Critique of Nkrumah's Philosophical Materialism

Emmanuel Ifeanyi Ani

Department of Philosophy and Classics

University of Ghana, Legon, Ghana

mabrowest@yahoo.com OR eiani@ug.edu.gh

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thoughtandpractice@gmail.com

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Abstract

Kwame Nkrumah invokes the doctrine of emergentism in the hope of reconciling theism - a tenacious part of the African worldview - with materialism. However, in this article I seek to show that this reconciliation is not only ultimately unsuccessful, but is actually impossible. Towards this end, I identify weaknesses in what I call the six argumentative pillars of Nkrumah's theory of emergentism (which he calls "philosophical materialism"), namely, his arguments regarding the origin of the cosmic material, the primary reality of matter, idealism, categorial convertibility, dialectic change, and the self-motion of matter. The article should provide not only alternative perspectives to Nkrumah's metaphysics, but also highlight some broader metaphysical implications for both strong and weak emergentism.

Key Words

Philosophical materialism, consciencism, emergentism, cosmic material, categorial conversion, dialectical change, self motion of matter

Introduction

Like Leopold Senghor, Julius Nyerere, Nnamdi Azikiwe and other nationalists/ideologists of his time and milieu in charge of constructing a philosophical basis for the emancipation of Africa, Kwame Nkrumah felt it necessary to anchor his socialism on a metaphysical foundation, which would be the basis of the policies that would be contained in such a socio-economic system. In particular, Nkrumah identifies three influences in Africa, which, according to him, beg for some sort of reconciliation in the "African conscience". They are the traditional, the Western and the Islamic, and they co-exist uneasily (Nkrumah 1964, 78). Nkrumah proposes what he calls "consciencism", which he describes as "the map in intellectual terms of the disposition of forces which will enable African society to digest the Western and the Islamic and the Euro-Christian elements in Africa, and develop them in such a way that they fit into the African personality." It is a

"philosophical standpoint which, taking its start from the present content of the African conscience, indicates the way in which progress is forged out of the conflict in the conscience" (Nkrumah 1964, 79).

How does Nkrumah set out to reconcile these influences and to forge a way forward for this crisis-ridden conscience? To be sure, this way forward must involve proposing a new kind of metaphysical foundation. To this end, the rest of Nkrumah's famous book *Consciencism* shows that his way forward is nothing other than scientific socialism; and the metaphysics he proposes he calls philosophical materialism. According to him, "Socialism depends on dialectical and historical materialism, upon the view that there is only one nature subject in all its manifestations to natural laws and that human society is, in this sense, part of nature and subject to its own laws of development" (Nkrumah 1973, 83). He therefore proposed his view of the basic cosmological and ontological questions that have plagued philosophers since ancient times. These questions border on issues such as the origin of the cosmic material, idealism, materialism, as well as matter and its properties. Nkrumah's metaphysics can be found in the first chapter of his book. Although he calls his metaphysics "philosophical materialism", upon examination it turns out to be the doctrine of weak emergentism - the philosophical view that higher-level properties of the universe such as consciousness or spirit, arose from lower-level properties such as matter, so that the lower-level properties are the originating material of the universe. The details of this theory are explicated later in this article.

Nkrumah's metaphysical theory arises from practical considerations. At heart he is a Marxist materialist, but he does not want to be dismissed by Africans as an atheist. Citing Drake (1977), John McClendon reports:

> The eminent Africanist and anthropologist, St. Clair Drake, who served as the chair of sociology at the University of Ghana from 1959-61, reports on a conversation he had with Nkrumah about atheism and materialism. In that conversation, Nkrumah voices his trepidation for materialism grounded in nineteenth century positivism. Nkrumah declares the reason he does not accept atheism as the logical outcome of materialism is because "[n]o Africans are going to be atheists" (McClendon 2012, 48).

Thus Nkrumah proposes a materialist doctrine that accommodates theism, but which gives superiority as well as self-motion and initiative to matter. He begins his metaphysics by asserting that the origin of the basic cosmic material must be from within the cosmic material itself or its product (Nkrumah 1964, 8). To affirm an outside cause would be to affirm the Principle of Sufficient Reason or open up an infinite regress about the cause of the cause of the cause of the basic cosmic material without end. Nkrumah goes further to reject idealism as contradictory and suffering from what he calls the God-complex (Nkrumah 1964, 19). He adopts materialism by arguing that matter is independent, self-caused and self-moved, and can give rise to other categories such as spirit and consciousness through what he calls "categorial conversion" involving dialectics and discontinuity (Nkrumah 1964, 19-23).

As we shall explain below, for Nkrumah the dialectical movement involved in the categorial conversion represents a discontinuity in the sense that matter can give rise to something entirely different, such as spirit. In this process, old set properties are dropped and new ones are acquired (Nkrumah 1964, 25). By this same categorial conversion, capitalism can give rise to socialism in what Nkrumah calls dialectical materialism (Nkrumah 1964, 75). This is his adaptation of Marxism to propagating socialism in Africa. This I will call Nkrumah's metaphysics, and it has six argumentative pillars, namely, the origin of the cosmic material, the primary reality of matter, idealism, categorial convertibility, dialectic change, and the self-motion of matter. In this article, I will explore each of these pillar arguments of Nkrumah's metaphysical grounding of "African socialism". Consequently, the article is divided into sections discussing each of these pillars. My critique will show that apart from the fact that Nkrumah's materialism is metaphysically inconsistent with the African traditional metaphysical worldview, his attempts to reconcile this inconsistency by reconciling materialism with theism produces logical, and in some cases, epistemological problems. Although there has been much debate about Nkrumah's political and metaphysical positions, I am yet to see a detailed critique of Nkrumah on these six argumentative pillars taken together, and so I set out to offer one.

The significance of the article arises from the fact that deep contradictions are beginning to emerge from classical capitalism after centuries of practice by Western countries. Chief among these contradictions is growth by increasing disequilibrium, in which more of the world is increasingly being owned by less. Thomson Reuters reports that the richest 1 percent of the world owned roughly 46 percent of its wealth in 2013, and 50 percent of its wealth in 2014 (Reuters 2013; 2014), a quite frightening progression. Similarly, the economist Joseph Stiglitz (2011) observed that 1 percent of the United States not just commands about 40 percent of the national product, but also increasingly holds power. Similar pictures of inequality abound in most other nations (See Credit Suisse 2013; Domhoff 2013, par 27 and table 5; Guest 2014). There is an emerging concern in most countries that some sort of socialism/re-distribution is required, and this concern is becoming a global consensus. However, the difficult question for most countries is: what kind or adaptation of socialism? Given that European socialist ideas have traditionally thrived on materialist metaphysics, and metaphysical materialism does not exactly align with traditional African metaphysical worldviews, the metaphysical adaptations of socialism for African countries is also crucial to determining their indigenous adaptations of the theory in governance and daily life. Nkrumah offers the most comprehensive metaphysical foundation for socialism on the African scene. It seems therefore most appropriate to begin the debate from his ideas.

The Origin of Cosmic Material

According to Nkrumah, metaphysics addresses two basic questions. The first is that of what there is, that is, the basic types of objects in the world. Nkrumah observes that Thales had argued that it is water, while Berkeley had argued that it is spirit/idea. The second basic metaphysical question for Nkrumah pertains to the *origin* of the cosmic material (the material that constitutes everything in the world). Has the cosmic material a cause? For him, the difficulty of ascertaining a cause points to the persistent problems associated with it (Nkrumah 1964, 7).

To be specific, Nkrumah asserts that any cause of the basic cosmic material must be from the raw material or its product. Outside this for him, any insistence on a cause will open

up an infinite regress about the cause of the cause of the cosmic material, - and so on. This is in spite of the fact that to claim that there is no cause of the cosmic raw material is to claim an exception to the Principle of Sufficient Reason. In narrowing down the origin, Nkrumah writes: “To say that the cause of the cosmic material is the cosmic raw material is to say that it is self-caused. And since to say that something is self-caused is to say that that thing has no cause at all, then the cause of the cosmic material must come from its product” (Nkrumah 1964, 8). However, this, in my view, raises problems of consistency, since the existence of something’s product is posterior or subsequent to the existence of that thing. How could the product of an entity, whose existence subsists on the existence of the entity, become the cause of the existence of the entity? Let me, however, continue with Nkrumah’s argument.

According to Nkrumah, theology sees the origin of the cosmic material as a transcendent force. So adopting a Theist or Deist position is to locate the origin of cosmic material outside the world and affirm the Principle of Sufficient Reason; and to negate the Principle of Sufficient Reason (to deny an outside-the-world origin of the cosmic material) is atheist. For this reason, Nkrumah concludes that: “pantheism is atheism using theological language” (Nkrumah 1964, 9). Here, we see that Nkrumah sees pantheism as atheistic because it conceives God as identical with matter, and thus suggests that matter is the sole reality. As we shall see, Nkrumah rejects the sole reality of matter because he thinks it gives no allowance for recognizing other categories of being such as spirit and consciousness, to the extent that they can be conceived of as distinct from matter. All of this is understandable given Nkrumah’s attempt to reconcile his materialism with theism in order to avoid the charge of atheism.

Nkrumah considers the other aspect of the second basic metaphysical question as being concerned with the extent of cosmic material. Here, he considers whether it is finite or infinite. He says here that the driving (or popular) interest is that the world should be permanent and some people think that at any point in time, something must always exist. “But the desire for permanence,” argued Nkrumah, “is not enough to infer the existence of God” (Nkrumah 1964, 9).

In addition, Nkrumah argues that the cyclic notion of the universe is disproved by time and finitude. He rejects the notion of the infinite presence of the universe as an argument for permanence, saying that a universe that has existed infinitely backwards in time can cease to exist without its infinitude suffering decrease, because it would be comparable to a cut at any point in the series of negative integers. What is more, a universe that is infinite in space can cease to exist without prejudice to its size (Nkrumah 1964, 10). In fact, for Nkrumah, the finitude or infinitude of the world are all conceptions that cannot be verified, because the verification has to be carried out by someone who is outside the world. Even to say that the world has a cause is to judge the world from outside it. Yet this is not possible, so there are "no material grounds for inferring the caused, uncaused, finite or infinite nature of the world" (Nkrumah 1964, 11). If this were so, why then would Nkrumah postulate a causal theory of the basic cosmic material?

Nkrumah argues that postulating a cause for "what there is" is to commit to a conception of the "inside" and "outside" of the world. He mentions that an example of this inside-outside conception is Christianity, where God came into the world from outside through Adam by means of living breath, and later through Jesus Christ by means of mystic incarnation. Nkrumah then expresses his disagreement with this conception:

> … this 'inside' 'outside' conception becomes a contradiction when one's gaze is so steadfast on the 'outside' that the realities of the 'inside' suffer neglect. This is why Marx criticized religion as an exploitative tool which was used to divert the workers' attention to 'outside' concerns and overlook the value of their labour (Nkrumah 1964, 12).

Nkrumah contends that many African societies forestalled this kind of "inside" "outside" perversion by making the inside world continuous with the outside world in such a way that heaven was not outside the world but inside it. He adds:

> … in present day Africa, recognizing this 'inside' 'outside' dialectic is necessary in order to anticipate and tackle colonialist and imperialist advances which might use religious guises for political gains. This also is why it is necessary that religion must be separated from politics and the state must be secular. But this is not to be interpreted as a declaration of

> political war on religion, for religion is a social fact that cannot be wished away (Nkrumah 1964, 13).

Nkrumah does not dismiss religion as a "social fact" in Africa, but he is quick to point out what he sees as its pitfalls. According to him, there is a sociological connection between religion/religious practice and poverty. It has its main root in the social depression of workers, as can be confirmed in Africa, Latin America, Asia, the Caribbean, and among Afro-Americans (Nkrumah 1964, 13-14). In his words, "the same terrifying pauperism arising from pre-technical society and capitalism which metes out prostitution, destruction, ruin and death from starvation and exploitation also creates the religious feeling" (Nkrumah 1964, 14). He attacks religion as an obstacle to true socialism and evidence of the depression of workers.

At this point we ask: why must the cause of the cosmic raw material come from either itself or its products? Why will its cause not come from outside it? Read Nkrumah: "According to the hypothesis that what we seek to explain is the *basic* raw material, any proposed cause for it can only itself arise from the *basic* raw material. Therefore it must either be part of the basic raw material or be a product of it" (Nkrumah 1964, 7-8). Nkrumah himself made the italicization of the word "basic" in two of its three appearances in this quotation. The weight he placed on this emphasis is suggestive of his view that this (*basic* raw material) is the crucible of all existence. It suggests that the bare fact that we are discussing *the* basic cosmic material is sufficient ground for the inference that its cause must be a part of it. There is a materialist assumption here, and this is that there is no ground to determine if anything outside the physical universe exists. As a result of this assumption, the possibility of an out-of-the-world cause for the basic cosmic material is not possible. Here we appreciate Nkrumah's Marxist-Leninist leaning which places matter at the peak of existence and subjugates everything else, spirit included, to it.

There are two possible implications of Nkrumah's materialism. The first is atheism, while the second is a logically inconsistent and self-extinguishing kind of theism - a theism that *subjects* spirit to matter and makes matter existentially prior to spirit. Let us consider the first implication, the atheistic one. Nkrumah's denial of the existence of anything outside

the world amounts to atheism, since it implies that God, who is ordinarily understood to be *capable* of existing beyond the world, does not exist. However, Nkrumah's refusal to be categorical with this position speaks of his desire to veil his atheism behind a philosophy that he hopes will palliate the typically religious African mind. This can be seen in his denial of what he calls the "sole reality of matter" in preference for the "primary reality of matter". To this I will return. Let me recall the following demarcation made by Engels:

> Which is primary, spirit or nature …? "Did God create the world or has the world been in existence eternally?" The answers which the philosophers gave to this question split them into two great camps. Those who asserted the primacy of spirit to nature and, therefore, in the last instance, assumed world creation in some form or the other … comprised the camp of idealism. The others, who regarded nature as primary, belong to the various schools of materialism (Engels 1967[1941], 21).

For Engels, those who uphold the primacy of matter imply that the world has in fact existed eternally, so that it was not created. To say that the world was never created would obviously imply that even if God existed, he did not create it. Unless additional clarification is provided, Nkrumah's position has the same implications outlined above (matter is primary, the world has existed eternally, the world was never created, and therefore God did not create the world). Furthermore, if we go by our common sense understanding of God as the being who created the world, or "Creator" as one of the attributes of God, then the existence of God will not be compatible with materialism. Thus from this early metaphysical discussion about the origin of the cosmic raw material, we begin to see the atheism implicit in or readable from Nkrumah's philosophical system, in spite of his avowals to the contrary.

The Primary Reality of Matter

Let me examine the second implication of Nkrumah's materialism: the primacy of matter implies a theism that is both uncomfortable and logically inconsistent. Nkrumah held that it is a materialist philosophy to assert the sole or primary reality of matter. He had distinguished between the sole reality of matter and the primary reality of matter. By "sole reality of matter", he meant that matter is the only existing entity. However,

considering his sensitivity to the concerns of a religious society, he chooses to avoid this position. Instead, he chooses to affirm the primary reality of matter. According to him, the assertion of the sole reality of matter is atheistic, but *philosophical consciencism*, the social and political theory that springs from dialectical materialism, though deeply rooted in materialism, is not necessarily atheistic (Nkrumah 1964, 84). In his words, "Philosophy prepares itself for the accommodation of hard facts by asserting not the crude sole reality of matter, but its primary reality. Other categories must then be shown to be able to arise from matter through process" (Nkrumah 1964, 21).

Nkrumah remarked that a materialist philosophy which accepts the primary reality of matter must either deny other categories of being or claim that they are reducible without leftovers to matter. As such, if spirit is accepted as a category of being, non-residual reduction to matter must be claimed. Therefore, the phenomenon of consciousness, like that of self-consciousness, must be held to be in the ultimate analysis nothing but an aspect of matter (Nkrumah 1964, 84). So what we have here is the doctrine of matter as primary reality, and every other reality as secondary to matter. Nkrumah intends to allow for belief in consciousness and spirit, but simultaneously insists that matter has the edge in ontological priority.

If Nkrumah thinks that he has reconciled the conflict between religion and materialism, then he is mistaken, since it remains to be seen how a belief in God can be tailored to the belief that God is the result of something else - a creature from matter. For instance, where does Nkrumah's materialism leave the idea of theism that recognizes the primacy of spirit? Can the primary reality of matter accommodate theism? Should we now accommodate the primacy of matter into our present conception of theism: spirit is subject to matter? The doctrine of theism, any kind of theism, however, assumes the primacy of spirit. In this analysis, therefore, *any kind* of materialism (sole or primary reality of matter) is incompatible with theism. Thus when Nkrumah writes that it is materialism that gives the firmest conceptual basis to *Consciencism*, and elsewhere asserts that he is "a non-denominational Christian and a Marxist socialist and I have found no contradiction between the two" (Nkrumah 1971, 12) the inconsistency becomes obvious.

Nkrumah argues for the primacy of matter, but elsewhere he argues that matter is "coextensive with the universe" (Nkrumah 1964, 20). However, as John McClendon has pointed out, if matter is coextensive with the universe, it means that the universe and matter are one and the same, which in turn implies the *sole* reality of matter. So, contrary to Nkrumah's attempt to reconcile materialism with religion, this means that consciousness and spirit are mere *epiphenomena* (see McClendon 2012, 46). This is precisely the position that Nkrumah seeks to avoid. For instance, he argues, "The dialectical materialist position must be distinguished from an epiphenomenalist one. For the former, mind is a development from matter; for the latter, it is merely something which accompanies the activity of matter" (Nkrumah 1964, 26). Nevertheless, can we locate any substantive difference between the primary and the sole reality of matter? How does consciousness and spirit fare under the primary reality of matter, as opposed to the sole reality of matter? Nkrumah opts for the primary reality of matter so that consciousness and spirit can be said to exist as derivative categories; but this can also be said of the sole reality of matter: consciousness can exist as mere epiphenomena (side effects) of matter.

It seems to me that the difference between the two theories of matter must be in *whether consciousness is reducible* to matter, in terms of whether consciousness can be explained by going back to matter. I will term this *explanatory reductionism*. Nkrumah actually affirms the theory of reductionism when he advances it along with the theories of nominalism. He writes: "In reductionism, one sees how concepts proper to a derivative category can be reduced *completely* to concepts which are proper to a primary category" (Nkrumah 1964, 22; italics mine). When we say that consciousness not only arises from matter but can also be *completely* reduced to matter, then we posit, not just the primary, but also the sole reality of matter. So if Nkrumah's choice of the primary reality of matter is to accommodate theism, then both the choice itself and its objective are ultimately unsuccessful.

Is consciousness reducible by explanation to matter? This is a question left for science, rather than philosophy, to answer. Answering it means being able to predict consciousness as well as to replicate it using putative matter. It will not do to simply declare that consciousness is explainable by examining matter when this is not demonstrated in any way.

Materialists (particularly weak emergentists) might point to the ability to reduce apparently complex phenomena such as the Internet and economic systems to the connectivity between many computers and to unit economic transactions respectively, but these can by no means be in the same category of explanation as consciousness and spirit in terms of matter. These are imperfect analogies. In any case, analogies will not do: only demonstration will, since it seems impossible to find an analogy to human consciousness.

Idealism

Nkrumah begins his discourse of idealism by highlighting its problems and contradictions, and rejecting it. Nkrumah sees idealism as a philosophy that upholds the primary existence of the spirit and derives matter from the same, such as Gottfried Leibniz's philosophy that sees matter as unconscious spirit, or George Berkeley's theory that sees the world as nothing but spirits and their knowledge (Nkrumah 1964, 15).

Nkrumah identifies solipsism as a source of idealism, in which the individual starts from a depressing scepticism about the existence of other people and other things, as if his/her own body is not part and parcel of the entire world. As Nkrumah's argument goes, the logical result of the individual's general pessimism is to disincarnate himself/herself, and in this way his/her role as the centre of solipsism and the centre of experience wobbles: "He the subject, the sufferer and enjoyer of experience melts away, and we are left with unattached experience" (Nkrumah 1964, 16). According to Nkrumah's narrative, Descartes thought that since he could think of himself without any part of his body like arm or leg, then he could think of himself entirely without a body. However, Nkrumah maintains, disincarnation is not a physical deformity. According to him, Descartes

proposed quite un-soberly to hang the whole universe on the existence of his body. However, he (Descartes) promptly admits that he cannot doubt that he is thinking: "… even if he doubted that he thought, he would still be thinking, as doubt was a form of thinking" (Nkrumah 1964, 16). It was necessary for him to single out what he could not coherently doubt in order to peg his existence on it; but here - and this is where Nkrumah accuses Descartes of solipsism - Nkrumah says that Descartes would be "understanding too much" if he thinks that *Cogito ergo sum* ("I think therefore I exist") would imply that an object exists, let alone that Descartes exists (Nkrumah 1964, 17). He writes:

> All that is indubitable in the first section of Descartes' statement is that there is thinking. The first person in that statement is no more than the subject of a verb, with no more connotation of an object than there is in the anticipatory "it" of the sentence "it is raining". The pronoun in this sentence is a mere subject of a sentence, and does not refer to any object which is raining. "It" in that sentence does not stand for anything. It is a quack pronoun (Nkrumah 1964, 18).

Nkrumah's analysis leads him to conclude that due to the depth of solipsism to which Descartes descended, the "I" in "I think therefore I exist" is a quack pronoun that does not necessarily refer to an object, so that once again we have unattached experience - thinking without an object which thinks. Furthermore, since the subject is merely grammatical, the universe becomes a plurality of thoughts that are unattached (Nkrumah 1964, 18).

For Nkrumah, it is more normal to found idealism on some theory of perception, even though this leads to the conclusion that we can only know matter through perception, and this makes matter depend for its existence on perception, and since perception is a function of the mind or spirit, matter ends up depending on spirit for its existence. However, Nkrumah points out that our bodies are elements in the external world. If body wins its existence from perceptual knowledge, it could not at the same time be the means to that knowledge. Body precedes perception. So the idea of perception through physical senses becomes incoherent in idealism (Nkrumah 1964, 16). This argument I can grant, since Berkeley's *esse est percipi* ("to be is to be perceived") is not indispensable to proving that reality goes beyond matter. However, it is Nkrumah's next argument, which is the same as that of William Amo, that earns my disagreement.

Nkrumah cites William Amo who argued that idealism is enmeshed in contradictions: The mind, for Amo and Nkrumah, was conceived by idealism as a pure, active, un-extended substance, and ideas that constitute the world can only exist inside the mind. Then, wonders Nkrumah and Amo (Nkrumah 1964, 18), how could ideas of physical extended objects, *which must also be extended*, subsist in the un-extended mind? Or could it be that the mind itself would have to be extended in order to receive such ideas? Nkrumah notes that the contradiction is in the denial of the spatial nature of the mind and the compulsion to harbour spatial objects in it. In idealism it is not only our bodies that are tucked away in our minds, instead of the other way round, but the entire universe as well (Nkrumah 1964, 19).

The error of Nkrumah and Amo is in supposing that an idea of an extended object must also be extended: there is no warrant for this supposition. To begin with, the idea of an object cannot be the object that it is representing, so there is no bridge to infer from the extended nature of an object to an extended nature in an idea regarding it. Even the concept of images or shadows will make this clear: extended objects give rise to shadows and images, but these shadows and images are not extended like the objects that give rise to them.

Rejecting idealism whilst asserting the compatibility of materialism and theism presents further problems for Nkrumah's materialism. He has argued that idealism fosters theism[1] and that materialism and theism are quite compatible (Nkrumah 1964, 84). So Alexander Wooten (1990, 49-55) explicates the contradiction as follows: if theism depends on idealism, and materialism and idealism are as antithetical as Nkrumah presents them to be, then we must question if Nkrumah's philosophical materialism is really a materialist philosophy (if we want to take seriously his argument that materialism and theism are compatible).

[1] See the "God-complex" argument in Nkrumah 1964, 19.

On the whole, Nkrumah seems to have thought it necessary to dislodge the concept of idealism regarding perception, in order to pave way for his materialism or his doctrine of the primary reality of matter. Nevertheless, there seems to be no need at all for this, since the fact that matter can exist unperceived does not in any way prove that it is the primary reality. For one thing, Nkrumah fails to explain why he thinks there is any relationship between the two issues - the perception of matter and its alleged superiority. Thus Nkrumah's treatment of idealism seems to be a misfired or unwarranted section of his overall metaphysics.

Matter and Categorial[2] Convertibility

Nkrumah proceeds to distinguish between sole reality and primary reality of matter, quantity and quality, non-consciousness and (self) consciousness, mass and energy (Nkrumah 1964, 20). He asserts that matter can change from one to the other of these categories through what he refers to as "categorial conversion". According to him, "By categorial conversion, I mean such a thing as the emergence of self-consciousness from that which is not self-consciousness; such a thing as the emergence of mind from matter, of quality from quantity" (Nkrumah 1964, 20). He argues that philosophy is only called upon to show the possibility of such a conversion, not to trace its details, which is up to science (Nkrumah 1964, 20).

Nkrumah argues that philosophy can show the possibility of categorial conversion in one of two ways, namely, by conceptual analysis or by pointing to a model. He begins here by arguing that considering the primary reality of matter, other categories can be said to arise from matter through process, and that it is at this point that philosophical materialism becomes dialectical (Nkrumah 1964, 21). He thinks that the problems of all the ancient philosophers - Thales's water, Anaximander's Boundless, etc. - were all problems of categorial conversion:

> Presently, philosophy addresses the issue of categorial conversion through two branches of knowledge: logic and science. Logic addresses this issue through three concepts: nominalism, constructionism and reductionism.

[2] It is not "categorical" but "categorial".

> The model of categorial conversion can be found in science, for in science we can see that matter and energy are two distinct but not unconnected or irreducible categories. And in chemical change physical quantities give rise to emergent qualities (Nkrumah 1964, 21).

In the three concepts - nominalism, constructionism and materialist reductionism - one category is primary in reality, and other categories arise or are reducible ultimately to it. Furthermore, for every proposition about an item that is in a derivative category, there must be a corresponding proposition about one in the primary category, such that the proposition in the derivative category cannot be true unless that in the primary category were true. For example, if one says that matter is the primary category, then every other category, including spirit, to the extent that it is recognized as a category, is a derivative category. So in order that propositions about spirit can make sense, there must be matter. In fact for Nkrumah, "Even when propositions about spirit make sense, in order that they should be true, certain propositions about matter need to be true" (Nkrumah 1964, 22).

In constructionism, as Nkrumah elaborates, concepts which are proper to derivative categories are built using as raw materials concepts which are proper to primary categories. Reductionism holds only as applicable items or concepts in derivative categories that are directly reducible to ones in primary categories. In nominalism, only concrete existences are held to be real; others are surrogates of these concrete existences on a higher logical plane (Nkrumah 1964, 22). In the same way, according to Nkrumah, philosophical materialism recognizes the differences between consciousness and non-consciousness, quality and quantity, mind and matter, energy and mass, but treats these differences as belonging to logical grammar. Nkrumah compares these differences to the difference drawn by Frege between concepts and objects, such as when he (Frege) said that "the concept 'horse' is not a concept but an object" (Nkrumah 1964, 23).

Nkrumah gives an example: when a man is asked to take an inventory of objects in a room, he does not go about making a list of flat tops and legs on the one hand and tables and chairs on the other:

> In the same way, we may admit epistemological differences between mind and brain, quality and quantity, energy and mass, without accepting any metaphysical differences between them; without admitting in other words that for mind one needs any more than a brain in a certain critical condition; for quality any more than a certain disposition of quantity; for energy any more than mass in a certain critical state (Nkrumah 1964, 23).

Metaphysically, argues Nkrumah, philosophical materialism accepts mind or consciousness only as a derivative of matter. Quality is a surrogate of quantitative disposition of matter: it can be altered by altering quantitative dispositions of matter. Mind is a result of critical organizations of matter. Nervous organization has to attain a certain minimum of complexity for the display of intelligent activity, or the presence of mind. The presence of mind and the attainment of this critical minimum organization of matter are one and the same thing. Energy too is a critical quantitative process of matter:

> Mind is nothing but the upshot of matter with critical nervous arrangement. The equivalence intended is a material one, not a defining or formal one. That is to say that propositions about minds, qualities, energy, are reducible without residue to propositions about body, quantity and mass; the former propositions could not make sense unless the latter propositions were sometimes true. As it were, mind, quality, energy, are metaphysical adjectives (Nkrumah 1964, 24).

In philosophy of mind, the above argument is referred to as the Doctrine of Emergence, or Emergentism. Emergentism generally holds that there is one substance with two properties: the physical and the mental. When the physical properties are arranged in a certain manner, mental properties will emerge. There are two types of emergentism. *Strong emergentism* argues that mental properties, once emerged, are no longer reducible to physical ones, but *weak emergentism* argues that they are (see Chalmers 2006). Thus while strong emergentism makes allowance for the existence of consciousness, weak emergentism cannot afford to recognize consciousness, especially if consciousness is interpreted as a phenomenon that cannot be reduced to physical nature. Nevertheless, both types of emergentism share the same basic belief, namely, that extra-physical properties emerged from physical ones.

Let me offer a brief evaluation of the concept of categorial convertibility at this point. It will be recalled that Nkrumah's point is that categories that are not material, such as categories that are spiritual, can emerge from matter through categorial conversion. Nkrumah hopes by this theory to reconcile the spiritual universe with the material universe, on condition that the material one remains primary and the spiritual one becomes a derivation from the primary one. Thus if, for instance, we are to consider God (who is spiritual) in relation to the material world (which comes first), Nkrumah's categorial convertibility places God as a derivation of the material world, while the material world becomes the primary category of existence which can give rise to other categories, including God.

In this respect we can now ask the question: Why did Nkrumah repeatedly avoid discussing the subject of God, insisting on discussing "spirit", when it is obvious that the most important subject parallel to his materialism is the question of the existence of God? We could say that Nkrumah's attempted shrewdness on this issue is deliberate since he did not want to be seen to deny the existence of God in affirming materialism.

Moreover, the analogy of categorial convertibility that Nkrumah took from science is incorrect. Recall that he wrote:

> For philosophy's model of categorial conversion, it turns to science. Matter and energy are two distinct, but as science has shown, not unconnected or irreducible, categories. The inter-reducibility of matter and energy offers a model for categorial conversion. And another model is given in the distinction between physical change and chemical change, for in chemical change physical quantities give rise to emergent qualities (Nkrumah 1964, 24).

The above quotation from Nkrumah shows that he regards energy as quality and matter as quantity. Yet quality has no place in science, for in science energy is calculated as a quantity. For instance, the energy inside an inflated balloon is calculated in terms of pressure as the volume of air molecules that is present in the balloon: it has nothing to do with quality, neither is it a quality of anything else. Similarly, chemical change does not give rise to qualities, but to quantities. When hydrogen is mixed with oxygen, it does not

give rise to a new quality, but rather to a new and equally measurable quantity, which is water. The chemical change from hydrogen to water is measured as quantity. Here the notion of "quality", especially as distinct from quantity, seems to be out of place.

Nkrumah had singled out nominalism, constructionism and materialist reductionism as concepts in logic that recognize the reducibility of concepts in a secondary category to concepts in a primary category, in such a way that statements about the former would not make sense unless statements about the latter made sense. The comparison that Nkrumah made between his materialism and these concepts would have been plausible, except that he did not single out what categories of being the concepts apply to, or whether they apply at all to categories of being and not to epistemological concepts. If, in line with the formal concern of Logic to which they belong, they apply to epistemological concepts, there is no material ground to bring them into discourses of being. Epistemologically, a voluminous theory is reducible to (that is, can be designated by) a word, but it cannot be inferred from this that spirit is reducible to matter.

Let me recall Nkrumah's remark that when a man is asked to take an inventory of objects in a room, he does not go about making a list of flat tops and legs on the one hand and tables and chairs on the other; in the same way, we may admit epistemological differences between mind and brain, quality and quantity, energy and mass, without accepting any metaphysical differences between them (Nkrumah 1964, 23). However, by the analysis already made, the differences between these are metaphysical as well as epistemological.

Metaphysically, Nkrumah accepts mind or consciousness only as derivative of matter. For him, quality is a surrogate of quantitative disposition of matter: it can be altered by altering quantitative dispositions of matter. It remains fundamental that mind and consciousness are not material concepts. Nevertheless, energy is a material concept and is regarded as a quantitative commodity by science. Thus, from the basis of both science and logic, none of Nkrumah's submissions has been able to show how non-material categories of being are reducible to matter.

Since Nkrumah believes (in line with reductionism) that items in a derivative category are reducible to items in a primary category, we can see him as a weak emergentist. Thus for him items in a derivative category not only emerge from, but are also reducible to, items in a primary category. Yet this raises a basic problem with his theory: if items in the derivative category are reducible to items in the primary category, then it means that spirit is reducible to matter, just as spirit emerged from matter. This is a further step in reducing the ontological status of items in a derivative category to items in a primary category. It is consistent with thoroughgoing materialism, and drops much of the pretensions that it makes to extra-sensible reality. It is worth pondering if Nkrumah thought of this; but whether he did or not, it almost totally eliminates the whole question of the existence of items in a derivative category. This is so because if items in a derivative category not only emerge from, but are reducible to, items in a primary category, then we might want to consider if items in the derivative category were ever items at all, or simply side-effects or echoes of items in the primary category.

Matter and Dialectical Change

Nkrumah explains that the difference between philosophical materialism and constructionism/reductionism/nominalism is that the former can explain categorial convertibility while the latter cannot (Nkrumah 1964, 24). For him, apart from philosophical materialism, it is only in the philosophy of mathematics that conditions are given for a categorial leap in the generation of numbers. For philosophical materialism, the world consists not of states but of processes, not of things but of facts. On the other hand, constructionism, reductionism and nominalism all stop at the logical basis of categorial conversion: they ascertain only that conversion is possible. However, when materialism becomes dialectical, it ensures the material basis of categorial conversion. Thus dialectical change is the description that explains the process of categorial conversion. Nkrumah goes further: “Dialectical change in matter is that which serves as ground to the possibility of the evolution of kinds. The evolution of a kind is the loss of a set of old properties and the acquisition of a new set through the dialectical movement of matter” (Nkrumah 1964, 25). To say, therefore, that mind, quality or energy arises from

or is reducible to matter is neither to say that mind has mass, or that quality has mass or that energy has mass. Rather, it is to say that these categories can arise from or are reducible to matter by *dialectical change* through categorial conversion.

For Nkrumah, dialectic is that which makes evolution of all kinds possible, and it is the ground for the evolution of mind from matter, of quality from quantity, of energy from mass. This kind of emergence, since it depends on a critical organization of matter, represents a leap. Nkrumah explains why he believes this is so:

> When a crisis results in an advance, it is in its nature to perpetrate a leap. And the solution of a crisis always represents a discontinuity. Just as in the foundations of mathematics, critical numbers represent a break in continuity in the evolution of numbers, so in nature does the emergence of quality from quantity represent a break in the continuity of a quantitative process (Nkrumah 1964, 26).

Nkrumah holds that dialectical evolution of any kind cannot be conceived as linear, continuous and mono-directional. For him, evolution conceived in such a way cannot explain the transformation of one kind into another, for it represents only an accumulation of phenomena of the same sort:

> Linear evolution is incompatible with the evolution of kinds, because the evolution of kinds represents a linear discontinuity. In dialectical evolution, progress is not linear, but goes from one plane to another. It is through this kind of leap from one plane to another that new kinds are produced and mind can emerge from matter (Nkrumah 1964, 26).

At this point, I will attempt some response to Nkrumah's proposal about the capability of matter for dialectical change. In doing this, let me take a little cue from someone. According to Geoffrey Hunt, Nkrumah's philosophy is actually un-dialectic despite its supposed incorporation of "dialectic" which he claims distinguishes it from vulgar reductionist materialism; for while Marx's dialectical method organically makes use of the "active" moment of idealism, Nkrumah, as we have seen, rejects idealism out of hand. The problem then becomes how materialism can become dialectical when Marx's introduction of dialectic reconciles and overcomes both materialism and idealism. Hunt argues that a "materialism made dialectical" is as perplexing as Hegel's idealistic

dialectic which Marx refuted. He reminds us that Marx did not intend to flee one metaphysics to fall into another. Whereas Nkrumah's *consciencism* described matter as "absolute and independent", Marx made no separate treatment of "matter", but rather a dialectical method in which there is a "passive moment" (which corresponds to Nkrumah's hypostatized matter). Hunt concludes that a "materialism made dialectical" would assume a purely physical "opposition" which could only be mechanical and not dialectical (Hunt 1980, 4).

Hunt goes on to argue that Nkrumah is quite confused regarding dialectics: he presents "dialectic of thought" alongside "dialectic of nature" and "dialectic of society". Dialectic becomes a general way of describing any two entities that "oppose" one another or appear merely different, and consequently "dialectic" loses some value as a methodology. We also find Nkrumah speaking not only of dialectic between "positive" and "negative" action, but also of dialectic between "a belief in a transcendental world and sensible world" (Hunt 1980, 13). It is not certain that all this is any more meaningful than the principles that "everything moves in a circle" or that "love pervades the universe" suggested by certain mystical doctrines (Hunt 1980, 13).

Although Hunt's second criticism about Nkrumah's general use of dialectics might seem harsh (and exaggerated), it makes a point regarding Nkrumah's application of dialectics in a way that he (Nkrumah) finds convenient to explain the emergence of spirit from matter. Hegel clearly describes the dialectic of ideas and events, while Marx describes the dialectic of material conditions, but Nkrumah goes further to tell us that spirit can emerge from matter through dialectics. Instead of explaining how this could be the case, he says that it is up to science to do so; but how could Nkrumah discern what explanations science will (or should) provide, if, being a meta-physicist, he does not yet know it?

When Nkrumah says that dialectics involves "… the loss of a set of old properties and the acquisition of a new set …" (Nkrumah 1964, 25), he introduces further difficulties into his proposal. Applied to his claim regarding the emergence of consciousness or spirit from matter, we can ask: what is lost in matter for consciousness or spirit to emerge? It

will not make sense to say either that matter itself is lost (since the universe cannot be without matter), or to say that a part of matter is lost (which will make matter less of itself and mean that consciousness or spirit took on some aspect or bit of matter).

Matter and Self-Motion

Matter, for Nkrumah, is a plenum of forces that are in antithesis to one another. It is thus endowed with powers of self-motion (Nkrumah 1964, 79). To begin this topic, Nkrumah alluded to diverse sorts of motion, the obvious one being change of place, and another kind of motion which consists in the alteration of property (Nkrumah 1964, 80). He noted that some philosophers have interpreted the inertia of matter to mean the inertness of matter, that is, that matter is incapable of intellectual as well as physical activity, implying a kind of "stupidity" of matter. However, Nkrumah believes that they contradict themselves, and cites John Locke to prove his case:

For instance John Locke in his *The Essay on Human Understanding*, denies that matter is active and attributes all activity to spirit. But he says in his theory of perception that corpuscles travel from a perceived object to our appropriate organ of sense in order that we should be able to perceive it. These corpuscles are said by him to be part of the perceived object which detach themselves and subject us to a kind of radiative bombardment. Here, Locke patently contradicts himself. For this activity of matter is not said by him to be induced, but original, natural (Nkrumah 1964, 81).

Nkrumah's error in this analysis is that corpuscles, as described here above by John Locke, do not constitute matter, but *sense data*; and sense data, as far as is epistemologically known, are not material objects.

The reason that Nkrumah gives for self-motion is that matter is a plenum of forces that are in antithesis to one another. However, he does not explain how matter comes to contain antithetical forces, what the relation of antithesis in matter is, or how this antithetical activity in matter could lead to self-motion. He argues that even the theory of gravity explains the current motion of bodies, how and why they keep moving, but that it

is silent over the issue of antecedents to motion (Nkrumah 1964, 81). He adds that all those who uphold the big bang theory of the universe - that the universe started as a super-atom whose internal stresses multiplied until it was caused to burst asunder - imply that matter has powers of self-motion, because they do not consider this big bang in terms of externally impressed forces (Nkrumah 1964, 81-82). However, the scientific theory (I call it hypothesis) of big bang - that the universe started as a super-atom whose internal stresses multiplied until it was caused to burst asunder - remains, in my view, a scientific guess because none of its proponents lived long enough backwards to witness the event, neither is there sufficient scientific warrant to substantiate the hypothesis into a theory.

Nkrumah contends that even the phenomenon of radiation and the wave mechanics of quantum theory presuppose that bodies have powers of self-motion even in that sense which requires something other than change of property (Nkrumah 1964, 82). If matter perpetrates emission of particles then there is motion, and to the extent that this emission is spontaneous, then there is self-motion. Nkrumah adds that we also witness day after day the overt and obtrusive phenomenon of spontaneous motion in living beings (Nkrumah 1964, 82).

By the wave mechanics of quantum theory, Nkrumah refers to Heisenberg's principle which states that it is impossible to predict where a subatomic particle is and how fast it is moving at any given moment (Heisenberg 1962). However, I see a problem with invoking quantum mechanics to support material self-motion: Heisenberg's principle does not deal with causality, but rather with predictability. Heisenberg maintained that the movement of subatomic particles was unpredictable and immeasurable; he did not maintain that their movement was uncaused or self-caused. As such, I do not see how this conclusion about self-motion could be made on Heisenberg's behalf.

The other category of beings to which Nkrumah ascribes self-motion are living beings (Nkrumah 1964, 82). This is in line with Thomas Aquinas for whom only living beings with consciousness are capable of self-motion (Aquinas 1959, lect. 1, n. 219; lect. 5, n. 285). Nevertheless, Nkrumah introduces some vulnerability to his proposal here: it can be

argued that living beings possess self-motion precisely by reason of the activity of a principle that is absent in non-living beings, and this would give Nkrumah a fresh challenge of demonstrating that such a principle is also present in non living things.

According to Nkrumah, if anyone wishes to maintain the philosophical inertness of matter, he or she must ascribe self-motion to some non-material principle, usually soul or spirit, which will inhere in matter or externally impress it. However, as Nkrumah argues, even if it is said that there is a spirit or soul responsible for self-motion in matter, it will not have been said that in every case of the motion of a body there must be a presumed spirit or soul concealed in the body, a ghost lurking in the machine .[3] Hence inertness of matter cannot be achieved by the mere postulate of spirit or soul (Nkrumah 1964, 82).

Nkrumah's argument above is fallacious on at least three counts. *First*, Aristotelian metaphysics regards matter as a given and form as a defining principle. This is the doctrine of hylomorphism. This categorization assumes that matter is inert and its form is externally impressed. To oppose this, Nkrumah would need to demonstrate how matter adds form to itself without external agency. *Second*, the inertness of matter is the foundation of science. The first of Newton's three laws of motion states that if an object is at rest, it will remain at rest, or if it is moving along a straight line with uniform motion it will continue to keep moving *unless an external force is applied on it to change its existing state* (italics mine).[4] This is known as the *Law of Inertia*, which states that any possible motion of an object requires external compulsion, and directly denies Nkrumah's separation of inertia from inertness. *Third*, the inertness of matter is compatible with the existence of God and the spiritual. This is because inertness implies that matter relies ultimately on external agency for its motion and form (as we see from the Law of Inertia and Hylomorphism), and unless contrary clarification is provided, for its *origin*. What is more, self-motion in matter contradicts the creative principle attributed to the Supreme Being, as it implies that the universe originated from matter rather than from Him.

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[3] This is a term coined by Gilbert Ryle to describe Rene Descartes' mind-body dualism. Ryle (1949) argues that it is absurd to think that there is a non-physical mind in a physical body when the mode of interaction between the two is not known, or is speculative.

[4] See Newton's first law at: http://csep10.phys.utk.edu/astr161/lect/history/newton3laws.html.

Nkrumah considered another objection to his theory of the self motion of matter, which, he remarked, has over impressed philosophers, namely, the idea of intention (Nkrumah 1964, 82). It was thought that spontaneous motion could only be deliberate or purposeful. However, Nkrumah noted that deliberateness, purpose and intention are attributed only to living things, and not even to all living things at that. Matter, in itself non-living, was therefore denied deliberateness, purpose, intention. It was therefore incapable of spontaneous motion (Nkrumah 1964, 83). However, Nkrumah argues that self-motion of matter had engaged the attention of philosophers since ancient times. Thales had singled out water as the basic stuff and infused it with the principle of change, so that by the operation of that principle, a transmutation from what we now know as water to other things would be possible; but since everything is water, the principle would permit only geometric changes, that is, it must be limited to only the rarefaction or condensation of water. For this, the principle needed to be a principle of motion. Nkrumah notes that although Thales said that things were full of gods, he only meant to assert the capacity of matter for self-motion, that is, to reject its inertness (Nkrumah 1964, 83). It is his (Thales') idiom, not his thought, which was picturesque. Nkrumah adds that just as Aristotle was later to recover the forms from Plato's heaven and restore them to matter, so Thales was retrieving the source of motion and the cause of processes from the priests' heaven for matter (Nkrumah 1964, 84).

My objection to Nkrumah's appeal to Thales' theory of water is that Newton's theory of motion was later to render all matter inert. Importantly, the whole world of technology has been built on the theory that matter, being inert, requires external force for motion of any sort. This shows that the idea of the inertness of matter is correct.

Furthermore, the Ionian project of identifying the basic stuff of existence proved unsuccessful. At the very least, no one would presently think that everything consisted of water, or fire, or air, etc. Nkrumah noted that Aristotle recovered the forms from Plato's heaven and restored them to matter. Yet the same Aristotle, in his doctrine of hylomorphism (Aristotle 2008, 194b23-194a8), denies matter of self-motion by arguing that it needs form, a defining principle, without which it is presumably inert. The very

notion of form considered as a separate concept from matter denies matter of self-motion, dialectics and categorial convertibility.

According to Nkrumah, matter is not inert, but has inertia (Nkrumah 1964, 84). Inertia and inertness have been sufficiently distinguished. He explains that while inertness implies inertia, inertia does not imply inertness. However, from the foregoing analysis, inertia does imply inertness in matter.

Conclusion

Nkrumah's metaphysics is fraught with contradictions. Can materialism avoid atheism? According to Engels' analysis, this is not possible: *any* kind of materialism is incompatible with theism, since matter is made a prime crucible of existence. So there is a contradiction in Nkrumah's claim to being "a non-denominational Christian and a Marxist socialist and I have found no contradiction between the two" (Nkrumah 1971, 12). Secondly, Nkrumah rejects idealism out of hand, and argues that matter is dialectical; but how can matter alone be dialectical? Thirdly, the analogy of categorial convertibility that Nkrumah took from science is incorrect. The inter-reducibility of energy and matter does not offer any model for the inter-reducibility of spirit and matter. In the absence of any other proof, any other instance of categorial conversion, including from capitalism to socialism, is inapplicable. The reason Nkrumah gives for self-motion is that matter is a plenum of forces that are in antithesis to one another. However, he does not explain how this antithetical activity in matter could lead to self-motion, or even how matter comes to contain antithetical forces. Besides, contrary to his arguments, matter is inert.

What informs Nkrumah's overall adoption of materialism? It is that the Marxist-Leninist ideology favours matter as the unifying factor of equality. He states clearly that idealism is "connected with a tiered society …" and that "through its mode of explaining nature and social phenomena by reference to spirit, idealism favours a class structure of a horizontal sort, in which one class sat on the neck of another" (Nkrumah 1964, 75). Materialism, on the other hand is "connected with a humanist organization … through its

being monistic, and its referring all natural processes to matter and its laws, it inspired an egalitarian organization of society. The unity and fundamental identity of nature suggests the unity and fundamental identity of man and society. Idealism favours an oligarchy, materialism favours an egalitarianism" (Nkrumah 1964, 75). Yet apart from the fact that the rejection of idealism implies a rejection of the theism that Nkrumah tries to accommodate, there is no framework (and Nkrumah offers none) for inferring from the unity of matter to the equality of men. Neither Nkrumah nor his Marxist mentors attempted to demonstrate such a connection. Reality seems to suggest the contrary: everything else apart from putative matter, as long as it is in a flux, produces inequalities of energy, motion, size and so on. A doctrine of the equality of humans will surely not rely on a unity of matter, since this will more logically imply the equality of everything that is matter, from animals to inanimate objects. A doctrine of the equality of humans will need to rely on a rather workable first premise, such as the fact of shared identity as a biological species.

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