Re-Evaluating the idea of Indigenous Knowledge:
Implications of Anti-Dualism in African Philosophy and Theology

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Introduction
Attacks by African intellectuals on epistemological dualism, of the knowing subject versus the object that is known, are common. This epistemological framework is seen as marking the modern world – the world produced by Western domination. As a particular manifestation of that domination it is seen as repressing and subverting other systems of knowledge and other ways of knowing. Africans are not alone in this concern; advocates of the Native American worldview, for example, argue similarly. Non-dualism also is a key issue in Indian and Far Eastern philosophy, in respect of knowledge as much as in other regards. Even within the Western intellectual tradition the subject-object dualism has been criticised from a diverse range of perspectives, including those of Romanticism, Neo-Marxism and the 'New Physics'. From the side of African philosophy there have been attempts to articulate a positive alternative to complement this criticism, most notably, perhaps, in the work of Leopold Senghor. These attempts have not passed without criticism from within the ranks of African philosophers. Amongst the grounds for this criticism a prime concern has been the influence of Western philosophies on authors such as Senghor, even though these philosophies have been 'alternative' systems to the orthodoxy of 'Enlightenment' modernism, such as the vitalistic evolutionism of Henri Bergson and Teilhard de Chardin. In this regard I do not wish to be seen as imposing an alien framework on African worldviews. But, following a significant tendency amongst African intellectuals, I believe that engagement with other philosophical perspectives serves as a stimulus to the development of not only African philosophy but also indigenous knowledge studies. It is in this light that I will endeavour to commend the notion of a participatory epistemology as a promising line of thought in the development of understandings of indigenous knowledge.

Indigenous knowledge systems and modernity
Catherine Odora Hoppers, in her editorial introduction to a book on indigenous knowledge, which was produced in response to a South African parliamentary committee's call for support for the development of indigenous knowledge systems (IKS), refers to the variety of challenges that the academic community faces in addressing this task. In particular, with regard to problems at the 'philosophical or methodological level', she writes (Odora Hoppers, 2002, p. vii) of

"the harrowing legacy of epistemological silencing and the concerted strategies that have combined to pre-empt any possibility for co-existence, fruitful exchange of methods, or even dialogue around heuristic methods. At the level of application is found the arrogance of practice, which is still rife in formal institutions that are
confidently, and without qualms, determined to continue with the monochrome logic of Western epistemology."

But there are commentators who see problems in this type of call to redress the wrongs of Western colonialism, and of the subsequent domination of the modern world, in the specific area of epistemology. For example, Horsthemke (2004) proceeds from the conceptual analysis of the criteria for knowledge to argue that the term \textit{indigenous knowledge} is logically inadmissible. Whatever its origins, knowledge has to meet the criteria of \textit{belief}, \textit{justifiability} and \textit{truth}, if it is in fact knowledge and not something else such as opinion. The qualification of knowledge as 'indigenous' is therefore redundant. An approach such as Horsthemke's is very likely to be attacked as supporting the legacy of oppression of which Odora Hoppers complains. But at a recent conference in South Africa, where I presented a paper debating the contention that 'knowledge is knowledge' (Moodie, 2003a), it was interesting to hear a vocal young black African academic adopt a position that echoed Horsthemke's contention. He was unambiguous in supporting the argument that reference to the traditional knowledge of African people as \textit{indigenous} in fact carried depreciatory implications. The negative connotations of 'indigenous' in this context are merely emphasised when IKS advocates, as is often the case, use the alternative option of referring to 'local knowledge'. 'Local' can only be understood in opposition to 'universal', and thus the term \textit{indigenous knowledge} incurs a string of negative judgements: 'universal' is identified with 'mainstream', and hence with 'progress'. And so 'local' comes to be understood as referring to an intellectual backwater, and whatever is indigenous is then regarded as primitive or, at best, quaintly ethnic. In any case, 'deconstructive' postmodernism in general allows only local knowledge as opposed to 'grand theories' but unfortunately this is not sufficient to redeem the IKS position in a situation in which 'Enlightenment' thought retains a continuing hold (see e.g. Myerson 2001). Thus the critical response to the term \textit{indigenous knowledge}, especially when it comes from the 'indigenous African' side, has to be treated with respect, and taken seriously for the dangers that it highlights. But, while wishing to acknowledge fully these and other valid concerns, I will attempt in this paper to justify Odora Hoppers' complaint about the 'epistemological silencing' that ensues from the 'monochrome logic of Western epistemology, and to outline the possibility of a 'participatory epistemology' in an African context.

A survey of the IKS literature reveals frequent charges of Western epistemological domination and oppression as well as expressions of the desire that alternative epistemologies should be recognised. It is with some justification that critics like Horsthemke claim that the use of terms like 'epistemology' serves a largely rhetorical purpose. High sounding philosophical terminology may dignify the IKS advocates' arguments without adding anything of substance to them, and may cloak logical or conceptual incoherence. Despite this I believe that there is substance to the epistemological argument regarding IKS and that another high sounding philosophical term can be added in its support: the epistemological argument is inextricably linked with ontological considerations. Crossman & Devisch (2002, p.115), under the heading of 'Plural knowledge systems versus imperial systems of knowledge', comment on the
way that the modern sciences "draw on mechanistic, 'physicalistic' concepts of the universe - the Newtonian notion of a world machine". This is a theme that has been sounded to the point of becoming hackneyed but it remains a key issue in contrasting non-western and modern worldviews. In this paper I will make use of the ontological position presented in Gabriel Setiloane's *African theology* (Setiloane, 2000) to clarify an African alternative, which is perhaps at the same time a universal alternative to the modern worldview that Crossman & Devisch reject. This rejection implies, in at least some sense of the word, the emergence of a postmodern condition. There is much that has been written about postmodern developments that are considerably broader in its scope than the 'deconstructive' theorising with which postmodernism is often most closely associated. This broader postmodernism (see e.g. Rosenau, 1992; Hargreaves 1994; Wilber, 2001) is understood essentially as transcending the limitations of 'Enlightenment' modernism, including its materialistic and mechanistic worldview. As Wilber notes, postmodernism in the narrower sense continued to engage in a type of discourse that was still limited by key parameters of the modernism it sought to deconstruct and discount. In his phrase its view of things continued to be conditioned by the 'flatland' perspective of modernist materialism. The 'end of modernity' (Vattimo, 1988) was prosecuted in a way that did not recognise the full import of the rejection of a system of thought that excluded the possibility of the spiritual in any realist sense of the word. Now, with other voices proclaiming 'the end of postmodernity' (Myerson, 2001), it is even more necessary to recognise the persistence of the domination of 'Enlightenment' materialism in the world of the 21st Century. This is especially true of a situation in which the current phenomenon of globalisation is seen by many as 'the new imperialism of Western culture' (Sardar, 1998).

It is in the light of the continuing domination of much current thought by the 'Enlightenment' consensus that the stand taken by an African philosopher like Kwame Appiah, on the irrationality of modern materialism, has to be appreciated. As I have argued elsewhere (Moodie, 2003b) those who place themselves beyond the pale of this modernist orthodoxy lay themselves open to disparagement as backward or even superstitious. In his article 'Old gods, new worlds' Appiah (1998) challenges the *a priori* refusal of mainstream modern Western thought even to consider the possibility of the reality of the spiritual. His article poses the question of what an alternative to the worldview of 'Enlightenment' modernism might imply. In this paper I will not pursue Appiah's argument which, amongst other issues, asks that that the *bona fides* of African belief in spirits, as real though invisible personal agents, be considered on its own terms. But it is worth noting the question that he poses after his description of West African religious practices: "What are we to make of all this? Or rather, what are Europeans and Americans to make of it, since it is all so familiar to me" (Appiah, 1998, p. 257). In fact what they make of it is symbolism or mythology if they are scholars of anthropology or religious studies, or superstition if they are ordinary modern lay-people. In this paper our focus on the nature of the spiritual will be at a different level, that of ontology or perhaps cosmology, as in the writing of Gabriel Setiloane. But this will serve to move us on to epistemology, following the lead of Bhaskar (2002) in his rejection of the divorce of epistemology from ontology in modern thought.
African ontology

Mbiti (1990), in his classic work, *African religions and philosophy*, has much to say on traditional African understandings of the nature of being. In the course of the development of African philosophy he has been severely criticized, especially in respect of his ethnophilosophical view of philosophy as implicit within the beliefs and practices of African society, as well as for essentialism in his use of the category 'African' (see Kaphagawani, 1998; Hallen, 2002). But, while recognising the validity of criticism of ethnophysics as such, it can still be argued that cultures across the world embody implicit philosophies, and African academics like John Mbiti, and Gabriel Setiloane, have pursued the task of articulating the philosophy that they find to be inherent in the cultures of African societies. Also, while being sensitive to the charge of essentialism, I would argue that it remains true that a substantial commonality can be observed in belief systems across sub-Saharan Africa. This commonality, as articulated by Gabriel Setiloane, is taken as a point of departure for the argument of this paper.

On the question of the ontological aspects of African thought, Setiloane (2000, p. 21) comments that, "John Mbiti is right when he changes the Descartian [sic] dictum to ‘I belong therefore I am’. There is no person who does not belong. Belonging is the root and essence of being." Mbiti and Setiloane are, in this instance, referring primarily to the social aspect of being. The African understanding of the corporate nature of what it is to be human is captured in the thought of a common African proverb, "umuntu ngumuntu ngabantu" (in its isiZulu version) which can be translated as, “A person is a person because of (the) people”. Setiloane (2000, p. 57) quotes this in its Sotho/Tswana form, “Mothro ke motho ka batho” and translates it more elegantly as “Our humanity finds fulfillment only in community with others”. But, in stating that belonging to a community is a necessary condition of being a person, Mbiti does not exhaust the meaning of belonging. Belonging to the community is complemented by belonging to the world – the social solidarity of one level of being is matched at another level by the interconnectedness of the world, and of humanity with the world. Thus social interconnectedness is a more particular expression of a universal connectedness of being, which sets African thought sharply in opposition to the atomistic ontology of ‘Enlightenment’ modernism, although not to other non-western intellectual traditions. In this latter regard Buddhist philosophy serves as a good example (see e.g. Watts, 1995; Harris 1998). The African worldview, in common with Buddhism and others, diverges from the form of thought that achieved dominance in the course of the emergence of modernity in the West after the Middle Ages and the Renaissance. But the broader postmodernism that we have considered should encourage us to look beyond the limits of ‘Enlightenment’ modernism and to maintain an openness to these ‘other’ worldviews. It is specifically in respect of the influence of modern materialism, and the scientism that has been developed on this philosophical basis, that a fresh evaluation of other intellectual traditions is called for. The natural sciences are obviously of special interest in this regard. The methods of natural science were developed and applied within a specific and limited ontological framework – the atomistic materialism derived from Dalton's appropriation in the 18th Century of the theories of a particular school of ancient Greek philosophy. The limitations of this view of the fundamental nature of reality have been demonstrated in the developments of the
'New Physics', going back to the early 20th Century. The defection of leading physicists such as Fritjof Capra and F. David Peat to a spiritual view of reality (see e.g. Capra, 2000, Peat, 1996) is a symptom of the limits of classical modern science, irrespective of how valid or invalid we may judge their views to be in themselves. Wilber (2000) discounts attempts to find a new spirituality within the framework of science, such as Capra's *Tao of physics*, as a confusion of categories. But the place of the spiritual in non-western, and specifically African ontologies demands further consideration, and the writings of authors such as Capra and Peat is at least suggestive of other possibilities than those allowed by 'Enlightenment' modernism.

In writing about Buddhism, Harris (1998) uses the term 'natural spirituality' in characterising the Buddhist worldview. The significance of this phrase must be understood in relation to the particular type of matter-spirit dualism that emerged in post-medieval Western thought. Plather (1996) shows how Western Christianity consigned the notion of the divine or the spiritual to a distant transcendent realm. This effectively removed it from consideration, with the consequence that this matter-spirit dualism gave rise to a materialist monism as the spiritual reached vanishing point in the further development of the modern worldview. But in African ontology, as in the Neo-Platonism that dominated Western thought into the Middle Ages (von Balthasar, 1997), spirit and matter are inextricably linked, so much so that even conversion of much of Africa to Western Christianity failed to weaken this 'natural spirituality' appreciably. As is evident from Appiah (1998), this is as true of African Christianity in general as it is of still surviving 'animism'. Appiah goes on to provide an acute analysis of the process by which the notion of the spiritual was excluded in the development of modern thought. Rather than being discounted on rational grounds, it suffered an *a priori* exclusion by virtue of its incompatibility with the 'Enlightenment' worldview. But, as implied by the reference to *natural* spirituality, in non-western worldviews generally we have to deal with a view that is radically different from the Western Christian understanding of spirit, indissolubly linked as it is with a conception of God, and thus of the spiritual, which is divorced from Nature. Setiloane (2000, p. 24) states that "African traditional conceptions of being show a 'belief in a potency locked up in objects and beings' or an Energy, a Force which is immanent in all things … [an] all-pervasive Energy-Force". The parallels with Polynesian *mana* and Chinese *qi* or 'subtle energy', are obvious. Skolimowski (1994), in his book *The participatory mind*, picks up on the notion of *qi* in his discussion of an alternative model of mind for the contemporary West. He points out that acupuncture is a practical application of the idea of *qi*. For a long time the West in general would not even consider the possibility that there might be validity to the practice of acupuncture. More recently, as a result of empirical evidence, "we have been forced to admit that acupuncture works, and therefore that there must be *something* to this flow of energy on which it is based (Skolimowski, 1994, p. 176). As he notes, in Western terms it is not yet possible to make sense of acupuncture, and even less to comprehend the nature of the energy called *qi*. To this observation we might add that the 'Enlightenment' worldview may be simply incapable of assimilating such notions, and that the acceptance of acupuncture in the West could therefore be taken as a sign of a developing postmodernism – in the sense of the broad post-Enlightenment orientation that we have considered. Although he does
address epistemological implications, Skolimowski’s concern is more ontological, as is evident in his later paper on ‘The origin and significance of participatory reality’ (Skolimowski, 1999). But it provides a useful comparison in considering African ontological notions and their relation to African understandings of the nature of knowledge.

In contrasting African and modern Western conceptions of being, we find an understanding of the interconnectedness of all levels of being contrasted with an atomistic materialism. This interconnectedness is something more than that of the mechanically interconnected systems that the modern worldview found itself able to comprehend and work with. Setiloane describes how, according to the African worldview, seriti (‘subtle energy’) flows through all things but draws itself into particular nodes or foci, which include human persons, so that a person "becomes understood as one of those nodes or foci" (Setiloane, 2000, p. 24). This subtle energy, or spirit, or dynamic pervasive divinity, is the essential basis of the interconnectedness of human community, and of humanity with the world, in African thought according to Setiloane. Setiloane does not give attention to the link between ontology and ways of knowing and on the matter of epistemology his comments are, in common with the offerings of many authors on African thought, restricted to a consideration of traditional proverbs as a source of wisdom. But from other African philosophers there are allusions to a link between ontological monism, which would include Setiloane’s matter-spirit unity, and the rejection of dualism in the epistemological realm.

### Epistemological dualism and beyond

We have already noted that the dualism of modern-Western thought is a common complaint raised by those who write on non-western intellectual traditions. That this is a live issue within African philosophy is demonstrated by continuing discussion of Senghor’s ideas in this regard (see e.g Shutte, 1998; Sogolo, 1998). But from the African perspective there is also an awareness of how other traditions share in a common divergence from the West. Thus Ntuli (2002) refers to the *Journey into the Native American Universe* of Peat (1996), in which the contrast between Western and Native American knowledge systems is discussed at length, including the issue of dualism. It must be noted that this term covers not only the ontological and epistemological dualisms to which we have referred but also other dualisms such as the moral polarity of good-versus-evil. Ethical dualism is a matter worthy of intensive debate, not only in its own right but also because of the way that it too relates to the debate on ontological dualism. But, from the perspective of a concern with indigenous knowledge systems in the African context, it is the epistemological subject/object dualism that is obviously of central importance. As we have seen in the case of Odora Hoppers, proponents of non-western knowledge systems who identify epistemological dualism as a crucial issue claim that Western domination of the modern world has done more than merely marginalise indigenous knowledge in the sense of particular bodies of knowledge. More fundamentally, criticism of epistemological dualism entails the claim that it is *ways of knowing* that are repressed by Western cultural hegemony. Once
we recognise this, then we are impelled to go beyond the criticism of dualism, and indeed beyond epistemological dualism itself, in order to explore what might be meant by a non-dualistic mode of knowing. Elsewhere (Moodie, 2003b) I have argued for the need to do justice to non-western intellectual traditions, particularly in respect of their embodiment of 'alternative ways of knowing'. In that article I go on to offer some ideas on the possible 'shape' of an alternative epistemological framework, which would provide a positive solution to the problems that arise from subject-object dualism. As I note in that article, this is not something that is foreign to African philosophical discourse. Senghor (1998, p. 439) writes of the discovery,

"That mere discursive reason, the reason which only sees, was inadequate to 'comprehend' the world, to gather it up and transform it. That it needed the help of intuitive reason, the reason that comes to grips, which delves beneath the surface of facts and things."

To Senghor intuitive reason is important not only because it differs from the ratiocinative process of logically manipulating known data but also for its implications regarding the act of knowing itself. It implies a rejection of the notion of a detached act of knowing by which the subject stands back from the things that are observed. Senghor's advocacy of intuition is set in opposition to the empiricist tradition which has exercised such a powerful influence on the Western understanding of the world, at least since John Locke in the 17th Century and perhaps still earlier, in the medieval Scholasticism (Gaybba, 1998) out of which modern thought grew (see e.g. Copleston, 1955). But the rejection of this major element in the Western intellectual tradition is not unproblematic for African philosophy. Senghor's case for knowledge by intuition, in which a thing is known by being penetrated 'from the inside' (Shutte, 1998), is not universally welcomed by African intellectuals. Sogolo (1998) criticises Senghor for echoing Levy-Bruhl's 'law of mystical participation'. Apart from the racist evolutionism of the historical context from which Levy-Bruhl formulated his ideas, Sogolo's concern with Western depreciation of the other can be extended further. The word 'mystical' is in itself an indicator of inferiority or primitiveness when it is set in opposition to rationality, as it is in the common Western view, which continues to be rooted in the assumptions of the European 'Enlightenment'. African philosophers such as Appiah (1998) point out the manner in which those assumptions constitute a narrow and too restrictive set of criteria for judging intellectual respectability. Any understanding of the act of knowing which fails to observe the canons of empiricism and of rationality as defined in the 'Enlightenment' tradition, as well as its materialist model of reality, falls outside the mainstream of academia. As such it is of questionable status. At the very least it is judged to be below the level of the 'hard truth' which was the ideal of modern science up to the early decades of the 20th Century and which has still continued to dominate a significant part of the modern mind into the 21st Century. At worst it risks scorn and disparagement, being taken as evidence of eccentricity in the case of Westerners or 'primitive' thought in others.

Sogolo's criticism of Senghor arises partly from a legitimate concern with the disparagement that may be incurred by Senghor's assertions. On the other hand, as we
have already seen, Appiah is bold in focusing on elements in African tradition which, from a modernist perspective, are labelled as 'irrational', while, at the same time, he directs a tightly argued attack against the irrationality of modern Western rationalism. Pitika Ntuli pursues a more frequently heard line of argument, which we have noted in this paper, in attempting to counter the modern Western worldview: the modern worldview, and its Cartesian and Newtonian foundations, have been undermined by Quantum theory. Ntuli (2002, p.55-56) states that,

"Quantum theory provides us with a conceptual framework with which to examine our world from a new perspective. We would argue that the wave-particle duality, the principle of complementarity, the uncertainty principle, interconnectedness and non-local co-relations affect us in our daily lives in the same way that Newton's mechanistic language affected us. I will argue that this world is consistent with our own African belief system."

Although Ntuli cites Fritjof Capra's *Tao of physics* and F. David Peat's *Blackfoot physics: a journey into the Native American universe* in support of his contention, other influential Western physicists such as David Bohm and Paul Davies could be added to these (see Moodie, 2003b). But Capra and Peat are significant in representing a position that has emerged within the Western scientific tradition, which highlights the compatibility of non-western worldviews with the view of the universe presented by the 'New Physics'. On the other hand the mechanistic modern worldview, which derives from the 'Enlightenment', is compatible with neither of these. And if this observation of affinity with post-Enlightenment science is true of the 'Native American universe' and the Far Eastern and Indian intellectual traditions, then it is true also of the African. This argument is applied specifically to the epistemological issue by Ntuli (2002, p.56):

"To separate one's self from the phenomenal world is to objectify that world. This is what an African world-view rejects. It perceives human beings and the phenomenal world as extensions of each other."

These 'separative' tendencies of Western thought were already opposed within the context of modern science in the 19th Century by Michael Faraday, who heralded the coming of the New Physics of the 20th Century with his rejection of the notion that the universe was constituted by discrete atomic particles. Instead he saw reality in terms of the field metaphor that was taken up in earnest in the subsequent development of modern physics. It would be foolish to attempt to make too much of this – Faraday’s alternative to atomic theory has long since been overtaken by other developments within physics, with super-string theory being amongst the most recent (Peat, 1992). But Faraday’s vision of the nature of the universe can stimulate us to reflect on other possibilities regarding the relation of the human knower to the world that is known. If the constitution of the universe is understood not as a multiplicity of separate bodies in a container of three-dimensional space but in terms of the 'field' metaphor then,

"the assumption that the human observer is a separate, discrete 'object', but one with a somehow independent vantage point by which to observe the rest of reality, must
also be questioned. The distinct consciousness of the human observer must indeed be recognised but not by cutting it off from the total field of which it is part."

(Moodie, 2003b, p.20)

Once again the point is made that epistemology and ontology are organically connected: the nature of our knowing grows out of the nature of our being. The attempt to escape from Western epistemological dualism necessarily involves an ontological monism that is characterised by an insistence on the interconnectedness of the world, the unity of the knower and the world, and the relatedness of the knower within a community. This does not necessarily imply an absolute monism, as in advaitic Indian philosophy, in which all things are only manifestations of a Oneness that underlies appearances. At least at some significant level, though, opposition to the observer-world dualism must imply a commitment to the principle of the interconnectedness of being. The affirmation of interconnectedness, as well as the consequent denial of the ontological autonomy of objects or things and of the human observer, leads us on to a very different understanding of knowledge. A dualistic epistemology has to be rejected in favour of a participatory epistemology.

The point has already been made that in a broader sense what is at issue here is a 'postmodern' view, even if it is not one that is tied to a narrow understanding of what it is to be postmodern. In a world in which non-western intellectual traditions continue to suffer under the weight of modern Western intellectual dominance (Sardar, 1998) it is important to pursue a broadly post-modern re-evaluation of things if we are to do justice to African thought. As I have shown, Skolimowski provides a perspective on what a post-Enlightenment philosophy of mind might encompass, drawing for his argument from the philosophy of Bergson and de Chardin. But, despite the affinities of Senghor and other African philosophers with French 'Life-force' and 'Process' philosophy, it is in the writings of Friedrich Nietzsche that we may find a particularly fruitful line of enquiry as we pursue the consideration of IKS and epistemology in the African context. Nietzsche has been described as the prophet of postmodernism (Robinson, 1999; Tarnas, 1996) for his relentless attack on the foundations of 'Enlightenment' thought. Nietzsche rejected the mechanical world of modern materialism, operating according to fixed laws, and saw instead a world that was an 'enormity of energy'. In Nietzsche's view this dynamic world will not yield to the presumptuous attempts of what he referred to as 'clever animals', to stand back from the world of which they are inextricably part and to give an account of the constitution and operation of that world. Implicit in this criticism is an ontological monism, which does not allow a 'metaphysically privileged position' to the scientific observer (Vattimo, 1988). The human observer is as much a part of the world he or she seeks to describe as is the rock, or the plant, or the laboratory rat, which is studied – as much a part of it as they are, and no more apart from it than them. And there is still more than this to Nietzsche's undermining of the observer-world dualism. In the 'Enlightenment' worldview, 'Man' presumes a privileged position that goes back to Descartes' assertion, 'I think therefore I am'; but Descartes' certainty, and the human subject itself, dissolves into a confusion language:
"There is thinking; consequently there is that which thinks - that is [all that]
Descartes’ argument comes to … merely a formulation of our grammatical habit,
which posits a doer for what is done."

There is evidence that Nietzsche was in fact strongly influenced by his reading of
Buddhism (Novak, 1996). It is Buddhism, with its principle of the interconnectedness
of things and the corollary of the 'emptiness' of things (Harris, 1998), which provides
what is perhaps the clearest indication of how a non-western philosophy may offer an
alternative ontology, which can serve as the basis of an alternative epistemology. In the
final section of this paper the 'negative' contribution of Nietzsche, the father of the
tradition of European nihilism (Snyder, 1988) which is represented in "deconstructive"
postmodernism, is complemented with other, positive contributions, as articulated in
the affirmative postmodernism of Tarnas (1996). Tarnas himself sees the work of
Nietzsche as a crucial prelude to the emergence of the positive vision that he presents.
There are common features in the work of Tarnas and Skolimowski, whose views on
the significance of 'participation' were published at around the same time, but it is
Tarnas who develops the epistemological implications of the notion of participation in
more depth. Tarnas himself appears little concerned with intellectual traditions outside
of the West but his ideas have vital implications in that regard.

Richard Tarnas and participatory epistemology
As noted earlier in this paper noted Ntuli finds common cause with alternative
intellectual developments within the West in his advocacy of 'Indigenous knowledge
systems and the African Renaissance'. The Western epistemological dualism that he
attacks is powerfully countered from within the Western intellectual tradition, but from
other sources apart from those to which Ntuli refers: from its origins the
'Enlightenment' tradition of modern Western thought found its counterpoint in the
Romantic Movement (Snyder, 1988; Tarnas, 1996). Romanticism opposed cold and
bloodless reason with a hearty celebration of feeling, imagination and will, and in doing
so it chose solidarity with the majority of the human race, whether or not the Romantics
realised it. Thus Porteous (1962) says of the ancient Hebrew understanding of
knowledge that it involves an appropriation by the whole person, through thought,
emotion and action. This participatory understanding of the nature of knowledge is
most graphically illustrated by the Hebrew use of the verb 'know' in referring to sexual
intercourse, as in 'Abraham knew Sarah'. Sexual intercourse can serve as a metaphor for
the act of knowing because both are seen to involve a full engagement of the person.
Tarnas expresses this view of knowledge in an excerpt I have quoted previously
(Moodie, 2003b):

"The interpretative and constructive nature of human cognition is fully
acknowledged ... (but) ... nature brings forth its own order through the human
mind when that mind is employing its full complement of faculties - intellectual,
volitional, emotional, sensory, imaginative, aesthetic, epiphanic." (Tarnas, 1996,
p.435)
Tarnas begins here from an acceptance of the 'deconstructive' postmodern undermining of the 'Enlightenment' view of knowledge but he goes beyond both in order to commend a view of knowledge that falls within the loose category of affirmative postmodernism described by Rosenau (1992). Tarnas’s view is that it involves "a synergistic relationship between human knowers and immanent truth within the world" (Moodie, 2003b, p.21) but this requires further clarification. Synergy refers to a relationship characterised by activity on both sides. In Tarnas's account of the process of knowing there is the active constructive nature of human cognition on the one side, in itself a radical departure from naive empiricism, but there is also activity on the other side. A crucial point in this regard is Tarnas's use of the word 'epiphanic', with its reference to a divine manifestation. Tarnas is as opposed to the theistic concept of a transcendent God as, for example, Nietzsche is. But Tarnas is open to a different understanding of divinity, as found in Romantic pantheism, and it is this that is fundamental to his epistemology, although he goes beyond the nature mysticism of 19th Century Romanticism to refer to late 20th Century developments, such as Lovelock's *Gaia* hypothesis (Lovelock, 1989). Lovelock's adoption of the name of the ancient Greek Earth-Mother goddess, for his hypothesis of the organism-like nature of the earth's functioning as a whole living system, is pregnant with implications that Tarnas is not slow in drawing out. Tarnas might accept 'demythologisation' of this esoteric element of his thought - what is vital to his thought is his opposition to the materialism of 'Enlightenment' ontology, according to which all reality is reducible to inanimate matter and physical energy. In such a universe everything amounts to a meaningless dance of atoms which, by blind chance, throws up patterns and structures, thus giving a false impression of an ordered universe. Tarnas offers, in opposition to this, a universe characterised by an inherent intentionality, although one which is very different in conception from vulgarised notions of an extrinsic divine will, as in post-medieval Western theism (Placher, 1996). It is, though, not incompatible with Setiloane's understanding of divinity as subtle energy.

But how, it must be asked, does this relate to the question of the relation of indigenous knowledge to anti-dualism raised in the title of this paper? In Tarnas's treatment of the topic of participatory epistemology he relies on the idea of intrinsic intentionality. This is expressed, for example, in his description of how "nature brings forth its *own* order through the human mind", a notion which is at one with the general Romantic understanding of 'Will' as something essentially inherent to Nature. This is especially characteristic of Nietzsche's thought also. But it is to the work of Goethe that Tarnas turns for the embodiment of what a participatory epistemology means in practice. Goethe, like Nietzsche, stands in the broad alternative tradition to the 'Enlightenment', although neither can be simply limited to Romanticism. In summary it can be said that Goethe's approach to the knowledge process rests on what might, in contrast to the analytical-empirical mode of 'Enlightenment' science, be referred to as a meditative mode. But, if this sounds too 'mystical' to modern ears, we can turn to the detailed work of Bortoft (1996), *The wholeness of nature: Goethe's way of science*, for a practical presentation of a systematic approach to knowledge conducted in this alternative mode. It lies beyond the scope of this paper to provide a full account of Goethe's science, and of recent work that has taken it further, but what it illustrates is a positive theory of
knowledge, and a practical implementation of that theory, to complement the attack on epistemological dualism by African intellectuals such as Ntuli.

**Conclusion: towards a new evaluation of African indigenous knowledge systems**

Although I cannot explore in this paper Goethe's work, such a study may well repay the effort with further insights into knowledge processes within IKS in the African context. But the purpose of this paper will have been achieved if it encourages the recognition that allegations of epistemological imperialism do contain a core that is both rational and just, and if it fosters a fresh appreciation and understanding of what is meant by indigenous knowledge. The argument that knowledge is dependent for its status only on the philosophical criteria of belief, justifiability and truth, and therefore that 'knowledge is knowledge', is sound in itself. But, when it is applied in the context of what Odora Hoppers (2002) describes as the 'monochrome logic of Western epistemology' and the 'epistemological silencing' with which it is associated, it leads to the disqualification of ways of knowing that are an integral part of the IKS heritage. We might use a term like 'knowledge by intuition' for these alternative ways of knowing although this invokes connotations of subjectivism that are inappropriate in understanding the participatory mind referred to by Skolimowski and the participatory epistemology described by Tarnas. Subjectivity, in this sense, is bound up with modern individualism with its implications of a sundering of the human knower both from the community and the world. African understandings of being are premised on social and cosmological connectedness, and this participatory way of being has as its epistemological consequence a participatory way of knowing. But the IKS discourse has an unfortunate corollary in that it presents a picture of a mainstream cosmopolitan knowledge system (inevitably that of the Western-dominated modern world) with various IK systems whose claims to a valid but local status of their own must be promoted. Even talking specifically about African IKS detracts from the universality that is embodied in non-western intellectual traditions. This is part of a common human heritage, from which the West has in large measure departed by what it excludes. Intellectual traditions outside the West are able to encompass the rational-analytical and empirical modes that have constituted 'Enlightenment' science and knowledge processes in general, but this dominant modern Western tradition has not been able to accommodate other ways of knowing. A new and more just evaluation of African and other indigenous knowledge systems must go beyond a concern only with bodies of knowledge and must address the epistemological issue and the debate about dualism, both ontological and epistemological, which is central to it.
REFERENCES


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By engaging Indigenous understanding and involving Indigenous communities in the co-creation of knowledge, the project aims to decolonize contemporary physics research and attract Indigenous students. The group has identified several risks. Beyond the unique interdisciplinarity of the work itself, which encompasses approaches from natural sciences, social sciences and humanities, there could be some obstacles in recruiting Indigenous students due to their underrepresentation in STEM. The researchers must also seek acceptance in specific scientific and Indigenous communities. Despite these challenges, the project holds the potential to significantly impact Indigenous students and the broader scientific community.

Introduction to African Traditional Religion.

The essence of religion in the idea of the holy which he claimed attracts people owing to its mystery and its power. In summary, the four definitions can be summarized thus, a theological definition makes the central criterion of religion belief in a transcendent power which is usually personified as a Supreme Being, but is sometimes conceived as being diffused through powerful spiritual beings or is held to be an impersonal, mysterious, supernatural force. Furthermore, it will help us to work for ecumenism via a meaningful exchange of ideas between religious groups in dialogue, seminar, and open discussions.

3.4 The Functions of Religion in Society.

Religion is found in every human society in the world. Substance dualism and property dualism. Causal relations and epiphenomenalism. Eliminativism: Behaviourism and instrumentalism. If a person does not have immediate knowledge of it, why is it not merely part of the purely physical machinery of the brain? Why bring in mentality at all? Accessibility to consciousness, however, is not the only criterion for determining whether a given state or process is mental. One alternative criterion is that mental states and processes enter into the rationality of the systems of which they are a part.