

Orí and Neuroscience: A Contextualization of the Yoruba Idea of Causality in the Age of Modern Science

by

Gbadamosi, Oluwatoyin Adebola, Ph.D.

tygbadamosi@gmail.com

Department of Religious Studies

University of Ibadan,

Ibadan, Nigeria

Abstract

This paper examines the submission of neuroscience on freewill within the religious and cultural contexts of the Yoruba in South-western Nigeria. The findings of neuroscience are juxtaposed with the concept of *Orí*, with a view to finding how these scientific and religio-cultural lines of determinism can be compatible with the concept of freedom today. The study adopts the hylomorphic theory of Bolaji Idowu, which posits that wo/man is *ara* (body) plus *è mí* (spirit).

Keywords: freewill, Neuroscience, *Orí*, determinism, hylomorphism.

Introduction

Various philosophies guide the way of life of the Yorùbá, and the concept of *Orí*, a dominant idea of causality, is one of them. *Orí*, to the Yoruba, is not just the physical head; rather, it is a force that features prominently in questioning whether humans are free or not. The philosophical debate about freewill has been of great importance in the history of philosophy and within religious circles. Recently, neuroscientists have joined the quest for an answer to this significant subject. Within the past few decades, advances in neuroscience have led to claims that threaten the existence of freewill by the position that human will is determined by cerebral activities. The concept of *Orí* clearly shows that a human being has no power on what has been affixed to his/her destiny. If what has been affixed to a person must take place, then he/she is not free.

Thus, the actions of human beings are deterministic, which threatens the whole idea of human freedom. Abimbola (2006) believes that the Yoruba concept of *Ori* cannot be about the standard freewill determinism issues that exist in Western philosophy.¹ A Yoruba will say that once destiny is “fixed” by *Olórun* (God), it cannot be changed. It must take place.² On a similar note, despite the different issues of determinism between the Yoruba and Western philosophy, there is a basis for comparison because both the concept of *Ori* and the current trends in the field of neuroscience favour determinism. Recent advances in neuroscience have led to a proposal that seems incongruent with the traditional notions on freedom. The famous work of Benjamin Libet has attracted a great deal of attention in a variety of fields, including philosophy. In a recent article, Libet vividly asserts: “If the ‘act now’ process is initiated unconsciously, then conscious freewill is not doing it”.³ This connotes that certain electric changes occur in the brain before actions that are done voluntarily, thereby making the initiation of such acts unconscious processes.⁴ In a laywo/man’s language, this discovery in neuroscience shows that decision-making is a biological process which occurs before human beings are conscious of the urge, intention or will to perform such an act. Thus, the issue of a human being’s freedom might be an illusion.

Determinism, however, implies the absence of freedom. This study therefore examines the common themes found in the modern sciences – Neuroscience – and Yoruba traditional religion – *Ori*. Incidentally, the brain which features prominently in the findings of neuroscience on human will is situated in the head, which is called *Ori* among the Yoruba. It also explores the implications of some of the salient issues being advanced in neuroscience. It argues that accepting the Yoruba idea of *Ori*, literally, would constitute a pose to our understanding of human freewill. Moreover, this research discusses how the advances in neuroscience can be upheld, while recognizing the concept of *Ori*, and, at the same time, logically sustaining some, if not all, of the religious beliefs on human freewill, which anchors on responsibility, reward and punishment.

Scientific positions are based on empirical facts which can be verified. Thus, refuting them without any concrete reason for doing so is a daunting task. However, there are serious implications for the sustenance of the submission of neuroscience, which posits that freewill might be an illusion in any civil society. Therefore, the Yoruba of South-western Nigeria are not an exception. Besides, since the concept of responsibility is central in any society, we cannot but find a way to reconcile the position of science – neuroscience – with its obvious implications, which this study intends to achieve. On the other hand, traditional belief systems still form an integral part of the Nigerian society despite the fact that civilization and foreign religions have eroded some of the elements of indigenous culture. Hence, finding a place for the concept of *Ori* in the “modern-day” Nigerian society is quite challenging. This is a task this research intends to achieve.

***Orí* and Ideas of Causality among the Yorùbá**

Orí is a very important component in the Yorùbá understanding of human personality. In other words, it is seen as a vital force that guides human life. This further influences the usual Yorùbá prayer for a new bride as she leaves her father's house: *Mó rí lẹ, má mú ẹwà lẹ* – Depart with your *Orí* and not with just your beauty. Although there are various philosophies that shape the way of life of the Yorùbá, the concept of pre-destination or causality cannot be undervalued. According to Beir (1980), the Yorùbá see their lives as partly dominated by fate and pre-destination, and partly controlled by their own actions. Beir further believes that “although a man is born with a fate and a career in life, what he makes out of his fate depends on his actions” (p.61). Thus, a wo/man picks the type of life s/he is going to lead, even up to the period of her/his death, before s/he enters into this world. This unchangeable part of a wo/man's fortune is symbolized by her/his *Orí*, which literally denotes ‘head’, but in this context, signifies ‘inner head’ or soul.⁵ According to Awolalu (1979), *Orí* is a complex concept. It is a physical head as well as that force that is responsible for controlling one's being; however, to the Yorùbá, *Orí* means head. Literally, it is actually more than the physical head because it represents the personal force that guides and also controls the activities in the life of a person. The quality of *Orí* also determines the success or failure of a life.⁶

Idowu (1982) makes a very comprehensive argument for determinism in Yorùbá thought, which is outstanding on the subject of discourse. Idowu believes that it is the *Orí* that kneels down and makes a choice in the process of ‘taking’ destiny. The fulfillment of destiny is also done by the coming of *Orí* into the world. However, what makes the individuality of each *Orí* is its quality. The destiny of a person is known as *Ìpín-orí* (*ìpónrì*) – the portion of *Orí* or its lot – which is usually abbreviated as ‘*Ìpín*’ – portion.⁷ The Yorùbá believe that the end for which a person is made is inextricably bound up with her/his destiny since wo/man's deeds on earth have been predestined by Olódùmarè (God in Yorùbá belief).⁸ Idowu makes arguments for strong determinism here, which he supports with a few sayings:

À-kúnlẹ-yàn ni' àdayé-bá
À-kúnlẹ a yàn'pín
A'd' áiyé tán ojú n ro ni

Meaning,

That which is chose kneeling is that which is found on getting to the world
We knelt down and chose a portion
We get to the world and are not pleased.⁹

Another saying to make a strong case for determinism is *À-yàn-mó'ò gbó'ògùn* – That which is affixed to one cannot be rectified by medicine.¹⁰

The concept of *Ori* among the Yorùbá is closely related to what is understood as destiny. There are different types of interpretation used interchangeably to express destiny. Some connote the meaning of destiny as understood by the Yorùbá accurately, while some others are misinterpretations. A line of understanding that runs through different interpretations and misinterpretations of destiny is the belief that there are certain factors that affect the quality of a wo/man's life on earth. These factors are derivable from certain events that take place prior to her/his present existence on earth. Dasyuva (1998), while attempting to address some of the misinterpretations of the term, destiny, begins by establishing the difference between the Western view of destiny and that of the Yorùbá. He holds that many writers, including Ola Rotimi, the writer of the famous tragic play, *The gods are not to Blame*, situate the Yorùbá view of destiny erroneously in the Western context. The Western conception of destiny is synonymous with fate which is not so among the Yorùbá.¹¹ Dasyuva posits further that the nearest equivalent of destiny is *Àyànmó* – that which is chosen and sticks. The difference between the Western and the Yorùbá view of destiny is that while the westerners believe that destiny is imposed by the gods on wo/man in the pre-life and that wo/man was not a party to this choice, the Yorùbá believe that *Àyànmó* is the pre-life selection or choice consciously made bowing in the presence of Olódùmarè, and which is being confessed before *Oníbodè* (heaven gate-keeper) as a witness.¹² Contrarily, Adetunji (2001) explains the clear distinction between *Àyànmó* and *Ori*. She holds that destiny is *Ori* and not *Àyànmó*. *Ori*, she holds, represents the configuration or structure of a person's destiny. It is also a god. The contents of *Ori* are what *Àyànmó* entails, and a person's *Àyànmó* is discovered in his/her destiny. *Àyànmó* also plays the role of the creator. This belief is illustrated in the Yorùbá saying: “*Ori lo ní se, èdá là'Àyànmó* – *Ori* is the creator, the human being is its fulfillment.”¹³

Another terminology related to the concept of destiny is the word *Kádàrá* which could also be interpreted as destiny. *Kádàrá* is a word believed not to be originally Yorùbá but having its roots in the Arabic language. This belief system became infiltrated into Yorùbá thought over time, and now, it is believed to be an important concept in Yorùbá religion especially because of its close relationship with human destiny. Olaleye (2014) holds a divergent view; he sees *Kádàrá* not directly as the direct terminology for destiny but as a particular type of destiny. He opines that *Kádàrá* is the part of destiny that cannot be altered. Even though it may experience some delays, it cannot be changed, except by Olódùmarè. This can be done through *Ifá* by the offering of *ẹbọ*-sacrifice- and *ètùtù*-rituals to Olódùmarè to make an appeal for changes in a destiny.¹⁴

Ògo (glory) and *Ìràwò* (star) are two close terminologies that are also related to the concept of destiny in Yorùbá belief. This is a belief system that is held in different religions apart from Yorùbá religion, including Christianity. This is very obvious in the case of Jesus Christ in which three wise men saw his star in the east and could deduce from the sight of the star the greatness of the destiny of the newborn child.¹⁵

Similarly, in Yorùbá religion, according to Olaleye, *Ògo* and *Ìràwò* are the resources applied to gauge the success of a newborn later in life. *Ògo* depicts the level of glory in the destiny of such a child, while *Ìràwò* displays the brightness of a destiny. Olaleye, quoting from the information received from *babálawos*, *Ifa* priests, states: “these two: *Ògo* and *Ìràwò* are what people of the underworld – *Ayé* or *Àjé* – [also known as] witches usually work on when they want to tamper with a person’s destiny”.¹⁶ Quoting Idowu Arifalo, a *babalawo* in Itapa Ekiti, Nigeria, Olaleye says further, “*Àjé*-witches cannot and will not sit at a place to study or look at any child’s *Ìpín*, *Kádàrá* or *Àyànmó*. Rather, they only look out for the *Ògo* and *Ìràwò* of such a child; however, they can only see the brightness of the *Ògo* and *Ìràwò*, not the *Ògo* and *Ìràwò*. The density of the brightness shows how successful the newborn will be, later in life. When the *Àjé*-witches realise a very bright star, they will try at all cost to block such *Ògo* and *Ìràwò*”.¹⁷ However, delay or blocking of destiny can only be done for a limited time because of the belief in the inalterability of a wo/man’s destiny; they (the wicked people of this world) can only defer destiny but cannot change it.¹⁸

There are several myths showing the relationship between *Ori* and a person’s destiny. One of them shows the concept of choice in human destiny. The Yorùbá believe that before coming to the world from heaven, everyone must go and make a choice of *Ori* from a well-stocked store in Ajala’s house. Ajala is said to be the one appointed by Olódùmarè to build or mould *Ori*. It is believed that the quality of *Ori* cannot be determined by its physical appearance (whether size, shape, colour, etc.). Ajala alone knows the good and bad ones.¹⁹ In another popular story of *Ifa*, told under *Ogundameji* by Ayo Salami, Oriseeku (the child of Ogun), Orileemere (the child of *Ifa*) and Afuwape (the child of Òrúnmilà) were all coming to the earth. The story climaxed at how they turned out when they arrived on the earth based on the choices of *Ori* made in heaven.²⁰ There are a lot of badly mis-shaped heads of people who turn out to be successful in life. However, there are other well-shaped heads further having beautiful and handsome faces with no success story. It is all about one’s *Ori*. This validates the belief in *Ori* and its relationship with human destiny.

One of the important lessons from these myths is that all *Oris* are not the same since people make different choices of *Ori*. Subsequently, their *Àyànmó* – contents of their destiny – will be different. This belief system is seen as the Yorùbá see *Ori* as an antidote to the problem of evil in this world. It is believed that a wo/man’s station in this world is directly predicated on the type of choice s/he had made in heaven. The belief in the importance of divination is also highly held. A good destiny can be preserved if its contents are known, while the other that is not desired can be rectified. The Yoruba idea of human will is clearly laden with metaphysical ideas.

On a divergent note, some empirical findings on human will have emerged from the field of neuroscience. It would be necessary at this juncture to discuss them critically in order to juxtapose the scientific views on human will with the metaphysical one held in Yoruba philosophy.

Neuroscience and Human Will

The recent discovery in neuroscience which challenges the notion of freewill is not totally new but must have been influenced directly or indirectly by philosophers, scientists or ancient scholars. Hodgson (2009) revisits Pierre Laplace's eighteenth-century deterministic argument with no allowance for free choices from Newton's law of motion.²¹ Hodgson traces the notion of determinism in scientific studies further to the nineteenth century in the works of Charles Darwin, where his famous theory of evolution provided insights on how random mutations and selection make it appear to be responsible for decision making, whereas, it is the brain that is in control of this process. This position is similar to the recent position of neuroscience which suggests that decision-making processes are controlled by the brain, while humans are unconscious of these processes. Similar positions are seen also in the works of Sigmund Freud and the British philosopher Galen Strawson towards the end of the nineteenth century.²²

All these scientific notions have been strengthened in various ways by recent studies in the field of neuroscience. According to Sachs (2009), "the issue of freewill is an ancient debate, but we can now approach it with breathtaking, scientific advances. Neuroscience has the potential to provide one of the breakthroughs of our time... human conscience are being opened up to dazzling scientific inquiry" (Sachs 2009:7).²³ The notion that configurations of human behaviour may be ultimately determined by other factors outside "conscious control" has become quite popular and at the same time has also rekindled interests in the hoary debate on freewill in recent decades. These renewed interests are as a result of the developments in behavioural and cognitive neurosciences. These developments indicate, for example, that much of what we do takes place at an automatic and unaware level and that the belief that our voluntary actions emerge from conscious intentions and volitions is mistaken.²⁴

The pungent position of the famous work of Benjamin Libet is that our brains decide or prepare to initiate actions long before a reported subjective awareness of such a decision occurs.²⁵ Libet's conclusion further implies that cerebral processes precede conscious intentions, meaning that a specific electrical change in the brain (the "readiness potential" RP) occurs before voluntary acts and that it begins 550ms before such act. Human subjects are aware of intention to act 340-400ms after RP starts. Thus, the volitional process is initiated outside of consciousness, that is, unconsciously.²⁶ Thus, the issue of wo/man's will as being free might not be totally true as previously believed. The submission of Libet is that the initiation of voluntary action is unconscious, and if an act is initiated unconsciously, then freewill is not doing it. This experiment shows that there is a gap between the time the brain initiates an action and the time humans are aware of the urge, intention or will to perform that same act, and this time gap is called Readiness Potential (RP).

Mele (2011), a contemporary philosopher, also discusses the work of Libet and sees his position as an argument for skepticism about freewill. He summarizes the position of Libet that intentions that are conscious (and their physical correlates) do not contribute to the production of corresponding overt actions.

He also discusses the experiment of Libet and his findings extensively by using less scientific terms in the narration of these experiments. These are experiments in which subjects are instructed to flex their wrists at any time they wish to while also reporting the particular time of the urge, will or decision to do so.²⁷

Another contemporary philosopher, Harris, makes a rather witty account of the determinism in neuroscience; his position is nonetheless valid and one that a non-philosopher or a person without any inclination of science can readily relate to. According to him,

We are conscious of only a tiny fraction of the information that our brains process in each moment. Although we continually notice changes in our experience- in thoughts, mood, perception, behavior and so, we are utterly unaware of the neurophysiological events that produce them. In fact, we can be very poor witnesses to experience itself. By merely glancing at your face or listening to your tone of voice, others are often more aware of your state of mind and motivations than you are.²⁸ (S. Harris, 2012, p.7)

According to Caruso (2012), the common sense belief in conscious freewill is in fact contradicted by empirical evidence. The strong and pervasive belief in freewill, which Caruso considers an illusion, can be found in a detailed examination of human phenomenology and a proper theoretical understanding of consciousness.²⁹ The issue of “empirical evidence” is the greatest threat neuroscience poses to our existing understanding of freewill. If the position of neuroscience can be accounted for empirically, then it challenges other positions, religious or cultural, though popular, as they are speculative and not in any way testable or verifiable. This is the dilemma that forms the basis of this study.

The freewill problem premised on the position of neuroscience revolves around the issue of ‘self-awareness of causes of actions’: are we actually aware of the causes of our actions? Or are we actually conscious of processes that initiated what we call voluntary behaviour? The position of neuroscience calls to question what we have believed about wo/man and her/his autonomy in the decision-making process. ‘Initiation’ and ‘control’ are the two important elements in human will which are now debated.

Implications of Determinism: *Orí* and the Findings of Neuroscience

In spite of all these empirically verified truths, there are some serious implications for the sustenance of this discovery in the field of neuroscience on human freewill. These include the religious and cultural implications especially among the Yorùbá. The other challenge is how to reconcile this truth, the position of neuroscience, with these implications.

The freewill problem is premised on the position of neuroscience which revolves around the issue of 'self-awareness of causes of actions'. Are we actually aware of the causes of our actions? Or are we actually conscious of processes that initiated what we call voluntary behavior? If indeed we are not free, as neuroscience or *Orí* seems to suggest, then our actions are beyond our control. Who takes responsibility for our actions if indeed they are beyond our control? In the light of these germane questions, we cannot discard the proven discovery of science because of our speculative but established beliefs influenced by our religious, cultural or ethical ideas. According to every Yorùbá, these beliefs are not just mere assumptions; they are stern beliefs taken very seriously which shape the behaviours of the Yorùbá people. Is it possible then to accept the conclusion of neuroscience which threatens freewill and jeopardizes the so-called assumptions of the Yorùbá on human personality? This is an important question that has grave implications on both the personal and the communal level. It is therefore necessary to note that the Yoruba have a unique idea of human personality. This is considerably geared towards the understanding of the implications of a scientific finding on human will.

A human being, according to Yorùbá belief system, is not just a mere physical being whose existence is dictated alone by physical factors present in this world. According to Adebola Akintola (1999), at the stage of divine creation of humanity, there was a free intercourse between God and the divinities, which predicated the creation of wo/man in heaven and her/his subsequent establishment on earth.³⁰ It is necessary to note also that religion has a strong influence on the entire life of a Yorùbá person; therefore, the Yoruba conception of humanity is religious-driven.³¹ The unique concept of human personality held by the Yorùbá is influenced by certain beliefs, namely: the belief in the physical and non-physical nature of a human being; wo/man's preparation in heaven before coming to the earth; the roles of God's powerful agents in the world; the concepts of *Orí*, *Èníkejì*, wo/man's guardian angel or double; death and immortality of the soul of wo/man.

Reconciling *Orí* and Neuroscience with Contemporary Ideas on Human Will

In spite of the evidences against freewill from the findings of neuroscience, some scholars are skeptical of the position that freewill is an illusion. Walter Glannon (2015) challenges the belief that humans lack freewill by holding that findings of neuroscience in the past few decades have driven a departure in the external factors on freewill such as natural laws or events to internal factors related to the brain and the mind.³² Glannon gives a devastating analysis of the findings of neuroscience regardless of the enormous empirical evidences used to prove that freewill is an illusion. According to him, sufficient evidence emerges from neuroscience to allow a conclusion that there is a deterministic relationship between neural processes and mental processes connected to behaviour. However, as a result of limitations in functional neuroimaging and other similar neurophysiological procedures of brain activity, neuroscience at best can show correlations between brain activity and the mental activity involved in the decision-making process and action.

Correlation is different from causation, and accordingly, there is no warranty for the belief that neural processes are responsible for particular mental states and choices to act in particular manners.³³ Similarly, the Yoruba believe that even though *Ori* plays a critical role in a person's life, there is a guarantee that certain factors outside of *Ori* affect his or her actions and his or her outcomes in life.

It is necessary to note also that the Yorùbá believe that a person's destiny can be changed because of the Yorùbá saying in the form of a prayer—*Káyé má pa Kádàrá mi dà* – May the wicked people of this world not alter my destiny. This prayer suggests that the Yorùbá believe that it is possible for a person's destiny to be changed. Regardless of the enormous and convincing argument against freewill, Julian Baggini (2015) raises a pertinent question, thus: So is the game really up for freewill? She answers: "it is true that commonsense notion of freewill is not fit for the purpose. It rests on a naive and simplistic assumption that we can rise above our biology and our history to make choices in a condition of unconstrained freedom. The challenges to freewill need to be met not by rejecting them wholesale, but by thinking more carefully about what it really means to be free, rather than what we assume it to mean" (p.3).³⁴ Baumister (2010) says assertively, "I do not think it (neuroscience) will be able to show that there is no such thing as consciousness, and thus, no freewill; either it will explain consciousness or we would conclude that we have not yet explained it while it may make the notion of a unitary enduring self seems illusory; our concept of freedom does not depend upon the truth of that notion" (p.168).³⁵ Baumister's position is obvious; he believes that the best neuroscience can do is to explain the processes of consciousness.

Sally and Lilienfield share the opinion of Glannon about the limitations in neuroimaging and other barring processes used as the bases of conclusion that freewill does not exist.³⁶ They ask: "consider the law, when a person commits a crime, who is at fault, the perpetrator or his/her brain?"³⁷ Similarly, Nicole Vincent opines that freewill or its absence is not a criterion for criminal responsibility or non-responsibility. This is because it is not relevant to the real practice of criminal law when the locution used for it is simply a confused proxy for the conclusion that some genuine culpability doctrine was or was not present. Sometimes, it is meant that freewill is an important primary justification for responsibility, regardless of if it is not even a criterion in any legal system.³⁸ On a similar note, no attorney will make a case for his client on the defense of *Ori*, "that it was his *Ori* that made him do it". It can be inferred that what Vincent means is that in the "real world" outside of the academic definition of freewill, whether a person has it or does not have it, as some schools of thoughts in neuroscience suggest, does not really matter. This is because Vincent believes it is immaterial in the real exercise of criminal law. This is also because freewill is assumed to be present or the affirmation of freewill is a crucial criterion in any legal doctrine because it is a primary justification for responsibility.

The brain is not an inflexible determined mechanism, but a process that is more flexible and changeable than we had for decades thought. It is not a central computer directing the human machinery with a fixed, deterministic logic, but an organism of great plasticity that actively interferes in coincidences and necessity.³⁹

Thomas Nagel believes there are at least two ways in which freewill is important, and these are interrelated. The first is our autonomy, which shows that we are not just mere observers of the activities of our lives; we are the ones that fashion out their course. The second is accountability, which is an issue closely related to responsibility.⁴⁰ If freewill is an illusion as some scholars, such as Sam Harris (2012)⁴¹, D. Wegner (2002)⁴², Heidi Ravven (2013)⁴³ and P. Smith (2014)⁴⁴ to name a few, have argued, then we truly lack autonomy; we only observe activities of our lives, and there is no need for responsibility. This kind of thinking is at odds with everyday living, and neither is it easily acceptable nor practicable.

Adetunji (2001) also examines the concept of *Ori* from a soft-deterministic approach; she discusses it within the precincts of morality which is the major problem for hard determinism. According to her, a person's *Ori* can be altered by societal influences, such as western education, foreign religions, western culture, western medical care and changes in economic system. Intrinsic values, such as good character, offering of sacrifices, hard work and ability to struggle, are free actions of an individual that can affect a person's life. She further posits that the Yorùbá strongly believe in human destiny because success or failure of any man largely depends on the type of choice he has made in heaven; though human efforts cannot be ruled out of success or failure, the greater part of it can be ascribed to destiny.⁴⁵

Under Dehaene's (2001) analysis, "a physical system whose successive states unfold according to a deterministic rule can still be described as having freewill, if it is able to represent a goal and estimate the outcomes of its action before initiating them".⁴⁶ The distinctiveness of Dehaene's argument rests on his thinking that highlights the seriousness of the human decision-making process. He believes that this process includes the setting of goals and the selection of a course of action in the midst of various alternatives, while weighing the consequences of each decision and possible outcomes. A wo/man's decision to resign from her/his job to join, for example, politics, for further studies or for full-time ministry is a kind of serious decision that involves human freewill. This kind of a decision is not made in a split of a second, and such a wo/man cannot present her/his defense as follows: 'It is my brain that made me do it', for one might wonder how responsible this kind of a statement is; nonetheless, this is what it means if freewill is truly an illusion.

However, Penderins (2013) opines that it is a fact that the courts of nearly all the world's judicial systems allow mitigating circumstances to be considered before verdict is passed. This is our way of conceding that humans have, at least under certain circumstances, no freewill and could not always be held responsible for their actions.⁴⁷ Some of such mitigating circumstances could be in cases of insanity, when there is no freewill. Penderins says further that it is especially the gatekeepers of the religious fraternity who are vehemently against the notion of no freewill. Being able to exercise freewill is seen as the basis of human morality. The belief that humans are free to decide whether they want to land up in heaven or hell one day is the foundation of mainstream religious movements.⁴⁸

On a religious note, Dasylyva (1998) believes that a person's destiny can also be changed under certain circumstances. These conditions are not self-choice, but induced by certain forces or actions. It may take the form of a curse (*ègún idilé*) imposed on an individual or a lineage because of a social misdemeanor, such as breaking of a taboo or because of a sheer vendetta. Or it may take the form of *Ìre*-blessing, consequent upon some good deeds performed by an individual and enjoyed by his lineage. The curse-*Ègún* or *Ìre*-blessing is usually invoked by the power of the spoken words, which in turn activates cosmic forces to carry out the decreed assignment, regardless of its rightness or wrongness.⁴⁹ It is then obvious that the Yorùbá believe in what could be termed a "two-sided conception of destiny" using the words of Olusegun Oladipo (1992).⁵⁰ The Yorùbá believe destiny is something given and unalterable and something which in certain circumstances and under certain conditions like the scenarios cited above can be altered. This two-sided conception of the Yorùbá on human destiny suggests a problem and indicates determinism or fatalism.

According to Idowu (1982), given certain conditions, a person's destiny can be altered: by the aid of *Òrúnmìlà*, a 'happy' destiny can be preserved and an 'unhappy' one rectified through rituals. The destiny of a person can be altered and made worse by *omọ aráyé* – 'children of the world': these are persons in whom the evil powers of the world are vested. A person's character can also alter his/her destiny for worse or better, since a good destiny coupled with a bad character is of no worth. An 'unhappy' destiny can be rectified if it can be ascertained. This rite is called *Ìkọ'-se-wáyé* or *Èsẹ̀n-t'áyé*. Its main purpose is to find out what sort of child it is and things to be done to preserve his/her good destiny or rectify an unhappy one. This is done in the case of a newborn child. The destiny of a person can also be made worse by the machinations of the person's *Ènikẹ̀jì*- "double or counterpart" which has a strong influence on his/her destiny.⁵¹ Three of these ways – the first, the third and the fourth – show the influence of the actions or inactions of a person on his destiny.

The fate of a person, therefore, is not totally determined by factors beyond his/her control or cerebral activities of his/her brain—the course of his/her life can also be affected by his/her own actions. Olaleye (2013) shares some of these views of Idowu to show that the course of a person's life can be improved by his personal actions through sacrifice. According to Olaleye (2013), *Èbọ* (sacrifice) is necessary to ensure that predictions of good fortune will come through and bad ones averted. It is offered to change bad and unpleasant situations to a better one, to retain, maintain and improve good situations.⁵²

Hylomorphism as a Solution to the Dilemma of Determinism

Hylomorphism is a philosophical theory used to solve the metaphysical problem of the nature of the existence of human beings. It is from the Greek words *hylē*, "matter"; *morphē*, "form". This theory is often traced to Aristotle because he left a lasting legacy on the ontology of wo/man which is still relevant in contemporary discourses.

This is why *Merriam Webster Dictionary* defines it as a theory that corporeal being consists of Aristotelian forms and primordial matter.⁵³ Similarly, the *Catholic Dictionary* defines hylomorphism as the theory that all physical beings consist of two basic forms: the prime matter, which is an undefined primitive, and a substantial form, which is a definite mode of existence.⁵⁴ In the Yoruba philosophy, Bolaji Idowu has written extensively on the subject which is in accordance with the Aristotelian school of thought, showing the dual nature of wo/man. To the question, ‘what is wo/man?’, Idowu (1996) responds succinctly that the Yoruba will answer off-handedly that wo/man is body plus *ẹ̀mí* (spirit). The body is the material concrete entity of flesh and bones which can be perceived or known by the five senses. *Ẹ̀mí*, on the other hand, is invisible and intangible; it is that which gives life to the whole body. While the body can be created and is created by a divinity, it is Olodumare alone who puts *ẹ̀mí* into wo/man, thus giving her/him life and being.⁵⁵

The Yorùbá, like many other races in the world, believe that wo/man’s nature is partly material and partly immaterial. They believe that wo/man has a material body by means of which s/he acts and reacts to her/his physical environment. They also believe that s/he has an immaterial entity.⁵⁶ This belief that wo/man is not only a biological phenomenon but also a spiritual phenomenon whose sojourn on earth being a continuation of what began in heaven is only possible if a human being has two natures, one physical and the other non-physical. Every part of the human body is important to the Yorùbá, not only in the biological sense, but most importantly in the spiritual sense. Organs like the eyes, the hands or feet are understood metaphysically. Thus, the Yorùbá will take a lot of offence if an object is passed or received through the left hand. Also, when a person steps out to embark on a journey or any important venture and the left foot steps out first it has a spiritual significance on which the success of the venture or journey rests. *Ẹ̀sẹ̀*-feet are very important to the Yorùbá, and the shape of the foot, as well as how it rests on the ground, is taken seriously. Every part of the human body is important to the Yorùbá both in the material and spiritual sense, because, to them, a wo/man is seen as having both physical and non-physical natures.

Conclusion

The Concept of *Ori* is not just a mere physical organ but a body part that has both physical and spiritual meanings. A significant point is obvious from the hylomorphic theory of Idowu. Here, he argues that among the Yoruba, the physical part of wo/man is recognised and acknowledged, but it is just a part of the *whole package*. Thus, the Yoruba understanding of wo/man tilts more towards the metaphysical part than the physical. The Yoruba believe that a person is not just what we see. This is expressed when a person has just died and all the physical parts of the person are still intact. Such a body is lifeless, and it shows that the major controlling force of the person is not physical. Lack of freewill is simply inconvenient within any practical milieu because once the case of insanity is ruled out, human beings take responsibility for their actions in the real world.

The concept of *Ori* or the submission of neuroscience on human will can only fit into practical realities by conceding to soft determinism and hylomorphism. Soft determinism is the belief that humans are not free, given certain conditions. At the same time, since human beings have to take responsibility for their actions, they should also be considered free. This gives room for both neuroscience and *Ori* because sometimes humans do not have control over their wills even though they take responsibility for their actions. Hylomorphism also shows that humans have both the physical and also the spiritual nature that cannot be subjected or explained by empirical experiments. It is important to note that there is a limit to what science can know or does; some knowledge just simply defys scientific or empirical understanding. Scientists should know that metaphysical answers to issues can come in courtesy of religion. This means an understanding of human will cannot be limited to scientific knowledge. Religious scholars on the other hand should be more open to other ideas outside of their domain. It is therefore necessary to form a mutually benefiting framework between these two important fields of study. According to Albeit Einstein, "Science without religion is lame and religion without science is blind".⁵⁷ In the past it was believed that religion and science are two parallel lines that cannot meet. Recent studies in works of scholars like H. Noris, 1993⁵⁸, J. Peacock, 1999⁵⁹, J. Goddard, 2012⁶⁰, M. Thompson, 2013⁶¹, J. Goddard, 2012⁶², B. Sweetman, 2010⁶³, I. Barbour, 1990⁶⁴ and other scholars with similar thought have disproved this belief. These scholars are finding a meeting point between these two fields. A symbiotic relationship between them is possible, and future studies should focus on how both fields tend to profit from a mutually benefiting framework, especially in the context of indigenous religions.

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