



## **Infinitude and Logic: Travelling Through Time**

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### **1. Introduction**

Recently, studies in philosophy of logic have increased almost exponentially – particularly in the African philosophical place. Logicians, or philosophers in general, are raising questions about the claims of logic to mathematical certainty and infallibility of its laws (Chimakonam: 2019). But most importantly the studies are about fate of concepts that travel from one philosophical jurisdiction to another. This new wave of analytic attitude in African philosophy has resulted in increasing attention paid to the basic assumptions in logic that were inherited by African philosophers from the colonial West. To great extent it has accounted for the growth of the tradition but it has equally place African philosophy in a strategic position to contribute to intercultural philosophy as well as philosophy of science. This analytic attitude in the African philosophical place was directly triggered by the sophisticated development of African ontology starting with its systematizations in *Ibuanidanda* by Innocent Asouzu (2007) and in *Ndummilinduazu* by Chigbo Ekwealo (2017). These frameworks have deeply affected, albeit radically, the study of concepts vis-a-vis their logics in the African philosophical place.

In the African tradition, one can begin (though arbitrarily) an annotation of analytic study of concepts with the Bruce Janz introduction of the concepts of philosophical place and philosophical space as well as the notion of travelling concepts (Janz: 2009a). (In an extended fashion one may have to include the notion of time in the concepts of place and space). A word, phrase, sentence or construct has definite but differential meanings in different ontological jurisdiction, namely: bivalent, trivalent and multivalent logic frameworks. Bivalent logic defines truth as either true or false. A proposition or concept is true if either one of the two truth-values holds. Trivalent logic defines truth as true, false and both-and. A proposition or concept is true if any of the three truth-values holds. Multivalent logic defines truth as indeterminate and context-bound. It maintains that truth is as many as the contexts that define it since concepts and propositions change from one context to the next infinitely in accordance with the infinite number of contexts. Concepts and propositions do not contain truth-values rather truth-values are conferred on concepts and proposition by the contexts to which they travel. Despite these claims, a logic model is either static or dynamic irrespective of whether it is monovalent, bivalent, trivalent or multivalent. Relationship between concepts does not depend on their purported intrinsic or extrinsic truth-values neither does it depends upon what logical tradition one operates from but on the dynamicism we come to define concepts and the logic models.

This essay follows in the new trend of contributions to logic and analytic philosophy from the African context. It does this by examining the notion of *travelling concept*. When concepts travel, as they often do, are they usually affected by the jurisdictional boundaries (or time zones) that they crossed? How radical do they become when their constitutive elements are affected by their travelling? Is the truth-value of concepts and propositions determined by the rules of logic or by some other variable? Here, I conceptualize time as a place, and pose them as jurisdictions. I hold that time is infinite yet it is a phenomenon. I lean towards the Husserl-Heidegger's sense of understanding phenomenon as outward moving vector that continuously generates new experiences. In this sense, time is an infinitum. Now, the



questions are: If time is infinite phenomenon, how infinite is the infiniteness? Does the infiniteness of time affects concepts and how? What lesson can we draw from all these?

## 2. Concept of Time

A few philosophers have philosophized on the concept of time. Maybe because time is an abstract concept (or so it seems); and being that the concept of time itself is ambiguous, it poses many challenges to the thinker. Every time a thinker attempts to philosophize about time, one of the basic questions that is likely to come up is this: Is it possible to philosophize about time in an objective sense? This question is triggered by the fact that the thinker's position is made vulnerable by the very fact that one is in the belly of time. It is something like Jonah trying to think about the nature of fish yet he is in the belly of the fish. The first serious attempt to philosophize about time came from St. Augustine but it was Immanuel Kant who actually attempted to do so in an objective sense (Jaspers: 1962). St. Augustine discovered that any attempt to conceptualize time objectively would lead to inconsistencies. He actually left it at the level of inconsistency by claiming that time is impossible to understand (Augustine: 1960, 287). But then he said something that should not be ignored, that time is an infinite essence (even though his conception of infinitude was deified). Immanuel Kant also attempted to philosophize about time and ended up bifurcating it into transcendental and phenomenal categories. The transcendental, he forbade anyone to philosophize about it because it will only lead one into antinomies. But the phenomenal category of time can be grasped by human reason because it is a creation of the mind (Kant: 1934, 49-50).

Philosophers before Augustine and Kant have talked about time but in metaphysical sense. One can recall that the exchanges between Heraclitus and Parmenides were largely on the question of time. Heraclitus argued that time is a sequence, which he compared to a running water (Lawhead: 2002, 17). Parmenides argued on the contrary that time is monolithic, static and eternal (Lawhead: 2002, 20). The Parmenides's version of time was adopted differentially by Plato and Aristotle for their logic of essence and by subsequent philosophers whom Alfred Whitehead described as mere commentators on Plato's dialogues (Moore and Bruder: 2002). This attitude did not change until Kant began to deconstruct it with his metaphysics of subjectivity (Jaspers: 1957). In contemporary African philosophy, one can say that a deconstruction of Parmenides's static being and a return to Heraclitus's dynamic being has successfully started in *Ibanyidanda* and *Ndummilinduazu* philosophies. Whatever theory of logic anyone may hold is traceable to how that logic system answers the question: Is time dynamic or static? Kant (1934, 50) has rightly argued that time and space are inseparable. But in this work, I use the term *place* rather than *space*. As we shall see, there is a difference between *space* and *place*.

Kant thought of time as infinite hence he described it as "space" (Jaspers: 1957, 246-9). I think of time as infinite but describe it as *a place*. It is *a place* in the sense that it is not monolithic, static and fixed in the sense Kant used the term *space*. For me, time as *a place* refers to a given delineated configuration, a constellation or event. *A place* is not fixed, static and monolithic rather it is dynamic, evolutionary and phenomenological. It is new every moment. This valorisation of time as a dynamic place can be traced to Heraclitus's theory of change – of which things are perpetually in a state of vibration. As a reminder, I conceptualize *a place* to be phenomenal. It is born every moment. *A place* cannot remain the same even for a moment. It changes and evolves every moment – reshuffling and reshuffling its configurations. But consciousness cannot be confused about it because consciousness itself changes and reshuffles with *a place* simultaneously. The behaviour of time or *a place* is quite radical.



This radical nature of time is imposed upon it by the very radical nature of our consciousness (Kant: 1934, 50). The point here is that consciousness and time (or *a place*) is inseparable.

This is completely in alignment with Husserl's position that consciousness (time) is an outward moving vector that brings forth new experiences every moment (Husserl: 1970, 8). This idea was taken up by Heidegger to theorize being, which is nonetheless time. But we have to remember that, just like Kant, Heidegger's source of dynamicization of time is traced to the human mind. In Heidegger (2000, 113), *a place* is conceptualized as Dasein. If we are following the trend of this argument, we will see that time (or *a place*) either exists in the mind or it is part of consciousness. If time or *a place* is seen as existing in the mind, it would appear as if the mind (or consciousness) is bigger than time. This view would resonate with the claim of Protagoras of Abderra that the human mind is the measure of all things (Moore and Bruder: 2002). But it will pose a serious challenge to the perception that we exist in time at least as being perceived by other minds. This loops back to my earlier position that we are in the belly of time but also have fragment of time in our own mind or consciousness. This is where concepts do travel to. This place is radicalized every moment. It is transformed every moment. It is evolutionary and revolutionary. It is always changing though maintaining consistency by the very fact of the change. There is constant overturn of time or *a place*.

Having established time as both evolutionary and revolutionary, the next question is: how infinite is time or *a place*? This question arises out from the claim that time is infinite. Granted! Time is infinite. But how infinite is the infinite? What this question actually means are: What is the nature of infiniteness of time? Is the infinitude something like linear-static, linear-circular, spiral, concentric, circumflexial, eccentric, centrifugal or centripetal? All these describe infinitude one way or the other because it is a continuous movement. When a thing keeps moving in any direction whatever one may imagine, then that thing is infinite by the very fact of its continuous motion.

However, this definition of time or *a place* as infinitude does not follow from these conceptions. For me, time or *a place* is determined as infinite by its very nature as phenomenality. It is volatility, that is, it is continuous changes, reshuffles and evolvments that make time or *a place* infinite. This is because these changes, reshuffles, evolutions, vectoring and becoming never stops but continues ad infinitum with different characterizations, configurations and patterning. Apart from the fact that time or *a place* is not static; it is also not fixed and monolithic. It is not an amorphous characteristic that extends endlessly. There are many places, and not one place. What makes time or *a place* is the native milieu though not only that. The milieu is in a constant moment of self-transformation. The milieu or local ontology does not remain the same way ad infinitum. It radicalizes over time. There is constant turnover. *A place* may appear different from its earlier status despite not experiencing significant turnover in its population. *A place* may also appear unchanged despite significant turn over in its population. But whether there is turn over or not, there is always something left in its legacies, which enable *a place* to be traced to its past. Moreover, *a place* may appear similar to another place horizontally and/or vertically. These are characteristics of time or *a place*. These characteristics go a long way to determine how concepts manifest and become intelligible within a given context.

### 3. Phenomenology of Time

When I am referring to phenomenology of time, it is not that I am talking about time in the abstract sense. Rather, I refer to places or lived experiences that are human. What is phenomenology of time? How is time viewed phenomenologically? Is time a phenomenon? Conversely, how does a place look like? Is it some geographical location with its own coordinates and other spatial configurations? When I say



“travelling through time” – is it like sizzling through geographic time zones, piercing through walled boundaries and all that? I have addressed much of these questions in the preceding section. However, phenomenology of time would help to advance our understanding of the concept of travelling through time.

Edmund Husserl is often credited as the progenitor of the method of phenomenology at least in the manner I am deploying it here. But it is in Heidegger’s hermeneutical ontology that the Husserl’s notion is made more explicit. Jacques Derrida, Emmanuel Levinas, Jurgen Habermas, and even Jean Paul Sartre have also contributed significantly to make Husserl more illuminated and intelligible. Recently, Janz (2009a) has interpreted Husserl in a manner that is relevant to African context than it would have been understood directly from Husserl.

Husserl (1970, 41) said that there is a significant relationship between object and subject which can help us understand the world or lived experiences. Husserl was not the first to have studied the relationship between object and subject. Kant (1934, 100), for example, had carried out extensive study into the relationship between the subject and object, whereby he arrived at the conclusion that the object itself cannot be known but that whatever we claim to know about objects is construct of our consciousness and not the actual nature of the thing-itself. That is to say, claims to objective conception of things were essentially false since the object cannot be known independent of the mind’s conditioning. Hence, conceptions and concepts are subjective. On his part, Husserl (1970, 41-42) argued that the thing-in-itself or the object do indeed reveal itself to the subject but that to actually perceive the thing itself the subject has to transcend its prejudices and presuppositions through a process of eidetic reduction. He maintained that when an object reveals itself it does so in consciousness, which for him is human intentional act (Ibid, 43). Husserl reasoned that without consciousness things will remain unknown to the subject.

Consciousness, however, is subjective. This means that whatever is known to anyone is ultimately subjective. This is the whole doctrine of phenomenology: that object or concept reveals itself in consciousness and that consciousness is subjective. Here, consciousness is understood as a sort of *a place* where things are known or reveal themselves. Heidegger (2000, 113) viewed consciousness (the human mind) as “a clearing”, which allows things to come to the light of being. Experience takes place in *a place*. Since this is the case, “it matters where ideas come from, who holds them, what cultural context they developed in” (Janz: 2015, 144). There is need to take into consideration the peculiarities *a place* from which concept emanates or to which it is designated (Momoh: 2000, 186). Place is central to an understanding of experience. Concept has place (context) embedded in its fibres. That is why Janz avers that phenomenology takes seriously the question of where concept comes from, its constitutive elements and scope.

Every concept is born in *a place* and is traceable to it but it is not unsavourily tied to it. Indeed, concepts do travel from their place of birth to thither places. Concepts can, and do, roam free, thither and hither, seeking bonding; in the process they are radicalized violently or subtly – detach, as it were, as if they are seduced from their original place and being transformed in the process. What transforms concepts is time or *a place*. Time is in a state of perpetual transformation and transforms concepts in the process. Time continues to change, transforms and reshuffles itself. Moreover, no two places are exactly the same no matter how similar they may appear. The differing nature of time or *a place* is caused by the subjective nature of experience. Time is historical and it is context-relevant. The historicity of time and its constellations affect concepts in significant ways.



In saying time is phenomenological I mean time is not fixed, static and monolithic. I also mean exactly that time is in fragments, and revealing itself in profiles ad infinitum. These profiles are what Innocent Asouzu describes as “missing links” of reality. Asouzu (2007, 267) defines reality as unity of multiplicities and maintains that “all experience, mode of existence and expression of being in history are missing links”, that is, fragments and aspects of reality in complementary relationship. The “missing links” are never fully given in consciousness and they are not exactly the same in terms of their constitutive elements. Each missing link or time-slice is itself a context of reality. When they are stitched together, they give us a more embracing picture of reality, not in absolute sense as if it is telling us the whole story rather it tells us that there are more missing links or more perspectives to the notion of reality so far given. The phenomenological treatment of time, namely, liquidates the myth of placelessness and upholds an affirmation of placedness of concepts, events and experiences.

#### **4. Implications for Intercultural Philosophy**

Intercultural philosophy is a major field of study that deals with travelling concepts. It is a methodological approach to philosophizing, which allows concepts that are born in relative isolation from one another to access different cultural jurisdictions without necessarily causing eruption of the host culture or itself blown up in the tension of accessing an alien jurisdiction. This approach allows concepts to visit jurisdiction other than their original place of birth. In so doing, the visiting concepts deeply enriches the host philosophical traditions and helps reduce the tensions created by the isolative development of those traditions. However, when one works with travelling concepts care should be applied not to commit fallacy in the process. Mesembe Edet has identified five pitfalls one must avoid in dealing with travelling concepts. These include: descriptive chauvinism, normative chauvinism, normative skepticism, incommensurability and perennialism (Edet: 2015, 209-212).

Descriptive chauvinism refers to the problem of casting or re-creating the ideas, notions, and concepts from the other tradition in the image of one’s tradition. That is to say, in considering a concept or notion from another tradition, one assumes that it is asking the same questions, or that it is constructing responses in the manner similar to one’s own philosophical tradition. This attitude was common among African socialist scholars who assumed that the notion of socialism they borrowed from Western Marxist tradition constructed questions and responses in the same manner as *familyhood* that was prevalent in Africa. Normative chauvinism refers to the problem in which an intercultural philosopher assumes that one’s philosophical tradition is the best and superior to other traditions. That is to say, insofar as the other traditions are different, they are inferior and in error. This attitude is rampant among philosophers in the purist tradition of African philosophy. They often believe that concepts in African philosophy are superior a priori to ideas from Western philosophical tradition. This attitude must be avoided when working with travelling concepts.

Normative skepticism is the problem that involves uncritical assessment of concepts and suspending judgment about their adequacy. This attitude is common among those teaching history of Western philosophy. It is also prevalent among scholars in ethnophilosophy tradition who merely explain cultural notions without any critical input. There is the problem of perennialism. This is a problem that arises when the scholar assumes that philosophical traditions are fixed, static and monolithic. For example, many scholars of African philosophy assume that concepts travelling to modern time from pre-colonial African societies are insulated from trans-cultural and trans-time influences. But the reality is that every cultural epoch borrowed something from the other.



Incommensurability is another problem that must be avoided by those dealing with travelling concepts intercultural contexts. This has to do with the problem that the differences in the basic concepts and modes of inquiry between traditions prevent meaningful intercultural activity. This problem can be viewed from three angles. First, it involves the inability to translate concept from one tradition into meaningful statement of reference in another tradition. This problem can be seen in the Kwasi Wiredu attempt to translate the concept of truth into Akan notion “nokware”. Wiredu in his study found that the concept of truth in English and Akan linguistic traditions were incommensurable (Wiredu: 1998, 234-9). Second, some philosophical models may differ between traditions in such a way that it prevents meaningful intercultural activity. For example, the axiomatic system of African and Western logics are said to be so basic such that when a concept crosses from one tradition into another it loses its original meaning (Chimakonam: 2019). Third, traditions may differ on what they count as evidence and ground of decidability, thereby precluding intercultural judgment about them. This problem is evident in the bivalent and trivalent logic framework, where either-or holds in the former and both-and holds in the later. This problem therefore makes it impossible to decide the truth-value of propositions that can be valid in two frameworks.

Janz (2009b, 186) rightly avers, “concepts travel and in doing so enable new forms of knowledge and open new worlds.” But when concepts travel “they also change within cultural settings to respond to the imperative of time” (Janz: 2016, 44). That is to say, when concepts travel they change within cultural setting as they cross the social ontology. Heraclitus has stated that everything is in a state of flux; and in that state it is perpetually in a state of change (Lawhead: 2002, 17). Janz (2009b, 188) also posits, “Violence occurs when concepts travel – their historical references cannot be transported intact, and more importantly, their formative questions change from one place to the next”. What this means is that when concepts cross ontological jurisdictions there is the likelihood of such concepts being radicalized and transformed in significant ways. This is likely to affect their identity in significant ways. It is the duty of intercultural researchers to work around these challenges.

## 5. Conclusion

This study was basically an investigation into the probabilities of place and how such probabilities affect concepts and propositions as they travel from context to context. I had begun by defining time as a constellation, namely, a place that is new every moment. I show that when concepts cross ontological jurisdictions they lose their truth-values; basically because their formative meanings are radicalized. This therefore indicates that truth-values of any concept or proposition are not absolute rather truth-values is context determined to extent of which it is meaningful in that context. I have demonstrated this in the context of intercultural philosophy by showing the pitfalls that should be avoid when one deals with concepts that travel through time.

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