

TUKONTOLOGY: A TRANSORCHESTRAL APPROACH TO UNDERSTANDING EUROPEAN AND AFRICAN COMPOSITIONS OF REALITY

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Introduction

Science claims to be able to uniquely access and objectively know ontological entities. It further asserts that the behaviour of these entities is governed by universal laws that have always existed. Science is therefore believed to be both objective and universal. This unique access to universal reality gives Science its authority even if no one has ever been entirely clear how it is able to magically bridge the self-imposed and absolute Cartesian duality.¹ The historically situated invention of nature in Europe has led to Science also being understood as radically different from the old ways of knowing found in traditional societies. According to Science, previous ways of knowing had not developed any method of systematically knowing the real world.²

These claims have been irreparably undermined by the symmetry postulate developed by David Bloor who argues that it is not consistent to attribute scientific truth to a rationality that systematically unveils the state of nature but attribute scientific error to lapses in rationality due to social and political influences.³ The method of dealing with scientific truth and error asymmetrically was labelled the 'weak programme' as contrasted with the 'strong programme' of the Edinburgh school. The strong programme deployed the symmetry postulate which insists that the analyst maintains a methodologically neutral stance toward all contending claims. As a method, it requires that any consistent account of Science treat both truth and error symmetrically and sought to achieve this by proposing that scientific knowledge is socially constructed. Unfortunately, social constructivism attracted the critical and damaging fire of realists who categorised it as a species of philosophical relativism.⁴ To defend against these attacks, the proponents of the strong programme denied that they were making any ontological claims but rather, that the symmetry postulate was merely a methodological caution.⁵ However, once reduced to being simply a method for analysing competing scientific claims, this variety of social constructivism continues to deny non-western traditions a seat at the table where realities are negotiated and composed since the fundamental issue of who has access to reality has already been decided in the favour of the modern west. The strong programme is still too weak for the purposes of scholars in places like the Caribbean.

Latour, himself an early pioneer of the strong programme but refusing to sustain its original social constructivist approach, made another turn to the symmetry principle by arguing that knowledge is not only constructed by humans, but that nonhumans are just as actively involved in the process of construction. Not only should truth and error be treated symmetrically but humans and nonhumans

¹ B. Latour, *Politics of Nature*, pp. 32-41.

² I. Stengers, *The Invention of Modern Science* (Minneapolis: University of Minnesota, 2000), pp. 21-35.

³ D. Bloor, 'Anti-Latour', *Studies in History and Philosophy of Science*, 30, 1 (1999), p. 84.

⁴ J. Golinski, *Making Natural Knowledge: Constructivism and the History of Science* (United Kingdom: Cambridge University Press, 1998), pp. 7-8.

⁵ J. Golinski, *Making Natural Knowledge*, p. 8.

should be so treated as well. Through ANT, Latour credits things with agency and, even against cries that he was reintroducing hylozoism, sought to anchor the idealist tendencies of the social constructivist approach in the solidity of a new materialism that involved more than mental constructs.⁶ The term ‘social’ could now only be retained as long as society was populated by nonhumans. ANT’s positioning as neither an idealist nor a realist method makes it supremely suitable to undergird the model being developed in this paper.

Orchestral Performance Again

Edmund Leach originally elaborated on Claude Levi-Strauss’ notion of orchestral performance as a heuristic to assist anthropologists trying to understand and describe epistemological relativity between different non-western traditions. Stripped of any allusions to structuralism, orchestral performance will once again serve as a heuristic in an effort to make ANT a more intuitive tool for historians, anthropologists and other scholars. It is important to combine these approaches since on the one hand, Leach’s orchestral performance strengthens visualization, but suffers from operating only at the level of signs and symbols. On the other hand, although ANT, which will be discussed in detail below, does allow access to reality by all traditions, it has not yet been presented in a form that can be easily grasped and applied.⁷

The triune drum motif, as one of the highly visible legacies of Africa that has persisted in the Caribbean, will serve as the metaphor for orchestral performance.⁸ Triune drum orchestras always have a foundation drum that anchors the rhythm and sets limits while allowing creative scope to the other drummers. The rhythm of the middle drum is partly determined by the foundation rhythm. It is often more complicated, but regular. Middle here refers to a role and not a musical scale. The tone of the middle drum may be high or low in relation to others but its importance is in bridging the foundation and improvisational drums. It is the filler that prevents a musical collapse while the improvisational drum is creating new patterns by ranging far and wide before coming back to harmonize with the middle and foundation. The middle fills out the music to reduce any tension that the improvisational drummer may feel when crossing rhythmic boundaries. It promotes and supports creativity during improvisation. The music is never static and during prolonged play the rhythms interact, feedback, and change each other organically. But change becomes more difficult the deeper you go into the music from the creative improvisational top, to the responsive middle and the stable foundation.

Tukontology

The triune drum motif expresses itself in a number of institutions. The Pan Caribbean Nyahbinghi Rastafari have the Father (foundation), Mother (middle) and Children’s drums (improvisation), while in Trinidad, the shango drummers play Boa (foundation), Oumele (middle) and Congo (improvisation) drums. Cuban Santeros have Itotele (foundation), Okonkolo (middle) and Iya (improvisational) bata drums. In Barbados, the Tuk Band orchestra, one of the more creolized

⁶ See B. Latour, ‘For David Bloor... and Beyond: A Reply to David Bloor’s “Anti-Latour”’, *Studies in History and Philosophy of Science* 30, 1 (1999), pp. 113-129.

⁷ E. Leach, *Culture and Communication: The Logic by which Symbols are Connected* (Cambridge: Cambridge University Press, 1976), pp.43-46.

⁸ The author is a drummer with seventeen years experience studying and performing with drummers around the Caribbean.

drum orchestras, is predominantly used for secular performances and was the inspiration for the label “Tukontology” as a way of understanding how traditions compose their worlds. Tuk Band musicians ordinarily have set bass and middle patterns that heed the instructions of the flute to start up and stop at will. They strive to make melodious music. However, the tukontological players are different. These troubadours master instruments capable of generating worlds. They have always been performing, and will never stop striving to harmonise their cosmos. In a tukontological orchestra, the Boom Drum, Kettle Drum, and Penny Whistle compose a foundation of hybrid ontologies, middle lenses as ways of knowing, and improvisational moments of creative action respectively.⁹ These three levels combine to orchestrate relative existences. But any orchestration of music, or worlds, requires something that has not yet been mentioned, even though it was there all along and is as much a part of the fabric of music as it is of material worlds. We must make space for ‘silence.’

Aña as Silence

Aña is the spirit of the *bata* drum in Cuba. It will represent the silent foundation out of which the cosmos is created and moved in tukontology.¹⁰ This force permeates everything. For the Yoruba it is *Ashé*; the Akan call it *Okra*; the Tiv *Tsav*; and the Igbo *Chi*.¹¹ Science’s closest equivalent is perhaps the concept of energy. Irrespective of the tradition and metaphysics involved, this is where we go for innovation, insight, discovery, and inspiration.¹² This is the home of creativity. The one metaphysical commitment of this notion of silence is that it does not account for heterogeneity by accepting any Cartesian type division (into a duality or plurality) of the universe. Substances or processes are not so estranged that reconstructions or associations are forbidden forever. In this silent space, boundaries disappear and traditional categories dissolve as scientists, sages, artists, and anyone who, groping for new arrangements of things, facts, musical notes or forces strive to generate novelty. However, tukontology gives to silence a more specific meaning that derives from its embrace of West African ontology and the findings of Science studies.

ANT assembles human and nonhuman (these could be things, facts, artefacts or forces) actors to form hybrids which are then represented by spokespersons in such a way that the agency of nonhumans is not always easy to distinguish from that of human. It also views everything and everyone as connected and actively contributing to the performance of their assemblies. However, at some point a particular actor within a hybrid is selected, given a name, imagined as having an essence and ascribed all of the hybrid’s power. In the above respects, ANT has much in common with African notions of interrelatedness, reciprocity, spirit or agency, and force manifested as being.¹³ However, another important feature of ANT, and one which is not shared with most

⁹ Dr. Ikael Tafari arrives at a similar formulation for his ‘Black Trilectics’ except that his is an epistemological rather than ontological model in I. Tafari, *Rastafari in Transition: The Politics of Cultural Confrontation in African and the Caribbean (1966 - 1988)*, vol. 1 (Jamaica: Miguel Lorne Publishers, 2001), p. 156.

¹⁰ J. M. Murphy, *Santería: An African Religion in America* (New York: Original Publications, 1988), p. 93.

¹¹ J.A. Umeh, *After God is Dibia: Igbo Cosmology, Divination and Sacred Science in Nigeria*, vol. 1 (London: Karnak House, 1997), p. 6. M.K. Asante, *The Afrocentric Idea* (Philadelphia: Temple University Press, 1998), p. 83. J.M. Murphy, *Santería*, p. 8. R.M. Downes, *Tiv Religion* (Ibadan: Ibadan University Press, 1971), pp. 26-35.

¹² A discussion of the possible metaphysics of the universe is beyond the scope of this paper.

¹³ D. Richards, ‘The Nyama of the Blacksmith: The Metaphysical Significance of Metallurgy in Africa’, *Journal of Black Studies* 12, 2 (1981), pp. 218-220.

traditions but which is crucial to permit their symmetrical study, is that it denies the existence of universal laws by arguing, through a philosophy of ‘Irreductions,’ that everything happens only once and in one place. Laws only begin to appear universal when artificial conditions are constructed to enable the repetition of events at different times and in several places.¹⁴

In the same way that African sages divine by either speaking on behalf of hybrids or, in the most convincing communications, letting them speak for themselves through actual spirit possession, ANT considers that scientists speak on behalf of their scientific hybrids. If the scientist is doubted, he/she can make the hybrids speak for themselves through experimental demonstrations. It is because everything has agency that they can speak for themselves if their spokespersons are not convincing. When hybrids are represented in this manner, they are said to be articulate in every sense of the word. Any proposed association of actors – or more succinctly, any proposition – that is tightly connected, but still relatively free to move, and which has a spokesperson whose rhetoric is not easily separated from what is actually happening in the chain of actors is said to be well-articulated. A temporarily stable association of actors is considered to be a proposition precisely because this specific assembly or hybrid arrangement has to be proposed and then await acceptance before being fully instituted into a network of hybrids.

Scientists compose hybrids in laboratories by conducting experiments that are designed to elicit performances from chains of actors which populate the laboratory. They then list the results of these experiments as attributes that gradually reveal the identity of the hybrid. At this stage the hybrid has not been assigned an essence. It is simply composed of the list of attributes; no more, no less. For example, in closing years of the nineteenth century scientists in competing laboratories were composing a newly emerging and mysterious, but now well-known hybrid. At the moment of its birth, this hybrid was described in terms of the following list of attributes:

From the liquid produced by macerating malt, Payen and Persoz are learning to extract, through the action of alcohol, a solid, white, amorphous, neutral, more or less tasteless substance that is insoluble in alcohol, soluble in water and weak alcohol, and which cannot be precipitated by sub-lead acetate. Warmed from 65° to 75° with starch in the presence of water, it separates off a soluble substance, which is dextrin.

It is only later that this list of attributes was given a name. Some ‘thing’ had been composed. The organic compound with the above list of attributes is now widely known as an ‘enzyme.’¹⁵

After an initial ‘discovery,’ further research in other laboratories often modifies the list of attributes a hybrid. However, even though the other scientists may compose a new thing simply because the hybrid’s list of attributes has been changed, they will often retain the original name for practical

¹⁴ See the full discussion of ANT in B. Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (London: Harvard University Press, 1999). Also see B. Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2005) and B. Latour, *Politics of nature*. For a more philosophical approach see section 2 ‘Irreductions’ in B. Latour, *The Pasteurization of France* (Massachusetts: Harvard University Press, 1988).

¹⁵ B. Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge: Harvard University Press, 1987), pp. 86-90.

reasons unless these differences are significant. More fundamentally, a name is kept because of the habit humans have of supplementing hybrids with an imaginary essence. In general, scientists who work at defining, naming and ‘essentialising’ new hybrids become the experts who speak on behalf of these things. They become their spokespersons.

African reality has also been described as hybrid to the point where the ‘concatenation of everything is so tight that to subtract one item is to paralyze the system.’¹⁶ West African sages compose invisible forces through a list of attributes. Amongst the Yoruba there are numerous forces of nature called orisha. In fact, there may well be an orisha for everything and every action imaginable.¹⁷ Orisha are usually identified by their attributes. Elegba, for example, is described in such a way that new initiates gradually come to know him through his attributes. It is said that Elegba offers choice; sits at the threshold of every decision; offers the options that decide our future; was present at the creation of the universe; guards the principle of free will; is the messenger between God, the orisha and humans; travels great distances in an instant; and keeps the ashe (divine force), which is the essence of God.¹⁸ Sages initiated into the mysteries of a force become the spokespersons of this force. During rituals, the attributes of the orisha as represented on the physical plane by specific colours, foods, plants, chants, drum rhythms, animals, and artefacts are so concentrated in a restricted space and time that the force’s full identity completely reifies by manifesting in human form during possession. The hybrid then speaks for itself and can now be said to be fully articulated.

Well-articulated hybrids with spokespersons make a difference in the world. Once invisible and unreal, they become visible and real. Their ‘voices’ are heard. Silence, in tukontology, is therefore that moment when hybrids are still inarticulate. Silent actors cannot be said to be associated to form any proposition that can be named and later essentialised as a thing or force. When they are silent, actors are not represented and make no difference in the world. They are unreal. *Aña* is the spirit of this silence out of which the web of existence emerges from a world of the unreal.

Penny Whistle Creative Power

The Penny Whistle improvises on top of the existing rhythms and in between the silent spaces of the Tuk Band. This is the level of creative action. It is this top level of action and interaction that drives the usually slow evolution of Caribbean middle rhythms (ways of knowing), and the even slower changes in the underlying foundational Bass (hybrid ontology). African sages, scientists, writers, and Penny Whistle musicians know this world of silence well. Their vocation demands that they leave the noisy world of hard categories, tight connections, and solid facts to journey through this silent space of blurred boundaries, loose associations and inchoate facts to create and recreate, to improvise, to innovate and compose new melodic arrangements of things, facts, and forces before proposing them as loud but fresh additions to the ongoing chorus.

¹⁶ M. K. Asante, *The Afrocentric Idea* (Philadelphia: Temple University Press, 1998), p. 77.

¹⁷ This was a personal communication from Okan Tomi (a Lukumi priest of oshun initiated for over 20 years at the time) in November 1998 during the author’s initiation into the mysteries of ochosi in Panama.

¹⁸ G. Edwards and J. Mason, *Black Gods - Orisa Studies in the New World* (Brooklyn, N.Y.: Yoruba Theological Archministry, 1985), pp. 8-13.

Whether we follow sages who become possessed by working within contrived zones of liminality in their ritual spaces; scientists who dream up new concepts and inventions within their laboratories of concentrated artifice; philosophers, writers and artists engaged in some species of phenomenology to find new concepts and images; or musicians at work in auditoria with their eyes closed, the outcome is always the same – something new is created by escaping the boundaries that demarcate the categories of ordinary life, including those of subject and object, those between disciplines, imagined essences separating things, and established rhythms. They ignore and cross these boundaries as often as necessary to produce novelty. Alternative images, words, strategies, connections, concepts, and melodies are generated as potentially new sources of power to escape the dogmatic habit of every age that tends toward certitude where ‘Advance in detail is admitted; fundamental novelty is barred.’¹⁹ This can be regarded as the level of tukontology that maps a synchronic axis of existence where new ontological entities are born. Since innovation produces new forms of political power by sourcing an inexhaustible reservoir of actors with whom alliances are formed and on whose behalf experts speak to add force to their otherwise weak position, this level should also be understood as the ultimate source of empowerment for the dominated.

Kettle Drum Ways of Knowing

The broad notions of ‘world readings’ and ‘world sorting’ developed by John Pickstone to follow ways of knowing in Europe can be usefully applied to the middle level of tukontology.²⁰ World readings refer to how people decode their world and imbue it with meaning. Although he did not use the phrase ‘world sorting,’ the activities of describing, classifying, and dissection that reduces complexity to regularities or elements (analysis) that he identified are all methods of sorting. All traditions read and sort the world through a historically determined way of knowing.

Novel propositions from the Penny Whistle level of improvisation are filtered through the Kettle Drum level of ways of knowing which emerged from, and is constrained by the hybrid ontological foundation where things with definite forms, facts that are certain, and implicit assumptions are uncontested in an all embracing but stable web of associations. It is at this Kettle Drum level that an epistemology emerges to determine what are legitimate questions, meaningful problems, appropriate measures, rational answers, correct rankings, and real entities and then assigns which spokespersons should be involved in making all of the above assessments. In other words, everything at this level is negotiable and truth is relative. But since ANT is not a species of idealism, what passes as true is still firmly rooted in reality, only now truth is understood as a continuum where well-articulated hybrids are truer than those which are poorly-articulated. Since the identity of a hybrid can be defined as the list of differences that are registered as reality when individual actors associate with each other, then it is the stability and smooth movement (or the quality of articulation) of this identity that determines whether a spokesperson is speaking truthfully. Remembering that things have no underlying essence that serves as a target for reference by an alienated human subject, truth cannot mean the existence of a bridge between an active subject and a passive object. Rather, it is the uninterrupted circulation of an identity through all of the actors of a hybrid.²¹

¹⁹ L. Price, *Dialogues of Alfred North Whitehead* (Boston: Little, Brown and Company, 1954), p. 7.

²⁰ J.V. Pickstone, *Ways of Knowing*, pp. 7-17.

²¹ B. Latour, *Pandora's Hope*, pp. 24-79.

Boom Drum Ontologies

All communities of people accept the existence of ‘unshakable’ facts. Perhaps, at some point in the past, these facts might have been highly contested, however, over time they came to be accepted as ‘true,’ ‘universal’ and ‘unquestionable’ – they went from soft to hardened facts. If doubted, it is too expensive or technical for the average person to pursue a challenge of these fundamentals to the end. This is because these facts, over time, become associated with many other people, things, other facts, artefacts and theories in order to become harder until they are black boxed and unquestioned. It is the same for black-boxed processes and machines. Only a handful of specialists know their inner workings. However, a wider community of people can utilize the process or machine with only the knowledge of its inputs and outputs. These black boxes could also be viewed as institutions that have been stabilized out of heterogeneous collections of hybrids by inscribing them into more durable materials and methods.

Institutions are the melody of the tukontological Boom Drum. The individual notes represent all of the associations that are being held together as a unit that is coherent, aesthetically pleasing, and rational, and since reality is not now conceived as an all or nothing binary, it is possible for people to experience institutions as having achieved differing levels of existence. Large assemblies of well-articulated actors, each making their contribution to felt differences, all register a cumulatively forceful difference as reality increases by degrees with the number of associations. Entities that are not sufficiently articulated to make a forceful difference, and to which other actors are insensitive, are less real. Hybrids therefore display a spatiotemporal envelope that is traced out from their participation in a continuum of reality over time.

Translated into a musical model under tukontology, this envelope is the melodic changes that occur at the Boom Drum level. Using linguistic tools to synchronically and diachronically visualize this process of orchestrating reality, invisible, unheard and unreal notes, each a separate actor, lie inaudibly in wait for their turn to be weaved into a proposition for presentation to the orchestra as a new melody. This new hybrid, filtered through a way of knowing, is then incorporated into a Boom Drum melodic pattern where it is given the stability and durability of an institution. In short, propositions born through the improvisational exploration of paradigmatic space are read and sorted through ways of knowing, before being fully instituted as stable syntagmatic chains.²²

The cost of this institutionalisation is often paid for by subtracting increasingly incommensurable hybrids. Rarely, a new composition will force out a long-standing and well-connected hybrid in order for the new orchestration to hold together. Kuhn called these large scale and sudden changes ‘paradigm shifts.’²³ Propositions can thus be seen to move through a process of reification from being nonexistent to fully existing by being created at the Penny Whistle level and descending to the Boom Drum for institutionalization. Movement in the opposite direction also occurs through a process of abstraction. Thus, as is said in ANT, there is no such thing as abstract, as in abstract thought. There is simply a brain working on materials that were abstracted from more concrete or institutionalised materials.

²² B. Latour, *Pandora's Hope*, pp. 146-168.

²³ T.S. Kuhn, *The Structure of Scientific Revolution* (Chicago: University of Chicago Press, 1970).