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# Understanding Human Abilities in Sub-Saharan African Settings

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## Abstract

Cultural communities define and promote human abilities they perceive to give expression to their core values. Indigenous sub-Saharan African communities place a high premium mainly on abilities that promote or give expression to the value of social interests. This article considers human abilities from a cultural psychology perspective, one that reflects the understandings of culturally competent informants of valid and valued abilities in their context together with ways of knowing about such abilities. This article describes the utilization of an appreciative inquiry approach to understand human abilities among sub-Saharan African communities, including increasingly important abilities associated with schooling or modernization and particularly as they enable the expression of social interest values. Cultural emphasis on social interest are likely to continue to heavily influence which and how human abilities are valued by sub-Saharan African communities.

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## Introduction

Across time and history, societies have praised abilities that reflect, support, and promote priority of certain life aspirations and goals. Consequently, the most highly valued abilities in a society at a particular point of time are promoted in such an environment. The following two examples demonstrate this point. African children living in subsistence economies may walk earlier than children raised in more modern economies (Super, Harkness, Barry & Zeitlin, 2011). This earlier development occurs, in part, because families train toddlers for mobility independence so the families can better participate in their livelihoods that otherwise may be thwarted if toddlers needed a family's intensive care. Additionally, animal tracking is more important than Internet surfing in indigenous communities that live in rural and remote locations. One's knowledge to use the internet (e.g., blogging) is more highly valued skill in information intensive economies than in basic subsistence economies. Thus, to a large extent, environmental demands and priorities conceived by the dwellers or social actors determine the abilities that are valued and thus promoted in a particular society (Mpofu & Ortiz, 2008). Among indigenous communities in sub-Saharan Africa, abilities that recognize and are appreciated by society add social capital to a society.

An understanding of human abilities that are prioritized in sub-Saharan settings is facilitated by having a framework that reflects the thoughts of those who enact and value preferred and specific abilities – mainly those abilities that are most meaningful to a society (Nsamenang, 2006; Serpell, 2007, 2011a). Moreover, emphasis also is placed on social rather than academic learning models, mainly in which knowledge is passed on from knowledgeable adults and often in personal ways. As an example, a child's particular context defines and prioritizes those personal qualities that are most valued as well as the limits to which typical ability indicators are relevant.

Historically, studies of human abilities in sub-Saharan Africa have focused on determining those assessed by Western-developed psychological tests and constructs transported cross-nationally to the African context (Irvine, 1988; Kendall, Verster, Von Mollendorf, 1988; Mpofu, 2004). This enterprise has been motivated, in part, by a desire to discover universal cognitive functions, thereby enhancing the universality of psychology as a science. This cross-national focus may have mistakenly emphasized presumed cross-cultural consensus about the exact form and nature of human abilities (Marfo, 2011; Mpofu & Nyanungo, 1998; Pence, 2011, Serpell, 2011a). In contrast, an appreciative inquiry approach (Whiteny & Trosten-Bloom, 2010), one in which neophytes seek to learn the personal qualities valued by cultural communities and the meanings that the specific abilities have for them, would result in a greater understanding of the rich diversity of human abilities required to function effectively internationally. Methods that obtain information from a wider range of responsible and knowledgeable persons within a society is consistent with a community-oriented approach to understanding preferred personal qualities. Such an approach is likely to yield more valid information than reliance on more technical approached in which predefined categories and indicators of ability first are

identified and followed by attempts to verify and pass judgment on them by an often unsuspecting and possibly trusting yet naive community.

### **Community Oriented Approaches to Appreciating Human Abilities**

A broad range of studies describing human abilities in sub-Saharan Africa helps unravel the conceptions and practices in the assessment of intelligence that are indigenous to African communities (e.g., Berry et al., 1986; Grigorenko et al., 2001; Irvine, 1988, Mpfu, 2004, Serpell, 1977, 1991; Sternberg et al., 2001; Wober, 1974). Community-oriented approaches display respect for human abilities identified by others in light of local social and environmental conditions. Social aspects of human abilities are valued highly by sub-Saharan indigenous communities (Serpell, 2007, 2011b).

#### **Being socially meaningful**

Wober's (1974) research on concepts of intelligence among the Ugandan Baganda and the Batoro may be the most well-known approach among African studies. Baganda and Batoro villagers were asked to describe intelligence in reference to socially oriented behavior that benefit a collective society. The Ugandans view intelligence essentially as a social construct, not a set of cognitive abilities as highlighted by Western concepts and measures of intelligence. Similarly, studies of intelligence among the Shona of Zimbabwe also indicated they regarded intelligence as public-spirited behavior or achievements that benefits the group (Irvine, 1970, 1988). Irvine reported the Shona described intelligence as comprising *ungwaru* (dispositional intelligence) and *uchenjeri* (social intelligence). Mpfu (1993; 2004) reported that the Shona and Ndebeles of Zimbabwe describe intelligence as comprising *njere* (wisdom) (Shona) or *ukhalipile* (Ndebele), *kutumika* (social responsibility) (Shona)/ *okuthumeka* (Ndebele), and *musoro* (socially constructive disposition) (Shona)/ *ulengondo* (Ndebele), success in life, superior educational qualifications, and problem-solving ability. Indigenous members of Zimbabwean communities expressed the view that a person's true ability must serve a laudatory social purpose.

#### **Contextual and functional meaningfulness**

In sub-Saharan indigenous communities, human abilities are recognized in the context of participatory and instrumental meaningfulness (Dasen, 2011; Grigorenko et al. 2001; Irvine, 1970, 1988, Serpell, 1977, 1991). For example, studies of the concept of intelligence among the rural Chewa in north-eastern Zambia found their adults with no formal schooling nominated children familiar to them for typical tasks in their village or community (e.g., being sent on an errand, looking after a pot on the fire) and able to justify their nominations by citing specific helping behaviors (Serpell, 1977, 1991). A thematic analysis of the villagers' responses revealed that intelligence in that community was understood in terms of four indigenous constructs: *nzelu* (wisdom), *chenjela* (aptitude),

*tumilika* (responsibility) and *khulupilika* (trustworthy). *Nzelu* and *chenjela* represented the cognitive aspects and *tumilika* and *khulupikila* the social aspects of intelligence. Serpell's (2007, 2011b) studies also found superior performance on village tasks by children as predicted by nominations of adult Chewas; however, the children's performance was not correlated with school achievement.

A study of concepts of intelligence among the Luo of Kenya identified four terms that referenced intelligence: *rieko*, *luoro*, *winjo*, *paro* (Grigorenko et al. 2001). *Rieko* refers to smartness, knowledge, ability, skill, competence and power. *Rieko* also refers to contexts in which performance is a sign of competence. For example, school *rieko* refers to ability in school-related tasks and *rieko mzungu* to competence using White man's (mzungu) technology. *Luoro* refers to respect and care of others as indicated by considerateness, obedience and willingness to share. *Winjo* refers to appropriate deference to adults, the elderly, and authority figures. *Paro* refers to innovativeness, creativity, and task persistence. Among the Luo, *luoro* and *winjo* represented the social component of intelligence while *reiko* and *paro* represent their cognitive components. Only school *reiko* correlated positively with academic achievement. Superior performance on tasks valued by Luo community (e.g., knowledge of herbal treatments for common local illnesses) was unrelated to academic achievement (Sternberg et al., 2001). The findings by Serpell (1991, 2008) and Grigorenko et al. (2001) that intelligence among the Chewa of north eastern Zambia and the Luo of Kenya was unrelated to school achievement suggest that school activities in these two communities differed from activities that also are valued by subsistence agricultural economies. They also suggest that cognitive values among the Chewa and Luo are dissimilar to those promoted in the schools. In contrast to community views, school programs in sub-Saharan Africa generally mirror Western cognitive values and attitudes (Kasfir, 1983; Mandaza, 1986; Serpell, 1991; Serpell & Boykin, 1994).

### **Tacit Abilities are valued**

Within the the indigenous communities of sub-Saharan Africa, the domains and content that define valued abilities often need to be understood indirectly through an appreciation of important context-related skills rather than through direct questioning. For example, Sternberg et al. (2001) developed a **Test for Tacit Knowledge for Natural Herbs** for use with Luo children living in a rural Kenyan community. The test sampled common illnesses in the Luo community and standard herbal treatments used for them. The children were expected to have acquired knowledge about the illnesses and herbal treatment regimens through experience and informal observation. Children were presented with 22 stories and asked to identify an illness that the story depicted and the appropriate herbal treatment. They were also asked to name an illness for which a herbal medicine was the preferred treatment. The children's responses were scored quantitatively. This test's internal consistency was .60. Children's achievement as measured by this **Test of Tacit Knowledge for Natural Herbs** was uncorrelated with their performance on academic ability measures (i.e., Raven's Matrices as well as math and English achievement tests).

These findings also suggest that, among Luo children, competencies important for learning herbal therapies and school achievement differ.

Conceptions of ability among several communities in sub-Saharan Africa, as previously discussed, represent their implicit theories about ability. Implicit theories are those that reside in people's minds and form the basis for making judgments on their own and others' behavior (Sternberg, 1985). People's implicit theories of valued ability are important for understanding the underpinnings of their behavior as well as their value system. Knowledge of a community's implicit theories of ability provides an indispensable source when constructing an explicit (or formal) theory of ability relevant to a community. Studies of implicit theories of ability among a number of communities in sub-Saharan Africa provide an important start for understanding intelligence among Africans.

### **Significance of schooling**

Indigenous communities also highly value other forms of ability, including those likely to enable a person to meet their social obligations to the family and others in the community (Nsamenang, 2006). Schooling constitutes one such form of a context within which students can acquire abilities that later, as adults, allow them to participate in modern economies (Super et al. 2011). Developmental milestones for school age children often are assessed in the context of their ability to perform formal education tasks (Maunganidze, Kasayira, & Mudhovozi, 2011; Mhaka-Mutepfa & Seabi, 2011). For example, schooling among the Shona and Chewa is associated with life success, which indigenous sub-Saharan communities regard as a proxy indicator of intelligence (Mpofu, 2004; Mwaura & Marfo, 2011; Serpell, 1991). Literacy skills add importantly to the range of abilities valued by a society (Dasen, 2011; Oslon, 1986, Stemler et al., 2009). Literacy skills have instrumental economic value (e.g., access to jobs in the formal sector, greater income capacity) (Serpell, 1991), and also promote health protection and wellness by enabling readers to access print resources on health promotion or maintenance (Mwaura & Marfo, 2011, Serpell, 2008). However, performance on tasks valued by village elders did not predict school-type tasks well (Serpell, 2007, 2011a). This also suggests that, in general, some abilities nurtured in the context of community and school setting different. Nevertheless, some school learners are good at both.

### **Meaningful Abilities in Setswana and Shona Communities**

An appreciative inquiry approach was used with informants from indigenous cultural environments to determine competencies that are valued and pertinent to their context along with the specific content that characterize such abilities. A free listing procedure was used with the informants to generate statements that characterize valid and valued abilities in their context, including the specific content that defined those abilities. In particular, information indigenous communities were mapped to identify concepts that defined important domains of human ability in their cultural contexts. Previous research (Irvine, 1972; Mpofu, 1994) suggests that Africans who had attended school served as reliable

reporters of their communities. Irvine (1972) explained this in terms of "the existence side by side in highly [schooled] Africans of two systems of causation" (p. 99): traditional-indigenous and modern.

### Priority abilities among Setswana school communities

N = 1221 Setswana informant educator-counselors were asked to list important abilities needed by students to be successful in school, taking into consideration the cultural context of schooling. The educator-counselor cultural informants then manually clustered the statements in a manner that was meaningful to them. They then rated the statements' importance in regard to a student's success in Botswana schools (from 1 - relatively unimportant to 5 - extremely important). The data was subjected to multi-dimensional scaling and hierarchical cluster analysis in order to better define and prioritize them.

**Table 1**

Whole Group Content of Component of the Consensus Psychometric Tests Use Framework (N = 49).

Item	Mean Score per Statement
Example Statement by Cluster	Whole group consensus
<b>Cluster 1. Learning readiness</b> (Items N = 20)	
5 Know children's developmental strengths and limitations	4.59
Cluster Mean and SD	3.96 (0.25)
<b>Cluster 2. Aptitude Assessment</b> (Items N =19)	
26 Assess students' academic performance	4.45
46 Identify barriers to student learning	4.43
Cluster Mean and SD	4.05 (0.31)
<b>Cluster 3. Community norms</b> (Items N =10)	
6 Assess behavioral problems in children	4.12
2 Providing children with social guidance	4.02
Cluster Mean and SD	3.71 (0.29)
<b>Cluster 4. Guidance and counseling</b> (Item N=12)	
12 Support students in their development needs	4.37
Cluster Mean and SD	3.93 (0.34)
<b>Cluster 5. Personal Development</b> (Items N = 25)	
98 Assess students' ability to think with feelings or emotional intelligence	4.29
77 Assess critical thinking skills in Students	4.20
Cluster Mean and SD	3.78 (0.24)
<b>Cluster 6. Socialization</b> (Items N = 14)	
94 Assess students' coping skills for measuring stress	4.16
47 Assess students ability to cope with everyday life or life skills	3.82
Cluster Mean and SD	3.62 (0.26)

**Notes.** Scale (1-5) Relative Importance: 1= relatively unimportant compared with the rest of the statements; 5 = extremely important compared to the rest of the statements.

According to these counselors, the importance of abilities – from most to least important – looked as follows: cognitive aptitude ( $M = 4.05$ ,  $SD = 0.31$ ), learning readiness ( $M = 3.96$ ,  $SD = 0.25$ ), guidance and counseling ( $M = 3.93$ ,  $SD = 0.34$ ), personal development ( $M = 3.78$ ,  $SD = 0.24$ ), meeting community norms (mean = 3.71,  $SD = 0.29$ ), 4), and socialization ( $M = 3.62$ ,  $SD = 0.26$ ) (see also examples in Table 1).

Table 2  
Means, SD, and Correlations Between the Importance Ratings of the Clusters

Cluster	Means	SD	1. LR	2. AA	3. CN	4. GC	5. PD
1. LR	3.96	.25					
2. AA	4.05	.31	-.12				
3. CN	3.71	.29	.25 <sup>*</sup>	.34 <sup>*</sup>			
4. GC	3.93	.34	.03	.12	.22		
5. PD	3.78	.24	.18 <sup>*</sup>	.27 <sup>*</sup>	-.07	.15	
6. S	3.62	.26	.34 <sup>*</sup>	.43 <sup>*</sup>	.09	.31	.16

<sup>\*</sup>p < .05; <sup>\*\*</sup>p < .01. Notes. LR= Learning Readiness; AA =Aptitude Assessment; CN=Community Norms; GC= Guidance and Counseling; PD= Personal Development; S= Socialization.

Pairwise t-tests along with the Welch-Aspin index were used to determine the relative importance for the learner support framework components to the group. Components associated with learning attainment (i.e., learning readiness and cognitive aptitude) were rated more highly than those for personal and social development (i.e., community norms, guidance and counseling, personal development, and socialization) (see Table 2 for a comparative analysis).

Comparatively, learning readiness ( $M = 3.96$ ,  $SD = 0.25$ ) was rated higher than socialization ( $M = 3.62$ ,  $SD = 0.26$ ),  $t(96) = 6.59$ ,  $p < .01$ ; community norms ( $M = 3.71$ ,  $SD = 0.29$ ),  $t(df = 96) = 4.57$ ,  $p < .01$ ; and personal development ( $M = 3.78$ ,  $SD = 0.24$ ),  $t(96) = 3.63$ ,  $p < .01$ . Similarly, cognitive aptitude ( $M = 4.05$ ,  $SD = 0.31$ ) was rated higher than socialization ( $M = 3.62$ ,  $SD = 0.26$ ),  $t(96) = 7.43$ ,  $p < .01$ ; community norms ( $M = 3.71$ ,  $SD = 0.29$ ),  $t(96) = 5.60$ ,  $p < .01$ , and personal development ( $M = 3.78$ ,  $SD = 0.24$ ),  $t(96) = 4.82$ ,  $p < .01$ . Thus, school type abilities (e.g., aptitude and learning readiness) were prioritized over community norms for learner support activities in Botswana schools, suggesting sensitivity by informants to the context within which abilities are displayed.

Exploratory factor analysis, namely a principal component analysis with varimax rotation, was used with the learner support data to better understand information from the Botswana informants (see Table 3). The data formed four clusters of ability domains important to learner support: self regulation (personal factor), educational advancement, social-vocational development, and ability/aptitude. The findings point to the fact that informants from indigenous cultural communities in Botswana implicitly understand the types of abilities important to school-based education in their cultural context as well as the specific content that defines the abilities.



Table 3  
EFA for Learner Abilities Support Framework Items Proposed by Botswana Educators

		Factor			
		1	2	3	4
<b>1. Self Regulation (Personal factor)</b>					
11.	Support students in their development needs	.37			
18.	Assess communication skills	.60			
19.	Assess students' problem solving skills	.35			
20.	To learn about students' approaches to learning	.49			
21.	Assess students' social skills	.46			
22.	To learn about students' ability to take the initiative	.53			
25.	Assess for emotional abuse	.37			
29.	Assess for sexual abuse	.41			
34.	To determine students' openness to new ideas	.43			
35.	Assess students' sense of personal responsibility	.60			
38.	Plan the career guidance program	.38			
39.	Assess students decision making skills	.61			
<b>2. Educational Advancement</b>					
7.	Assess differences in quality of parenting		.42		
16.	To diagnose learning needs		.36		
23.	Assess students' career awareness		.58		
24.	Assess students' academic performance		.65		
27.	For special needs education selection or eligibility		.36		
28.	Eligibility for promotion to next grade		.44		
31.	To stream students into ability groups		.45		
32.	Assess for learning difficulties		.49		
33.	To advise on vocational education options		.66		
34.	To determine students' openness to new ideas		.39		
36.	Plan school subject selection		.71		
37.	Assess the quality of the learning environment		.55		
38.	Plan the career guidance program		.42		
<b>3. Social-Vocational</b>					
2.	Help children to develop their potentials			.45	
4.	Know children's developmental strengths and limitations			.53	
6.	Assess students' ability to express themselves			.49	
7.	Assess differences in quality of parenting			.41	
8.	Assess students' leadership skills			.52	
9.	Learn about the type of life the students' wants to live or aspirations			.42	
12.	To help individualize counseling			.52	
13.	For career counseling			.61	
14.	Assess learning potential in students			.48	
15.	To assess and explore career interests			.69	
17.	For guidance and self understanding			.61	
21.	Assess students' social skills			.42	
28.	Eligibility for promotion to next grade			.38	
30.	Assess students' self-concept			.62	
<b>4. Ability/Aptitude</b>					
	Assess children's general knowledge				.62
3.	Assess children's thinking styles				.49
5.	Assess behavioral problems in children				.59
10.	Assess students physical and practical abilities				.61
20.	To learn about students' approaches to learning				.53
26.	For individualizing teaching or instruction				.67
37.	Assess the quality of the learning environment				.38

Notes. Items with a loading of at least .35 were retained

## Meaningful Social Abilities in a Community of Zimbabwean Adult Learners

The first author of this article has set out to assess and characterize valid and valued abilities in Shona communities. No presumptions were made about the nature of such abilities. The data was generated by adult learner Shona informants using free listing methods and their descriptions were analyzed thematically. Informants were 49 college students of a Shona cultural background: 34.69% came from rural areas, 36.73% were females, and the mean age was 36.37 years ( $SD = 6.41$ ). They responded to an open-ended questionnaire designed to acquire information that helped define what to them comprised intelligent behaviors in their environments. They were asked to describe intelligence behaviors that (a) "you often do" and "have done in the last 12 months"; (b) people from "your culture of origin often do" as well as "have done in the last 12 months". The respondents also were asked to report unintelligent behaviors that (a) "you sometimes do" and "have done in the last 12 months"; (b) members of your culture of origin "sometimes do" and "have done in the last 12 months". Their responses were assumed to reveal their implicit theories of intelligence that reflect behaviors individuals and communities do and do not value.

Table 4  
Domains of Intelligent and Unintelligent Behaviors by Zimbabwean College Students of a Shona Cultural Background and People of their Culture of Origin

Behavioral Domain	Intelligent Behavior by		Unintelligent Behavior by	
	Myself	People of my Culture	Myself	People of my Culture
	N (%)	N (%)	N (%)	N (%)
a) Interpersonal/Social	40 (26)	22 (20)	46 (39)	30 (31)
b) Planning, Decision Making and Problem Solving	31 (21)	18 (16)	13 (11)	3 (3)
c) Resource Management and Utilization	20 (13)	21 (19)	21 (18)	22 (23)
d) Work and Productivity	17 (11)	9 (8)	11 (10)	3 (3)
e) Education and Culture	34 (23)	25 (23)	3 (3)	23 (25)
f) Health	1 (1)	4 (3.5)	8 (7)	10 (10)
g) Leisure and Recreation	3 (2)	4 (3.5)	3 (3)	0 (0)
h) Self-Regulation/Civic Engagement	5 (3)	8 (7)	11 (9)	5 (5)
Total	151 (100)	111 (100)	117 (100)	96(100)

Note. The domains were derived following thematic analysis of students' descriptions of typical intelligent and unintelligent behaviors by themselves and members of their culture. N = number of statements by students per domain and actors (i.e., self, cultural group).

The adult learners' responses were analyzed thematically and clustered into eight domains: Interpersonal/Social, Planning, Decision Making, and Problem Solving, Resource Management and Utilization, Work and Productivity, Education and Culture, Health, Leisure and Recreation, Self-Regulation and Civic Engagement (see Table 4). Sentences or phrases that had a similar theme comprised a behavioral domain.

The **Interpersonal/Social** domain was derived from statements by the Zimbabwean adult learners for whom relationships were central. For example, statements on intelligent behaviors often done by the self (e.g. "Taking care of family", "Hang on to my partner", "Took my old mother and orphaned niece into my home"); and intelligent behaviors done by the cultural group (e.g., "Cooperate with others", "Helped others in need", "Tolerate other races and religions", "Respect each other") were regarded as falling under the domain of Interpersonal/Social. Unintelligent behaviors done the self (e.g., "Shy to tell someone in his or her face how stupid he/she is", "Having not visited my mother in-law over a grudge", "Making decisions which negatively affect others", "Gossiping") or by the collective (e.g., "Resisting change", "Accusing each other of witch-craft", "Divorcing the barren", "Forcing people to marry wives of the family's choice".) also were classified under the Interpersonal/Social domain.

Statements on intelligent behaviors by one's self (e.g. "Work effectively and efficiently", "Researching and performing better at work" and "Driven myself at work and earned big monies") were clustered under **Work and Productivity** along with statements of unintelligent behavior by one's self (e.g. "Cheating at my work by working below my ability", "Keeping my work to the last minute" and "Embarking on a project that failed"). Intelligent behaviors by the members of the culture of origin concerning Work and Productivity included "Forming work cooperatives", "Crafting arts", and "Ploughing".

The domain of **Planning, Decision Making and Problem Solving** was derived from statements such as "I plan things in advance", "I remained focused in my life" and "I use past experiences to predict the future". Examples of unintelligent behaviors reportedly displayed by the students and/or members of their culture of origin include the following: "No resolutions set for the future", "Unable to deal with simple situations", "Postponing solving some problems", and "Making poor judgments".

Intelligent behaviors students or members of their culture of origin reportedly did that could be described as representing **Education and Culture** were "Reading books to improve myself academically", "Wrote and passed some examinations", "Observe own cultural values", and "Honor leaders and chiefs". Examples of unintelligent behaviors done by the students or their cultural group falling under the same domain include "Refusing children good education", "Not taking my studies seriously", "Always consulting a n'anga (traditional healer) when they know that a person is an AIDS patient instead of seeking medical assistance", and "Not reporting rape cases protecting their kin".

Intelligent behaviors reported by students of themselves and members of their cultural group that fell under the domain **Resource Management and Utilization** included "Planning my resources, time and money", "Manipulate my environment", "Changing all furniture in my house before prices went up", and "Communal stocking of food for periods of drought". Unintelligent behaviors associated with Resource Management and Utilization

by one's self and members of own cultural group included "Buying luxury goods at the expense of basics", "Overspending on amount budgeted for", "Purchased a dead battery for Z\$850 (USD=150) at an auction", "Appeasing spirits using a lot of money and other resources that could be used to better the life of the living ones", and "Drinking and forgetting their chores", and "Having too large families that one cannot support".

The domains for **Health, Leisure and Recreation** and **Self-regulation/Civic Engagement** were derived similarly. Space constraint limit the presentation of examples for these domains. An interrater reliability indice of .95 was observed of this scoring system.

Zimbabwean adult learners considered intelligent behaviors to be multilayered and to be expressed across a broad range of life activities (Table 4). Successful or practical intelligence (Sternberg, 1999) is valued by the students and their communities. This orientation toward practical intelligence among members of an indigenous African community differs significantly from orientations more common in Western cultures that view intelligence more narrowly, typically in reference to qualities that impact or impede academic success.

Zimbabwean adult learners considered that intelligent behaviors displayed by them and others in their communities to constitute five main areas: interpersonal relationships, planning, decision-making and problem solving, resource management and utilization, education and culture, and work and productivity. About 81 to 94% of behaviors that the adult learners regarded as expressing intelligence or a lack of intelligence related to these five domains. Among these five, Zimbabwe respondents view interpersonal behavior as the most expressive of intelligence to them and their culture of origin. Being educated and knowledgeable about local culture also was highly regarded along with success in the use and management of resources. The finding that indigenous Zimbabweans consider interpersonal or social relationships and formal education to be critical to intelligence for themselves and others is consistent with prior research (e.g., Irvine, 1988; Mpofo, 2004). The finding that resource management and utilization, work and productivity and planning and decision making in applied settings are important to conceptions of intelligence by members of an indigenous African community constitutes a new and potentially important addition to our scholarship.

Behaviors in the domains of health, leisure and recreation and self-regulation and civic engagement were identified as reflecting intelligence albeit to a lesser degree than other domains. The infrequent mentioned of behaviors in the areas of self-regulation and civic engagement may be due to and reflect the Shonas' collectivistic cultural orientation and their inclination to value social action within a collective or social group rather than as individuals (Mpofo, 1994). Civic engagement for the good of the general public also is secondary to their obligations to their extended family (Mpofo, 2004). The Shonas also are likely to consider leisure and recreation to be intertwined with their general social life rather than as a separate social entity.

A follow-up study that examined giftedness among the Shona (Mpofo, Gudyanga, & Ngara, 2007) as expressed by 47 cultural informants who were college adult learners expressed the view that high ability was a sign of giftedness. They also perceived

giftedness to be task-specific and widely dispersed in the general population. In their view, many people are gifted in some aspect of human activity. They also considered giftedness in others to be readily identified by adults in the community and by peers (see also Serpell, 2007). These findings contribute to a consensus belief that the qualities that constitute giftedness are likely to differ culturally and thus cross-nationally and thus must be understood within a cultural context (Kaufman & Sternberg, 2007, Mpofu et al., 2007; Phillipson, 2007). A universal hierarchy of giftedness independent of cultural context may not exist.

The lower number of statements on health-related behaviors as defining intelligence was somewhat surprising in view of the HIV/AIDS pandemic in Zimbabwe and other nations in the sub-region. Zimbabwe has one of the highest prevalence of HIV/AIDS infections in the world, with an estimated 18% of the general population living with HIV/AIDS (e.g., UNAIDS, 2009). An expectation that respondents would offer many statements on HIV/AIDS risk-reduction or prevention behaviors in reference to one's self and members of the culture of origin as defining intelligence seemed reasonable. The recognition of abilities in not contracting HIV/ AIDS and also living well with HIV/AIDS may be higher now in that a decade has passed since the survey was carried out.

### **Meaningful Creativity**

All cultures are original creators of artifacts, goods and services. Additionally, all cultures use products and ideas important too adapted from other cultures. The nature and scope of what constitutes a creative act or idea has cultural overlays (Mpofu, Myambo, Mashengo, Mogaji & Khaleefa, 2006).

In an attempt to define creativity in the sub-Saharan contexts, Mpofu et al. (2007) asked 211 (71 males; 140 females) adult indigenous cultural respondents from eight sub-Saharan African countries (Egypt, Kenya, Mozambique, Nigeria, South Africa, The Sudan, Uganda, and Zimbabwe) to freely list words from their local languages (or mother tongue), which "mean the same as creativity or are closest in meaning to creativity" and to provide an English translation for each of the terms listed. Using back translations by bilingual persons from the same linguistic cultural background as the cultural respondents, Mpofu et al. (2007) sought to retain the intended original meanings as the indigenous referent terms.

Content analysis of the list of indigenous language words revealed that only the Arabic language had a word for creativity (i.e., "ibda") (see also Khaleefa, Erdos, & Ashria, 1996, 1997) and that creativity also was displayed through acts of "bid'a" or innovation. Other sub-Saharan cultural-linguistic communities also considered creativity to be synonymous with innovation. As an aspect of innovation, the indigenous cultural respondents considered creativity to be widely distributed among their populations and that a sizable number of people display it on typical tasks in their cultural contexts during some point in their lives. Innovation could include new learning, regional travel experience, and new ways to carryout household or work-related tasks.

Creativity also was described as qualities that express talent, being gifted and intelligent, and displaying social interest. Artistic expression and adaptive lifestyle also typified creative ability in these eight sub-Saharan communities. Respondents also considered people who are highly successful in business to be particularly creative. The view that creativity can be displayed by almost all people suggests a wide appreciation for human abilities within these sub-Saharan African communities.

### **Historical-International Context**

Methods used in the above-described studies that rely on appreciative inquiry to understand community values, orientations, and standards are rooted in and thus consistent with work over many centuries. For example, ancient Greek society described intelligent behavior as one which is consistent with the standards displayed in one's home and society. These personal qualities commonly are recognized today in Western societies through the use of measures of adaptive behavior. Persons who display significant deficits in adaptive behavior are considered to possibly display mental retardation/intellectual disability. Community standards are used to make this professional and personal judgment (Oakland & Harrison, 2008).

Alfred Binet, the inventor of the first widely used measure of intelligence, first attempted to measure intelligence through handwriting, palmistry, and measuring head circumference. People in his community encouraged him to consider developing measures of judgment, reasoning, and comprehension, given their belief that these three qualities better represent community standards in France during the first decade of the 20<sup>th</sup> Century for measuring intelligence. The 1911 version of his test soon became used widely in other countries that held similar beliefs as to the valued nature of judgment, reasoning, and comprehension in their societies.

David Wechsler, the developer of the most widely used individually administered measure of intelligence in the world, first defined intelligence as the ability to think rationally, *act purposefully, and deal effectively with one's environment*. This definition is aligned closely with current concepts of intelligence found commonly in a number of sub-Saharan African countries. Attempts in the West to define intelligence by narrowing its focus on school-related behaviors have narrowed the concept of intelligence and minimized its social significance. The scholarship from sub-Saharan Africa, reviewed here, helps remind us of these earlier and important roots (Oakland, 2009).

### **Summary and Conclusion**

The spectrum of human abilities is diverse and richly nuanced. Each culture will exhibit abilities valued and valid in the context of typical livelihoods. In the context of sub-Saharan African communities, the social aspects of human abilities receive widespread appreciation, especially those that promote desired social outcomes. Social responsibility or social interest is a key quality to define human ability. School-type abilities are

appreciated for their potential to contribute to people's ability to serve social interest values through their careers or other activities that require literacy. Cultural informants in sub-Saharan African communities believe giftedness and creativity are somewhat wide spread in their communities. Similarly, competencies that display unique and outstanding human abilities also are thought to be widespread.

## References

- Berry, J. W., van de Koppe, J. M. H., Annis, R. C., Senechal, C., Bahuchet, S., Sforza-Cavali, L. L. & Witkin, H. A. (1986). *On the edge of the forest: Cultural adaptation and cognitive development in central Africa*. Berwyn, PA: Swets North America Inc.
- Dasen, P. R. (2011). Culture, cognition and learning. In A. Bame Nsamenang & T. S. Tschombe (Eds.). *Handbook of African educational theories and practises: A generative teacher education curriculum contents* (pp. 187-202). Bamenda, Cameroon: Human Development Resource Centre.
- Grigorenko, E. L., Geissler, P. W., Prince, R., Okatcha, F., Nokes, C., Kenny, D. A., Bundy, D. A., & Sternberg, R. J. (2001). The organization of Luo conceptions of intelligence: A study of implicit theories in a Kenyan village. *International Journal of Behavioral Development, 25*, 367-378. doi:10.1080/01650250042000348
- Irvine, S. H. (1970). Affect and construct: A cross-cultural check on theories of intelligence. *Journal of Social Psychology, 80*, 23-30.
- Irvine, S. H. (1972). The African contribution to new thinking about intelligence. In S. H. Irvine, & J. T. Sanders (Eds.), *Cultural adaptation within modern Africa* (pp. 97-102). New York: Teachers College Press.
- Irvine, S. H. (1988). Constructing the intellect of the Shona: A taxonomic approach. In J. W. Berry, S. H. Irvine, & E. B. Hunt (Eds.), *Indigenous cognition functioning in a cultural context* (pp. 156-176). Dordrecht, the Netherlands: Martinus Nijhoff Publishers.
- Kasfir, N. (1983). Introduction: Relating state to class in Africa. *The Journal of Commonwealth and Comparative Politics, 21*, 1-20.
- Kaufman, S. B., & Sternberg, R. J. (2007). Giftedness in the Euro-American culture. In S. N. Phillipson & M. McCann (Eds.). *Conceptions of giftedness: Sociocultural perspectives* (pp. 377-412). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kendall, I. M., Verster, M. A., & Von Mollendorf, J. W. (1988). Test performance of blacks in Southern Africa. In S. H. Irvine & J. W. Berry (Eds.), *Human abilities in cultural context* (pp.299-339). New York: Cambridge University Press.
- Khaleefa, O. H., Erdos, G., & Asharia, I. H. (1996). Creativity in an indigenous Afro-Arab Islamic culture: The case of the Sudan. *The Journal of Creative Behavior, 30*, 268-283.
- Khaleefa, O. H., Erdos, G., & Ashria, I. H. (1997). Traditional education and creativity in an Afro-Arab Islamic culture: The case of the Sudan. *Journal of Creative Behavior, 31*, 201-211.

- Mandaza, I. (1986). *Zimbabwe: The political economy of transition*. Dakar, Senegal: Codresia.
- Marfo, K. (2011). Envisioning an African child development field. *Child Development Perspectives*, 5, 140-147.
- Maunganidze, L., Kasayira, J. M., & Mudhovozi, P. (2011). Educational assessment and analysis in the African context. *African educational theories and practices: A generative teacher education handbook* (pp. 349-364 ). Bamenda, Cameroon: Human Development Resource Centre/Presses Universitaires d'Afrique.
- Mhaka-Mutepfa, M., & Seabi, J. M. (2011). Developmental assessment of African school children in Zimbabwe. *African educational theories and practices: A generative teacher education handbook* (pp. 335-348 ). Bamenda, Cameroon: Human Development Resource Centre/Presses Universitaires d'Afrique.
- Mpofu, E. (1993). The context of mental testing and implications for psychoeducational practice in modern Zimbabwe. In W. Su (1993) (Ed.). *Proceedings of the Second Afro-Asian Psychological Conference* (pp. 17-25). Beijing, China: University of Peking Press.
- Mpofu, E. (1994). Exploring the self-concept in an African culture. *Journal of Genetic Psychology*, 155, 341-354.
- Mpofu, E. (2004). Being intelligent with Zimbabweans: A historical and contemporary view. In R. J. Sternberg, (Ed.). *International handbook on the psychology of human intelligence* (pp. 364-384). New York: Cambridge University Press.
- Mpofu, E., Gudyanga, E. & Ngara, C. (2007). Constructions of giftedness among the Shona of Central-Southern Africa. In S. N. Phillipson & M. McCann (Eds.), *What does it mean to be gifted?: Sociocultural perspectives* (pp. 225-252). Mahwah, NJ: Lawrence Erlbaum.
- Mpofu, E., Myambo, K., Mashengo, T., Mogaji, A., & Khaleefa, O. (2006). African perspectives on creativity. In J. C. Kaufman & R. J. Sternberg (Eds), *The International handbook of creativity* (pp. 456-489). New York: Cambridge University Press.
- Mpofu, E. & Ortiz, J. (2009). Equitable assessment practices in diverse contexts. In E. Grigorenko (Ed.). *Multicultural psychoeducational assessment* (pp. 41-76). New York: Springer Publishing Company
- Mpofu, E. & Nyanungo, K. R. L. (1998). Educational and psychological testing in Zimbabwean schools: Past, present and future. *European Journal of Psychological Assessment*, 14, 71-90.
- Mwaura, P. A. & Marfo, K. (2011). Bridging culture, research, and practice in early child development: The Madrasa Resource Centers in East Africa. *Child Development Perspectives*, 5, 134-139.
- Nsamenang, A. B. (2006). Human ontogenesis: An indigenous African view on development and intelligence. *International Journal of Psychology*, 41, 293-297.
- Oakland, T. (2009). How universal are test development and use? In E. Grigorenko (Ed.). *Assessment of abilities and competencies in an era of globalization* (pp. 1-40). New York: Springer.



- Oakland, T., & Harrison, P., (2008) Professional and legal issues associated with the use of the Adaptive Behavior Assessment System-II. In T. Oakland & P. Harrison, *Adaptive Behavior Assessment System-II: Clinical use and interpretation* (pp. 21-27). San Diego, CA: Elsevier, 21-27
- Oslon, A. R. (1986). Intelligence and literacy: The relationships between intelligence and the technologies of representation and communication. In R. J. Sternberg & R. K. Wagner (Eds.), *Practical intelligence: Nature and origins of competence in the everyday world* (pp. 338-360). Cambridge, MA: Cambridge University Press.
- Pence, A. (2011). Early childhood care and development research in Africa: Historical, conceptual, and structural challenges. *Child Development Perspectives*, 5, 112-118.
- Phillipson, S. N. (2007). A framework for the study of sociocultural perspectives of giftedness. In S. N. Phillipson & M. McCann (Eds.), *Conceptions of giftedness: Sociocultural perspectives* (pp. 1-34). Mahwah, NJ: Lawrence Erlbaum Associates.
- Serpell, R. (1977). Estimates of intelligence in a rural community in eastern Zambia. In F. M. Okatcha (Ed.), *Modern psychology and cultural adaptation* (pp. 179-216). Nairobi, Kenya: Swahili Language Consultants and Publishers.
- Serpell, R. (1991). Wanzelu ndani? A Chewa perspective on child development and intelligence. In EDITORS!! *The significance of schooling: Life-journeys in an African society* (pp. 24-71). Cambridge, MA: Cambridge University Press.
- Serpell, R. (2007). Bridging between orthodox western higher educational practices and an African sociocultural context. *Comparative Education*, 43, 23-51.
- Serpell, R. (2011a). Social responsibility as a dimension of intelligence, and as an educational goal: insights from programmatic research in an African society. *Child Development Perspectives*, 5, 126–133.
- Serpell, R. (2011b). Peer group cooperation as a resource for promoting socially responsible intelligence: *ku-gwirizana ndi anzache*. In A. B. Nsamenang & T. M.Tchombe (Eds), *African educational theories and practices: A generative teacher education handbook* (pp. 195-204 ). Bamenda, Cameroon: Human Development Resource Centre/Presses Universitaires d’Afrique.
- Serpell, R. & Boykin, A. W. (1994). Cultural dimensions of cognition: A multiplex, dynamic system of constraints and possibilities. In R. J. Sternberg (Ed.). *Thinking and problem solving* (pp. 369-408). New York: Academic Press.
- Stemler, S., Chamvu, F., Chart, H., Jarvin, L., Jere, J., Hart, L., Kaani, B., Kalima, K., Kwiatkowski, J., Mambwe, A., Kasonde-Ng’andu, S., Newman, T., Serpell, R., Sparrow, S., Sternberg, R. J. & Grigorenko, E. L. (2009). Assessing competencies in reading and mathematics in Zambian children. In E. L. Grigorenko (Ed), *Multicultural psychoeducational assessment* (pp. 157-186). New York: Springer.
- Sternberg, R. J. (1985). Implicit theories of intelligence, creativity and wisdom. *Journal of Personality and Social Psychology*, 49, 607-627.
- Sternberg, R. J. (1999). The theory of successful intelligence. *Review of General Psychology*, 3, 292-375.
- Sternberg, R. J., Nokes, C., Geissler, P. W., Prince, R., Okatcha, F., Bundy, D. A., Grigorenko, E. L. (2001). The relationship between academic and practical

intelligence: A case study in Kenya. *Intelligence*, 29, 401-418. doi:10.1016/S0160-2896(01)00065-4

Super, C. M., Harkness, S., Barry, O., Zeitlin, M. (2011). Think locally, act globally: Contributions of African research in child development, *Child Development Perspectives*, 5, 119-125.

UNAIDS (2009). *AIDS epidemic update*. Geneva: United Nations Programme on HIV/AIDS [<http://www.unaids.org/en/KnowledgeCentre/HIVData/EpiUpdate/EpiUpdArchive/2009/default.asp>].

Whitney, D., & Trosten-Bloom, A. (2010). *The power of appreciative inquiry* (2<sup>nd</sup> ed.). San Francisco, CA: Berrett-Koehler.

Wober, M. (1974). Towards an understanding of the Kiganda concept of intelligence. In J. W. Berry & P. R. Dasen (Eds.). *Culture and cognition: Readings in cross-cultural psychology* (pp. 261-280). London, UK: Methuen.

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### **Questions for Discussion**

1. Identify cultural factors that may require human abilities to be defined differently than it has been in the history of Western psychology.
2. Do you think there is need for a common definition of intelligence? Support your answer with reasons.
3. What are the implications of implicit theory for the study of human abilities within and between cultures?
4. List some (a) human abilities you currently recognize, and /or which others recognize in the last 12 months. What qualifies these for abilities.
5. What is your response to the assertion that modernization will make conceptions of human ability across cultures more similar?
6. In what contexts do you consider yourself "intelligent" and why?
7. In which contexts are you less capable? How have you handled situations that challenge your self-perception as a capable person?