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Bridging between orthodox western higher educational practices and an African sociocultural context

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The cultural validity of a psychological or educational theory is a function of its sensitizing and heuristic power for a given task addressed by a given community. African universities have inherited from the West a number of institutionalized arrangements for learning that tend to decontextualize the learning process by extracting learners from everyday life. The challenge of adapting university education to the needs and aspirations of an African, postcolonial state is approached in this paper from a theoretical perspective on situated learning and participatory appropriation. A pedagogical rationale is advanced for student project-based learning, as affording students unique opportunities to test formal theories against reality; preparing them for practical challenges in the world of work; and inviting them to confront indigenous interpretations of experience. In addition, some projects incorporate a dimension of community service that facilitates public appraisal of universities as engaged and valuable resources for the wider society.

Introduction

The applicability of psychological and educational theories beyond the cultural contexts in which and for which they were originally designed has been a focus of debate in cross-cultural psychology for at least three decades. Writing from a Latin American perspective, Ardila (1982) pointed out that

> contemporary psychology shares all the characteristics of Anglo-Saxon culture: emphasis on adaptation, emphasis on function more than structure, dynamism, operationalism, evolutionism. Psychology is conceived in English, and for the most part considers problems relevant to Anglo-Saxon culture, specifically to North America. (p. 323)

But does this mean that it has no potential to illuminate behaviour and experience in other cultural contexts? In the case of Japan, Azuma (1984) identified four 'stages

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through which psychology apparently needed to pass', in order to establish its applicability, characterized initially by introduction by foreign experts, then translation and modelling, then indigenization, and finally integration. The third stage of 'indigenization' was an essential preliminary for psychology to 'get freed, to a certain extent, from the rigid, but otherwise unnoticed world of traditionally western concepts and logic' (Azuma, 1984, pp. 54–55). Given the international distribution of doctoral study programmes in psychology, many third world psychologists, especially in Africa, have received their advanced training abroad, and consequently face various problems in matching its orientation with the social context in which they are later expected to apply it.

In my view, the question of cultural applicability is best addressed through a dynamic perspectivist account of the relations among three different ways in which culture impacts on the form and content of theories of human behaviour and experience: the cultural context of the functioning of the subject (the person whose behaviour and experience are to be explained), the cultural background of the author of the explanation, and the cultural frame of reference of the audience to whom the explanation is addressed (Serpell, 1990). These three foci prioritize different conceptions of culture which can be evoked by the metaphors of culture as a womb, as a language or as a forum (Serpell, 1994).[1] Thus, 'in addition to its theoretical fruitfulness and its empirically predictive power, a psychological theory will always be judged by its capacity to resonate with the broader cultural preoccupations of the society of which its audience are members' (Serpell, 1990, p. 125).

Against this background, I take the view that the cultural validity of a psychological or educational theory is best conceptualized as

> a positive balance of benefits over costs for a given community at a given time engaged in a given task, where the sensitizing and heuristic power of a model outweigh the perceived narrowness of its focus and the extraneous connotations' (Serpell, 1990, p. 125).

In this publication, I advance an account of a particular curriculum construct in university education, known as the project assignment. I relate it to a body of theory that has arisen from attempts to interpret human learning and development in a variety of cultural contexts, arguing that it holds great potential as a resource for the institutional task of integrating various bodies of technical knowledge and understanding into an African society engaged in a process of planned sociocultural change.

Orthodox western higher education tends to decontextualize the learning process by extracting learners from everyday life into a detached mode of full-time reflection, with an emphasis on structured exercises and analytical review of authoritative disciplinary texts. This orthodoxy has been under critical review and progressive modification in western Europe and the USA (and in other 'western' societies such as Australia and New Zealand) for several decades. Thus it is no longer revolutionary to propose that a university curriculum should include projects that require students to engage in learning activities outside the walls of the academy, and many universities now award credit for such assignments. These changes, however, have not always

been justified to the wider public on explicitly pedagogical grounds. Rather they are often presented as a way of smoothing the transition from college into industry.

The alienating hazards of a socioculturally detached, text-based curriculum are accentuated in Africa by the remoteness of the factitious exercises and formal texts of the academy from the cultural practices of everyday life. In this publication, I argue that university education in Africa should attach special importance among its methods of instruction to project assignments, for a number of complementary reasons: to afford students an opportunity to test formal theories against reality; to prepare students for the practical challenges they will face at work after graduation; and to invite students to compare and, if possible, integrate academic theories and perspectives with indigenous interpretations of experience.

The next section introduces a theoretical perspective on intellectual development, situated learning and participatory appropriation. Within that framework, I then advance a pedagogical rationale for student-based learning, together with a scoping survey of such courses at the University of Zambia (UNZA), where I am currently Vice-Chancellor. I also briefly outline a service-learning project mounted at the University of Maryland Baltimore County (UMBC), where I was previously a Professor and Director of a doctoral studies programme in Applied Developmental Psychology, in which undergraduates engaged in after-school initial literacy tutoring for second-grade children at a nearby inner-city public school. I then step back to consider more broadly the challenges of adapting the western institution of university education to the needs and aspirations of a postcolonial state in Africa. Against that background, I present a case study of a service-learning project at UNZA that engaged undergraduates in various ways with enhancing the welfare of young children in nearby, poverty-stricken neighbourhoods. The final section considers, in the light of the two case-studies, the potential benefits of such projects in terms of societal, institutional and individual student outcomes.

Theoretical background

Conceptualizing intellectual development

Two popular metaphors advanced by western theorists for the process of education are education as growth and education as a journey (Kleibard, 1975; Serpell, 1993a). According to the metaphor of education as growth, the student is a plant, the teacher is a gardener, and the curriculum is a greenhouse. The goals of education are maturity, fruition, and health. Powerful though it is, this metaphor fails to afford adequate recognition to the agency of the student. According to the metaphor of education as a journey, the student is a traveller, the teacher is a guide or companion, and the curriculum is a map or a route. The goals of education are arrival at a destination, enjoyment of the journey, and adaptation to the new world into which the journey leads.

The theoretical perspective on human development on which I will draw derives from the work of several influential theorists. I interpret their interrelationship as a

progressive adaptation, incorporating and building on earlier complementary insights, rather than a parallel set of mutually incompatible, competing alternatives (Serpell, 1993b, 1999). As Piaget (1971) pointed out, from a very early age, humans reach out to grasp the world and adapt their way of grasping to the feedback they receive. Neisser (1976) noted that this idea can be melded with the perspective of James and Eleanor Gibson (1982), which emphasizes that the real world is structured in terms that afford various types of action by the human agent, and that our perception of those affordances is adaptive. Moreover, the adaptation of the developing human being to the physical environment is mediated by cultural systems of representation handed down by more experienced persons (Vygotsky, 1978; Cole, 1996). Each generation and each individual makes these systems of representation their own by adapting, expanding and transforming them, through participatory appropriation (Rogoff, 1990, 1993; Serpell, 1993c, 1998, Serpell *et al.*, 1991, 2005).

The cultural-historical school of thought in developmental psychology traces its origins to the writings of Vygotsky (1978) in the 1930s, and has been extensively elaborated since the 1970s by Cole (1996), Scribner (1985), Wertsch (1985), Valsiner (1987) and others. According to this perspective, human development involves the internalization by each generation of children of the meaning systems that inform their elders' cultural practices. Tharp and Gallimore (1988) explained how this theoretical perspective can be applied to the design of an educational system, by specifying the various dimensions of activity settings: the participants, the nature, timing, organization and location of the tasks, and the meaning the tasks have for the participants.

Situated learning

In the late 1980s, Jean Lave began to advocate a new approach to the study of situated learning (Lave & Wenger, 1991) and development, under the rubric of legitimate peripheral participation. Reacting against some of the artificiality of the formal arrangements for learning institutionalized in the western tradition of formal schooling, these authors have advanced an account of human learning as less about the process of receiving information and more about changing forms of participation in social practices. Their elaboration of the argument is grounded in an analysis of various forms of apprenticeship, which they selected as a context in which to observe and understand human learning, that can be found in many different cultural settings around the world, and that may be less systematically biased by western culture than the institution of formal schooling.

It is not without significance that Jean Lave's formative years in academia were spent studying apprenticeship as a form of educational practice in Africa. In a much-cited paper co-authored with Patricia Greenfield, she highlighted the way in which learning can best be understood as situated in the context of a particular cultural practice (Greenfield & Lave, 1982). Scribner & Cole (1981) advanced the same argument in their book *The Psychology of Literacy*, based on a multi-faceted study of three different literacies in Liberia: in the Roman alphabet used to encode the English language

taught in western-style public schools, in the Arabic alphabetic script and language of the Q'ran taught in Koranic schools, and in the indigenous Vai syllabic script taught on request by friends or neighbours in the village on an individual tutorial basis. These and other culturally situated studies have repeatedly called into question the universality of theoretical generalizations about the cognitive demands and consequences of time-honoured western cultural practices such as formal instruction and literacy.

During the second half of the twentieth century a remarkably standardized model of formal basic schooling has become institutionalized as a public service offered in countries all over the world. Serpell and Hatano (1997) contend that one of the distinctive features of this model of institutionalized public basic schooling (IPBS) is the principle of advance preparation. It is not at all clear that the rationale for this in basic education can be legitimately extended to university education, especially when we consider that increasingly the university aspires to attract into its curricula students who have already been at work for a number of years in the field for which they are now enrolling to study. Moja (2004), for instance, argues that in contemporary South Africa one of the major challenges to which higher education is expected to respond is that of addressing 'the requirements of new kinds of learners who are interested in pursuing their education in higher education', such as 'lifelong learners, mid-career training, those seeking to retool, and those acquiring skills that need to be continually updated' (p. 34). Similar changes in the learning needs of their student body have been reported by many higher education institutions in the industrialized countries of the northern hemisphere. For such students, higher education is expected to provide, not so much advance preparation for adult life as guided reflection on their prior experience, and opportunities to critique, reject or build on it for improved practices in future.

Other challenges facing the design of a socioculturally appropriate form of higher education in Africa are discussed in a later section of this publication.

Participatory appropriation

Viewing the development of learners from the perspective of their participation in cultural practices, Barbara Rogoff (1990, 1993), the present author (Serpell, 1993b) and others (Packer, 1993) have advocated for the term *appropriation* in preference to *internalization*, to capture the idea that membership of a community of practice is contingent on a sense of ownership of its cultural resources. More recently I have argued (Serpell, 2001) that this dimension of membership-ownership lies at the heart of the dilemma of enduring marginality described by Pierre Bourdieu in his influential analysis of social boundaries in the European academy (Bourdieu & Passeron, 1964). Even after mastering the technical forms and practices of the academy, according to Bourdieu, individuals whose primary socialization did not equip them with a sense of being an insider to the world of literacy remain conspicuously marginalized and alienated in the communicative nexus of the French academy.

Likewise, American city schoolchildren are more likely to master the demands of becoming literate if the intimate culture of their home endorses and promotes the theme of literacy as a source of entertainment and thus fosters children's intrinsic motivation to read, than if literacy is construed in their home culture as a difficult set of skills to be acquired through strenuous drill and practice. In the Baltimore Early Childhood Project (Serpell *et al.*, 2005) we found that the theme of literacy as a source of entertainment was relatively more prevalent in the homes of middle-class parents than in low-income, low-literacy families.

In Zambia, many university students originate from families in which literacy is relatively restricted,[2] and that rely on one or more of the indigenous languages of Zambia for expressing and sharing their practical understanding of the world. Given this background of primary socialization, I surmise that these students arrive at the University of Zambia with only a partial sense of ownership of the literate culture in which they have excelled at secondary school in the medium of instruction, which is English.[3] Their mastery of that culture is perhaps grounded less in the intrinsic motivation that arises from membership/ownership of the community of literate practices, than in a disciplined application of explicit study skills and attitudes. That explicitly studious perspective, while evidently effective for the immediate mastery they have achieved of the high school curriculum, may tend to encourage compartmentalization of the knowledge and understanding that students acquire at school, and thus insulate it from their more intuitive understanding of the world grounded in indigenous languages and beliefs. Project work has the potential to break down such isolation by engaging students' minds at both levels, the theoretical and the practical.

Student project-based learning

One strategy adopted by university curricula for bridging between social realities and the focus of the formal disciplines is the project assignment, in which a student is invited to apply aspects of his or her classroom learning to a selected topic in the real world.

As Fincher (2002) points out, one of the distinctive features of project work relative to other instructional formats of university studies is that it affords the students opportunities for situated learning: 'Students have to learn *differently* when doing project work. The (frequent) interdisciplinary nature of project work combats the artificiality of the regular educational setting. Curricula divisions often have to be abandoned. Project work is always contextualised' (p. 12).

According to Wrigley (1999), student projects as curriculum devices are distinctive in several ways. They are

- learner-centred
- inquiry-driven
- problem-focused

Moreover, they often involve learning by doing, that is, they are

- practical in character.

And in many cases they involve working in groups, and thus

- require collaboration.

Reflecting on why such projects may be of special utility to the transformational agenda of university curriculum development in Africa, I want to draw attention to their potential for

- bridging between the canons of the discipline and students' culture of origin,
- promotion of metacognitive awareness, and
- building relevance into the preparation of students for the demands of the economy in which they aspire to work after graduation.

The University of Zambia has a total of 50 departments distributed across the following 9 schools: Agricultural Sciences, Education, Humanities and Social Sciences, Law, Medicine, Mines, Natural Sciences, and Veterinary Medicine. Many of the departments offer one or more undergraduate courses that require the student to spend time in a setting outside the classroom making observations, and to report on what she or he learned in that context. The courses are typically pitched at an advanced level within the four to seven-year programme of studies leading to a Bachelor's degree, and the student must pass the course in order to graduate.

The learning opportunities that I am loosely calling student project assignments are structured in a variety of different ways across the various schools and departments, reflecting different disciplinary, professional and pedagogical traditions. In some cases, the activity in which the student is assigned to engage is called fieldwork or internship, while in other cases it is called an experiment, a survey, a moot court, action research, or service-learning.

The rationale for these courses is specified with varying degrees of explicitness in the School Handbook and/or the course syllabus. A scoping survey of a sample of these course descriptions from six of the University's nine schools[4] in 2005 revealed a mix of educational objectives including the following:

- application of theoretical concepts to the 'real world'
- integration of multi-disciplinary themes
- exposure to the demands and practices of industry

Each of these objectives can be unpackaged in a variety of different ways that have implications for assessment, and for the ultimate value the projects add to the overall curriculum.

The learning outcomes envisaged for a student engaged in application of theoretical concepts to the 'real world' include appreciation of the meaning of the theoretical concepts, of their explanatory power, of their limitations, and appreciation of the complexity of the real world. The outcomes envisaged for a student as a result of exposure to the demands of the workplace in industry include orientation towards a career in industry, detection of problematic or dysfunctional aspects of industries as

currently organized, and inspiration to develop new theoretical ideas for the interpretation and/or solution of problems and challenges confronting industry.

One global dimension of the design of project courses across many different fields and disciplines is whether the relationship of the university as an institution to the host community in which the student is placed is construed as one of scientific detachment or of social engagement. In my view, at this point in the history of university education in Africa, the need to demonstrate public accountability of the institution to the wider society is of paramount importance. The systematic development of university student project placements would therefore benefit from attaching some priority to optimizing the opportunities they afford for students to participate in the advancement of human welfare.

Although a student placed in industry has important responsibilities to perform as a member of the industrial workforce, he or she is also still a student, and the design of such placements needs to acknowledge this by spelling out the learning objectives of the placement. One of these is the cultivation of a reflective attitude towards the practical tasks undertaken as a professional member of the workforce. The concept of a reflective practitioner has been influentially elaborated by Schon (1983). Engineers, doctors, lawyers and teachers all stand to benefit from the adoption of a reflective stance on their professional practices.

Many large metropolitan universities in the USA and in Europe have recognized over the past three decades a new curriculum development challenge posed by the growing cultural diversity of the society that they aspire to serve, often compounded with divisions along lines of race and social class.[5] At the University of Maryland, Baltimore County (UMBC), the service-learning project entitled 'Nurturing developmental partnerships' (NDP) was conceived among a group of graduate students under my guidance as an attempt to connect their own professional training with some of the salient social problems confronting human development in the troubled society of inner-city Baltimore. The core concept was a cascade of mentoring relationships across multiple levels of the public education system, with UMBC graduate students mentoring undergraduates, as the latter provided after-school remedial tutoring to second-graders enrolled in an adjacent inner-city public elementary school. Care Udell's (2003) evaluation of the project documented positive growth for the elementary school children on several indicators, approval by the children's class teachers, and personal growth by the college students who participated. A structured portfolio was used to link the college students' experiences to the content of a linked, taught course, to enable the students and their mentors to monitor the progress of their tutees and to record the development of their own thinking over the span of the course. Very few of these college students had grown up in the socio-economically deprived conditions of the inner city where the elementary school was located. The project evoked both compassion and a sense of transcending a cultural divide between their own more privileged family backgrounds and those of these fellow-Americans from 'across the tracks'. The intrinsic reward of delivering a service was a valuable outcome that would not have been possible with a classroom project on campus, and appeared to

contribute to the growth of social responsibility in students over and above their more conventional learning experiences on campus.

Adapting the western institution of university education to the needs and aspirations of a postcolonial state in Africa

The goals of a national public university in a third world nation include not only meeting the expectations of an international community of scholarship and science, but also recognition within the national society it was established to serve. Indeed, since most of its graduates are destined to gain employment in the national economy, it is arguably even more important that its curricula and certificates be demonstrably legitimate in the eyes of the national government, business and industry than that they meet criteria established outside the national frame of reference.

Universities are not entirely new to Africa. The Islamic universities of Al-Azhar in Cairo and Sankore in Timbuktu are among the earliest institutions of formal higher education in the history of the world, and were already awarding degrees and attracting students from many different nations in the eleventh century when the University of Bologna was first established, marking the beginning of the European university tradition. Just how the scholarship of those early African universities has impacted on the intellectual fabric of African societies is currently an area of active research.[6] It is clear, however, that the influences of that tradition on most of the universities established in Africa in the twentieth century are at best remote and indirect. Just as western scholarship has only belatedly and somewhat grudgingly acknowledged the role of Arabic scholarship in mediating the preservation, continuity and reinterpretation of the classical philosophy and science generated in ancient Greece as foundations of the modern canon, so future African scholars may embark on a process of rediscovery of their debt to Islam. But I am not equipped to undertake that task and will therefore not attempt to address it in this paper.

Nurturing the spirit of inquiry[7]

The dominant intellectual tradition of universities across the world derives much of its character from the philosopher scientists of the European Enlightenment, who challenged the authority of the Christian church establishment to define truth and justice, arguing that the route to their discovery resides in systematic inquiry and egalitarian discourse. As Berlin (1956) has explained, the theme that method holds the key to certainty was first explicitly articulated by Descartes (1637) in his *Discours de la Methode*. The critical importance of egalitarian discourse has been articulated by Habermas (1984) in his analysis of the 'ideal communication situation', and his subsequent elaboration of the notion that the adequacy of an utterance depends on criteria, mutually agreed among the participants in discourse, for its acceptance as relevant, sincere, and matching with objective reality.

These fundamental principles have served humanity well, opening up new ways of conceptualizing the universe of which we are a part, and of manipulating it for the

benefit of humans, as well as inspiring the foundation of governance by consent. But their embeddedness in western culture has been repeatedly challenged by intellectuals who found themselves, by virtue of accident of birth, outside the fold of the new establishment and argued that their exclusion was inherently contrary to the logic of the Enlightenment perspective.

Notable examples are Frederick Douglass (1817–1895), Elisabeth Garrett Anderson (1836–1917), and Mahatma Gandhi (1869–1948).[8] These and other landmark challenges to the contradictions and hypocrisy of cultural hegemony have informed a radical transformation of the world in which we live relative to the conditions of the mid-nineteenth century, with the almost universal abolition of slavery, the progressive emancipation of women, and the decolonization of third world nations. In Zambia, a leading exponent of the critique of western hegemony was Kenneth Kaunda, the founding President of the Republic of Zambia in 1964, who wrote, reflecting on the effectiveness of his largely peaceful, campaign for Zambia's political independence from colonial Britain: 'the inability of those in power to still the voices of their own consciences is the great force leading to change' (Obscrver, July 1965, cited in Jenkins, 1996–2002).

Public accountability

Kaunda's United National Independence Party made the establishment of the University of Zambia (UNZA) one of the cornerstones of its programmatic vision for the future of the independent nation. Belief in the importance of a national university for the fulfilment of the new nation's development agenda rests on the following premises that have been widely shared among African intellectuals over the ensuing four decades:

- governance by consent demands an informed citizenry
- increased knowledge and technology creation are the key to economic progress
- local universities are cost effective ways of generating relevant knowledge and technology and of generating an informed citizenry.

The motto of UNZA is 'service and excellence', where service refers to service of society (often equated with national development, but also sometimes more broadly as humankind), and excellence refers to standards of performance across a wide range of domains by graduating students, lecturers and researchers.

Another widespread theme in the rhetoric of higher education policies in Africa and elsewhere around the world is the goal of increasing equity of access, which can also be phrased as widening inclusion. When we talk about inclusiveness as a dimension of the public accountability of higher education institutions, it is important to recognize that inclusiveness involves more than mere accessibility: it also implies connecting the curriculum with the needs and aspirations of various constituencies of the wider society. How can the University demonstrate to those constituencies that the experience of higher education adds value to the development of the youth they commit to the institution's care for the nurturance of their personal and professional development? To do so requires two kinds of assurance: of quality, and of relevance.

We often hear that desirable outcomes of university studies are mastery of various fields of knowledge, acquisition of technical skills, and relevance of those skills and knowledge to existing employment opportunities. To that important list I would add the following: entrepreneurial motivation and know-how; the spirit of inquiry; and commitment to the public interest.[9]

An inspiring case study of 'quality assurance through curriculum design' within the framework of the strategic plan of one African university has been presented by Msolla *et al.*, (2005) of Sokoine Agricultural University in Tanzania:

> (i) The University strives to provide solutions that will improve the nation's quality of food supply and safety …
>
> (ii) to train students with a view of acquiring relevant knowledge and skills and entrepreneurship but most importantly to become life-long learners, productive citizens and leaders of society,
>
> (iii) basic and applied research to be undertaken to develop new knowledge to meet contemporary and emerging needs of society …
>
> (iv) transfer of technological innovations to meet expressed and emerging needs,
>
> (v)–(vii) various institutional needs in order to address goals (i)–(iv), and
>
> (viii) the University strives to remain dynamic in keeping with the socio-economic changes in the country, in order to alleviate/eradicate poverty for its people. (op. cit., pp. 76–77)

In order to address these goals, Sokoine's development of a responsive curriculum was guided by five important criteria:

> It must deal with pragmatic needs of mid-career agricultural extension staff (e.g., acquisition of knowledge and skills in communication, problem-solving, critical thinking and how to learn with others)
>
> It must be closely related to the students' work environment
>
> It must provide a dynamic interplay between theoretical and practical components
>
> It must expose participants to issues of food security, the role of women in agriculture and the relationship between population and food production
>
> It must enable students to develop positive attitudes and professional ethics which ensure good leadership. (op. cit., p. 79)

The claim by universities to offer a uniquely valuable contribution to the development of human knowledge rests on the claim that the knowledge they generate 'has been sustained through rigorous critical examination, according to the rules, procedures and methods of a community governed by critical and self-corrective methods'(Anderson, 1993, p. 63). Yet, to the extent that certain sociocultural groups have been systematically excluded from the academy over the course of history, the legitimacy or validity of that community's practices requires some demonstration. An especially poignant context for that agenda is that of post-apartheid South Africa, which gave rise to a set of analytical case studies of curriculum responsiveness in higher education, published by the South African Vice-Chancellors' Association

(SAUVCA)[10] in 2004. Moll (2004) distinguishes four strands of curriculum responsiveness: economic, cultural, disciplinary and learning needs. While analytically separable, he contends that these different dimensions of responsiveness must all be addressed by universities in contemporary South African Society.

Slominsky & Shalem (2004), in the same volume, articulate a set of principles that they 'hope … will seem obvious to experienced academics', (p. 99) within a 'community of practice' perspective similar to that of Lave and Wenger (1991). They identify as four 'strands of activity constitutive of academic practice': distantiation, appropriation, research and articulation, and argue that 'underprepared' students require special assistance to master these four strands. They place special emphasis on the demands of distantiation, which they construe as a process of making the familiar strange (a phrase also used by Spiro (1990) in a seminal essay on cultural psychology).

Novices to the academy, Slominsky & Shalem (2004) argue, need to 'develop a disciplinary or principled gaze' which entails 'mastering key disciplinary concepts', and recognizing that 'concepts are contested and subject to revision or supercession' (p. 91). Yet the feedback that a student requires in order to engage successfully with those demands of the discipline may be especially difficult to accept by the students who need it most. In post-apartheid South Africa, many students are entering university from high schools that offered them little or no preparation for the academy in terms of socialization into the practices of rational argument, engagement with established knowledge, in order to refute or extend it, justification of claims, proof or defence of a position, let alone principled and systematic investigation. Such under-prepared students enrolling in a humanities or social science course at University

> …may be told 'we don't want you to give us back what the book says, we want you to think', or 'there is no right answer', or 'the purpose of theory is to understand the world in which we live'. This would open up apparent space for students to insert their life world, speak from their experience, address other personal subjects, play with knowledge and ideas etc. In other words, students may 'read' explicit messages being transmitted by lecturers about the 'openness' of knowledge as giving licence to personalize and break the boundaries. For these reasons, students may feel empowered by the apparent freedom within the academy to insert their own voices, interests and local realities.
>
> Yet … if students are not sufficiently initiated into disciplinary knowledge and text-based realities (Wertsch, 1991) they may never become full participants in academic practice—and thus their voices, experiences and knowledge may never be able to resonate or be projected beyond the 'present and particular' into other spaces and social realities… If under-prepared students are not afforded a principled gaze and ways of prising apart the form and content of their experiences, their newfound freedom to insert their own voices may ultimately prove as disempowering as their schooling'. (p. 90)

These rather sobering thoughts led Slominsky and her colleagues to design structured remedial approaches to the instruction of under-prepared university students truly to appropriate the intellectual tools of the academy. Another, complementary way of ensuring that the endogenous African experiences and knowledge that such students bring to the academy are validated within it may be to design

project assignments in which that background features as an asset rather than a hindrance to performance.

'Africanization'

Moll (2004) points out that the contested question of Africanization of the higher education curriculum is both narrower and broader than the question of cultural responsiveness of the curriculum. It is narrower in the sense that African culture is both variegated and dynamic and is best understood within the context of a more general theory of culture; and it is broader in the sense that for the curriculum of a university to be responsive to the demands of its African setting attention should be paid not only to cultural parameters, but also to physical-geographical, socio-economic and political dimensions of the continent.[11]

Within the narrower conception, some theorists have argued for the inclusion of indigenous African cultural perspectives, concepts and practices among the guiding criteria for curriculum development. Among the various conceptions of education that inform the thinking and expectations of the general public in Zambia we may distinguish some that are more ingrained in the discourse and practices of the rural population than in the policies and practices of formal education promulgated by the national government. Three of these stand out for me: contextualized learning, preparation for social responsibility, and social priming.

Contextualized instruction

Fortes (1938) conducted a classic investigation of traditional modes of education in the rural community of the Tallensi of northern Ghana in the 1930s, at a time when the territory was under British colonial rule as the Gold Coast. He described how education proceeded quite seamlessly over the course of a young person's life. Most learning took place in 'real situations' which require 'organic modes of response', as contrasted with western instructional practices that often involve the learner participating in 'factitious activities' that demand 'atomic modes of response' (p. 28). As a result, traditional Tale education proceeds not so much by an accumulation of discrete elements, but rather through a holistic, evolutionary process: the desired behavioural outcomes 'are present as schemas from the beginning', and the student 'acquires a well-defined interest associated with a postural diagram of the total pattern … as it were a contour map, extremely crude but comprehending the essential elements and relations of the full pattern … which evolves from the embryonic form' (pp. 42–43).

Preparation for social responsibility

Between 1973 and 1987, I conducted, in collaboration with a large team of colleagues and informants, a longitudinal study of the life-journeys of a cohort of young people born into a rural Chewa community in Zambia's Eastern Province. Reflecting on our

findings, I concluded that one of the salient features of the indigenous Chewa perspective on child development and socialization was a preoccupation with the cultivation of social responsibility. Moreover, this preoccupation, reflected in the vocabulary used by Chewa adults to assess the dispositions of children they know, finds 'echoes … in the vocabulary of evaluative discourse about intellectual functioning and development in several other African cultures' (Serpell, 1993a, p. 38). One of the terms of praise for a child in the domain of intelligence in the Chewa language is *ku-tumikila*. A person who is *wo-tumikila* is one who can be entrusted with responsibility. The root of the term is *–tuma*, meaning to send, and its connotations derive from the common practice of sending a young person to carry out an errand.

Social priming

The practice of assigning errands to children is very widespread across African societies and the way in which the performance of such errands is monitored by adults suggests that their primary purpose is not so much exploitative as pedagogical (Ogunnaike & Houser, 2002). An errand affords an opportunity for the person sent on it to prove herself capable of assuming responsibility. This can be construed as an instance of the more general phenomenon which the Cameroonian psychologist, Bame Nsamenang (1992) has termed 'social priming'. In his 'third world perspective' on 'Human development in cultural context', Nsamenang proposes a West African social ontogeny, positing a set of developmental stages defined in social rather than biological terms. One of the elements of his account explains the practice of placing pre-adolescent children in charge of other younger children as a kind of social priming, analogous to the priming of a pump.

These three elements of indigenous African educational orientation are all fully compatible with the theoretical account by Lave & Wenger (1991) of situated learning.

The Service Learning Project at UNZA: a curriculum innovation with liberating and empowering potential

The ideology of egalitarian discourse that informs the university tradition of scientific inquiry described above often suggests to university students that they should challenge all forms of authority in order to address the intellectual agenda before them. The exuberance that flows from the discovery that hypothetico-deductive reasoning opens the doors to limitless possibilities (Piaget, 1971) encourages many students, in the developmental period of late adolescence, to critique existing social practices in ways more fundamental than many adults in the world of work are willing or able to endorse. When such criticisms are expressed ostentatiously outside the walls of the institution, the university becomes at risk for a public image of irresponsibility, especially if the focus of the criticism is on their own material needs and if it is expressed in the form of violent protest (Mwanalushi, 2006). Yet the same open-ended quality of thought that leads university students

to contemplate radical ideas also has the potential to inform courageous compassionate social action on behalf of others in need. African universities, like many metropolitan universities in the USA, are often situated in close proximity to economically deprived neighbourhoods where such needs are in abundant evidence. Moreover, the extremes of poverty in many African societies drive some children to live literally on the street. Confronting the challenge posed by such extremes of social deprivation was the focus of a service-learning programme initiated at the University of Zambia in 2005.

The Service-Learning programme was initiated by Professor Lewis Aptekar of San Jose State University in California, and was co-coordinated through the University of Zambia Psychology Department by two lecturers, Ms. Gertrude Kasuba Mwape and Mr. Aidan Mambwe. Aptekar and his colleagues (1997, 1999) have written extensively about street children in several African countries and he had been attached to the UNZA Psychology Department in 2001 to organize a short course on counselling. In its first iteration in July–August 2005, the project was aimed at building a partnership between the two universities, to enhance cross-cultural awareness between the two groups of students, and to carry out joint service-learning projects in three low-income communities of Zambia's capital, Lusaka-Kalingalinga, Mandebvu and Chainda. The programme involved 30 UNZA undergraduate students of psychology and 15 San Jose State University graduate students of counsellor education.

In their summary of the achievements of the project, a leadership group that emerged from the Zambian student participants wrote as follows:

> In Kalingalinga, students worked at three sites.
>
> At Kalingalinga Middle Basic School, the five students based there managed to put back in school five street children (3 girls and 2 boys) at the end of the project. Additionally, the students also gave motivational talks and education counseling to the pupils at the said school as it was time for their mock exams.
>
> At Camal Institute of Learning, the five students based there in collaboration with those at Kalingalinga Basic School, helped in teaching the pupils at this school and offering them free educational counseling. Counseling of the terminally ill was also done in the community.
>
> At Chifundo High school which is a private school, the five students who worked there taught, counseled and managed to sponsor two pupils in High School.
>
> The fifteen member group in Mandebvu tried out counseling sessions in the school for children affected by the HIV/AIDS pandemic, taught at a community school called Mandebvu Project Centre in helping to meet the education needs of the children, and gave motivational talks to the pupils. UNZA and SJSU students put their money together bought paint, brushes and painted as well as decorated the grade one classroom which was in a deplorable condition. Additionally, the students bought more than 500 exercise books, crayons, pens and pencils which were given to all the pupils while the text books were given to the teachers. The students counseled the terminally-ill patients in the community and in the nearby Marapodi compound; they worked with a home-based care life support group for people living with HIV/AIDS. The group made material contributions to the communities too.

> In Chainda, the fifteen member group concentrated on teaching the children and giving them psychosocial counseling in order to fight stigmatization which appeared to be prevailing among the children leading some of the children to being isolated and lonely'. (Service-Learning Club, 2006).

Half of the UNZA students were enrolled in a fourth year course on counselling, while the other half were enrolled in a second-year course on child development. In the latter course, students were required to write joint reports in teams of two on their experience. After these reports had been assessed by their lecturer, Ms Mwape, as a basis for part of their course grade, copies were made available to me for some qualitative content analysis, which I present below.

Social problems identified

The students identified a wide range of social problems in the course of their project visits to these communities: many of them related to extreme poverty and disease. They visited a number of homes and interviewed parents living with HIV/AIDS about the challenges they face. They also conducted school surveys of the number of pupils who were either single or double orphans, revealing a very high prevalence of orphanhood among the student population of the schools to which they were assigned for the project.

Types of social intervention

Various types of social intervention were initiated or proposed by students in the context of the service-learning project:

(i) Advocacy for changes in behaviour by local community agents

- Encouraging husbands to allow their wives to enrol in the women's centre to learn productive skills as a source of additional family income (Group 2, p. 6)
- Encouraging teachers to individualize instruction (Group1, p. 12), or to avoid favouritism in distribution of food to children at school (Group 2, p. 5)
- Encouraging school administrators to waive fees for enrolment of vulnerable children, and service agency personnel to help women's centre graduates in sewing to market their produce.

(ii) Material contributions to children's welfare

- Paying for medical bills and opening schemes
- Paying for school enrolment (uniforms, shoes)
- Donating school supplies (crayons, books)
- Giving out sweets

The individual gestures made in this vein were evidently sincerely benevolent in intention, but seem to have generated considerable tensions among the project

participants, throwing into relief the disparities in wealth between the two groups of students and their societies of origin. Many of the UNZA student reports advocated setting aside a component of project funds to deal with such matters.

Others suggested that a more systemic approach was preferable to acts of individual charity. For instance, one group reported that they asked a family to draw up a budget for running a small market-stall and then collectively provided an injection of capital to get the business started; while another group reported that they drew the attention of the leader of a local service centre teaching women productive skills to the constraint reported by graduates of the centre's programme that they lacked an outlet for marketing their products, and prompted her to create such an outlet for them at a city shopping centre.

Another group drew attention in their report to local strategic responses to the poverty of some families, in the form of accepting contributions in kind rather than cash towards the needs of the school as a form of payment for their child's enrolment.

(iii) Follow-up service activities. One group who had worked in Kalingalinga, a neighbourhood immediately adjacent to the University campus, proposed to monitor school attendance by children whose inclusion and exemption from fees they had advocated, by making site visits every three weeks.

Connecting the field experience with the content of the linked taught course

Despite the fact that it was acknowledged at a general rhetorical level by most of the reports, this aspect of the project did not receive much analytical attention in the reports and appears to be an aspect of the curriculum deserving further attention.

One report included a heading 'How do all these fit into the work we did in PS 241?'. But the only scientific concepts cited under that heading were: 'family socialization, child abuse, play peer friends', and what the authors state 'helped' them was the observation that (a) there were many orphans, and (b) child care by elder siblings was widespread: 'most children are given babies to look after even when they do not have that experience, in other words we can say that babies keep their fellow babies'. This group went on to extrapolate from the testimony of one 11-year-old girl that she had been abused that 'most of these children are abused sexually by people they work for'.

Other links cited included:

- Operant conditioning/behaviour modification, in relation to techniques employed during the project
- Effects of malnutrition on children's development
- Peer-group stigmatization of children affected by HIV/AIDS, versus lack of stigma attributed to good teacher management

Many of the reports commented on what they perceived as inadequate child care and supervision. These comments were often expressed in somewhat absolutist and

unreflective terms. Equally uncompromising comments were made in several reports about what the students perceived as inadequate hygiene, e.g., 'porridge … was being served to children in dirty cups and plates and the children used their fingers when feeding which was very unhygienic'. Other critical observations focused on overcrowded service facilities, inadequately equipped service facilities (e.g., 'lack of books and pencils' at one Community School), on a dependency orientation manifested by some of the community members, and on competition rather than cooperation among different community schools in the same neighbourhood.

All of these observations could have served as productive foci for seminar discussions to open the students' reflective awareness of the culturally relative nature of normative judgements about child socialization practices (Aptekar & Ciano, 1999). For instance, the widespread Zambian traditional socialization practice of delegation by parents of the daily care and supervision of young children to their elder siblings, including pre-adolescent girls and, to a lesser extent, boys, has been discussed by Serpell and Mwape (1998/99) as informed by its own coherent and socially productive logic. Students could also have benefited from exposure to the analysis by Scheper-Hughes (1990) of child care practices that shocked her in a Brazilian poverty-stricken community as constituting adaptive responses to adversity.

Criticisms of the programme

Almost every report cited as a problem the lack of clear goals for the students to address on site, for example, '…each day in the first days we experienced as if we do not know what we are supposed to do'. Another wrote:

> While on the site, it was found that group cohesiveness was weak as different students had different expectations and were doing different courses. As such, students thus directed their services to issues where they would apply their learnt knowledge as well as where they could offer possible assistance and at the same time learn something about that community.

Several reports also focused on the lack of an UNZA supervisor, and many recommended that in future iterations of the programme, a lecturer from UNZA should be part of the supervising team.

Commitment to follow-up action

Despite these various limitations, the overall evaluation of the experience was overwhelmingly positive, as testified in a report-back session that I attended with them and their lecturers in late 2005. In fact, some of the second-year students were so inspired and determined not to lose the motivational momentum that it had generated among them, that they resolved to form a service-learning club, stating their mission as follows:

> As students, and citizens of Zambia pursuing productive careers, we have a responsibility to make our own unique contributions to programmes of productive social change. We

> believe that with our knowledge and skills, we can help build a better Zambia that is pro-development. Our desire is to deliver self-sustainable programmes that empower vulnerable citizens of our country Zambia and fully utilize knowledge in constructive community programmes.

In the second iteration, a number of changes were introduced, some arising from reflection on difficulties experienced in the initial project and others from pragmatic, logistical considerations. Among the salient objectives defined by the students for the project in 2006 were the following:

> To create and provide a platform for the University students to practice and gain experience in their careers. …
>
> To disseminate information to teachers, parents and the children about children's rights based on article 12 and 29 of the United Nations Charter.
>
> This project is aimed at ensuring that children's rights are not infringed upon so that they grow up in an environment that is conducive for full human development. Information about article 12 and 29 on children's rights will be disseminated to teachers through workshops and group discussions that will be held at the respective schools in Kalingalinga and Ng'ombe communities. Workshops will also be held for those parents with school going children. Brochures too, will be used to reach out to the community.
>
> To reach out to the parents and non-school going children who may not have attended the workshops, specially prepared drama group performances will be used in the streets and market places. Topics on children's rights will also be the centre of discussions on community-radios and other media to reach those who could not have been reached otherwise.
>
> The method to be used in this project will mainly consist of interactive processes. (Service-Learning Club, 2006)

Evaluating the outcomes of student project assignments

Institutional and societal outcomes

The benefits of a well-designed and executed university student project may extend well beyond those experienced by individual students, to include:

- public appraisal of universities as engaged and valuable resources for the wider society, and
- inter-institutional linkages that afford
  - mutual complementary enrichment of the institutions, and
  - economies of scale for providing students with productive learning experiences

Thus the Principal of the inner-city Elementary School in Baltimore that hosted UMBC's NDP project, and the representatives of the various community service agencies that hosted UNZA's service-learning project testified on a number of public occasions that they were impressed by the service orientation of the projects. Moreover they welcomed the focused contribution of the university students to the fulfilment of the host institution's own agenda. Consistently, they expressed the hope that

these projects would continue and build on their beginnings to establish an enduring inter-institutional partnership between their institutions and the university.

Parents interviewed in the host communities in both countries expressed respect and appreciation for the commitment displayed by the students, and optimism about the contribution they were already making and would be able to make in the future to the well-being of disadvantaged sections of society. Such public recognition serves as an important counterweight to the opprobrium generated in the media by periodic outbursts of riotous behaviour and destructive violence by some students that have marked the social history of the University of Zambia and other universities on the African continent. If the public are to believe in the positive value added to society by the existence of a university, they need to see and understand examples of university student behaviour that manifests pro-social motivation and social responsibility.

In a different area of educational planning ideology, industrial placements feature as opportunities for students to gain a first-hand sense of the niche they will be expected to fill on entry into the formal labour force of the economy as graduate professionals. This may be especially valuable for graduands in new fields of specialization. Representatives of the first cohort of graduands in Food Science and Technology from UNZA's School of Agricultural Sciences testified to me in 2004 that their experience on industrial attachment provided important confirmation for them that they had something of value to add to the practices of the industry that hosted their attachment. The students gained confidence from that confirmation, and the subsequent employment of several of the graduates by those same institutions that hosted their attachments while training shows that the industries in question indeed recognized the value that university graduates could add to their operations.

Fincher *et al.* (2004) point out that industrial placements can raise significant problems for students. If there is insufficient liaison between the host institution and the university teaching staff, students may 'struggle with defining project goals and setting appropriate boundaries for their … assignment', and the host institution may confront them with

> the necessity to adapt and to produce results quickly, regardless of their preferred learning style or the need to adjust to the organizational culture. The … need to become familiar with the onsite processes and standards of the workplace can combine to make the experience stressful for students. (p. 8)

A good example of proactive design to minimize such problems is provided by the Auckland University of Technology (AUT) in New Zealand, where the Bachelor of Business degree programme includes a period of full immersion of the student in an off-campus business enterprise:

> Students are required to obtain their own placement in line with clearly specified criteria…At the beginning of the placement a learning contract is completed in which the student documents their work assignment, its outputs, and the learning outcomes to be achieved. This contract is signed by all three parties—student, workplace supervisor, and academic supervisor. (p. 6)

A similar arrangement was introduced at UMBC in the 1990s to regulate practicum placements for graduate students in Applied Developmental Psychology. Our experience, like that of AUT was that these contracts sometimes required renegotiation to ensure that the reciprocal interests of the university and the host organization were protected. But, overall the benefits seemed to outweigh the hazards, with students often testifying that the learning experiences afforded by these flexibly structured placements were among the most valuable elements of their programme of studies.

A certain amount of tension between the demands of the academy and those of industry is to be expected in these settings. Working to address that tension is justifiable, not only for the mutual adaptation of graduands and their potential employers, but also for operationalizing the relevance of higher education to the demands of the national economy.

Student outcomes

Evaluation of student performance in such projects faces a tension between the rigorous application of methodological principles and the generation of valid interpretations of local phenomena. One reason for this tension is that the phenomena studied in projects often lie beyond the cutting edge of the formal discipline's research endeavours, so that there is little of direct relevance to the project in the published literature. Another is that much of the student's work on a project is relatively remote from the direct observation of the academic supervisor, let alone supervision. Thus a student reporting on the experience of project work faces the challenge of communicating what he or she perceives as important lessons to be learned from the project to an audience of evaluators who are sceptical on at least two grounds:

- is the project truly relevant to the curriculum goals of the course or degree programme in which the student is enrolled ?
- has the student successfully identified the key variables requiring analysis, and applied the most relevant aspects of the academic discipline to those variables in an appropriate manner ?

Academic staff who are willing to approach these questions with an open mind stand to benefit not only by confirming the usefulness of their instructional activities to their students, but also by opening productive avenues of applied research in the wider society, and, at best, by discovering limitations in their own disciplinary training and in the theories and methods that they bring to the process of curriculum design.[12]

In many cases, peer support is built into the design of projects undertaken off campus, and this generates its own secondary challenges. On the one hand, many students welcome the opportunity to exchange ideas with their peers and engage in mutual assistance on well-defined tasks. Peer evaluation latches onto a different, and perhaps deeper dimension of personal identity than those mobilized by the conventional top-down evaluation of students by lecturers. UNZA students engaged in the ZAWECA (2005) project of peer education in respect of the challenges of HIV/AIDS, and students enrolled in the Service Learning Club (2006) have testified to me

that the opportunity afforded by those activities to work collaboratively with peers is profoundly gratifying and enriching. Indeed, informal oral testimony from many of my university-educated, adult Zambian friends and colleagues suggests that peer-group friendships formed during their years together at campus and/or in high school often generate enduring bonds of loyalty that sustain them in adult decision-making in later professional life.

On the other hand, the culture of the academy places such a heavy emphasis on individual accountability and competitive rating of performance outcomes that the suggestion that a group should collaborate in the production of a report for the evaluation of their learning in a project sometimes encounters student resistance. One way of channelling the competitive spirit into collaboration is to divide a class into groups that compete with each other as teams. Fincher (2002) reports on the problem of allotting shared credit for the product of group collaboration, noting that

> students and staff alike are reluctant to reward group members who do not contribute (although some groups are perfectly happy to 'carry' a hitch-hiker). In either case, it is impossible for staff to know precisely how much work each team member did: only the students involved know this (p. 29).

The solution, Fincher argues is to 'find a mechanism which devolves some control over the performance of group members to the groups themselves' (p. 32).[13] Two dimensions of the organization of project work at UNZA in psychology were borrowed from the professional practices of academia: conference presentations, and research reports. To some extent this may represent an attempt by staff to treat students as apprentices for the profession of scholarship. But they also seem to be well-suited to an important pedagogical aspect of project work: the motivation to earn the respect of one's peers. Universities in Anglophone Africa have a tradition of inviting faculty of other Universities to serve as External Examiners with a mandate to assist in the moderation of undergraduate examination results. When serving in this capacity at the Psychology Departments of the University of Lagos, Nigeria (1974–1976), the University of Malawi (1985–1987), and the University of Zimbabwe (1990–1992), I became aware of the high level of importance attached by students and staff to project work. Occasionally, I was accorded the opportunity to interview a sample of graduating students at those institutions, and fell into the habit of asking them to tell me which of the courses they had taken they regarded as having been most beneficial to their education. Consistently, students testified that the project course was the one in which they learned most across their entire period of full-time study.

Fincher (2002) too noted that student motivation is exceptionally high in project work, often leading to students investing a level of effort in their project that is disproportionate to the amount of credit that the grade carries in the overall assessment of their degree. At the University of Zambia, this phenomenon was reported at a meeting of the Senate Examinations Committee in 2005, when the School of Medicine was challenged to explain why the grade distribution for a project-based course in Community-Based Education was skewed relative to the grade distribution for other courses taken by the same cohort of students. Within the School, it is apparently

common knowledge that most students make an exceptional commitment to their projects and generate reports of consistently high quality.

One way of understanding why this happens is that students experience a greater sense of personal agency in project work and thus appropriate the deeper value of the material than is common in taught courses. Indeed, students often express in their project reports a sense of having contributed to the growth of knowledge, sometimes reflected in a rather grandiose style of writing. The quality of learning outcomes from project work is often manifested in conference presentations, which are typically ephemeral. However, in this era of poster presentations and power-point handouts, some of the substance can be captured in a more enduring form and archived as a resource for future generations of students. In some cases departmental libraries also maintain a collection of bound project reports for student reference. A significant limitation of such documents is their relatively static representation of a learning process that is dynamic. The data reported at the end of a student project may be less informative about what was learned than the various changes in the student's thinking generated over the course of its implementation. Portfolios, as explained by Gardner (1991) and Waters (n.d.) are an attractive format for documenting such changes, and can be structured by both academic staff and students in creative ways to address a wide variety of educational objectives.

The concept of student project work is not new to the undergraduate curriculum structure of African universities. But in the current climate of economic stringency at UNZA, when budgets are being squeezed, it has become somewhat at risk for elimination or at best marginalization, on the grounds that it is an 'optional extra' that is relatively expensive to sponsor, by comparison with classroom activities. My argument here is that, far from being a good candidate for streamlining out of the curriculum, the project is a critically important element of good quality higher education, especially in Africa. I hope that the various reasons I have advanced for believing this to be so will serve in some measure as arguments against its abolition from the list of essential elements of higher education that must be sponsored financially.

Conclusions

Students embark on the journey of higher education with a view to adaptation to a future world of which their teachers have only partial knowledge and understanding. University curricula should therefore afford opportunities for students to test existing theories against reality, and to prepare for practical challenges in the world of work. The university tradition of scholarship centres on the power of systematic inquiry to enable the discovery of truth and justice. Universities should therefore cultivate in their students the spirit of inquiry and the egalitarian mode of discourse that ensures its validation. African universities have inherited from the west a number of institutuionalized arrangements for learning that are imperfectly designed for promoting genuine appropriation by students of the literacy, science and technology that will empower them to transform the world and pioneer social progress. Project assignments that require students to engage with the world outside the walls of the campus

are conducive to situated learning and afford students opportunities to compare and integrate academic theories with indigenous interpretations of experience. They are thus both pedagogically and socioculturally essential elements of a curriculum responsive to the demands of a rapidly changing African society committed to progressive social change.

Notes

1. As Bruner (1986, p. 48) has observed, although the role of metaphors is often acknowledged as a part of theoretical model-making, there is a tendency to treat them as 'crutches to get us up the abstract mountain', to be later discarded 'in favour of a formal, consistent theory', and 'made not part of science but part of the history of science'. Yet, in many ways we 'live by' the metaphors that inform our conception of the world (Lakoff & Johnson, 1980). Moreover, the semantic device of metaphor is essential to any kind of innovative communication (Barfield, 1947).
2. The concept of restricted literacy has been debated (Goody, 1977; Street, 1984). My use of the expression in this context refers, not to different levels of intellectual sophistication, but rather to different levels of complexity of the repertoire of activities across which literacy is applied as a tool of thought. In many Zambian families, literacy is used almost exclusively for religious and commercial purposes (cf. Wells, 1990, on different modes of engagement with texts).
3. Luangala (2004) takes this argument a step further, arguing that Zambian society lacks 'a reading culture', and that the promotion of such a culture is an appropriate part of the national agenda of acquiring new modes of thinking as an adaptive response to the evolving global culture. I find his interpretation of various contemporary cultural phenomena in our society insightful about the prevailing character of adult literacy. But I do not agree with him that the restricted uses of literacy that prevail in contemporary Zambian society show that the culture of Zambian society is under-developed with respect to self-regulation, nor that Zambians are a 'primitive' species of humans. I have argued elsewhere, in response to Scribner's (1985) analysis of Vygotsky's 'uses of history', that it is inappropriate to portray the processes of change over time in biological evolution as homologous with those involved in social history (Serpell, 1995).
4. I am grateful to the following colleagues for their contributions to this survey: Mr Chitundu Kasase, Acting Head, Department of Food Science and Technology, School of Agricultural Sciences; Dr C. K .Wamukwamba, Dean, School of Engineering; Dr Musonda Lemba, Senior Lecturer, Department of Social Development Studies, School of Humanities and Social Sciences; Dr G. Silwamba, Department of Community Medicine, School of Medicine; Dr S. Kambani, Dean, School of Mines; Dr Mulenga, Head of Department of Geography, School of Natural Sciences.
5. Giddens (1999) argues that in the contemporary era of globalization, multiple forces 'are creating something that has never existed before, a global cosmopolitan society. We are the first generation to live in this society, whose contours we can as yet only dimly see. It is shaking up our existing ways of life, no matter where we happen to be. This is not—at least at the moment—a global order driven by collective human will. Instead, it is emerging in an anarchic, haphazard, fashion, carried along by a mixture of economic, technological and cultural imperatives. It is not settled or secure, but fraught with anxieties, as well as scarred by deep divisions. Many of us feel in the grip of forces over which we have no control. Can we re-impose our will upon them? I believe we can. The powerlessness we experience is not a sign of personal failings, but reflects the incapacities of our institutions. We need to reconstruct those we have, or create new ones, in ways appropriate to the global age'. The university is clearly one candidate institution for such adaptive reconstruction. Giddens (1999) also cites the insightful observation of

the American sociologist Daniel Bell that, in this era of globalization, the nation state becomes too small to solve the big problems, but also too large to solve the small ones.

6. See, for instance, the work of the Institute for the Study of Islamic Thought in Africa, located at the Programme of African Studies, Northwestern University, inaugurated in January 2001 (http://www.isita.org).
7. This account of the origins of contemporary university education draws on my address to the 34th Graduation Ceremony of the University of Zambia in June 2004.
8. Douglass was born into slavery in Maryland, USA, largely self-educated under adverse conditions, an ardent believer in the enlightening power of literacy, and a leading figure in the Abolitionist movement, eventually rising to be appointed the first person of African descent to serve as US Ambassador, and in old age an activist on behalf of women's emancipation. Anderson was born into the family of a professional Englishman, and inspired by her father's work to enter the medical profession. With the (initially reluctant) support of her father, she worked her way around the barriers against women erected by the medical guild in Britain to win eventual accreditation as a medical practitioner, and went on to become a pioneer of women's admission to the medical profession. Gandhi was born into a high caste family in India and sent to Britain to receive training as a barrister in the London Inns of Law. Graduating with distinction, he went to South Africa where he encountered crass racial discrimination, and launched some early protests against institutionalized racism. Moving back to his home country in his thirties, he embarked on a forty-year campaign against British imperialism that eventuated in the collapse of the Raj in 1948. The expulsion of the British from India inspired the struggle for decolonization in Africa in the 1950s and 1960s.
9. This checklist was presented and somewhat elaborated in my address to the 36th Graduation Ceremony of the University of Zambia in June 2006 (Serpell, 2006).
10. SAUVCA was renamed HESA (the Higher Education Association of South Africa) in 2005.
11. I have discussed elsewhere several different ways in which the cultural-political agenda of affirmative Afrocentrism can be applied in the field of developmental psychology (Serpell, 1992).
12. The tension between academic rigour and local relevance is sometimes expressed in the form of advocacy by academic staff for greater formalization. But in my view this is a hazardous direction in which to move the curriculum. In the Extension Services courses offered at UNZA's provincial centres I have observed a related danger of lecturers bowing to pressure from their student clientele to introduce a greater element of professionalism into the courses they offer. This pressure is driven by credentialism rather than by the deeper agenda of extension education.

    A similar debate is ongoing in Zambia about how the Clinical Officer training relates to career progression in the health services and to the accessibility of quality health care to the widely dispersed rural population. Recently, the UNZA School of Medicine has endorsed the launching of a Licentiate degree at the Health Sciences College, which stands as an intermediary qualification between that of the Clinical Officer Diploma and the full medical degree, MB ChB, offered by the University.

    Prof. Dickson Mwansa has problematized the same issue in the context of adult literacy and Adult Education programmes in Zambia. The original rationale for such programmes was to broaden access to education beyond the narrowing staircase model of provision within the mainstream of the public school system (Serpell, 1993a), and beyond the first two decades of the lifespan, and to empower adults who missed out on that provision in their earlier years by offering them opportunities to achieve functional literacy and access to those aspects of humanity's cultural heritage that are stored in written texts. By offering such courses to older students without formal educational credentials, such programmes have the potential to counteract the socially extractive tendencies of the elitist narrowing staircase model. But if excessive emphasis is placed on formal certification, the courses are liable to be co-opted as back-door entry routes to the extractive and elitist model they were designed to counteract.

13. Fincher (2002) describes as follows an ingenious management tool for students on a cooperative project assignment to share responsibility for early detection of freeloading and formative guidance to bring deviants back into fuller participation:

> 'Red Card/Yellow Card *(aka 'La Coupe du Monde 1998')*
> Bundle body
>
> - *This bundle* gives students some control over the behaviour of members of their project group and allows their non-performance to be factored into assessment.
> - *The way it works is* that students are allowed to issue others in their project group with yellow, and in extremis, red cards. A yellow card is "shown" to a student who is deficient in effort or attitude or in other ways not making a full contribution to the group and is then lodged with the project supervisor. Being "shown a yellow card" results in a known penalty being applied to the student (for example, a fixed number of marks lost), though a yellow card may be cancelled by increased effort, or at a boundary between phases of the project, or after a set time. A student who attracts the maximum number of yellow cards can be "shown a red card", which excludes the student from the rest of the project and sets the mark awarded to zero. There is no recovery from a red card.
>
> Bundle conditionals
>
> - *It works better if* staff set the parameters of control (the penalty, the number of yellow cards that can be carried)
> - *It doesn't work if* the system leads to the frivolous use of penalties. It doesn't work unless day-to-day management of the resource/role allocation is in the hands of the group themselves'. (pp. 30–31)

Notes on contributors

Robert Serpell, born and raised in England, naturalised citizen of Zambia since 1979, received his B.A. degree (Psychology & Philosophy) from Oxford in 1965 and D.Phil (Experimental Psychology) from Sussex in 1969. He has held academic posts at the Universities of Zambia (1969–1971, 1972–1989), Manchester (UK, 1971–1972), and Maryland, Baltimore County (USA, 1989–2002) where he was Director of the doctoral studies programme in Applied Developmental Psychology, returning to Zambia as Vice-Chancellor in 2003. His research and publications have centred around human development in sociocultural context, with particular attention to the design of methods of assessment and education.

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