Prologue: The essentialist paradox in intellectual discourse on African languages

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Background

The end of colonialism and the political independence of the former European colonies in Africa stimulated a constant debate, in both Africa and expatriate ‘development expert’ circles, on the ‘language question’ in the African postcolonies. Two issues dominated this debate: first, national language policy regarding which language or languages were to be given ‘official language’ status, particularly in constitutional documents, and second, whether or how indigenous African languages were to play any role in the national system of formal education in cases where the ‘official’ language of the country was not an indigenous African language. The basic choices lay between

• monolingual or multilingual options, that is, allowing one or possibly more than one language to become ‘official’ language(s) and to be used in formal education; and

• exoglossic or endoglossic strategies, that is, opting for imported foreign (usually ex-colonial) or indigenous African languages, with combined exo- and endoglossic solutions as a third option.

More than half a century after independence for most African countries, this debate is still haunting intellectual and political discourse, mostly in the often highly ideologised semantic contexts of ‘development’ and ‘globalisation’.

A case in point is a recent review article by Aceme Nyika, entitled ‘Mother Tongue as the Medium of Instruction at Developing Country Universities in a Global Context’ and published in the *South African Journal of Science*. The salient points raised in that article were lucidly topicalised in the journal’s ‘Highlights of the latest issues’, as follows:

Vernacular languages as the medium of instruction at universities: Are we shooting ourselves in the foot?

Use of various vernacular languages as the medium of instruction at universities in South Africa could inadvertently limit the ability of graduates to participate in mainstream national and global economies.
This limitation could affect even the best graduates, according to a recent review by Nyika. Universities in developing countries should foster development of knowledge-driven economies through production of graduates who are competitive, not only in certain provincial or national localities, but across the globe. Although international use of English and French can be attributed to colonisation, spending scarce resources in efforts to replace colonial languages with vernacular languages, whilst politically plausible, may be at the expense of socio-economic development. This socio-economic development is much needed within previously disadvantaged populations – most of whom are trapped in a vicious cycle from poverty through inadequate education and skills to limited participation in national and global mainstream economic activities, which in turn perpetuates poverty from generation to generation.

The first part of this prologue points to the dishonesty inherent in mainstream intellectual and political discourse, which rests on an essentialist paradox regarding the value of African languages. Using Nyika’s review article as a starting point, the second part highlights some of the most basic misunderstandings concerning the use of African languages in higher education from a sociolinguistic and pedagogical perspective.

What is the issue?

Given the crisis, if not outright failure, of monolingual and mostly foreign-language-based education across much of Africa, focus in both research and political discourse is shifting towards multilingual models, in particular mother-tongue-based bilingual (or, if necessary, trilingual) education. It goes without saying that English (or any other ‘global’ language) must be part of such multilingual models. The controversial issue in largely uninformed quarters is whether indigenous African languages should play a role in formal education at all and, if so, how and to what extent. Most controversial is the question of whether these languages could have any value beyond the initial stages of literacy and numeracy in lower primary school. On the other hand, the science-based position of experts in linguistics and pedagogy is crystal clear: mother-tongue-based education, whether monolingual or multilingual, provides the most effective, most efficient and most sustainable educational model for successful teaching and learning, including the better learning of a foreign language such as English. It has been established by global research that at least six to eight years of additional/foreign language teaching and learning are required to successfully use any additional/foreign language for knowledge transfer and deep learning. Therefore, the primary education cycle alone would not provide enough time and opportunity to achieve sufficient mastery of an additional/foreign language in order for this language (for instance English) to be meaningfully used as medium of instruction. This fact, however, has not yet entered general discourse
on reasons for underperforming education systems in Africa, nor has the fact that even the mother tongue (home language) of the child must be developed well enough before it can be used successfully to acquire a second language.

Hypocritical discourse

In Africa in general, and in South Africa in particular, intellectual and political discourse on the role and value of indigenous African languages in contemporary African societies is markedly characterised by dishonesty, if not hypocrisy. This is only too obvious when one looks at the high status given to indigenous African national and/or official languages in constitutional documents on the one hand, and the question of which language(s) to use for teaching and learning in formal education on the other. The issue becomes most dramatic when the focus is on higher education, in particular at university level. As a matter of fact, any use of indigenous African languages beyond lower primary level is regarded as suspect and is met with a host of negative attitudes. This is the case in African societies as much as in expatriate ‘development expert’ circles, with both quarters mutually enforcing their likewise scientifically uninformed position. On the African continent, South Africa is comparatively advanced (post-revolutionary Ethiopia being the closest comparison) in terms of politically acknowledging and dealing with the fact of inherited territorial multilingualism. It has come up with constitutional and other legislative and administrative measures to accommodate this fact, providing an illuminating example of the overall African situation as well as an interesting case study.

History of linguistic hegemonies

There is no doubt that when we discuss the ‘language question’ in Africa, we address both the fatal rivalry between indigenous African languages and imposed non-African languages and the basically racist discrimination between ‘inferior’ and ‘superior’ languages. We thus have to revert to the heritage of European colonialism and the history of both European and Arabo-Islamic hegemony in Africa. Yet, half a century after most African colonial territories have gained independence from European colonial domination, and 20 years after the final liberation of the continent by the overthrow of the apartheid regime in South Africa, we may ask whether this has not been time enough to ‘decolonise the mind’ (Ngugi wa Thiong’o) and start being honest in addressing the continent’s linguistic heritage, both indigenous African and foreign.

Arabo-Islamic invasion since the seventh century CE and European colonialism (the latter twinned with persistent Christian missionary activities) from the sixteenth century CE have sustainably imposed hegemonic non-African languages over vast parts of the continent, affecting considerable sections of African populations both north and south of the Sahara. Arabic was imposed on Berberophone populations in the northern parts of Africa and on various ethnolinguistic groups in north-eastern Africa, particularly in Sudan. South of the Sahara, Dutch, English, French, Portuguese, Spanish, German and Italian
have played – and some continue to play – hegemonic roles as former colonial or present official languages in many of the African postcolonies. This hegemonic dominance of European languages is hardly ever (South Africa being a notable exception) required because of the existence of a large number of native speakers of these languages in the countries of sub-Saharan Africa.

Independence and the establishment of postcolonial African governments some 50 or more years ago brought no changes regarding the inherited colonial language policies, with only rare exceptions, some ending in disastrous failure (as in the case of Sékou Touré’s Guinea), some with sustainable success (as in the case of Julius Nyerere’s Tanzania and the establishment of Kiswahili as national official language). Imperial Ethiopia, not having been a European colony, for long periods followed its own hegemonic yet endoglossic strategy by imposing Amharic, the language of the ruling political-cum-religious class with strong ethnic underpinning, on the rest of a population speaking more than 80 different languages. In most ex-colonial African states, however, the language of the former colonial master persisted as very often the only official language, as ruled in the constitutions of the newly independent states. Indigenous African languages tend to be either not even mentioned in these constitutions, or they are given some vague status as ‘national languages’ with no practical relevance. Further, legislation on language(s) in Africa tends to be so full of escape clauses and exceptions that the non-implementation of the official language policy becomes the rule rather than the exception, as the eminent Nigerian sociolinguist Ayo Bamgbose has pointed out on several occasions. After 1994, Ethiopia and South Africa became the first countries to seriously reflect indigenous African multilingualism at a constitutional level other than just ruling an African language such as Kiswahili to be co-official with a European official language as in Kenya and, before that, Tanzania, English being the European language in both instances.

‘Superior’ and ‘inferior’ languages

Why the almost clandestine perpetuation of the colonial language policies in postcolonial Africa? The answer would appear to be very simple: because the new postcolonial ‘elites’, having taken over the colonial state by simply putting ‘black faces in white places’, as the late Neville Alexander deplored, share the belief with their predecessors in office that European languages (and Classical Arabic, for that matter) are essentially ‘superior’ and African languages essentially ‘inferior’. This shared belief, which is totally unfounded by the standards of modern linguistic science, relates, among others, to the obvious difference in terms of hundreds of years of writing. While European standard languages have long traditions of writing and creating a rich literature that are considered ‘proof’ of their being ‘superior’, indigenous African languages were and still are widely considered to be more primitive ‘vernaculars’ that are essentially unfit for creating comparable literature and for any type of high-level communication in the so-called high domains of science and philosophy, and therefore in education in general. No empirical proof has ever been produced to verify such claims.
which, quite obviously, are based on sociolinguistic ignorance and ideologically biased prejudice and cliché. The observation that – by historical accident – for centuries most indigenous African languages have not been written does not mean that they can’t be written. As a matter of fact, they have been written for sometimes more than 150 years in Roman script (like Yoruba and isiXhosa), and often for much longer in Arabic script (like Hausa and Kiswahili), if not for more than 1 000 years in their own abugida scripts like Ge’ez and Amharic. Thus the European standard languages of the former colonial powers were accepted on face value as ‘superior’, a simplistic belief strengthened by the equally simplistic notion that Western-type education (which formed the role model for the newly independent African states) was only possible via western-type languages. The brainwash effect of colonial education on African postcolonial ‘elites’ has resulted in their becoming self-propelling agents of neo-colonial linguistic and cultural imperialism. I hardly need to point out that there is, of course, no empirical evidence that some languages are better suited for teaching and learning than others. The success of teaching is, and this may come as a surprise to many, completely independent of the language that is being used as medium of instruction; it depends, first of all, on successful communication in class (in a language well mastered and shared by all); secondly, on the professional quality of the teachers; and thirdly, on the availability of adequate educational materials. It is plain sociocultural Darwinism and racism to blame ‘poor education’ in Africa on the use of indigenous African languages in class. On the contrary, it is only by reverting to the African languages shared by both the teacher and the learners that effective learning (and not rote learning leading only to mechanical verbal reproduction) becomes possible. African children and African societies cannot afford to wait until, by some miracle, all teachers and schoolchildren are perfectly proficient in English (or any other imposed language), so that education can be run exclusively through this language.

In Africa, however, the absence of sufficient and high-quality educational textbooks as much as the lack of high professional standards and specialised teachers for indigenous African languages, is blamed on these languages themselves, rather than on the incompetence and/or unwillingness of African governments to supply these much-needed tools for optimal education of the populations entrusted to their concern. This shift of blame is dishonest. It reflects ideology-based propaganda but not science-based judgement on how to design and run the best possible education system for an African country. In short, denying indigenous African languages, irrespective of their number of speakers, the potential and opportunity to function on an equal footing with European standard languages is nothing less than outright racism.

On the other hand, the term ‘African Renaissance’ is on the rhetorical agenda in ongoing intellectual and political discourse. Have the indigenous African languages, or has any language, for that matter, ever been considered worth a paragraph in any of the highbrow African Renaissance speeches of leading politicians and intellectuals? But how then, asked the late Neville Alexander, can we seriously conceive of ‘African Renaissance without African languages’? African leaders in their Sunday speeches pay lip service to the African languages...
as expressions of African identity and personality, as primordial vessels of African cultural heritage, yet in praxis want to see them shelved and archived in ethnographic museums together with collector's items such as ancestral drums, spears and lip-plugs. What is the value of cosmetically uplifting nine indigenous African languages to the status of official languages in the post-apartheid Constitution of South Africa, next to English and Afrikaans, if this was a purely symbolic action not meant to ever have practical effects on the ground? As yet no serious and sustainable legislative or administrative action is being taken to ensure linguistic equity, or to create opportunities for the nine indigenous African languages to reach equal status with English in terms of standardisation and use, particularly as languages of instruction throughout the system of formal education. Neville Alexander used to speak of ‘lip service’ by the elites in power; one might equally well refer to this as hypocrisy. For shallow reasons of political propaganda targeted in the post-apartheid period at establishing ‘one person, one vote’ democracy in South Africa, languages that had previously been considered ‘inferior’ were opportunistically uplifted to the constitutional status of ‘official’ languages – obviously with no intention to let this have any major practical effect on the sociolinguistic status quo. This, however, and contrary to all intentions of the Constitution, cements the pre-democratic privileges of the English- and Afrikaans-speaking sections of the population – a fact which, again in the words of the late Neville Alexander, creates ‘neo-apartheid’ to the sole benefit of those whose children enjoy privileged mother-tongue education. It perpetuates the disadvantaged situation of the masses of those mainly black students who are forced to struggle with proven ineffective and inefficient education through a foreign language – and, therefore, fail in great numbers or come out of the system underqualified and eternally frustrated.

The essentialist paradox

This is the essentialist paradox of the situation: indigenous African languages, the mother tongue or home languages of the vast majority of South Africans, are good enough to be given prominent status in the country’s democratic Constitution and to be evoked when African identity, personality and cultural heritage is considered to be at stake, but they are not good enough to be used to teach the majority of the country's children and students from kindergarten to university. If so, why then uplift these purportedly essentially ‘inferior’ languages to constitutional status? How can a language serve ‘official’ functions when it is not acceptable to use it to teach children beyond grade three? Such contradictions make intellectual and political discourse dishonest and hypocritical, not only in South Africa but across the whole continent. At its bottom lies uncompleted mental ‘decolonisation’ from the traumas of colonial and early missionary discrimination which undoubtedly rested on Eurocentric and basically racist prejudices and stereotypes. As the science of linguistics is able to show, all human languages are equal and up to the task of educating the new generations of their speakers, no matter how different the languages
may be in terms of grammatical structures and vocabulary. They differ most, however, in the chances history and politics give them to fulfil this task in their societies.

Four basic misunderstandings

Taking issue with a recent contribution to the ‘language in higher education’ debate, this section will outline some of the most widespread objections to the use of African languages, in general and at university level in particular, and respond to them by identifying four basic misunderstandings that underlie the negative attitudes in non-expert circles towards African languages in higher domains of usage.

Aceme Nyika’s article, mentioned at the beginning of this prologue, lucidly re-explores widely shared aspects of the overall negative attitude towards indigenous African languages in higher education. Fears relate to the ‘potential [negative] implications of using vernacular languages as official languages of instruction at universities’, namely, according to Nyika,

in terms of (1) the performance of university students, (2) innovation, (3) employability of graduates produced by universities, (4) ability of universities to compete nationally and globally, (5) ability of universities to contribute towards national and global socio-economic development, (6) chances of previously disadvantaged groups to participate in and benefit from the mainstream economy, (7) choice of vernacular language, (8) use of local vernacular languages at universities as a ‘postponement’ of rather than a solution to challenges associated with indigenous students learning in an international language and (9) efforts to preserve local vernacular languages.

Nyika’s softly spoken polemic against the introduction of, for instance, African languages through secondary and into tertiary education in developing countries in general and in Africa, with a focus on South Africa, in particular, adds no real facts to the fundamentally political and ideological issue of pro and con the empowerment of indigenous (African) languages. Thus, the article remains caught in a number of well-known and widespread misunderstandings of socio-linguistic facts and observations which have prevailed in – mainly African – postcolonies since the bygone days of colonial rule and apartheid. Interestingly, the issue is never raised as to why this should be such a matter of concern and fervent dispute in Africa and not, for instance, in Asian countries with a comparable colonial past: who there would question the natural role that Hindi, Thai, Korean, not to speak of Japanese and Chinese, must play in the education of globally competitive university graduates? The negative general attitude of many African intellectuals against African languages has almost no parallel in other parts of the world.

Reviewing a list of constantly repeated ‘arguments’ against the use of African languages in post lower primary education, Nyika’s position is that of simply
perpetuating British colonial practice. This position remains unaffected by the results of half a century of empirical sociolinguistic and pedagogical research in Africa and elsewhere. Also, practically all Nyika’s arguments can be falsified by reference to one basic misunderstanding, namely that of the either-or fallacy, which will be addressed here together with three related fallacies that are also implied in Nyika’s paper. It is only fair to point out that Nyika is not alone in taking such an uninformed and largely ideological position on a matter in which he apparently has little or no expert knowledge as a sociolinguist or educator. He shares this with a large number of scholars from the social sciences and economics (not only in Africa) who likewise tend to lack sociolinguistic competence, in particular with regard to the highly complex linguistic situation in African countries, but still utter strong statements on sociolinguistic and educational issues. This observation links up with a ubiquitous psychological fallacy that is involved here as well: the fact that we have all been subjected to formal education and that we speak one or more languages does not make us automatically experts on educational or linguistic matters. In order to be taken seriously, discourse on sociocultural modernisation and transformation, economic development and quality education, not only for the postcolonial class of the new elites but also for the hitherto underprivileged masses, must be comprehensively informed. This would include professional expertise based on solid research from enlightened Applied African Sociolinguistics, Second Language Acquisition Studies, and Pedagogy. Uninformed individual opinions from whatever quarter of stakeholders provide no solid basis for discussion.

Misunderstanding 1: the ‘either-or’ fallacy
The strong ideological position assumed by anti-colonialist independence fighters and early post-independence anti-imperialist activists, namely to replace colonial languages with vernacular languages for obvious symbolic political purposes, has long since been put to eternal rest thanks to enlightened sociolinguists and educationists working in and on Africa.

For many years, and based on robust empirical research the world over, including in many African countries, the agenda has been and is mother-tongue-based bilingualism. This means that education systems in developing countries (as well as ‘emerging’ economies and the BRICS countries) must provide access to at least two languages in order to meet the goals of twenty-first century, globally competitive education and its graduates: (i) a language of optimal learning and individual intellectual and cognitive development, and (ii) a language of social and professional upward mobility and global economic interaction (which is also a language of science, established global knowledge and rich educational literature). Only in exceptional cases are these two languages the same. This is the case only in those countries where a ‘global’ standard language is the mother tongue of the majority of the students, as is the case in most Western countries; in Africa, this applies to only the (ex-)colonial languages.

Note that so-called developed countries, which are often former colonial powers who naturally tended to establish their education systems as hegemonic
in the colonies, share a rare sociolinguistic feature: for centuries and by internal hegemonic strategies, they have forced (and often not very successfully) linguistic homogenisation upon their originally linguistically diverse populations in their attempt to create a monolingual European-type ‘nation’ (one state – one nation – one language), while in practice allowing informal and unofficial bilingualism between ‘vernaculars’ and the national ‘standard’ language to be used in school. Officially and ideologically, however, they consider themselves monolingual. Interestingly, this is exactly the pattern that we find in most African schools, where good teachers reach their students through the common language, irrespective of and despite the official policy to use the foreign second language that is the official language of the country.

Misunderstanding 2: the ‘The longer the better, the earlier the better’ fallacy
This assumption, even though shared by most non-experts in language-in-education matters, has no foundation in empirical educational research. It is not time of exposure that matters in language acquisition; it is the quality of teaching. If, and legitimately so, acquisition of English or any other language of non-African provenance were among the top priority targets of formal education in Africa, the decisive factor for success would be, first, the linguistic and pedagogical qualification of the language teachers. The second crucial factor would be the linguistic habitat of the students – whether English or any other additional language played any role outside the classroom and the school compound. Teaching English to children who have practically no opportunity or reason to use it outside the classroom will be less successful than teaching it in routinely bilingual, mainly urban contexts in which English figures in both peer group and family.

Language teachers in African schools are hampered by inadequate training in at least two respects: (i) practical proficiency in the language of teaching, and (ii) lack of specialised instruction regarding how to teach a ‘foreign’ language as a second or additional language to students who do not have previous, let alone mother-tongue, competence in this language. In most African schools, English, for instance, is taught according to the colonial model as if it were the mother tongue of both the teachers and the students – which simply is not the case. This strategy works in the largely monolingual (ex-colonial) motherland of the language and is characteristic of so-called developed countries; it doesn’t work in the African postcolonies where practically no mother-tongue populations of the ex-colonial language exist (South Africa being an exception in Africa, as pointed out earlier).

Misunderstanding 3: the ‘Teaching content helps to acquire the language of instruction’ fallacy
This assumption is a sister to the ‘The longer the better, the earlier the better!’ myth and is equally wrong. In other words, in order to acquire an additional language, students must be taught that language – and not maths or geography
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through that language, in the naive hope that somehow the exposure to new content matter will eventually and mysteriously also increase linguistic competence in the new language. Rather, the link between language of instruction and content matter is the following: the examination marks given, for instance, in Maths and Science as taught through – let’s say – English do not reflect the students’ grasp of the content matter, but simply their proficiency regarding English. Marks for content subjects tend to regularly turn out to be marks for language competence in the medium of instruction. Empirical evidence for this abounds across all developing countries, and beyond.

Misunderstanding 4: the ‘total immersion’ fallacy

This is also linked to the two preceding myths. Reckless immersion into a foreign language education system will, admittedly, leave a few survivors (educationists know that there will always be some survivors, no matter how poorly a system performs – many of the present members of the African ‘elites’ are such survivors). Most learners, however, will drown. The existence of educational ‘survivors’ provides no argument in favour of the system since it neglects the majority of those who didn’t make it. Education must proceed from the known to the unknown, language must be taught through language, and foreign languages are best taught through a familiar language in the early stages of acquisition. Research has clearly shown that between six and eight years of professional foreign language teaching are needed before this language can be used profitably to acquire new knowledge in terms of content matter. This applies to education under ‘adequate external conditions’. This is hardly ever the condition anywhere in Africa, so how much longer would African children need to be exposed to foreign language teaching before they can profitably use this foreign language for learning? Clearly, even the whole primary school cycle is not enough. African children are, as a rule, forced to exit their mother-tongue medium of instruction after only two, or maximum three years and continue their studies in English, which immediately results in a dramatic failure of teaching and learning. That is why many teachers in Africa revert to using mother tongue most of the time in class, except when representatives of the educational authorities pay a class visit.

The answer to the ‘language question’: mother-tongue-based multilingualism

What, based on robust scientific evidence, is then the solution? Two strategies are needed to overcome persistent African mediocrity in intellectual and academic matters which, in terms of output, cements African universities at the bottom end of the scale of cited academic publications and patented inventions in the sciences. First, African students need to be formally educated through their mother tongues (or any lingua franca which they have already mastered upon school entry) throughout all cycles of formal education, in order to make them globally competitive in individual, intellectual, cognitive and creative
development with their peers elsewhere in the world who are privileged by being educated through their own mother tongues. Second, African students need to be taught one or more globally relevant foreign languages by professionally equipped foreign language teachers in order to compete globally with their peers who have been exposed to professionally sound teaching of additional languages such as English. In so-called developed countries, the teaching of foreign languages is left to the secondary school cycle, with the primary cycle focusing on creating the necessary solid foundations of mother-tongue competence.

For both strategies, African education systems from pre-school to university are ill-equipped across the continent. Very few universities in Africa are involved in curriculum development and teaching programmes to intellectualise African languages so that it is possible to teach through African mother tongues and lingua francas at all levels of formal education. Curriculum development and teaching programmes to enhance the training of mother-tongue teachers are equally rare. African teachers remain devastatingly ill-trained to teach both African languages and foreign languages on a professional basis; the few who are able to perform according to international standards get drawn into private institutions for the benefit of the children of ‘elites’, thus creating a postcolonial class divide and a kind of neo-apartheid. This has detrimental effects on mass education and its direct impact on democratisation and the transformation of society.

In sum, decades of solid sociolinguistic and pedagogical research, particularly in developing countries, reveals that monolingual, exclusively foreign-language-based education systems have failed across the globe and will continue to do so: monolingual systems work only in monolingual countries. African societies are essentially multilingual and African students are, as a rule, individually multilingual when they enter school. They have learnt ‘on the streets’ to use different languages for different purposes, and they enjoy their linguistic resources, celebrating them in the form of highly creative lifestyle codes (Sheng, Nouchi, Sepitori, Isicamtho and Tsotsitaal, for example). English is just another resource in their linguistic repertoires. Forcing them to unlearn their African languages and reduce their multilingual competencies in favour of becoming secondary monolinguals in a language in which they never can become fully competitive with native speakers amounts to a counter-productive waste of human, intellectual, cognitive, creative and cultural resources. This is precisely what Africa and other developing countries cannot afford. Furthermore, in terms of global competitiveness, who wants a copy when one can have the original?

Nyika and others are right when they point out that there is as yet no empirical evidence to prove that the systematic use of African languages in (higher) education will yield the expected results of unleashing significant individual cognitive and creative potential and advancing competencies in the acquisition of a second (international) language. No African government and no African university has yet been daring enough to experiment with the extensive use of African languages in higher education – in addition, of course, to the official international language as required under the rubric of mother-tongue-based bilingual education. How can we know that it wouldn’t work if we haven’t even
tried it? All we know is that not doing it hasn’t worked. So, and since there is no risk of diminishing the role of English or any other global language in such bilingual systems – why don’t we try? Clearly, African universities are underperforming and will keep underperforming as long as they remain monolingual in a language foreign to the majority of their lecturers and students. Whichever African university is the first to be serious about implementing innovative mother-tongue-based bilingual education will possibly – and probably – become and remain for a long time the leading educational institution on the continent.

Note
1 The ‘Highlights of the latest issues’ (accessed online 17 February 2015, but no longer active) referred to the full review article by Aceme Nyika which was published in the South African Journal of Science 111(1/2): 33–37.