Cultural Diversity in Neuropsychological Assessment
Developing Understanding through Global Case Studies
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Culturally Responsive Neuropsychological Assessment in South Africa

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Section I: Background Information

Terminology and Perspective

South Africa is infamous for apartheid (legislated racial segregation between 1948 and 1884), which led to racial classifications still used by Statistics SA today (for census and employment purposes). These include “Colored” for those of mixed-race ancestry, “White” for those of European ancestry, “Black” for indigenous African inhabitants, while those from South Asia (primarily India) are collectively referred to as “Indian.” People from East Asia (China and surrounding countries) are termed “Asian,” while “Malay” denotes people from Singapore, Malaysia, and countries in Southeast Asia. This blend of people means that South Africa is a nation with a multitude of cultures and traditions.

The first author’s perspective is influenced by her ancestry from immigrant parents from Great Britain. She was born in Zimbabwe but has lived in South Africa most of her life and identifies as South African. The second author’s perspective spans multiple identities as a mother, wife, daughter, and sister in a communal culture in Johannesburg. She identifies as South African with ancestry stemming from immigrant grandparents from India. Both authors studied at the University of the Witwatersrand, Johannesburg, where they teach psychological assessment and neuropsychology among other subjects.

Geography

South Africa is located at the southernmost tip of Africa with a population of approximately 58 million people. It is described as the Cradle of Humankind evidencing some of the earliest human populations.

Early History

The African cultures that inhabited the region prior to colonization (pre-13th century) relied on an oral tradition to record their history. Thus, there are few written accounts of the early history of the country. The Khoi and San people were the original inhabitants of South Africa, particularly in the Western regions. These were nomadic tribes that operated as collectivist societies with no leadership structures. They lived off the land and their history is inscribed in cave paintings. The Nguni tribes came to the region later and consisted of the Bantu groupings who lived across the Great Lakes region of Africa. Many migrated south in search of better land for their animals and crops. These tribes had a sophisticated social structure with chiefs and leaders, and established settlements to the east of South Africa. As the Nguni tribes migrated south toward the sea, they displaced much of the Khoisan population.
Colonial History

South Africa was colonized by the Dutch (1652–1795; 1803–6) and the British (1795–1803; 1806–1961). During these periods, slaves, workers, and prisoners were brought in from colonies in Malaysia, Singapore, and India. Colonialism laid the ground for apartheid (separate development of different racial groups which privileged White people). During the apartheid era (1948–94), legislation was passed to enforce segregation in all spheres of life (education, employment, residence, health care, and public facilities), with better resources reserved for White South Africans. Apartheid was abolished in 1994, and a democratically elected government was introduced, led by Nelson Mandela. The new South African constitution promotes equality and dignity for all. The country’s diversity is evident in the official recognition of eleven languages, with most South Africans speaking at least two of these. Unfortunately, the country is plagued by systemic challenges related to poverty, unemployment, crime and violence, and high rates of HIV infection. Psychological assessment needs to be understood within this broader historical context.

Cultural Factors

African cultures in South Africa are described as collectivist and it is common for extended families to live in the same household. There is a strong sense of community, or Ubuntu, among South Africans, which in many indigenous languages is communicated as, “A person is a person through other persons” (with the isiZulu expression of this, “Umuntu ngumuntu ngabantu” often cited). Consequently, there is often support from family, friends, and the community, but the close-knit nature of communities means that health concerns are often not private. This can lead to stigma and discrimination associated with neuropsychological difficulties, and families may hide problems. It is often more culturally acceptable to visit traditional healers as this does not carry the same stigma associated with a psychologist or mental illness. Also, traditional healers are more accessible and affordable than university-trained practitioners. The traditional healer is viewed as the most important person in the community after the chief of a village.

isiZulu terms are used here to describe common traditional illnesses, while acknowledging that practices like Ubuntu and traditional healing extend to many African cultures. A common ailment is related to ancestral displeasure (abaphansi basifulathele). The role of the ancestors (amadlozi) in African tradition is to protect the family and in return the ancestors need to be mollified. Failure to do this can result in ancestral displeasure and illness. Traditional healers distinguish between medical and spiritual conditions. Illnesses due to medical conditions (Ukugula kwashukela) include head injuries, cerebrovascular accidents, and diseases of old age. Both medical health professionals and traditional healers may be consulted. The former tend to be a resource for providing alleviation of physical symptoms, while the latter are used to discover causes of psychological disturbance. Western psychological models tend to locate the source of psychological difficulties within the individual, with treatment usually taking place on an individual level. In contrast, many African cultures locate both the source of individual psychological distress and responsibility for its treatment within the community.

Language

Twenty-eight languages are spoken in South Africa, of which eleven are officially recognized. Most South Africans are multi-lingual, and not always sufficiently proficient in English to complete tests (English proficiency tends to be linked to urbanization). Literacy rates are lowest among the older population, with a literacy rate of 54.5% in those aged 65 years or older; 79.3% for those between 35 and 64 years; and 87% in those 15 years and older. Few neuropsychological tests exist
in the indigenous South African languages, despite the fact that these are spoken by the majority of the population. Consequently, psychologists often resort to ad hoc procedures to adapt tests, such as using family members to translate (if professional translators are unavailable) or giving extended time with practice examples. Although this is changing, most psychologists are White, English speakers, while most South Africans are Black, English second- or third-language speakers, necessitating specific training in cross-cultural sensitivity.

**Socio-Economic Status**

Although South Africa is classified by the World Bank as a middle-income country, this hides the discrepancies between rich and poor, as reflected in a Gini coefficient of 0.63. Socio-economic status (SES) is an important demographic to consider in neuropsychological assessment because past apartheid policies still persist in the form of socio-economic inequality, and so the majority of South Africans belong to low SES backgrounds. This economic divide results in differing access to resources and education, as well as varying levels of acculturation.

**Education**

The educational systems (former Model C, ex-DET, and privately funded) offer education that differs vastly in quality. Former Model C government schools were previously reserved for White children under apartheid and were modeled on British public schools. They are comparable to privately funded schools and generally provide a high standard of education. In contrast, schooling provided by the previous Department of Education and Training (DET) for Black children under apartheid remains constrained by limited resources and large classes despite new educational policies that mandate fairer allocation of resources. Although many Black children now attend the former Model C and private schools, most have no option but to attend the ex-DET schools. An advantaged, Western-style schooling teaches problem-solving, as well as test-taking skills, which are drawn on in neuropsychological tests. Consequently, psychologists take both level and quality of education into consideration when evaluating neuropsychological test performance.

**Health Status**

Despite being a middle-income country, South Africa has poor health outcomes. These include high mortality levels resulting from its quadruple burden of disease (a combination of communicable diseases, such as HIV/AIDS and tuberculosis; maternal and child mortality; non-communicable diseases, such as hypertension and cardiovascular diseases, diabetes, cancer, mental illnesses, and chronic lung diseases like asthma; as well as injury and trauma). Most of the population depends on the public health system to provide for its health care needs, yet these facilities are too few, under-resourced, understaffed, and challenged by management crises. A parallel private healthcare system exists that services only 16% of the population. Black South Africans, the less educated, the unemployed, and the poor are less likely to have adequate access to health care.

**Psychological Assessment**

Segregationist policies influenced all aspects of South African life, including psychological assessment. Imported, Western psychological tests were used in their original formats with African children and adults to demonstrate “low” native intellect and justify apartheid. Between the 1960s and 1980s, political sanctions limited access to international psychological assessments.
and several local tests were developed, modeled on Western counterparts. However, these were primarily developed for the White population only. In the 1980s and 1990s, there was a growing awareness of the need for psychological tests that were fair and valid for all South Africans. This led to the development of tests that incorporated differential ability testing, such as the General Scholastic Aptitude Test and the Ability, Processing of Information, and Learning Battery (APIL-B). Tests were also normed on a broader demographic. For example, the Senior South African Scales-Revised (SSAIS-R), a test of intellectual ability in children, was standardized for English- and Afrikaans-speaking White, Colored and Indian South African children, but not for African children. In 2000, the Differential Aptitude Tests were developed and the Wechsler Adult Intelligence Scale, Third Edition (WAIS-III) was adapted and standardized for all South Africans. In the same year, the Learning Potential Computerised Adaptive Test (LPCAT), a computer-based test of learning potential, was developed. The LPCAT comprises non-verbal, figural items based on the premise that these are less biased than verbal items for testees from disadvantaged backgrounds.

A challenge facing psychological assessment in South Africa is the fair testing of individuals from very diverse backgrounds. This is exacerbated by the lack of appropriately standardized, culturally relevant tests. Unequal educational opportunities, as well as cultural and linguistic differences in the comprehension of underlying test constructs, often manifest as lowered test performance, which may not reflect the individual’s actual ability. Few neuropsychological tests have been standardized and normed for South Africans, although academics are working to address this.

Below, we present a case study that highlights and integrates many of the issues discussed above.

Section II: Case Study — “A Person Is a Person through Other Persons”

Background and Presenting Concerns

When he was five years old, Phumlani* was hit by a car while crossing the road. He sustained injuries to his left temporal lobe. His Glasgow Coma Scale five hours’ post-accident was 8/15. Five months later, Phumlani experienced medically uncontrollable seizures resulting in a left temporal lobectomy, hippocampectomy, and amygdalectomy to surgically contain the seizures. He has been seizure free since then, but experienced several difficulties, some of which existed prior to the surgery. These include academic, attention, and verbal difficulties, social anxiety, withdrawal tendencies, and behavioral difficulties, as well as social and emotional vulnerabilities. Phumlani experiences considerable anxiety, especially about his academic performance and social interactions. His mother reported that Phumlani can be loving and affectionate, but also hostile, argumentative, avoidant, and resistant to completing tasks. At school, Phumlani avoids completing tasks that are challenging for him by engaging in alternative behaviors (e.g., changing the conversation topic, distraction, refusal to do the tasks) or opting out (e.g., going to the bathroom). His mother brought Phumlani to the University clinic for an evaluation based on these concerns.

Phumlani has an identical twin, Jabu, and three older sisters. They reside in an informal settlement in Johannesburg. Their father is deceased, and their mother is employed as a domestic worker. The children speak isiZulu at home and are being educated in English. During the interview, their mother indicated that, prior to the accident, the two boys seemed very similar in terms of their intellectual, social, and emotional development, although Phumlani was more introverted and impulsive than his brother.

*Names and identifying information have been changed to preserve the anonymity of the client.
Cultural Considerations

On the insistence of her husband’s family, Phumlani’s mother took him to a traditional healer after the seizures commenced. The healer diagnosed *ukugula kwashukela* and provided herbal medicine which caused Phumlani to have vivid dreams and hallucinations. Phumlani’s paternal family initially believed that he was suffering from *abaphansi basifulathele*, meaning that the ancestors were angry that Phumlani was not following the life course they had chosen for him. This is because the paternal family had previously taken him to another traditional healer who said that Phumlani was ignoring a calling to become a traditional healer. During this time, Phumlani was ridiculed and bullied at school and then acted out aggressively.

Health History

Developmental milestones were reportedly achieved age-appropriately. However, following the accident and the surgery, there were indications of developmental regression, with loss of acquired functions, especially in the verbal domain. In his Grade 1 year, ADHD was diagnosed, and autism was ruled out. Medication and therapeutic inputs were recommended, and Phumlani attended speech and occupational therapy at University clinics for one year. Vision and hearing evaluations ruled out any difficulties in these areas.

Phumlani’s general health was reported as good. His mother indicated that he experiences enuresis during sleep, as well as nightmares. He was no longer taking any traditional medicines but was taking stimulant medication prescribed by the psychiatrist at the local hospital. He did not consistently take this as the hospital pharmacy sometimes runs low on supplies, and other times his mother is unable to fetch the medication. There was no family history of epilepsy or psychiatric illness.

Educational History

Phumlani did not attend preschool, which is not compulsory in South Africa. He was looked after by his grandmother and sisters until he started formal schooling. Phumlani was 13 years, 3 months at the time of testing, and in Grade 5. He was kept back a year in Grade 1, and again in Grade 4. His brother, Jabu, is in Grade 7 and has not repeated any years. Phumlani’s academic performance is varied, and he failed the recent exams. Reports from the school indicate that he needs structure, supervision, and additional time to ensure that he completes tasks.

Test and Norm Selection

In order to obtain a detailed multidomain evaluation of Phumlani’s neurocognitive functioning, the NEPSY-II was selected. Although there are no South African norms for this test, the NEPSY-II manual includes scores from special case studies, including ADHD, intellectual disability, and traumatic brain injury. Each case study was compared to a control sample, matched on age, sex, race, and parent-education level, which allowed some comparison between Phumlani’s performance and that of a demographically similar case with a similar difficulty. In addition, the examiner was able to test Phumlani’s twin brother as a control case against which to compare Phumlani’s performance. All tests were administered in English as Phumlani already had seven years of formal education in English.

*Marilyn Adan inspired the assessment of Phumlani’s twin, after reporting a similar situation in Nell (15 p. 211).*
Kate Cockcroft and Sumaya Laher

Phumlani experienced difficulties grasping the assessment tasks, particularly the more abstract ones, and so testing was commenced at a lower age level (five years) and was then gradually advanced to the age-appropriate level. In addition, a dynamic assessment approach was used with some tests, which gave Phumlani extended time and/or practice attempts in order to evaluate his best possible performance. This approach evaluates performance both with and without careful mediational assistance from the tester, and the two levels of performance are contrasted to determine Phumlani’s learning potential. As there was variation from standardized testing procedures, the results reported below represent an estimate of Phumlani’s functioning across the domains assessed, and are contrasted with the scores attained by his brother.

The following were administered:

1. A Developmental Neuropsychological Assessment, Second Edition (NEPSY-II)
2. Rey–Osterrieth Complex Figure Test (ROCF).
3. The Draw-a-Person Test (DAP).

Behavioral Observations

Phumlani appeared withdrawn and lethargic, he seldom made eye contact, and hid his face in his hands, and turned his body away from the examiner. As he became more relaxed, these behaviors lessened although eye contact remained minimal. Many South African cultures regard direct eye contact as disrespectful, and so avoidance of eye contact was not regarded as inherently problematic. Phumlani tended to give monosyllabic responses to questions, but his speech was fluent when talking about topics that interested him, particularly football. He enjoyed looking at toys, but showed little interest in imaginative play or storytelling. Phumlani’s attention and concentration fluctuated throughout the assessment and he was easily distracted.

Phumlani is left-handed, with adequate fine-motor control. However, he experienced difficulty planning and executing drawing tasks. His compliance with test instructions and participation in the various tests had to be negotiated (e.g., testing had to be interspersed with games), to enable task completion. Phumlani seemed accustomed to being rewarded for behaving appropriately. As soon as tasks became mildly challenging, he gave up and frequently requested to go to the bathroom. Systematic repetition of test requirements was needed, particularly for multipart instructions. In contrast, his twin, Jabu, was friendly and engaged, and chatted spontaneously. He was able to comprehend tasks at first instruction and to maintain focus until completion. In many instances, Phumlani’s grandmother had to translate the instructions for Phumlani, whereas Jabu understood all without translation. While this is not best practice, given that family members tend to want to assist when translating, it speaks to the South African context where psychologists are often not proficient in the languages that clients are comfortable with and there is a shortage of trained professionals who can assist. Ideally a professionally trained translator should be used.

Test Performance

Attention and Executive Functioning

Phumlani’s performance in this domain was well below the expected level for his age. In contrast, Jabu’s performance was within the Low Average to Average range, with the exception of the Clocks subtest, which was Below Average. Both boys experienced difficulty with the concept of time, which may be due to lack of exposure. Phumlani’s performance suggested difficulties with
selective auditory attention (he was easily distracted from tasks and instructions had to be frequently repeated); the ability to prevent impulsive or well-learned responses; the ability to adopt, maintain and change set (he struggled to categorize objects into concrete groups); and the ability to plan and organize. This was coupled with slow responding to tasks with time limits. Phumlani struggled to spontaneously self-correct, showing a lack of awareness of his errors, whereas Jabu showed good self-monitoring, noticing, and spontaneously correcting errors.

Language

While the boys speak isiZulu at home, they have attended an English medium school since Grade 1. Phumlani experienced difficulty understanding verbal instructions of increasing complexity. He struggled to read a Grade 2 level story and showed poor comprehension, which corroborates reports from his school. Jabu, in contrast, was able to read and comprehend in English with few errors. Phumlani could name concrete objects reasonably accurately but very slowly, suggesting delayed access to this vocabulary. His mother and teachers reported similar difficulties in isiZulu. Overall, Phumlani’s English communication skills are weak, while Jabu’s were in the Low Average range.

Social Perception

Phumlani found it difficult to interpret non-verbal cues, to form impressions of others, to recognize emotions in faces and to use contextual information to make inferences about others (all necessary for social functioning). He also struggled to infer other people’s beliefs or intentions. In contrast, Jabu fared in the High Average range in these areas.

Memory and Learning

Phumlani’s immediate and long-term visuospatial memory for abstract geometric designs was very poor. Memory for faces was somewhat better, but still below expected levels for his age, although retention after a delay was acceptable, suggesting slow processing. Memory for names connected to faces was very weak both at immediate and delayed recall (isiZulu names of similar lengths were also substituted for the English names, yet performance was equally poor), and a similar pattern was found with immediate memory for word pairs. Jabu’s performance was slightly better, falling in the Borderline range.

Phumlani found the age-appropriate narrative memory story too complicated, and consequently the story for younger children (five to ten years) was read aloud. He could recall very few details about it. He was then questioned about it to see whether cues assisted his recall, and was asked to choose between a correct and incorrect fact from the story. His immediate free recall was average for a ten-year old, while cued recall and recognition were extremely poor. After Phumlani was taught some strategies for focusing his attention and for recalling key aspects of a story, a second story was read to him (from the Stories subtest of the Children’s Memory Scale 30). His performance on all aspects improved to that of a 12-year old, suggesting good potential for improvement if taught appropriate learning strategies.

Sensorimotor Skills

Phumlani’s fine-motor speed and co-ordination, including finger dexterity and motor speed, and fine motor programming were sound (Low Average), and his performance was similar whether he used his non-dominant or dominant hand. His performance was similar to that of his brother’s, which was in the Average range.
Visuospatial Processing

This includes interrelated skills, such as judging line orientation, copying figures, reconstructing designs from a model, mentally rotating figures, breaking a figure into parts, and recognizing part-whole relationships. Phumlani’s functioning was at age-appropriate levels, although he struggled as the material became more abstract and when time limits were imposed. In comparison, Jabu showed High Average abilities in this domain. Phumlani’s visuo-graphic reproduction of complex material on the Rey Complex Figure Test (RCFT) was quick and careless, with many errors and distortions and signs of perseveration. He could not complete the immediate recall task. Delayed visual recall was also poor and he struggled to recognize elements of the drawing when cues were provided.

This performance is contrasted with Phumlani’s sound performance on Design Copying of the NEPSY-II, which assesses similar skills. It is possible he was overwhelmed by the complexity of the RCFT and did not apply the same effort as for the NEPSY-II task, where designs were gradually increased in complexity (starting at age five). This does not necessarily indicate difficulty with visual memory, but with organizing visual material in a coherent and meaningful way to encode it in memory. After dynamic mediation, during which the figure was drawn by the examiner while providing a systematic explanation on how to organize the details of the figure into an integrated structure, Phumlani’s copying of the figure improved considerably. This indicates good modifiability (ability to learn) when provided with an appropriate strategy.

Emotional Functioning

Projective tests provided tentative indications regarding Phumlani’s self-concept, perceptions of his family, interpersonal functioning, and any emotional issues that he may be experiencing. Current research using these measures with culturally diverse South African samples was considered in their interpretation.

For the DAP Test, Phumlani drew a simplified figure of undetermined gender with little attention to detail. A qualitative analysis revealed possible regression tendencies, vulnerable social and emotional adjustment, anxiety, brain injury, dependency, passivity and impulsivity, need for a protective mother figure, and feelings of immobility and constriction.

The KFD is an unstructured projective technique that reveals the child’s feelings in relation to those who he regards as most important and whose formative influence is most powerful. As with the DAP, Phumlani drew in a hurried manner (in order): himself, Jabu, his father (on questioning this was revealed to be his paternal uncle, who plays an important part in the children’s lives), and mother. It is typical in many African cultures for an uncle to take over the deceased father’s role. There was no interaction between any of the figures. The drawing suggests that Phumlani perceives himself as the most important member of the family and identifies closely with his brother, mother, and uncle, but that his sisters are less important in his life.

Test Results and Impressions

Phumlani’s performance in all areas, except sensorimotor functioning, was significantly lower than that of his brother, suggesting that the difficulties are related to the brain injury, epilepsy, and/or surgery. His attention, processing speed, and executive functioning difficulties significantly compromised his performance. However, he responded well when tasks were simplified and he was given a structure for how to complete them. Phumlani employs various coping strategies when confronted with tasks that he perceives as too challenging, such as regression, distraction, resistance, or withdrawal. These have been increasing at school and at home, in response to increased academic requirements and social expectations.
Recommendations

Phumlani’s mother was receptive to discussing his medications with his psychiatrist to ensure that dosages are effective, given his attention difficulties. She also agreed that individual therapy, with a focus on learning how different emotions are expressed in himself and others, how to connect emotions to the appropriate verbal labels, how to regulate emotions and behaviors, as well as learning how his behavior may impact others, would be helpful. It was recommended that the psychologist meet with the entire family to discuss Phumlani’s difficulties and how the family can assist him. It was also necessary to engage with the family’s belief systems, since there was a belief in ancestral wrath as a cause of Phumlani’s difficulties. Counseling was recommended for Phumlani’s mother in order to support and assist with parenting decisions and stresses, and to negotiate the stressors imposed by her in-laws and the community. Phumlani’s sister, a university student, agreed to initiate the contact with the psychiatrist and psychologist and to assist her mother with these meetings. Given his difficulties, it was recommended that Phumlani be placed in a remedial school. We also discussed how Phumlani’s sisters could assist him with effective study and learning strategies.

Section III: Lessons Learned

- Due to varying levels of literacy, test-wiseness, and acculturation, local psychologists cannot rely solely on a traditional, psychometric testing approach. Instead, a holistic assessment approach is utilized, including a battery of tests, qualitative observations, a detailed and appropriate history, and collateral information, before making decisions and recommendations.\(^{33}\)
- In heterogeneous societies, such as South Africa, a biopsychosocial-spiritual approach is typically adopted. This allows practitioners to consider both Western systems like the DSM-5 and ICD-10 together with sociocultural and community beliefs about health and illness. The two approaches should not be regarded as mutually exclusive. It is common in African cultures to seek help from a range of sources in recognition that different practitioners can fulfill different needs. Western medicine is often consulted for symptomatic relief, while advice may be sought from traditional healers about explanations for the illness.\(^{34}\) This means that practitioners need to be culturally sensitive, and that training in neuropsychological assessment should include an understanding of the inter-relationship between beliefs-attitudes, knowledge, and skills.\(^{35}\)
- In the face of limited resources, it is prudent to research and adapt existing, psychometrically sound measures for use with local populations wherever possible.\(^{36}\) For example, phonemic fluency tests are established measures of executive functioning. English phonemic fluency is typically tested using the letters FAS (as in the Controlled Oral Word Association Test, COWAT). Different letter sets have been researched for different South African languages, for example, Afrikaans\(^ {37}\) and isiXhosa.\(^ {38}\) The latter study provides a good example of the adaptation of this test with appropriate test items and norms for isiXhosa-speakers in keeping with the International Test Commission’s guidelines for culture-fair testing in multi-lingual populations, and recommendations on how to ensure linguistic equivalence of stimuli.\(^ {39}\)
- Since there are few locally normed neuropsychological tests, a flexible approach is essential and psychologists need to be circumspect in their use of normative data. Working in a less structured paradigm allows psychologists to work more flexibly with clients who have linguistic and educational challenges. Non-verbal tests are useful but also rely on test-wiseness and acculturation, and so tests frequently have to be adapted. For example, it may be more appropriate for testees from rural backgrounds to complete Block Design tasks with more familiar objects such as beads, as many African cultures have a tradition of beadwork. Bead
patterns can also be used to evaluate series formation and sequential memory. Arithmetic problems can be represented in terms of counting cattle, fruit, beads, or food quantities. If a child is unfamiliar with paper and pencil work, she can draw a figure with a stick in wet sand or construct a human figure from clay as an adaptation of the DAP Test.41

- Given the high levels of socio-economic deprivation and poor schooling in some areas of South Africa, dynamic assessment techniques are useful for tapping learning potential.42 However, as with other qualitative approaches, this is time and resource intensive and requires specialist skills. Measures of working memory (often included in general intelligence assessments) may be a relatively easy and inexpensive way of tapping a testee's capacity for learning. As indicators of fluid, flexible problem solving, working memory measures tend to be less influenced by SES or access to resources since the stimuli used tend to be equally unfamiliar to all testees, or entail well-learned stimuli, such as letters and numbers.16,43,44

- Recommendations commonly include adapted strategies tailored to a testee’s SES and cultural background. For example, parents who do not have access to occupational therapy, can encourage their child to use available materials to develop fine motor skills, such as making daisy chains from flowers and grass, threading bottle tops on a string, buttoning shirts after ironing.10

- Psychologists need to be aware of the ways in which bilingualism and multi-lingualism can alter typical performance expectations. For example, semantic fluency in either of the bilingual’s languages is generally lower than that of monolinguals.45 Given the varied levels of English proficiency in South Africa, where most tests only exist in English, the testee’s English language proficiency should always be considered.

- Psychologists should be sensitive to ethnocentric biases in the interpretation of projective tests. For example, the differing perceptions of fertility in African and Western countries; in many African cultures, children confer social status, offer social security, assist with labor, secure property rights and inheritance, provide continuity through reincarnation and maintenance of the family lineage, satisfy emotional needs and secure conjugal ties.46 Similarly, tester effects, such as the presence of a person from a different culture, can impact on testee’s responding. This is particularly relevant in South Africa, given its history of racial tensions. Further, the power relations between the tester and testee need to be considered, as this can give rise to socially desirable responding.31

Glossary

Abaphansi basifulathele. An ailment related to ancestral displeasure.
Afrikaans. A West Germanic language that developed from the 1820 Dutch settlers in South Africa, still in use today.
Amadlozi. An isiZulu term for ancestors (family members who have died).
Ubuntu. A sense of community and togetherness which stresses how all of our actions impact on others and on society.
Ukugula kwashukela. Illnesses due to certain medical conditions.

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