, God became the Ultimate Being, the Unmoved Mover and from then on the history of metaphysics and religion has followed the track of what Heidegger would later call onto-theology. The forgetting of the ontological difference between Being as it is in itself and God." Simply because traditional African ways do not conform to Western ways, their culture and structures were relegated and replaced, by an absolute method that mediates thought and theory. They were termed as heathens - the term for "a person who does not worship the God of the Christians, Jews or Moslems" (CAYNE 1992, 447). To save face, Mbiti, trained and schooled in the Western style argues that Yorùbá religious culture, like many others across Africa, is monotheistic and a preparatory ground for the spread and assimilation of the Gospel on the continent. In this manner, he equates Africa's religious cultures with the Abrahamic monotheisms giving less attention to the rubric of method. Even when the system has been described to be monotheistic by Mbiti (1969, 36) and Idowu [(1962, 204) (whatever he means by Diffused Monotheism)], these scholars fail to discern that "Judaism was the first religion in history to declare and practice consistent and principled monotheism, and put it into practice" (TOKAREV 1989, 234). What they do, albeit inadvertently, is to equate religious cultures in Africa, that are older with the Abrahamic monotheisms, that are recent developments. The method and logic that girds African religion and ontology were neither explored nor investigated by these évoléus or deracinés. This is one of the chief reasons why Africa continues to be misrepresented and misunderstood. It is lucid enough to relate from the foregoing that the thinkers that could have drawn the distinctive lines between indigenous African epistemologies and the foreign ones were motivated to draw parallels or semblances leading to misunderstanding. Since they had been trained in the logic of the Western tradition, they have merely used same to explain the African reality thereby misrepresenting it. They seem to affirm Feyerabend's thought on the role that logic plays in the development of research theories. For him "...training in such a logic then conditions those working in the domain; it makes their actions more uniform and it freezes large parts of the historical process as well" (FEYERABEND 1992, 11). For the remainder of this study, I discuss the logic that mediates thought, theory and method for Yorùbá ontology.

How Ezumezu Logic Grounds Process metaphysics and Yorùbá Ontology Ezumezu is a logic that is inspired by the African mind-view yet applicable in places non-African. An appreciation of Ezumezu as an Africa-inspired logic for African philosophy becomes imminent especially when one explores two crucial posers: (1) "What makes a discourse, philosophy?"; and (2) "What makes a philosophy African?" According to Chimakonam (2019, 22), "these two questions speak to a lot of things including, and most specifically, method and logic." For (1), Chimakonam (2019, 22) affirms that "a discourse is philosophy if it is critical and rigorous in approach." For (2) he proposes that a philosophy is African if it is undergirded by African logic. It is based on this reasoning that he articulates that "until African philosophers map out their methods and the logic that grounds... [those methods], the charges of transliteration and copying of ideas in Western philosophy will persist and may even seem accurate" (CHIMAKONAM 2019, 22). Chimakonam seems to hold the outlook that this criterion has the capacity to make African ideas more original than previously articulated proposals aimed at exorcising the spell of Aristotle in the concurrent African academia. This spell, according to him, was brought into the African place by Peter Bodunrin, Paulin Hountondji and Henry Odera Oruka. These African intellectuals who referred to themselves as 'professional philosophers' "...brought home this spell and attempted casting it upon emerging philosophers who had the misfortune of being their students' (CHIMAKONAM 2019, 94) leading to the dearth in autochthonous African philosophy. Chimakonam's (2019, 17) concern seems to have a rational basis since African philosophy has been passed as "transliteration/copycatism and imitation/commentating" by Jurgen Hengelbrock (2002) and Heinz Kimmerle (2002). The aggregate verdict of Hengelbrock (2002) and Kimmerle (2002) is that African intellectuals and philosophers are not in tune with their indigenous cultures as they are in the business of "imitating Western cultures and lifestyles in their worst forms" (CHIMAKONAM 2019, 163). The need to, therefore, provide a logic that will mediate thought, theory and method in the African place is worthy of exploring so that Africans can retrieve not only an identity but disclose the African contribution to world's history and

Ezumezu is an Igbo word that connotes aggregation. It fits as a philosophy of logic; methodology; and as a formal system. For Chimakonam (2019, 96) "Ezumezu as a prototype of African logic studies values, meanings and understanding of logical language. Nothing is treated without content. It is both an art and science which studies the logical relationship among realities expressed in terms of propositions and symbols. Ezumezu, therefore, is a logical framework that can be used to explain and analyse experiences in African world-view." Compared to the dominant bivalent system of Western logic, Ezumezu is trivalent since it "consists of three values namely; truth (ezu), falsity (izu) and ezumezu with small letter 'e' (complemented). A

civilization.

system of logic is trivalent if it has three[sic] values. This is opposed to bivalence in which a system of logic boasts of two[sic]values namely: truth and falsity" (CHIMAKONAM 2019, 98). Much as 'T' and 'F' are treated as contradictories in Western thought, the author proposes that they are subcontraries in African thought. It is important to stress that Ezumezu logic is not the first trivalent logic. According to the 'builder,' it is "a variant of three-valued logic that is context-dependent which unlike the variants by Jan Lukasiewicz and Stephen Kleene, prioritises complementarity rather than contradiction" (CHIMAKONAM 2019, 160).

In addition to the foregoing, Ezumezu takes cognizance of the traditional laws of thought: contradiction, identity and excluded-middle but adds another three laws that bring the total it employs to six (CHIMAKONAM 2019, 96). These three supplementary laws are: Njikoka, Nmekoko, and Onana-etiti. The law of njikoka states that "A is true if and only if A is true wedge-implies A and B is true. Here, the variable A is said to be true only in the company of another or other variables, not in isolation" (CHIMAKONAM 2019, 139). The law of nmekoka states that 'C' is or equals a complement of 'T' and 'F.' This 'C' is the third truth value called ezumezu or nwa-izugbe. Whereas Njikoka hints at individual identities within the group, Nmekoka lays emphasis on group power or identity through the convergence of individual elements.

Onana-etiti, the third supplementary law employs a conjunction where Aristotle's law of excluded middle involves a disjunction. This is one of the most striking features of Ezumezu which allows it applicability and relevance in process metaphysics and Yorùbá ontology. The law states that "A could be both true and false or if a thing is equal to itself it can be unequal to or different from itself depending on context" (CHIMAKONAM 2019, 140). Much as a detailed exploration of Ezumezu is beyond the present scope of this study, a discourse on Ezumezu logic is incomplete without mentioning its twin prominent thesis: ontological and logical. The ontological thesis affirms that realities persist both as independent units as well as entities that are capable of converging initiating a status quo of interdependent relationships. The logical thesis maintains that values are to be given to propositions not on the basis of facts but contexts (Chimakonam, 2019: 141-2). Here the author seeks refuge in Gottlob Frege's (1960, xxii) proclamation: "Never to ask for the meaning of a word in isolation, but only in the context of a proposition."

Through these supplementary laws of thought, one finds a logic that not only grounds theories in African philosophy but is also applicable even in process metaphysics too. This is because African ontologies, like process metaphysics, violate Aristotle's law of contradiction and excluded middle in some contexts. As a result, each of these systems has not been given the proper attention that it deserves. The attention that will eradicate the misunderstanding and misrepresentation of these thought systems. With *Ezumezu*, this seeming violation is now regarded as normal since "in loosening the laws of excluded middle and contradiction on the one hand and identity on the other..., I mitigated the characters of absolute difference and absolute

identity thereby shaded determinism from bivalence and transformed the latter into trivalence (CHIMAKONAM 2019, 97).

As a way of expatiating on the universal character of Ezumezu, one realizes that it grounds process metaphysics. Whitehead was suspicious of the traditional laws of thought but shied away from providing a logic that will serve as theory and method for his system. For instance, in Science and the Modern World, Whitehead (1948, 185) offers: "A clash of doctrines is not a disaster-it is an opportunity." In logical terms, the contradiction between 'T' and 'F' is not a disaster. Whereas "In formal logic, a contradiction is the signal of a defeat: but in the evolution of real knowledge it marks the first step in progress towards a victory. This is one great reason for the utmost toleration of variety of opinion" (WHITEHEAD 1948, 186). Whilst disclosing his discontent with the law of excluded middle, Whitehead (1948, 182) reflects: "We are told by logicians that a proposition must be either true or false and that there is no middle term. But in practice, we may know that a proposition expresses an important truth, but that it is subject to limitations and qualifications which at present remain undiscovered." Whitehead strengthens his case by citing the 'contradictory' efficient methods of acquiring nitrogen but with slight difference in atomic weights by each of Sir William Ramsay and Sir Lord Rayleigh. For Whitehead (1948, 185), "the discrepancy was not a disaster: it was an opportunity to increase the sweep of chemical knowledge. You all know the end of the story: finally, argon was discovered, a new element which had lurked undetected, mixed with the nitrogen." This is the power of the complementary value which Ezumezu, strengthens and calls attention to.

Process metaphysics has before now lacked the proper logic to ground its thought and has been fatally attacked from the Aristotelian gaze. The idea of a God that relates persistently with the universe; the absence of a Devil; the emphasis on interdependence; 'nexus' of all existents (which Whitehead calls actual entities/occasions) are suggestive of a complementary interdependent reality. The interdependence of all realities upon one another is further stressed by the process scholar Robert Mesle (2008, 9) who claims that in process thought the world is a web of interrelated processes of which we are integral parts so that all of our choices and actions have consequences for the world around us. When one explores African theories such as Innocent Asouzu's (2013) Ibuanyidanda; Chris Ijiomah's (2014) Harmonious Monism; Ada Agada's (2015; 2019) Consolationism and Panpsychism, it is the case that they reflect in many ways the concerns of process metaphysics and Ezumezu logic as a catalyst for thought, theory and method. As a way of expatiating on the universal appeal and applicability of Ezumezu, I will provide some excerpts from Orúnmìlà, the patron saint of Yorùbá philosophy, to show that Yorùbá ontology is driven by Ezumezu logic.

Of the many chapters (odù) of the Ifá literary corpus, there is none as outstanding as Òyèkú Méjì, named after one of Òrúnmìlà's numerous disciples. The odù not only bears semblances with process ontology but

discloses how complementary dualism works. In a fair English rendition, the odù states:

A child is not tall enough to stretch his hand to reach the high shelf

An adult's hand cannot enter the opening of a gourd

The work an adult begs a child to do

Let him not refuse to do.

We all have work to do for each other's good

Ifá divination was performed for Òrúnmìlà

About whom his devotee made a complaint to Olódùmarè

Olódùmarè then sent for Òrúnmìlà

To explain the reason why he did not support his devotee

When Òrúnmìlà got to the presence of Olódùmarè

He explained that he had done all in his power for his devotee

But that the destiny chosen by the devotee made his efforts fruitless

It was then that the matter became quite clear to Olódùmarè

And He was happy

That He did not pronounce his judgment on the evidence of only one of the two parties (Emphasis mine).

The foregoing reveals a Higher God suggestive of the kind of God in process metaphysics who is not beyond the laws that operate for all entities. Complementary dualism is also displayed in issues related to gender. In his analysis, Abiodun Rowland (2014, 88) quotes *Ose-Otura* another disciple of *Orúnmìlà*'s who reflected:

In everything that we do.

If we do not include women in it

It cannot succeed.

From the foregoing, it is crystal clear that complementarity is so replete in traditional *Yorùbá ontology* that classical logic cannot undergird its thrusts. For instance, while emphasising the place of *orí* (head, but may symbolise destiny) and *eṣè* (legs, which may symbolise strife), the chapter, *Oturupon Meji* harps:

Opebe, the Ifa priest of legs (ese)

Performed Ifa divination for legs on the day she was coming from the spiritual realm to earth

All heads (ori) called themselves together

But they did not invite legs

Èṣù said: "Since you did not invite legs, we will see how you will bring your deliberations to success."

Their meeting ended in a quarrel

Afterward they sent for legs

It was then that their deliberations became successful.

They said that was exactly what their Ifa priests had predicted

Opebe, the Ifa priest of legs (ese)

Performed Ifa divination for legs on the day she was coming from the spiritual realm to earth

Opebe has surely come,
The Ifa priest of legs

No one deliberates without the reckoning with legs
Opebe has surely come,
Ifa priest of legs

Clearly, emphasis on complementary reality is replete in traditional Yorùbá ontology. The mathematics and logic that undergird the reflection of the people is unique but to my mind suggestive of Ezumezu. Speaking in this connection, Albert McGee (1983: 100), who was a professor of theoretical physics, reveals that "each of the odu has a dual nature, that is, male and female. I do not believe that it is a coincidence that the Ifá system is characterised by even numbers. In the meantime, one can only speculate that the originators of the system may have been using a more refined or different mathematics than what we know today." Now it is an established fact, according to Makinde (2007) and Uduma (2015) that logic is analogous to mathematics. Specifically, Uduma (2015, 100) articulates that "...logic and mathematics work so well together: they are both independent from reality and both are tools that are used to help people make sense of the world." If one takes the claim of Uduma (2015) seriously in the light of McGee (1983) and Chimakonam (2019), one may infer that indeed there can be regional logics unique to a people yet universalisable in other climes. This is one of the distinctive achievements of Ezumezu since it girds process metaphysics, an ontology that is not only limited to Africa but employed to explain reality in and among other traditions of philosophy.

Conclusion

The journey thus far has been to show the universal character of Ezumezu logic by applying it to Yorùbá ontology and process ontology. My aim is merely to evince what is suggestive of Ezumezu logic in these philosophies. It is too obvious to require further elaboration that thought, theory and method in process philosophy and many philosophic cultures in Africa do not conform to classical logic. Whereas the deductions of this essay are not final, it is my view that Ezumezu logic should be engaged in other African philosophic systems to see if it is original to them too. This is important primarily because "There remains the final reflection, how shallow, puny, and imperfect are efforts to sound the depths in the nature of things. In philosophical discussion, the merest hint of dogmatic certainty as to [the] finality of statement is an exhibition of folly" (WHITEHEAD 1978, xiv).

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