# 'Indigenous knowledge' - Conceptions and misconceptions

# Kai Horsthemke

#### Abstract

'Indigenous knowledge' is a relatively recent buzz phrase that, amongst other things, constitutes part of a challenge to 'western' education. Apologists of indigenous knowledge not only maintain that its study has a profound effect on education and educational curricula but emphasise its significance in antiracist, antisexist and postcolonialist discourse, in general, and in terms of the 'African Renaissance', in particular. In this paper, I argue the following: (1) 'indigenous knowledge' involves at best an incomplete, partial or, at worst, a questionable understanding or conception of knowledge; (2) as a tool in antidiscrimination and anti-repression discourse (e.g. driving discussions around literacy, numeracy, poverty alleviation and development strategies in Africa), 'indigenous knowledge' is largely inappropriate. I show, further, that in the development of 'knowledge', following some necessary conceptual readjustments in our understanding of this term, there is considerably greater common ground than admitted by theorists. It is this acknowledgement, not lip service to a popular concept of debatable relevance, that has profound educational and ethical consequences.

Spirituality in an Aboriginal sense is. . . the starting point that requires no demonstration or proof; it exists and all truths begin and end there. This is the fundamental difference between what is seen as scientific truth and spiritual truth in contemporary society. To look for objectivity in the Aboriginal world is to question one's identity and one's sense of being. Objectivity as a notion is culturally inappropriate. . . One does not look for something that is not there (Scott Fatnowna and Harry Pickett, 2002b).

The tokoloshe is real – it does exist. . . When Africans fear the tokoloshe they are not fearing a figment of their imaginations. . . I have personally fallen victim to mantindane – not once, but three times – and I still carry the scars on my body to testify to the truth of what I say (Credo Mutwa, Isilwane – The Animal).

Traditionally, education proceeded along colonialist lines, with virtually total disregard for indigenous knowledge systems (William Makgoba, in a lunchtime talk on *Africanisation and education*, co-presented with Console Tleane in the Department of Education/ University of the Witwatersrand, 23-09-1998).

# The idea of indigenous knowledge

Although the manifestation of what is taken to be indigenous knowledge could presumably be traced back roughly to the origins of humankind, the idea of indigenous knowledge is a relatively recent phenomenon. It has arguably gained conceptual and discursive currency only during the last twenty-odd years. Especially in recent years it has been the subject of congresses, conferences, meetings, as well as countless papers, articles and reports. What, then, is 'indigenous knowledge'? What is the emphasis on indigenous knowledge meant to achieve?

'Indigenous knowledge' is generally taken to cover local, traditional, nonwestern beliefs, practices, customs and world views, and frequently also to refer to alternative, informal forms of knowledge. Although some writers reject this contraposition, 'indigenous knowledge' is commonly contrasted, implicitly or explicitly, with 'knowledge from abroad', a 'global', 'cosmopolitan', 'western', 'formal' or 'world' (system of) knowledge (cf Hountondji, 1995; Cresswell, 1998; Semali and Kincheloe, eds, 1999 passim; Odora Hoppers, 2002a; Odora Hoppers 2002 passim). Rather perplexingly, while a lot has been said and continues to be said about the idea of indigeneity, I have yet to come across a writer or author willing to furnish an explanation of their understanding or concept of 'knowledge'. Although (or because?) the terms 'knowledge' and 'epistemology/epistemological' are used in liberal abundance, no account is given of the actual meaning/s of the terms. Thus, there is a general failure among theorists to appreciate and engage with the ramifications of these concepts. Instead, 'indigenous knowledge' is

unquestioningly employed as an umbrella concept to cover practices, skills, customs, worldviews, perceptions, as well as theoretical and factual understandings.

With regard to the second question, as to what the focus on indigenous knowledge is hoped to achieve, there are several related ideas that appear again and again (cf Semali and Kincheloe, 1999 passim; Odora Hoppers, 2002 passim): reclamation of cultural or traditional heritage; decolonisation of mind and thought; recognition and acknowledgement of self-determining development; protection against further colonisation, exploitation, appropriation and/or commercialisation; legitimation or validation of indigenous practices and world views; and condemnation of, or at least caution against, the subjugation of nature and general oppressiveness of nonindigenous rationality, science and technology.

Before I go on to critique the notion of indigenous knowledge, I want to state that I am in principle in complete agreement with what underlies many indigenous knowledge projects. Firstly, western knowledge, science, technology and 'rationality' have led to, or have had as a significant goal, the subjugation of nature, and so far have been devastatingly efficient. The pursuit of nuclear energy, wholesale deforestation and destruction of flora and fauna, factory farming of nonhuman animals for human consumption, vivisection and genetic engineering are deplorable and – indeed – *irrational*. Secondly, the inferiorisation of indigenous peoples' practices, skills and insights has, to a large extent, been arrogant and of similarly questionable rationality. Thirdly, current attempts by industrial and high-tech nations to (re)colonise or appropriate for commercial gain these practices, skills and insights are exploitative and contemptible.

Having said this, however, I consider appeals to the concept of indigenous knowledge, and its 'legitimation' or 'validation', as a remedy or countermeasure to be completely misguided. Any such appeal is inadequate, not least because of a general lack of appreciation of the semantic and logical problems involved in employing and applying the concept of 'knowledge' beyond the sense of practice or skill, while still referring to the knowledge in question as 'indigenous' and – as such – as 'fundamentally different', 'unique' and 'incommensurable' or 'incompatible' with 'modern' knowledge (Prakash, 1999, pp.160, 167, 168; Reynar, 1999, p.301, fn. 2). As I have mentioned earlier, there is almost a complete absence of definition, even of working definitions, of this crucial idea in the various papers that have been written and published over the years. In what follows, I will attempt to indicate what such

a definition might look like. This will serve not only as conceptual clarification but also as the basis for my misgivings about indigenous 'knowledge'.

# Towards a definition of 'knowledge'

If we consider how the terms 'know' and 'knowledge' are commonly used, we are able to recognise and distinguish between three main kinds: knowledge-that or factual knowledge, knowledge-how or practical knowledge and, lastly, knowledge of persons, places, or things or knowledge by acquaintance. If discussion of the uniqueness of indigenous people's knowledge interprets it in the third sense, it is fairly uncontroversial. Acquaintance with states of affairs, geographical terrain etc. differs from individual to individual, society to society, culture to culture – take Afghan familiarity with their own mountainous regions, something not shared by American or Russian soldiers.

However, in the discussion that follows, I will concentrate primarily on the first two as the kinds of knowledge that are relevant here. It is my suspicion that many, if not most, indigenous knowledge projects focus on the second. The understanding of 'indigenous knowledge' as 'indigenous practice, skill or know-how', too, is reasonably unproblematic. It makes perfect sense to say that (different individuals in) different cultures or societies possess skills or know-how not shared by others. Of course, there is often a close connection between practical and factual knowledge. A traditional healer knows how to cure people – and this implies that she presumably knows that certain roots, berries or barks have the requisite disease-curing properties. The Inuit who knows how to distinguish between several shades of white as well as several different types of snow will be able to orientate himself accordingly, will know that an animal is at a certain distance from him and that a certain stretch of snow or ice will support his weight. The problem arises when the two kinds of knowledge are treated as if there is no distinction between them, or at least as if they are mutually dependent. In order to establish why this is problematic, I need to provide a definition of factual knowledge, or knowledge-that.

Traditionally, this kind of knowledge (often also referred to as *propositional knowledge*) has been argued to have three necessary and logically independent components: belief, justification and truth. In order for a person to know something (p), she has to believe that p, she has to be justified in believing that p (i.e. she has to be in a position to know that p), and p has to be true. Each of

these components has been considered essential. In isolation they do not amount to knowledge, but in combination they are considered sufficient for knowledge. This definition has been challenged in recent years, mainly with regard to the sufficiency of the three conditions (Gettier, 1963). In principle I think the objections can be met, perhaps by adding a fourth condition: a person's *justification for believing that p must be suitably connected to the truth of p*. Now, even if these conditions are jointly sufficient for knowledge, there remains considerable room for debate over what precisely the justification condition involves – what degree of justification is required, what kind of justification is appropriate etc. (Horsthemke, 2001). However, for present purposes this (amended) definition should suffice.

I consider this conception of factual or propositional knowledge to be not only plausible but indispensable for clearing up some of the confusions in the debate around indigenous knowledge. In other words, the philosophical account of the nature of knowledge may be used as a yardstick. Thus, the onus will be on anyone who is opposed to the analysis presented here to propose not only an alternative but a more feasible definition, one that is sufficiently unambiguous and comprehensive to meet the challenges raised in this paper. To assert, as I expect some theorists may do, that the philosophical definition presented here is itself an instance of an oppressive, formal, nonindigenous system of thought, would be to shirk the issue and to attempt to employ the very concepts that are problematised in a tacitly self-validating manner.

## Problems: superstition, relativism, etc.

The way I see it, in cases where 'indigenous knowledge' is taken to refer not to practical knowledge and skills but to *knowledge-that*, *and* where it is contrasted with nonindigenous or cosmopolitan knowledge, problems are rife. One needs to be clear about what the notion of indigenous knowledge implies in such cases. Current usage by theorists generally suggests several things, all equally problematic.

In some instances, 'indigenous knowledge' is taken to cover all kinds of beliefs, with little or no reference to truth or justification. This elevates to the status of knowledge not only mere assumption and opinion, but also superstition, divination, soothsaying and the like (as Semali, 1999, p.98, and Crossman and Devisch, 2002, p.117, attempt to do). In the absence of any explicit mention of truth, then, the applicable idea would be that of

'indigenous beliefs'. Given the philosophical definition of knowledge, belief – even justified belief – does not amount to knowledge.

A recent article by Philip Higgs constitutes a case in point. He argues that "African philosophy, as a system of African knowledge(s), can provide a useful philosophical framework for the construction of empowering knowledge that will enable communities in South Africa to participate in their own educational development" (Higgs, 2003, p.5). There is in Higgs an unacknowledged quantum leap from "traditional African world-views" to "indigenous African knowledge system" (p.11). The 'quantum leap' in question concerns not only the move from (a multitude of) 'world-views' to a (single) 'knowledge system' but that, implicit rather than explicit, from 'belief systems' to 'knowledge system'. In a related sense, a major problem concerns what Higgs identifies as a major contribution of African philosophy, namely the struggle of establishing an 'African identity' – frequently contrasted with a 'Western Eurocentric identity' (Higgs, 2003, pp.6, 8-11; this fallacy of applying the collective singular is also committed in Makgoba, 1997, p.199: "Africanisation is the process of defining or interpreting African identity and culture"). Coupled with this idea is that of "a distinctively African epistemic identity", an "indigenous (African) epistemological framework", a "unique African order of knowledge" or "distinctively African knowledge system" that challenges "the hegemony of Western Eurocentric forms of universal knowledge" (Higgs, 2003, pp.5, 7, 8, 16, 17).

Just as there is no (one or single) African knowledge system, and certainly not one that subsumes the various African world-views, the notion of a single, homogeneous, readily identifiable 'African identity' (or 'European identity', for that matter) is mistaken. There is a multitude of heterogeneous, contradictory, frequently incoherent and inconsistent, and occasionally overlapping African identities, sometimes even within one and the same person. Failure to recognise this is not only to fly in the face of common experience but to undermine endeavours of addressing the challenges of multiculturalism (such as responding to diversity and differences, often profound) in theory and practice. While there may exist "commonalities in the African experience" (pp.13, 16), these are arguably shared by all small-scale societies.

Finally, Higgs's references to "a distinctively African epistemic identity", an "indigenous (African) epistemological framework" or a "unique African order of knowledge" are highly problematic (*cf* also Moodie, 2003, p.7). Just how 'indigenous' or 'African' can an epistemological framework be? Furthermore,

to speak of 'the hegemony of *Western Eurocentric* forms of *universal* knowledge' (which may well be a contradiction in terms), coupled with the claim that the challenge to these comes from 'a distinctively African knowledge system', points to a thorough-going epistemological relativism – with all its problems.

To sum up, then: Higgs's project of enlisting the help of "African philosophy . . . (to) provide a useful. . . framework for the construction of empowering knowledge that will enable communities in South Africa to participate in their own educational development" (Higgs, 2003, p.5) is doomed to failure. Ben Parker has commented that Higgs's "failures are useful insofar as they raise interesting questions about philosophical and educational discourses and the ways they are embedded in communities" Parker, 2003, p.23). Briefly, Parker's problems with Higgs stem from the consideration that the pedagogies and values enumerated by the latter are 'distinctively' or 'particularly African'. Parker also doubts that these stem from a "deep socioethical sense of cultural unity" among Africans (Parker, 2003, p.29). It follows, he says, that without "a clear understanding of what makes values into African values, we cannot give a clear meaning to an 'activist African philosophy of education'" (Parker, 2003, p.30).

Parker is somewhat uncritical vis-à-vis Higgs's identification of 'traditional African world-views' as 'philosophy', and their purported challenge to "the hegemony of Western forms of universal knowledge" (Higgs, 2003, pp.5, 17; Parker, 2003, pp.26, 27), as well as in his implicit acceptance (with Makgoba and Higgs) of, and lip service to, "an African culture and identity" (Parker, 2003, p.31). Yet, he rightly cautions against the negation of universalism within (some) African philosophy: "There is a danger that this form of 'Africanism' becomes isolationist and exclusionary of the non-African". He asks, tellingly, "If one rejects all Eurocentric values, does one also reject human rights?" (Parker, 2003, p.32) The problem, I submit, resides with the basic irrationality that underlies the sort of name-calling Parker seems to be referring to here. The idea of human rights, whatever its origin, cannot by definition be anything but a universal value. (This consideration will prove to be significant later in this paper.) Similarly, there is an important sense in which knowledge – in order to be knowledge in the factual or propositional sense – is necessarily universal.

Writers often also refer to the (need for) 'validation' or 'legitimation' of indigenous knowledge, or to 'warranted' and 'valid' knowledge (*cf* Semali and Kincheloe, 1999, p.35; Rains, 1999, p.328; Odora Hoppers, 2002a, p.7; Odora

Hoppers, 2002c, pp.7, 12; Fatnowna and Pickett, 2002a, p.75; Moodie, 2003, p.8). All these references are tautologies. Considering the centrality of justification, knowledge is necessarily valid, legitimate, warranted. There simply could be no *other* knowledge, i.e. knowledge that is invalid, illegitimate or unwarranted. It would not be *knowledge* then. This is not to deny that knowledge can be and often is subjugated. A pertinent consideration here would concern the impact of the first significant astronomical discoveries on a flat-earth, geocentric worldview, or of the theory of evolution on an orthodox, deity-fearing mindset, and the subsequent suppression of these views. But here the emphasis has changed, subtly, to incorporate *truth*. (It should be noted that reference to 'true knowledge', too, involves a tautology.)

In other instances, reference to truth is explicit, the underlying assumption being that there are multitudinous truths, that with a multiplicity of indigenous cultures and subcultures there exists a multiplicity of truths, none of which are superior to any other (cf Semali and Kincheloe, 1999, pp.27, 28; Abdullah and Stringer, 1999, p.153; Odora Hoppers, 2002c, p.14; Fatnowna and Pickett, 2002b, p.214). This kind of view leads directly to epistemological relativism and to relativism about truth, with all their attendant difficulties. Why is relativism problematic? Briefly, to be a relativist about knowledge is to maintain that there is no objective knowledge of reality (or better: of realities) independently of knowers from relevant social groups. The difficulty for relativists is to avoid the inconsistent claim that the relativistic thesis is itself an item of objective knowledge. To be a relativist about truth is to maintain that there is no universal truth, that there is only a multitude of truths. The difficulty for relativists is to avoid the inconsistent claim that the relativistic thesis is itself universally (transculturally) true.

As a pertinent case, in the latter regard, I want to cite Elza Venter who states that the "creation of a non-racial, non-sexist democratic South Africa presents a challenge to everybody in the country" (Venter, 1997, p.57). Educators not only "need to learn to accommodate different value systems and to place them within a framework of common human values" but "as significant change agents in a diverse society. . . should (also) be educated to accept that there is no absolute, universally uncontested truth" (Venter, 1997, p.57). This is a point Venter makes repeatedly: "There is no absolute truth endorsed by every scientist and educational practitioner through all time" (Venter, 1997, p.59) and, "People need to accept that there is no one unique truth which is fixed and found, but rather a diversity of valid, and even conflicting, versions of a world in the making" (Venter, 1997, p.62). Throughout, Venter seems to be unaware of the inconsistency of advancing these statements as truths. Apart

from endorsing a problematic relativism about truth, her lip service to value pluralism frequently assumes the shape of cultural or moral relativism. Given a pluralism of value systems, and the purported absence of a vantage point from which truths (scientific or normative) could be established, her rejection of former South African philosophies of education, Christian National Education and fundamental pedagogics, is similarly inconsistent. In South Africa, Venter claims, there "should not only be an emphasis on similarities within differences, but also on the differences *per se*, to get the whole picture" (Venter, 1997, pp.61-62). Again, this presupposes the possibility of a vantage point from which one can get and evaluate 'the whole picture' – which her own position does not appear to yield.

A related and similarly problematic view implicitly concerns the idea of certainty and, therefore, the justification condition in the definition of knowledge given above. It is a view that has been gaining currency since the introduction of the new education system in South Africa. Unlike the old approach that regarded knowledge as fixed, outcomes-based education or OBE – we are told – regards knowledge as uncertain and changing. (For a similar view, see Crossman and Devisch, 2002, p.110.) The obvious difficulty is, of course, to avoid advancing the proposal that 'knowledge is uncertain and changing' as a knowledge claim, since this would lead to paradox. If this is knowledge, then it is itself subject to uncertainty and change – which contradicts the initial statement. It may at some point turn out to be no longer true (meaning that knowledge may at some point turn out to be certain and unchanging). If, on the other hand, this piece of knowledge is itself certain and not subject to change, then there is some knowledge that is not uncertain and changing – which, again, contradicts the statement.

The implications should be obvious now. If something is referred to as 'indigenous knowledge' in the sense of factual or propositional knowledge, it must meet the requisite criteria: belief, justification and truth. If it does, it is on a par with nonindigenous knowledge in a particular area or field. Thus, the sangoma's (traditional healer's) knowledge would be on a par with that of a general medical practitioner, like the knowledge of a naturopath or homoeopath. The insights into climate change, animal behaviour and plant life cycles of a Bushman or South American Indian would be on a par with those of western biologists or climatologists. In fact, both could arguably learn from each other. It is important to bear in mind that there is no question here of different truths (different beliefs perhaps, different methods of justification almost certainly), no question of (radically) different knowledges. Truth and reality are essentially not in the eye of the beholder.

What Tony Moodie, in a recent paper, describes as "alternative ways of knowing" and considers to characterise a "participatory epistemology" (Moodie, 2003, pp.7, 20), encompasses intuition or intuitive modes of consciousness, "matters of 'spirit" (Moodie, 203, p.19). Leaning as it does heavily on trends emanating from Romanticism, Moodie's argument is in essence a somewhat uncritical tribute to 'non-western intellectual traditions', a eulogy of the uncorrupted 'natural condition' of the 'noble savage'. The latter idea is *implicit*, of course – given that it is hardly 'politically correct'. Yet, the modern heirs of this conception of human beings are *inter alia* Afrocentrism and the African Renaissance. On the other hand, Moodie's idea of a 'participatory epistemology' is very useful and can conceivably be pursued and applied *without* embracing relativism or a questionable romanticisation of the indigene.

# Attempts to establish common ground:

#### Cosmic Africa and Where The Green Ants Dream

In what follows, I wish to review two filmic suggestions – one explicit, the other less overt – for resolving the apparent conflicts regarding culture and cognition with which my paper is concerned. The film *Cosmic Africa*, by South African brothers Craig and Damon Foster, documents the journey of South African astrophysicist Thebe Medupe, who has just completed his doctorate. His mission is stated at the very beginning of the film: "I need to discover whether my science has a place in Africa, and whether Africa has a place in my science." His journey leads him to the Ju'hoansi in Namibia, the Dogon in Mali and to what is conceivably the site of the first observatory in Egypt.

During his visit to Namibia, Medupe learns not only of Ju'hoansi reliance on the stars as to when to plant and to harvest but many of the stories connected to the sun, moon and stars: "Where I see two giant stars, they (the Ju'hoansi and their shaman Kxao Tami) see two sons, lions, eland horns and giant furnaces." His visit to the Ju'hoansi coincides with a total solar eclipse. He worries about whether he should tell the people about what is going to happen but decides not to: they would want to know how he knows. Instead, he sets up his equipment. When the eclipse happens, people talk about the return of winter and blame the intruder and his equipment: "The telescope is eating up the sun." After the eclipse and subsequent reconciliation, Medupe says, "For

the first time I see how the stars affect the way people live. My science and my Africa are beginning to come together."

This impression is deepened with the visit to the Dogon, whose knowledge of the stars is legendary. Their daily and seasonal activities, routines and customs are guided, for example, by the appearance of what we call Venus, the Pleaides etc. One of the elders, spiritual leader Annaye Doumbo, claims, "In our Dogon way, the man who makes technology is the sorcerer of the sun". Given the harsh conditions under which they live, to the Dogon knowing the stars can mean the difference between life and death. Does the elder know that human beings have walked on the moon? "There is no gate to the moon", is the reply, "It is not possible for anyone to go there, unless they are the little brother of God."

The last leg of Medupe's journey is what is presented as the origin of astronomy, Egypt. (There is no mention of the innovations and discoveries of the Maya and Aztecs.) In the southern Egyptian desert, near the border of Sudan, he discovers what is conceivably the first observatory, countless stones emanating from a centre, in order to trace the rising and setting of the sun during the year: "The origin of astronomy, its measuring and predicting, is in Africa. . . Stones took the place that my computer takes now."

It is unfortunate that, throughout the film, Medupe and the Foster brothers never explore any of the tensions between traditional, indigenous and scientific world views. They seem satisfied with just noting the different perceptions and appear to assume that there is no problem of reconciliation of myth or legend with scientific fact. At the end of the film, Medupe states that he has come "full circle", that his journey has served to (re)unite "his science" and "his Africa", without so much as an attempt to account for the contradictions he has encountered between spirituality and astronomy.

In contrast to this kind of bald assertion, German film maker Werner Herzog's film *Wo die grünen Ameisen träumen* offers a tacit suggestion how apparent cultural, cognitive and epistemological impasses might be resolved. A huge international mining corporation wants to do some excavations and subsequent land development, mining in a particular region in rural Australia. The region targeted turns out to include a sacred site for indigenous Australians. Wanting to keep everything legitimate and above board, the company offers the Aboriginal people generous recompensation. The latter, through their spokespersons, refuse to accept the offer. When asked for the reason for their refusal – after all, the sum offered is perceived to be able to make a major

difference with regard to the general upliftment of the community – the company representatives are offered a simple but cryptic answer: "Because the green ants are dreaming, and their dreams may not be disturbed." Irritated by this apparent stubbornness and irrationality, the corporation transfers a certain sum to a bank account opened especially for Aboriginal purposes and sends in bulldozers, trucks, tractors and the like. On their arrival in the region, company workers find Aboriginal people blocking the way, seated in silent protest, refusing to allow any of the vehicles through.

This scenario appears to offer a classic example of the kind of impasse mentioned above: western technology, science and development projects versus indigenous knowledge and spirituality, with neither side being able or perhaps even wanting to comprehend the other's rationale. Yet, examined carefully, the Aboriginal response may also be taken to allude to ecological disaster. While its spiritual element may be inaccessible to western developers, the warning concerning devastation of the environment certainly is not. Thus, over and above the blatant immorality of the disregard for indigenous cultural and spiritual heritage, there are cogent objective reasons for resolving this impasse one way rather than another.

As I mentioned at the beginning of this paper, the emphasis of indigenous knowledge is held to be significant with regard to antiracism, antisexism, and postcolonialism, in general, and in terms of the 'African Renaissance' (Odora Hoppers, 2000; Ntuli, 2002), in particular. If I am correct in having diagnosed 'indigenous knowledge' as involving at best an incomplete, partial or, at worst, a questionable understanding or conception of knowledge, the questions that remain to be answered are: What *is* an appropriate tool in terms of anti-discrimination and anti-repression? Is the study of indigenous knowledge irrelevant in terms of education and educational curricula in South Africa?

## Educational and ethical consequences

Recognition, protection against exploitation, appropriation, counteracting wholesale subjugation of everything that is deemed subjugatable is best achieved not on the basis of appeals to the validity of 'indigenous knowledge' and 'indigenous knowledge systems', but by locating the pleas for recognition etc. in a rights-based framework. The latter has potential for the necessary educational, ethical and political clout to effect lasting changes. Insofar as human rights are anchored in as well as responsive to human agency, rights

are essential for the protection of human differences. In essence, taking rights seriously implies taking individual, social and cultural identity seriously.

What are the implications for education? Which aspects of so-called 'indigenous', 'local', 'alternative', 'informal' and – in our case – African traditional knowledge should be taught or included in the curriculum? Which should be left out? On what grounds? The question as to what should be left out is fairly easily answered. Not included in the curriculum, i.e. not under the guise of 'knowledge', should be mere beliefs or opinions unanchored by reason/s, bald assertions, superstitions, prejudice, bias – in fact anything that involves myth, fabrication and constitutes an infringement on the rights of learners. However, it may be pedagogically and epistemically useful to teach these *qua* beliefs, opinions, assertions, superstitions, prejudice and bias.

The question as to which aspects of, say, African traditional knowledge should be included probably requires a more comprehensive response than I am able to provide here. Briefly, skills and practical knowledge are worthy of inclusion, as are traditional music, art, dance, and folklore (qua folklore). Moreover, it follows from the account provided above that anything that meets the essential requirements for knowledge-that could in principle be included, traditional African knowledge of agriculture and environment, insights into conflict-resolution and the like. Naturally, the context and environment of learners should be taken into account here. That is to say, learners should be taught only what is appropriate to their age or, more correctly, to their cognitive and affective capabilities. Similarly, they should be taught primarily what is relevant or what is likely to be relevant to their lives.

A *sangoma*'s insight that one should only use a limited amount of bark from a given tree, or that one should harvest no more than one-tenth of a given natural resource (i.e. harvest a plant only if it is one of ten such plants growing in the vicinity), constitutes an insight that may not be shared by many, but it has universal value and application. There is a staggering amount of common ground between cultures, not only in terms of factual knowledge but also in terms of values. A rapprochement between so-called 'indigenous' and 'nonindigenous' insights is not only possible but desirable – on educational, ethical, as well as political grounds.

# Bibliography

Abdullah, J. and Stringer, E. 1999. Indigenous knowledge, indigenous learning, indigenous research. In Semali, L.M. and Kincheloe, J.L. (Eds). What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press, pp.143-155.

Brock-Utne, B. 2002. Stories of the hunt – Who is writing them?: The importance of indigenous research in Africa based on local experience. In Odora Hoppers, C. (Ed). 2002. *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.237-256.

Cresswell, R. 1998. Knowledge is the most effective way out of the poverty trap. *The Star*, October 6: p.8.

Crossman, P. and Devisch, R. 2002. Endogenous knowledge in anthropological perspective: A plea for a conceptual shift. In Odora Hoppers, C. (Ed). 2002. *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.96-125.

Fatnowna, S. and Pickett, H. 2002a. Establishing protocols for an indigenous-directed process: Perspectives from Australia and the region. In Odora Hoppers, C. (Ed). *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.67-95.

Fatnowna, S. and Pickett, H. 2002b. Indigenous contemporary knowledge development through research: The task for an indigenous academy. In Odora Hoppers, C. (Ed). *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.209-236.

Fatnowna, S. and Pickett, H. 2002c. The place of indigenous knowledge systems in the post-postmodern integrative paradigm shift. In Odora Hoppers, C. (Ed). *Indigenous knowledge and the integration of knowledge systems:*Towards a philosophy of articulation. Claremont: New Africa Books, pp.257-285.

George, J.M. 1999. Indigenous knowledge as a component of the school curriculum. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. *What is indigenous knowledge?: Voices from the academy*. New York and London: Falmer Press, pp.79-94.

Gettier, E.L. 1963. Is knowledge justified true belief? *Analysis* 23(6): pp.121-123.

Higgs, P. 2003. African philosophy and the transformation of educational discourse in South Africa. *Journal of Education* 30: pp.5-22.

Horsthemke, K. 2001. *Theory of knowledge*. Flexible learning course material, University of the Witwatersrand, Johannesburg.

Hountondji, P.J. 1995. Second Bashorum MKA Abiola Distinguished Lecture address. Reported in Khosa, Meshack M. 1996.

Hountondji, P.J. 2002. Knowledge appropriation in a post-colonial context. In Odora Hoppers, C. (Ed). 2002. *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.23-38.

Jegede, O.J. 1999. Science education in nonwestern cultures: Towards a theory of collateral learning. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press, pp.119-142.

Khosa, M.M. 1996. Knowledge production from a philosopher's perspective. *Higher Education Review/Sunday Independent Supplement*, May 19.

Knijnik, G. 1999. Indigenous knowledge and ethnomathematics approach in the Brazilian landless people education. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. *What is indigenous knowledge?: Voices from the academy*. New York and London: Falmer Press, pp.179-189.

Macedo, D. 1999. Decolonizing indigenous knowledge. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press, pp.xi-xvi.

Makgoba, M.W. 1997. *Mokoko: The Makgoba affair – a reflection on transformation*. Florida: Vivlia.

Maurial, M. 1999. Indigenous knowledge and schooling: A continuum between conflict and dialogue. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press, pp.59-77.

Moodie, T. 2003. Alternative ways of knowing – doing justice to non-western intellectual traditions in a postmodern era. *Journal of Education (Kenton Special Edition)* 31: pp.7-24.

Mosha, R.S. 1999. The inseparable link between intellectual and spiritual formation in indigenous knowledge and education: A case study in Tanzania. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press, pp.209-225.

Mqotsi, L. 2002. Science, magic and religion as trajectories of the psychology of projection. In Odora Hoppers, C. (Ed). 2002. *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.158-172.

Mwadime, R.K.N. 1999. Indigenous knowledge systems for an alternative culture in science: The role of nutritionists in Africa. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. *What is indigenous knowledge?: Voices from the academy*. New York and London: Falmer Press, pp.243-267.

Ntuli, P.P. 2002. Indigenous knowledge systems and the African Renaissance: Laying a foundation for the creation of counter-hegemonic discourses. In Odora Hoppers, C. (Ed). 2002. *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.53-66.

Odora Hoppers, C. 2000. Interview – Renaissance or 'menaissance'? *Agenda* 44.

Odora Hoppers, C. (Ed). 2002. Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation. Claremont: New Africa Books.

Odora Hoppers, C. 2002a. Old truths, new realities. *Africa Insight* 32(1), March.

Odora Hoppers, C. 2002b. Introduction. In Odora Hoppers, C. (Ed). 2002. *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.vii-xiv.

Odora Hoppers, C. 2002c. Indigenous knowledge and the integration of knowledge systems: Towards a conceptual and methodological framework. In Odora Hoppers, C. (Ed). 2002. *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.2-22.

Parker, B. 2003. Back on the chain gang: Some difficulties in developing (South) African philosophy of education. *Journal of Education* 30: pp.23-40.

Prakash, M.S. 1999. Indigenous knowledge systems – Ecological literacy through initiation into people's science. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. *What is indigenous knowledge?: Voices from the academy*. New York and London: Falmer Press, pp.157-178.

Rains, F.V. 1999. Indigenous knowledge, historical amnesia and intellectual authority: Deconstructing hegemony and the social and political implications of the curricular 'Other'. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press, pp.317-331.

Reynar, R. 1999. Indigenous people's knowledge and education: A tool for development? In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press, pp.285-304.

Semali, L.M. and Kincheloe, J.L. (Eds). 1999. What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press.

Semali, L.M. and Kincheloe, J.L. 1999. Introduction: What is indigenous knowledge and why should we study it? In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press, pp.3-57.

Semali, L.M. 1999. Community as classroom: (Re)valuing indigenous literacy. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. *What is indigenous knowledge?: Voices from the academy*. New York and London: Falmer Press, pp. 95-118.

Venter, E. 1997. Philosophy of education in a new South Africa. *South African Journal of Higher Education* 11(1): pp. 57-64.

Vergès, F. 2002. Psychoanalysis, the enigma of human behaviour and the contribution of indigenous knowledges. In Odora Hoppers, C. (Ed). 2002. *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp. 173-186.

Viergever, M. 1999. Indigenous knowledge: An interpretation of views from indigenous peoples. In Semali, L.M. and Kincheloe, J.L. (Eds). 1999. What is indigenous knowledge?: Voices from the academy. New York and London: Falmer Press, pp.333-343.

Visvanathan, C.S. 2002. Between pilgrimage and citizenship: The possibilities of self-restraint in science. In Odora Hoppers, C. (Ed). 2002. *Indigenous knowledge and the integration of knowledge systems: Towards a philosophy of articulation*. Claremont: New Africa Books, pp.39-52.

World Bank Development Report (1998/1999): *Knowledge for development*. Reported in Cresswell, R. (1998).

Kai Horsthemke School of Education University of the Witwatersrand

horsthemkek@educ.wits.ac.za kaihh@mweb.co.za