Introduction: The idea of ‘indigenous knowledge’

This paper attempts to bring the tools of philosophical argument and analysis to bear on the discussion of local knowledge and (standards of) assessment. The analysis of ‘knowledge’ that follows makes no claim to originality. What is novel, however, is the application of the traditional, philosophical definition of knowledge to the ideas in question. What follows, then, is a plea for both clarity and intellectual honesty.

The emphasis on ‘local’ knowledge¹ is in part a response to the perceived lack of relevance of

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¹. In what follows, the terms ‘local’ and ‘indigenous’ will be used interchangeably. Although a distinction could conceivably be made between them, it is not one that will have any great bearing on the present argument.
and/or sensitivity to the social and cultural context manifested in standard assessment practices and the reference to ‘global standards’. Thus, Malegapuru Makgoba tackles both the issue of (pursuit of) knowledge and the issue of standards, in university education in particular:

The issue of pursuit of knowledge for its own sake and ... so-called standards have always reflexly (sic) become contentious factors around the African university. ... The pursuit of knowledge for its own sake has been one of the cornerstones of university education; but, is there such a thing as knowledge for its own sake today? Knowledge is a human construction that by definition has a human purpose. Knowledge cannot be sterile or neutral in its conception, formulation and development. Humans are not generally renowned for their neutrality or sterility. The generation and development of knowledge is thus contextual in nature. (Makgoba 1997: 177)

That knowledge ascription and justification have a crucial contextual component is surely not in doubt, but this does not mean that knowledge in all its aspects or components is essentially ‘a human construction’. (I will return to these ideas below.) Nor does it mean that the pursuit of knowledge must be described and explained in consequentialist terms. It might be the object of knowledge that is and continues to be the legitimate cornerstone of university education. Makgoba continues:

The second is the issue that Africanising institutions in context and curriculum or staffing them by Africans lowers standards. ... The freedom of the African continent from colonial rule has one inherent dimension to it: the African must be free to do and choose as he deems fit. (Makgoba 1997:177)

Whether one attaches an intrinsic or an instrumental value to education and knowledge, the deterioration in educational standards is evidently an absence of a significant good – and is certainly perceived as such by Makgoba, Barney Pityana and others. When Pityana speaks of the ‘Africa-centred university’ and of ‘transformation as throughput rates and research profile’, he intends this to be understood as a plea not for the lowering of standards but for South Africa to focus on problems that are rooted in and significant for Africa (Pityana 2004: 4), including concerns around knowledge production and ‘ownership’.

‘Indigenous knowledge’ is a fairly recent phenomenon, a buzz phrase that has gained increasing currency over the last quarter of a century, and particularly in South Africa since the first democratic election in 1994 and during the subsequent political and educational transition. ‘Indigenous knowledge systems’ (IKS) is one of the National Research Foundation’s focus areas (National Research Foundation 2005), and the introduction of IKS in school education is called for by the Revised National Curriculum Statements (Department of Education 2002). Accounts or explanations of indigenous knowledge characteristically focus on ‘indigenous’ – as if this were the difficult or controversial term. Thus, at the Third International Ethnomathematics Conference that took place in February 2006 in Auckland, New Zealand, the Department of Science and Technology’s Mogege Mosimege defined indigenous knowledge as the knowledge of those who lived in South Africa before 1652. The term indigenous is commonly coupled with local, African and the like, and contrapositioned with universal, global, world, Western, Eurocentric and so on (see Semali & Kincheloe, Higgs et al., and Odora Hoppers passim). To date, no policy document, statement or article has yield-
ed the understanding of ‘knowledge’ these authors are working with – as if the concept of knowledge were simple and uncontroversial. I contend that it is not, and that a circumspect account of knowledge will reveal ‘indigenous knowledge’ to be something of a misnomer.

An analysis of ‘knowledge’

‘Curricula and classroom practices that accentuate multiple viewpoints and ways of knowing as well as the empowerment of students of color must be accompanied by assessments that acknowledge that there are many routes to similar outcomes, and that knowledge is situational and culturally bounded’, according to A Lin Goodwin and Maritza Macdonald (Goodwin & Macdonald 1997: 217; my emphasis). They illustrate their point by means of the following incident:

Lena’s classroom has been studying animals and the discussion has turned to zoos. For one of the assignments, children use drawings to depict their definitions of ‘zoo’. One child, Kavemuii from Namibia, draws animals in a big, open, green, and gold field. The other children notice and begin to tease him, saying that he doesn’t know anything about zoos. Lena notices and begins a discussion about how zoos came to be and why Kavemuii’s drawing is so different from those of the other children. Through the discussion, the children come to understand that countries like the United States build zoos to house animals that are not indigenous to the country; zoos are designed to display animals in habitats that are made by humans and in areas that are inhabitable to animals. In Kavemuii’s experience, animal habitats are very different; ‘zoos’ are the open plains where animals live free and not in cages. (Goodwin & Macdonald 1997: 217)

In concluding that this vignette ‘illustrates how knowledge is personal, contextual, and cultural’ (Goodwin & Macdonald 1997: 217; my emphasis), the authors arguably confuse two different kinds of knowledge. Indeed, they fail to acknowledge that there are, broadly, three kinds of knowledge. First, knowledge of a person, a place and so on is also referred to as familiarity- or acquaintance-type knowledge. Second, knowledge-how may be called practical knowledge, even skill. Third, knowledge-that constitutes propositional or declarative (often also referred to as factual or theoretical) knowledge. The incident related by Goodwin and Macdonald appears to involve familiarity- or acquaintance-type knowledge, in which case their conclusion is plausible. To the extent that it also involves knowledge-that, however, the conclusion that ‘knowledge is personal, contextual, and cultural’ is not only unwarranted but is clearly avoided with the help of precise definition, namely of ‘zoo’.

Whereas the first two types of knowledge are fairly uncontroversial, it is the third type of knowledge that is more complex. Traditionally defined as ‘justified true belief’, knowledge-that has three essential components: (strong) belief, truth and (suitable) justification.

Each of these is necessary, and jointly they are sufficient, for knowledge. In other words, if one were missing, it would be a conceptual error to speak of ‘knowledge’. This definition has been challenged in recent years, mainly with regard to the sufficiency of the three conditions (Gettier 1963: 121-123; see also Bernecker & Dretske and Sosa & Kim passim). While it is beyond the brief of this article to make a substantial contribution to the debate, a contextual

2. Characterizing knowledge-that as ‘more complex’ is not meant to imply that it is more fundamental than, say, knowledge-how. The complexity refers to our understanding of the concepts in question.
account of knowledge and justification – as it is presented here – may go some way towards addressing certain of the objections. Either way, it is worth noting that there is general agreement that (propositional) knowledge requires truth.

‘Belief’ is its subjective component, while ‘truth’ constitutes the objective anchor for knowledge. While beliefs may vary from individual to individual, society to society, culture to culture – and indeed in terms of strength and duration – truth does not so vary. Truth refers to what is the case, independently of what individuals believe, think or feel may be the case, independently even of public or general consensus. The third component, ‘justification’, has a kind of bridging role between the subjective and the objective, between belief and truth. The justification component is multifaceted. Thus, what counts as suitable justification is determined by degree, kind and context of justification.

Degree and kind of justification, and ‘authentic assessment’
As far as the requisite degree of justification is concerned, minimal justification is clearly not enough, while conclusive justification is usually not available. Normally (other than in mathematics and deductive logic) we accept justification that is less than conclusive, i.e. reasons that are nonetheless compelling. Different kinds of justification include observation, sense experience, introspection, memory, oral and written testimony and deductive and inductive reasoning. The present account of suitable justification bears on the attribution of knowledge insofar as it concerns both self-ascription and other-ascription, the framing question being: ‘Under what conditions can I/others be said to know?’ There is a parallel here between knowledge attribution and both self- and other-assessment. ‘Authentic assessments’, according to Goodwin and Macdonald are often described as meaningful and comprehensive measures of what learners know and are able to do. ... [They] are characterized by continuous observations of learning, depth and breadth of response, cycles of revision and refinement, students’ engagement in self-assessment, and connections between what is being assessed and real-world issues and questions. ... Authentic assessment begins with teachers making it their business to purposefully watch, listen to, talk with, and think about the children in their classrooms. By observing, recording, informally monitoring, conferencing with, and interviewing their students, teachers initiate an ongoing process that uncovers who learners are and what they know, and that leads to opportunities for teachers and children to build shared language, meaning, and beliefs. (Goodwin & Macdonald 1997: 211, 223)

These sources of what Goodwin and Macdonald refer to as ‘holistic assessments that ... enable children to demonstrate learning by integrating and applying knowledge and skills to real-world tasks’ (Goodwin & Macdonald 1997: 223 fn. 1) are similar to sources of justification, i.e. on the basis of which educators ascribe knowledge to their learners and students – and, indeed, on the basis of which we ourselves can claim to know.

Knowledge, justification and the ‘social’
Stewart Cohen’s verdict that the ‘social component [of knowledge] is best seen as indicating that attributions of knowledge are context-sensitive’ (Cohen 1986) is related to what Israel
Scheffler (1965) says about the suitability of justification³. Scheffler argues that the idea of *suitability* is

a matter of appraisal, involving standards of judgment that may differ from age to age, from culture to culture, and even from person to person. The variability of such standards does not, however, imply that assessments of knowledge are arbitrary or that the would-be assessor is somehow paralyzed. He needs to assess in accord with his own best standards at the time, but he may hold his assessment subject to change, should he later have cause to revise these standards. (Scheffler 1965: 57)

These standards may be applied more strictly in some cases, more approximately in others, ‘thus giving rise to multiple interpretations of knowing’ (Scheffler 1965: 58). Thus, the justification component permits some kind of leeway. What counts as suitable justification in the case of a young child/learner or person from a remote rural area, with limited opportunities, resources or access to information, differs from that required of an older, more mature child or learner or person from an industrialized, technologically advanced/privileged, urban background. ‘As the child grows’, Scheffler notes, ‘and as his prior learning takes hold, his capacity increases, allowing us to tighten the application of our standards in gauging his current performance’ (Scheffler 1965: 57). So, with this growth in the child’s cognitive capacity, ‘the same subject may thus come to be known under ever more stringent interpretations of known’ (Scheffler 1965: 57). Yet, in all the various cases, the justified belief must be true. In the absence of truth, one cannot meaningfully speak of, or ascribe, knowledge. Scheffler suggests a subtle shift from examining beliefs to examining the *contexts* in which beliefs are advanced as knowledge-claims. In other words, he suggests that we distinguish the question concerning justification (of a belief) from the ‘question of appraisal of the believer’ (Scheffler 1965: 64). ‘To speak of the right to be sure is, in the present context, to appraise the credentials of belief from the vantage point of our own standards; it is to spell out the attitude of these standards toward specific credentials offered for a belief’, Scheffler contends⁴ (Scheffler 1965: 64).

Like Scheffler, Cohen argues that the suitability of justification, or having good reasons, depends on the relevant epistemic community. He advances his argument through an analysis of what it means to have good reasons for believing something. The concept of *defeasibility* is crucial to Cohen’s argument. One believes something is *defeasible* if there is something else that could count against it, i.e. something that could *defeat* it or undermine its feasibility. According to Cohen, we can say that someone (like a six-year-old) has good reasons if, given her reasoning ability, it is (epistemically) permissible for her to believe that something is the case. In Scheffler’s words, we would be inclined to apply our standards of justification more leniently in the case of the six-year-old and more strictly in the case of the sixteen-year-old.

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³ Scheffler initially refers to ‘evidential adequacy’, a notion he later abandons in favour of that of ‘the right to be sure’. I take ‘justification’ to be more comprehensive than ‘evidence’ and to be consistent with the notion of the right to be sure.

⁴ The notion of ‘the right to be sure’ is AJ Ayer’s (Ayer 1956).
The important point for educators is that what counts as a good reason depends on who is giving the reason and in what context. One of the responsibilities of an educator is to assess learners’ knowledge in a way that is sensitive both to their level of understanding and to the context of assessment. Another (related) responsibility is to develop learners’ grasp of the intersubjective standards of different learning areas – or, in Cohen’s terms, to help learners move from a level of reasoning that provides subjectively evident grounds for believing something to a level that provides intersubjectively evident grounds for belief.

The concept of having good reasons is not without ambiguity. A person can have subjectively good reasons (i.e. reasons that are clear and convincing to her, given her level of understanding) or intersubjectively good reasons (i.e. reasons that are clear to her and that comply with the standards of reasoning of the social group to which she belongs). How are these different applications of justification relevant to the concept of knowledge? When is an educator entitled to say that a learner knows something (in the sense of knowing that)? To put the question more formally: Under what conditions may an educator attribute knowledge to a learner? According to Scheffler, when we judge that someone possesses suitable justification, we are judging that he possesses reasons the quality of which he understands. In saying he knows, we are not merely ascribing true belief but asserting that he has proper credentials for such belief, the force of which he himself appreciates. (Scheffler 1965: 74)

Scheffler’s and Cohen’s arguments imply that even if a learner has subjectively good reasons for believing something to be true, she does not have knowledge unless she also has intersubjectively good reasons (and, of course, unless her belief is true). One of the tasks of an educator will be to assist learners to acquire the relevant concepts and intersubjective standards of justification. To repeat, I am not talking about perfect reasons: I am talking about good reasons. An important feature of what constitutes good reasons is that they are reliably produced. If reasons are unreliably produced, they cannot function as justification for one’s belief(s). What does ‘reliably produced’ mean? For one thing, one’s sense experiences must be reliably connected with the world, one’s sense organs must be intact, and so on. For another, one’s reasoning must be correct. This analysis of good reasons indicates why reference to them is context-sensitive. Neither our reasoning nor our sense-experiences are infallible. Nonetheless, if they are generally reliable sources of justification, the reasons they produce might be called intersubjectively certain. As Cohen says: ‘Reasons can be permissible grounds of belief, relative to that standard, even though they are not ideally correct’ (Cohen 1986: 575).

If reference to good reasons is context-sensitive, does this mean that the criteria for knowledge-ascription change with the particular social group? Is knowledge itself relative? In Plato’s cave parable, whatever the enlightened person knows about ‘reality’ stands in stark contrast to the (majority) view that what the prisoners in the cave claim to know is reality. Does this indicate that knowledge is ambiguous between various concepts, each based on a different standard? Is this knowledge context-dependent? Scheffler’s and Cohen’s arguments suggest that it may be better to say that attributions of knowledge are context-
sensitive. This is because the term context-sensitive does not offer an open invitation to epistemological relativism.

Epistemological relativism and relativism about truth
What are epistemological relativism and relativism about truth? In a nutshell, relativism about knowledge and truth denies that there can be any objective knowledge or truth that is not dependent on some specific social or historical context or conceptual framework. Ernst von Glasersfeld, in defending what he has called ‘radical constructivism’, asserts:

There is no simple argument to justify the distinction between experiential reality and ontic reality. ... As a constructivist, I have never said (nor would I ever say) that there is no ontic world, but I keep saying that we cannot know it. I am in agreement with Maturana when he says: ‘an observer has no operational basis to make any statements or claim about objects, entities or relations as if they existed independently of what he or she does’. (Von Glasersfeld 1991: §17; see Maturana 1988: 30, as well as Von Glasersfeld 1995)

He says that he, too

arrived at this conclusion, albeit by a path quite different from [Maturana’s]: I started from the sceptics, he from biology. The crucial point is that we do not make claims of knowing what exists ‘in itself’, that is, without an observer or experiencer. ... And as far as our knowledge ... is concerned, I claim that we cannot even imagine what the word ‘to exist’ might mean in an ontological context, because we cannot conceive of ‘being’ without the notions of space and time, and these two notions are among the first of our conceptual constructs. (Von Glasersfeld 1991: §18)

Willard Van Orman Quine and JS Ullian concur that an ‘observation is made by an individual’. However

the truth of the observation sentence is an intersubjective matter. Here a favorite old irrationalist doctrine finds both its seductiveness and its rebuttal. The hoary view contends that truth is relative to believer; there’s truth for me and truth for you, and their reconciliation is generally neither possible nor desirable. Now the variable ownership of acts of observation might be cited in support of this doctrine ...; but which observation sentences are true will not depend on either of us nor on any other observer. (Quine & Ullian 1978: 28)

The ‘hoary view’ or ‘irrationalist doctrine’ Quine and Ullian are taking on in the passage from which the quote is lifted is relativism about truth. To be a relativist about truth is to maintain that there is no universal, transcultural or objective truth, that ‘truth’ is in the eye of the beholder, or in the mind of the believer: it differs from individual to individual, from society to society, from culture to culture. In other words, truth is particular or relative to a specific personal, social, cultural, historical or geographic context.

The defence of relativism draws on the central role that Quine and Ullian, and others, have accorded to observation, with regard to belief systems and knowledge formation. Observations are made by individuals, and ‘the ultimate evidence that our whole system of belief has to answer up to consists strictly of our own direct observations – including our observations of our own notes and of other people’s reports’ (Quine & Ullian 1978: 21). Given, furthermore, that our observations differ, does this not imply that the truth(s) that we access by means of our observations will differ? No, say Quine and Ullian: our observations may
indeed differ – they may either contradict each other or they may be of different aspects of
the same object – but what is actually the case, what is true, does not depend on these obser-
vations, nor on any observers.

‘Truth is relative to believer’. Is this truth (if it is that) also relative to believer? If so, why
should it impress others? If not, then there exists at least one truth that is not relative.

‘There’s truth for me and truth for you, and their reconciliation is neither possible nor desir-
able’. Is this my truth? Or is it also your truth? If the former, why should it impress those who
hold a different view of truth? If the latter, this indicates that reconciliation is possible – yet,
again at the expense of relativism and in favour of universalism.

Either way, relativists will be caught up in paradox, in a logical conundrum. At some point,
they will want to claim that their statements about the relativity of truth are, in fact,
universally (i.e. non-relatively) true – which sthey cannot do consistently, given their
relativism. If anything, Von Glasersfeld’s characterization of ‘scientific truth’ as requiring
the ‘separation of metaphysical beliefs and convictions, which purport to reflect an onto-
logical reality, from rational/scientific knowledge, which is given an instrumental function in
the living organisms’ management of their subjective experiential reality’ (Von Glasersfeld
1991: §48) achieves the opposite of what is intended. It provides no means for distinguishing
between scientific truth and superstition.

Moreover, if ‘an observer has no operational basis to make any statements or claim about
objects, entities or relations as if they existed independently of what he or she does’ (Von
Glasersfeld, 1991: §17; see Maturana, 1988: 30), how can the observer claim that these
objects’ existence depends on what they do? How does Von Glasersfeld know that we cannot
know the ontic world? What he refers to as the ‘original seed of constructivist ideas’,
‘undoubtedly the sceptics’ realization that we can have no certain knowledge of the real
world’ (Von Glasersfeld, 1991: §7), is problematic in that sceptics cannot claim to ‘know’ or to
have ‘realized’ this. Similarly, the ‘sceptics’ irrefutable proposition that the truth of what we
would call “knowledge of the world” cannot be assessed or demonstrated because the “repre-
sentations” of which it is supposed to consist can never be compared with what they are
supposed to represent’ (Von Glasersfeld, 1991: §48) cannot, for reasons of consistency, be
taken as ‘certain knowledge of the real world’. Nor can it be taken as reflecting ‘experiential
reality’, given that ‘the sceptics [have] demonstrated quite irrefutably that the senses are
fallible’ (Von Glasersfeld 2003: 297, 298). It follows that Von Glasersfeld and the sceptics
cannot both construct their cake and eat it.

In addition to problems around relativism, if each individual constructs her own knowledge,
it is ultimately unclear whether teaching and assessment are possible at all. What would be
the basis for individual assessment? Against whom or what would the individual learner be
assessed? Given that standards, too, would appear to be individual constructs, the assessor
simply could not be certain that her standards would fit the reality, knowledge and ‘truth’ of
the learner.
How is all this to be applied to the discussion of local knowledge? There may be a sense in which knowledge of the familiarity or acquaintance type can be ‘indigenous’. ‘Indigenous’ South Africans could be said to have such knowledge of their traditions, customs, myths and folklore, and the San have such knowledge with regard to the terrain in which they live, which is uniquely and distinctly theirs. Similarly, the notion of ‘indigenous practices’ or ‘indigenous skills’ appears to make sense – like pottery or weaving practices, or architectural and design skills. But does the idea of ‘indigenous’ knowledge make sense when applied to the third type, factual or theoretical knowledge? I would suggest that everything depends on the truth condition. The idea of ‘indigenous beliefs’ is certainly plausible, and there may well be some leeway with regard to justification, to enable greater leniency in assessing (the justification for) Ju’hoansi knowledge claims and greater stringency in assessing those of university graduates. But could there be ‘indigenous truth’, could there be (an) African truth that is different from ‘Western’ truth? If the answer is yes, there are two problems. The first is that of superstition. Anything that is honestly and (more or less) justifiably believed and advanced as a knowledge claim could count as truth. There would be no way to distinguish between knowledge and superstition. The second problem is that of relativism. If knowledge and truth did differ from individual to individual, society to society, culture to culture, then it would be impossible to pass judgement on another’s knowledge claim. Moreover, in order to decide what is true or false, one would merely have to consult the beliefs prevalent in one’s own society. Finally – if one thinks especially about standards over time, across subjects and across learning pathways – one could not really say whether any progress has been made in a society, in terms of advancement in knowledge and superstition. (Think of the views of a ‘flat-earth’ society or of Plato’s cave-dwellers in all these instances.) Nor could one meaningfully speak of (standards-based or outcomes-based) educational ‘reform’. The deeper problem is that relativism about knowledge and truth is expressible only as knowledge claims or as stating a truth – which would be, at best, not very compelling or, at worst, incoherent.

Concluding remarks
To sum up, there are several questions one might ask that bear also on the plausibility of applying the formula ‘everything is relative’ in discussions about assessment and educational standards, with regard to the ‘hoary’ conception that concerns the status of truth. Is truth (e.g. facts about the shape of the earth) relative? Does it differ from culture to culture, from society to society and even from individual to individual (as in ‘What is true for you may not be true for me’)? Or is what may differ from culture to culture not truth but beliefs? At this juncture, one may stop to think about why beliefs are referred to as the ‘subjective’ component of knowledge and truth as the ‘objective’ component. Can one compare and evaluate different beliefs and belief systems? Do we have recourse to an objective framework of reference? Finally, is it true that truth is relative? It is also worth noting the implications of this for the status of knowledge. Truth, after all, is a necessary condition for knowledge, as are belief and justification. Philosophically, therefore, does it make sense to speak of true knowledge or legitimate (or valid) knowledge? Can there be any
other kind of knowledge other than ‘true’ and ‘legitimate’ or ‘valid’? It would appear that these qualifiers are redundant here. They are already, necessarily, embedded in the concept of knowledge. Moreover, does it make sense to say that knowledge is ‘relative’? Or is what may differ from culture to culture, from society to society, from individual to individual, again either beliefs or the level (or standard) of justification required or expected? Clearly, the trick for the epistemological relativist is to avoid advancing his thesis as anything other than a non-relative knowledge claim. If he presents his epistemological relativism as a piece of universal knowledge, he can be accused of inconsistency. Yet, if he does not, it is unlikely to convince non-relativists – just as realists would be unfazed by the construction of radical constructivism.

By contrast, the term context-sensitivity indicates that the standards of knowledge- attribution and of assessment may be determined by (1) the context of attribution/assessment and (2) the intentions of those who attribute or ascribe knowledge and who are involved in assessment. It does not imply that truth, and with it (the concept of) knowledge itself, is relative to a particular standard, unstable or changing.

Where does all this leave the notion of indigenous knowledge? If the important term here is ‘indigenous’, then it refers either to indigenous practices, or skills, or to indigenous belief(s). On the other hand, if it is actually meant to refer to ‘knowledge’ in the factual or propositional sense, then the idea of ‘indigenous’ knowledge simply fails to make sense. What we are dealing with here is knowledge as such.

People do not all have the same cognitive resources, skills and opportunities; they do not act or operate free of time constraints. Their situations are characterized by different levels of expertise, by different opportunities for information gathering, by different levels of cognitive maturity and training and by severe time constraints. As Alvin Goldman cautions, a ‘social epistemology for the real world needs to take these constraints into account’ (Goldman 1992: 223). If the present analysis is plausible, it arguably enables an understanding of the importance of context, in terms of both attribution and provision of knowledge, as well as of assessment, without allowing the emphasis on relevance to erode any commitment to transcultural standards.

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References

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