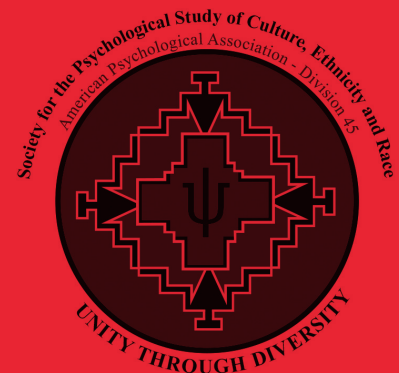
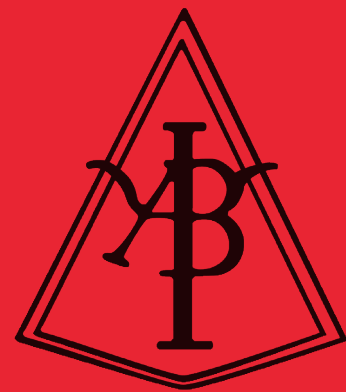


TESTING AND ASSESSMENT WITH PERSONS & COMMUNITIES OF COLOR



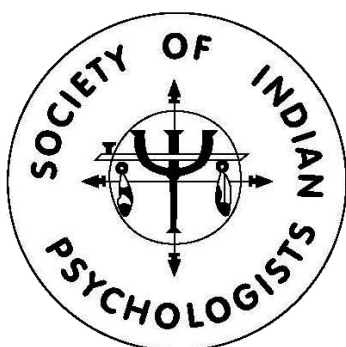
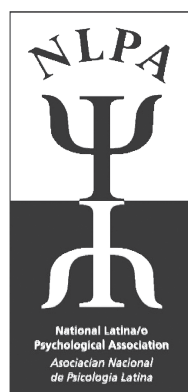
Council of National Psychological Associations for the
Advancement of Ethnic Minority Interests (CNPAAEMI)

TESTING AND ASSESSMENT WITH PERSONS & COMMUNITIES OF COLOR

Co-Editors

Frederick T. L. Leong, PhD
Michigan State University

Yong Sue Park, PhD
University of Southern California



Council of National Psychological Associations for the Advancement
of Ethnic Minority Interests (CNPAAEMI)

CNPAAEMI (clockwise from top left):

Asian American Psychological Association
National Latina/o Psychological Association
Association of Black Psychologists

Society for the Psychological Study of Culture, Ethnicity and
Race (Division 45 of the American Psychological Association)
American Psychological Association
Society of Indian Psychologists

TESTING AND ASSESSMENT WITH PERSONS & COMMUNITIES OF COLOR

This monograph was authorized by the Council of National Psychological Associations for the Advancement of Ethnic Minority Interests (CNPAAEMI) and published by the American Psychological Association. Its contents should not be construed as representing the policy of any of the associations represented by CNPAAEMI members.

This report is available online at the APA Office of Ethnic Minority Affairs website: <https://www.apa.org/pi/oema>

Suggested bibliographic reference:

Council of National Psychological Associations for the Advancement of Ethnic Minority Interests. (2016). *Testing and assessment with persons & communities of color*. Washington, DC: American Psychological Association. Retrieved from <https://www.apa.org/pi/oema>

Copyright © 2016 by the American Psychological Association. This material may be reproduced in whole or in part without fees or permission provided that acknowledgment is given to the American Psychological Association. This material may not be reprinted, translated, or distributed electronically without prior permission in writing from the publisher. For permission, contact APA, Rights and Permissions, 750 First Street, NE, Washington, DC 20002-4242.

Table of Contents

Preface	v
I. Introduction	1
Frederick T. L. Leong, PhD, and Yong Sue Park, PhD	
II. Testing and African Americans: Testing Monograph From the Association of Black Psychologists	3
Kevin Washington, PhD; Celeste Malone, PhD; Candyce Briggs, PhD; and Gregory Reed, PhD	
III. Psychological Assessment Considerations for American Indians, Alaska Natives, and Native Hawaiians	12
Jacqueline S. Gray, PhD; Wendy M. K. Peters, PhD; and John A. McCullagh, PhD	
IV. Psychological Testing and Assessment in the Asian American Community	18
Lisa A. Suzuki, PhD; Philip S. Wong, PhD; and Grace Wong, PhD	
V. Psychological Testing and Assessment of Latina/os	24
Geneva Reynaga-Abiko, PsyD; Saul G. Alamillo, PhD; Andrés J. Consoli, PhD; and Jesús Aros, PhD	

Preface

There are five national ethnic minority psychological associations. The presidents (or her/his designee) of these associations and the president (or her/his designee) of the American Psychological Association (APA) constitute the **Council of National Psychological Associations for the Advancement of Ethnic Minority Interests (CNPAAEMI)**:



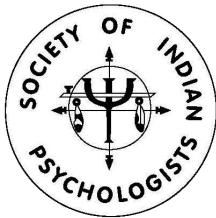
Asian American Psychological Association



National Latina/o Psychological Association



Association of Black Psychologists



Society of Indian Psychologists



American Psychological Association



Society for the Psychological Study of Culture, Ethnicity and Race
(Division 45 of the American Psychological Association)

The goals of CNPAAEMI are the following:

- Promote the professional/career development of ethnic/racial minority psychologists
- Advance multicultural competence of psychologists
- Promote culturally competent service delivery models of psychological care
- Increase the recruitment and retention of ethnic/racial minorities in the profession of psychology
- Liaise and collaborate with other appropriate organizations interested in ethnic/racial minority issues and/or projects
- Promote research and understanding using alternative cultural paradigms

Authorization of CNPAAEMI activities, such as the development of this report, requires the unanimous consent of all council members. Indeed, this report was developed in response to critical concern among all of the nation's ethnic minority psychological associations about the quality, intensity, and appropriateness of psychological education and training that are being provided to prepare future researchers and service providers to work with the multicultural populations that they will undoubtedly encounter in the 21st century.

We hope that this report will encourage psychological trainers and educators to reassess and elaborate on their strategies for preparing the nation's future psychologists to competently and respectfully research and serve the ever-changing tapestry of our increasingly multicultural nation. We hope it will also serve to empower psychology students to seek appropriate multicultural and culture-specific training.

Introduction

Frederick T. L. Leong, PhD

Michigan State University

Yong Sue Park, PhD

University of Southern California

The monograph on testing and assessment among racial/ethnic minorities is the fourth in a series of monographs published by the Council of National Psychological Associations for the Advancement of Ethnic Minority Interests (CNPAAEMI) to address diversity issues pertaining to core activities undertaken by psychologists in service of the major racial/ethnic minority populations in the United States. Previous monographs have focused on research (2000), psychological treatment (2003), and education and training (2009). The monograph series is a collective effort among the five major minority psychology organizations: the Asian American Psychological Association (AAPA), Association of Black Psychologists (ABP), National Latina/o Psychological Association (NLPA), Society of Indian Psychologists (SIP), and the Society for the Psychological Study of Culture, Ethnicity and Race of the American Psychological Association (Division 45).

Testing and assessment is a unique professional activity undertaken by psychologists in multiple contexts for a wide range of purposes, which include but are not limited to job placement, diagnosing psychological disorders for mental health treatment, verifying health insurance coverage, conducting focus groups for market research, informing legal decisions and government policies, and developing measures to reliably assess personality characteristics (Fisher, 2009). Guidelines for the ethical practice of psychological testing and assessment with racial/ethnic minorities are provided in the American Psychological Association's (APA) Ethical Principles of Psychologists and Code of Conduct (2002) and the *Standards for Education and Psychological Testing* (Testing Standards; American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2014).

According to the Justice Principle of the APA Ethics Code, the field of psychology strives to establish fair and equal access to and

benefit of psychological testing and assessments for all individuals and populations, including clientele from diverse racial/ethnic backgrounds. The current trends in the racial/ethnic demography of the U.S. population suggest that racial/ethnic minorities will progressively represent a larger proportion of the consumer base accessing psychological testing and assessment services. Thus, attention and sensitivity to issues, as well as resolution of historical and contemporary problems associated with testing and assessment with racial/ethnic minority populations, is an increasing priority of professional psychology.

Historically speaking, psychological testing and assessment with racial/ethnic minority groups have been fraught with controversy. Early perspectives erroneously assumed that psychological tests and assessments were objective, culture-free, and generalizable to racial/ethnic minorities, even though the majority of tests were standardized, validated, and found reliable primarily with White, middle-class, English-language samples (Olmedo, 1981; Reynolds, 1982).

Test bias is a primary issue of selecting and using testing and assessment instruments with racial/ethnic minority groups. Past research has shown that tests can produce misleading results with culturally different groups in terms of slope and intercept (or unfairness) bias. Slope bias occurs when the validity coefficient associated with an instrument used to predict an outcome (e.g., a job selection measure predicting job performance) is different between groups such that the instrument is more accurate for one group than another. Alternatively, intercept bias occurs when a between-group mean score difference is observed for an instrument used as a predictor, even though both groups are equal on the criterion measure, resulting in the predictor instrument either over- or underpredicting performance on the criterion measure depending on the group (Anastasi & Urbina, 1997).

Adding to the controversy of testing bias is the manner in which group differences on particular test results have been conceptualized early on in the field of psychology. According to Sue, Arredondo, and McDavis (1992), early researchers applied models of inferiority/pathology and cultural deprivation to interpret group differences on test scores between Whites

and racial/ethnic minorities. The Inferiority/Pathology model stipulates that minorities score lower than Whites because they are genetically and biologically deficient (i.e., lacking the desirable genes to score as high as Whites on particular IQ and achievement tests). The Inferiority/Pathology model was replaced by the Cultural Deprivation model, which blamed the cultural beliefs, values, and practices of minority groups for their lower scores on these tests, with the subtext being that minority cultures are inferior and assimilation into the majority culture is desirable. Both of these models have been scrutinized for their racist undertones and cultural insensitivity, and have now been replaced by the Culturally Different model, which does not view cultural differences between Whites and minorities as an indication of pathology or inferiority of any groups: “different is not deficient, different is different.” Furthermore, the Culturally Different model views the biculturality of minorities as a strength and desirable quality (Sue et al., 1992).

With the movement toward cultural sensitivity, greater attention has been paid to the issue of cultural fairness in testing. The Testing Standards emphasizes fairness in all aspects of testing across diverse populations and contexts in which testing is conducted. According to the Testing Standards, there are four general perspectives to fairness in testing: (1) lack of test bias—avoid use of tests that produce results that have different meaning across groups; (2) equitable treatment in the testing process—give all examinees an equal opportunity to demonstrate their standing on the construct the test is measuring; (3) equality in outcomes of testing—examinees who perform equally well on the test should have an equal chance of being chosen regardless of group membership; and (4) opportunity to learn—each group being measured must have had equal opportunity to learn or achieve the construct being measured.

Consistent with the call for fairness in testing by the Standards, there have been recent advances in psychometrics, namely, measurement equivalence and differential item functioning, to the guide the construction, usage, and interpretation of tests that are culturally sensitive and fair. These new methods allow for the examination of whether the psychometric properties of a given test and/or test item are equivalent or invariant between members from culturally different populations with those from the reference population for which the test and assessment scores were validated, normed, and found to be reliable (Schmitt, Golubovich, & Leong, 2010).

Overall, the history of testing and assessment with racial and ethnic minorities has been controversial, with issues ranging from IQ testing and the publication of *The Bell Curve* to high-stakes testing for college and graduate school admissions. To address these issues, the purpose of this CNPAAEMI monograph on Testing and Assessment provides a critical review of the challenges and controversy associated with testing and assessment with racial and ethnic minorities in the United States. The monograph designates a chapter for each major racial and ethnic group, providing a critical review of the issues and recommendations related to testing and assessment for each population. Each chapter will include sections on historical perspectives, contemporary challenges, culture-specific tools and recommendations, future directions, recommended readings, and/or references.

REFERENCES

- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education (2014). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.
- American Psychological Association (2002). Ethical principles of psychologists and code of conduct. *American Psychologist*, 57, 1060–1073.
- Anastasi, A., & Urbina, S. (1997). *Psychological testing* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Fisher, C. B. (2009). *Decoding the ethics code: A practical guide for psychologists* (2nd ed.). Thousand Oaks, CA: Sage.
- Olmedo, E. L. (1981). Testing linguistic minorities. *American Psychologist*, 36, 1078–1085.
- Schmitt, N., Golubovich, J., & Leong, F. T. L. (2010). Impact of measurement invariance on construct correlations, mean differences and relations with external correlates: An illustrative example using Big Five and RIASEC measures. *Assessment*, 18(4), 412–427.
- Sue, D. W., Arredondo, P., & McDavis, R. J. (1992). Multicultural counseling competencies and standards: A call to the profession. *Journal of Counseling and Development*, 70, 477–486.
- Reynolds, C. R. (1982). Methods for detecting construct and predictive bias. In R. A. Berk (Ed.), *Handbook of methods for detecting test bias* (pp. 192–227). Baltimore, MD: Johns Hopkins University Press.

II. Testing and African Americans: Testing Monograph From the Association of Black Psychologists

Kevin Washington, PhD; Celeste Malone, PhD; Candyce Briggs, PhD; and Gregory Reed, PhD

Howard University

The modern mental testing movement has its foundations in the Eugenics Movement that guided the conversation throughout the world during the late 1800s and early 1900s. Eugenics (i.e., good stock), as posited by Francis Galton, advanced that certain racial groups were genetically superior to others. This influenced the functionalism school of thought within psychology, which held that all human behaviors existed to serve a particular genetically determined function. The mental testing movement advanced by Lewis Terman, James McKeen Cattell, Robert Yerkes, and many others was simply a way to validate that cultural thought. It is understood that dynamics associated with psychological assessment instruments such as the Minnesota Multiphasic Personality Inventory (MMPI), the Thematic Apperception Test (TAT) and the Rorschach Test have been used in a manner that incorrectly diagnoses Black people; however, we hold that those assessments are an extension of the mental measurement process of intellectual abilities. This monograph looks at the dynamics of mental testing and how it has affected the treatment of Black people or those of African descent. Following a cursory examination of the early dynamics of mental testing, we will examine the testing movement from the 1800s to the *Larry P. v. Riles* case of the 1970s up to today. Ultimately, some considerations for the appropriate use of tests/assessments for Black populations are advanced.

HUMAN DIFFERENCES

Plato (427–347 BCE) wrote in *The Republic*, “the best men must cohabit with the best women in as many cases as possible and the worst in the fewest, and the offspring of the one must be reared and the other not, if the flock is to be as perfect as possible.” This writing suggests that species improvement has a genetic component to it. In 1883, Francis Galton advanced the discourse in the heritability of goodness in his coined term *eugenics*, derived from the Greek terms “eu” meaning “good” and “genics” meaning “stock.” The term was defined as the agencies under social control that may improve or impair

the racial qualities of further generations either physically or mentally. Galton’s cousin, Charles Darwin, had been advocating the notion of natural selection in his book *On the Origin of Species*, published in 1859. He advanced the idea of evolution and intimated that certain species would advance and others would die off as inferred from the following statement:

As many more individuals of each species are born than can possibly survive; and as, consequently, there is a frequently recurring struggle for existence, it follows that any being, if it vary however slightly in any manner profitable to itself, under the complex and sometimes varying conditions of life, will have a better chance of surviving, and thus be naturally selected. From the strong principle of inheritance, any selected variety will tend to propagate its new and modified form. (Galton, 1869)

Adherents of eugenics applied this idea of natural selection and the term posited by Herbert Spencer in 1864 in his book *Principles of Biology*, “survival of the fittest,” to humans. They called for segregated societies with birth control, restrictive marriages, and even sterilization of people considered inferior genetic stock. This was purportedly done to reduce the transmission of criminality, idiocy, and imbecility found among the lesser stocks of people. From 1907 to 1930, 24 states in the United States enacted sterilization laws for the “inferior” people.

Intelligence Quotient (IQ) tests, namely the original Stanford-Binet, were used to help carry out these laws. In California, for example, the Stanford-Binet Intelligence Test was used to identify individuals of lesser stock; as a result of this effort, over 6,000 sterilizations were ordered by the California state court (Guthrie, 1998). The mental measurement movement led the way in the process of promulgating racial mistreatment of diverse populations, especially Blacks.

MENTAL MEASUREMENT MOVEMENT

Although James McKeen Cattell is credited with coining the term *mental test* in 1890, the first IQ test in the United States was developed under the leadership of Lewis Terman at Stanford University located in Stanford, California in 1916. The test, called the Stanford-Binet Intelligence Test, was based on the work done by French physicians and researchers Alfred Binet,

Victor Henri, and Theophile Simon. Binet and Simon framed the work of mental measurement with Binet classifying individuals as idiots, imbeciles, and morons. The work of Francis Galton is said to have inspired Binet's development of a standardized method of measuring individual differences. This suggests that at some level Binet and Simon's efforts were being employed in the global eugenics work at the time. Lewis Terman revised the Binet scales in 1916 in a manner that seemed to be an attempt to substantiate the idea of intellectually inferior races of people. As Terman developed the measure, he stated:

High-grade or border-line deficiency . . . is very, very common among Spanish-Indian and Mexican families of the Southwest and also among Negroes. Their dullness seems to be racial, or at least inherent in the family stocks from which they come. . . . Children of this group should be segregated into separate classes. . . . They cannot master abstractions but they can often be made into efficient workers . . . from a eugenic point of view they constitute a grave problem because of their unusually prolific breeding. (1916, pp. 91–92)

By contrast, his tactic was to interpret the depressed scores of racially diverse individuals as validation of existing racial views, rather than as: (a) an indication of the limitations of his mental measure, or (b) a reflection of the suppressive impact that environmental differences (both proximal and distal) can have on a person's test performance. As such, Terman's work was more consistent with the idea of racial superiority than it was with science, or it could be inferred that "science" was a tool used to support and advance racist thought.

Scientists' testing works could easily be inferred as advocating for European superiority. Significant here is Terman's work in the development, use, and propagation of all subsequent Western mental abilities tests. Because he was the first to develop mental abilities tests in this country, his work was foundational in biased testing outcomes for Blacks, Native Americans, and Mexicans. The Stanford-Binet was based on European (White) middle-class American values, and thus assessed elements of human functioning among that population. Moreover, the instrument was advanced to support the position that non-Nordic Europeans, among other non-European ethnic groups, were mentally deficient, as evidenced by his statement suggesting that mental dullness was common among the identified inferior populations. Unlike Binet, Terman did not seem to account for the impact of this assumption when interpreting results from diverse groups. Binet had warned

that his French measurement of individual differences was best applied to individuals who had the same or similar educational and environmental opportunities or, more pointedly, shared the same cultural experiences. Those who seemed bent on furthering an agenda of racial/intellectual superiority did not heed this warning.

This agenda was further promulgated in the work of Clarence Yoakum and Robert Yerkes, the developers of the Army Alpha and the Army Beta tests in 1917. These tests were based on the Stanford revision of the Binet test, and were purportedly designed to classify persons from different backgrounds on the basis of mental ability to determine who should serve in World War I as infantrymen and officers (Guthrie, 1998). These tests were the first group test of IQ. The Alpha was for the literates and the Beta was for the illiterates. These tests were heralded as true measures of mental abilities. However, some critics asserted that the Beta test was not a good measure of the mental abilities of Blacks as determined by the large numbers of Blacks who performed poorly on the test but who were expected to perform much better. Others praised the tests, stating that the Beta Test should be given to every Negro. Using the biased test to determine who should stand on the front lines and fight can be seen as a quasi-tool of cultural genocide; non-Europeans and the "inferior" non-Nordic Europeans would test low and be required to serve in the military as infantry and not as officers.

The Army's Alpha and Beta tests formed the basis for the Verbal (Alpha) and Nonverbal (Beta) test concepts that have long characterized modern-day IQ tests. In fact, Wechsler's nonverbal tests were taken directly from the Army Beta tests (Naglieri, Rojahn, Matto, & Aquilino, 2005). While some of these tasks have recently been removed from the core Wechsler scales, others continue to be used (e.g., Picture Completion, as well as Block Design and Coding, which were previously labeled Cube Construction and Digit Symbol, respectively; see summary of Army Mental Tests by Yoakum & Yerkes, 1920).

This highlights the fact that from its inception, mental testing has been geared specifically toward sorting groups of people for various purposes based on mental abilities. The challenge for many culturally conscious scholars is that this testing movement has its origins in racist and European (White) supremacist ideologies. Driven largely by the eugenics movement, and steeped in Darwinistic concepts and Western middle-class values, early test developers not only set the table for how mental abilities (e.g., intelligence) would be defined, but also

how test results would be measured, interpreted, and used. The Army Alpha and Beta tests were used to classify people based on mental ability. Interestingly enough, these tests did not seem to be aimed at determining promotion in the military for Black soldiers. As long as the test result confirmed culturally held beliefs of Black inferiority, then it was used as a “good” measure of mental abilities.

The Stanford-Binet and subsequent Wechsler scales have defined intelligence from their development in the early 1900s. With few exceptions (e.g., the Cognitive Assessment System [Naglieri & Das, 1997] and the Kaufman Assessment Battery for Children, 2nd ed.), modern-day IQ tests have not changed substantially in terms of their conceptual approach or alignment with advances in cognitive science. This has contributed to serious and deleterious outcomes for Black people from the beginning until now, particularly in terms of the “sterilization” of this population. The major difference between then and now is that the literal sterilization of Terman’s time has been replaced with a modern-day sterilization of educational opportunity and access for persons who do not perform well on so-called mental abilities tests. This is yet another genocidal act in that it can destroy the intellectual capacities and productivity of a people inequitably impacted by the biased tests.

RACIAL DISPARITIES IN EDUCATION

In the early 1950s, racial segregation in U.S. public schools was the norm, partially due to beliefs about the genetic inferiority of Blacks. The U.S. Supreme Court’s *Brown v. Board of Education* decision (1954) struck down the “separate but equal” doctrine for public education and required the desegregation of schools across America, but it did not specify a time line for desegregation. While this was a huge step forward, the Supreme Court’s decision did not influence the curriculum taught, which was grounded in European hegemony, nor did it call for any major reform in any aspect of testing and pedagogy.

Following the Supreme Court’s decision in *Brown* (1954), intelligence testing was often used to track students of color into general education classes designated for “slow” learners, or even more restrictive placements into special education classes (Blanchett, 2010; Harry & Klingner, 2006; Proctor et al., 2012; Skiba, Poloni-Stradinger, Gallini, Simmons, & Feggins-Azziz, 2006). This tracking of Black students created schools characterized by “de facto” segregation. Many Black students were instructed in special education classes; their White peers were educated in the general education setting (Proctor et al.,

2012; Losen & Weiner, 2002; Skiba, Simmons, Ritter, Gibb, Rausch, et al., 2008; Smith & Kozleski, 2005). The Association of Black Psychologists published this policy statement in 1969 with respect to mental testing (cited in Williams, Dotson, Dow, & Williams, 1980):

The Association of Black Psychologists fully supports those parents who have chosen to defend their rights by refusing to allow their children and themselves to be subjected to achievement, intelligence, aptitude, and performance tests, which have been and are being used to (a) label Black people as uneducable; (b) place Black children in “special” classes and schools; (c) potentiate inferior education; (d) assign Black children to lower educational tracks than whites; (e) deny Black students higher educational opportunities; and (f) destroy positive intellectual growth and development of Black children. (pp. 265–266)

It became apparent that intelligence tests were being used to place Black students into special education programs. The racial disparities in special education service remain one of the key indicators of inequity in our nation’s educational system (Skiba et al., 2008). The representation of Black students in lower-end special education programs is grossly disproportionate to their overall attendance in school (Blanchett, 2006; Harry & Klinger, 2006). According to the U.S. Department of Education’s Office of Civil Rights (2012), placement of Black students in special education has increased every year since 1968; Black students are overrepresented in the categories of mental retardation (intellectual disability) and emotional disturbance (ED; Hosp & Reschly, 2004). And compared to students of other races/ethnicities, Black students in special education are more likely to have more restrictive placements (e.g., self-contained classrooms and separate schools) and spend more time away from the general education population than White students (Proctor et al., 2012; Blanchett, 2010; Finch, 2012; Shealey, McHatton, & Wilson, 2011; U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs, 2011). Additionally, Black students classified as having specific learning disabilities demonstrate lower academic progress and are less likely to exit special education programs in comparison to their White peers (Graves & Mitchell, 2011; Sullivan et al., 2009).

While Black students are overrepresented in lower-end special education programs, they are also underrepresented in gifted education programs—the other end of the special

education continuum. Black students are underrepresented by 50 to 70% in gifted education programs (Ford & Grantham, 2003). There has been a gradual increase in the number of Black children considered for gifted programs today, but the proportion of culturally diverse students placed in classes for those with mental disabilities far exceeds the proportion placed in classes for the gifted (Baldwin, 2002). Concern about the underrepresentation of Black students in gifted education programs dates back to Jenkins's (1936) studies of Black students with high intelligence test scores who were not formally identified as gifted by other test examiners. Unfortunately, this problem has continued to be an issue each decade since (Ford, Harris, Tyson, & Trotman, 2002).

Selection of appropriate methods for assessing and identifying Black students for special education is a controversial topic (Graves & Mitchell, 2011). The concern is that intelligence tests are biased against Blacks and, as a result, contribute to disproportionate representation of Black children in the lower-end special education programs (Kearns, Ford, & Linney, 2005; Proctor et al., 2012; Powers, Hagans-Murillo, & Restori, 2004). Additionally, these intelligence tests have historically been used to claim that Blacks are intellectually and racially inferior to those of European descent and to defend school segregation along racial lines (Graves & Mitchell, 2011; Shealey, McHatton, & Wilson, 2011). This has been a long-standing issue since the process of African enslavement was based on the intellectual inferiority of persons of African ancestry.

Influential court cases such as the *Larry P. v. Riles* case (1979) have continued the national debate about the utility and fairness of intelligence tests for Black students (Valencia & Suzuki, 2001) and have encouraged educators and policymakers to reconsider the methods used for assessing Black students. Despite these controversies, the Individuals with Disabilities Education and Improvement Act of 2004 (IDEIA, 2004) does not prohibit the use of intelligence tests for making special education eligibility recommendations for Black students (Proctor et al., 2012). Additionally, many states' special education regulations include intelligence tests as part of the eligibility criteria for some categories (Fuchs, Mock, Morgan, & Young, 2003; Graves & Mitchell, 2011; Powers et al., 2004).

For the many African American students in special education, the structural inequality they encounter can lead to higher dropout rates, limited opportunities/preparation for college admission and employment, and increased rates of incarceration

(Blanchett, 2010; Pitre, 2009; Sullivan & Artiles, 2011). Because of these dismal outcomes, understanding the methods used to place African American students into special education is essential (Proctor et al., 2012).

CULTURE AND BIAS IN TESTING

The precise explanation for racial group differences in IQ has remained elusive because it is a complex problem that cannot be reduced to single causal explanations. A myriad of factors, contexts, and circumstances likely converge to set the stage for discrepant performance across groups on these measures. The most explored of these has been with regard to test bias. A test may be considered biased when differences in test scores between certain groups in a society do not match the differences between them on a criterion variable, such as intelligence (Poortinga, 1995). Seemingly, if there are not inherent, biological differences in intelligence based on race and ethnicity, then intelligence tests should produce similar results in both culturally and linguistically diverse (CLD) individuals and White individuals. However, these tests of mental abilities do not. Many have argued that this difference in performance on intelligence tests between CLD individuals and their White counterparts may be attributed to culture bias in testing.

Culture bias in testing may stem from the characteristics of the test itself, such as the cultural content embedded in test items (i.e., cultural load), the linguistic demands of the test, and lack of CLD representation in the norming group (Rhodes, Ochoa, & Ortiz, 2005). Culture bias may also exist in the philosophical underpinnings of the development of the test, as discussed earlier. There has been a significant amount of research examining culture bias in intelligence testing. Sattler (2008) reviewed several studies examining testing bias in intelligence testing. In those studies examining the psychometric properties of intelligence tests, intelligence tests were not found to be culturally biased according to most definitions of test bias (Sattler, 2008). Nevertheless, the fact that these measures yield lower mean scores for one group but not for others has been well documented. Such "outcome bias," even if not associated with large statistical biases, has been the case in the Black/White score differential for as long as standardized testing has been in place. So, while extant evidence suggests that intelligence tests are psychometrically sound, it is clear that they may not be fair (Gregory, 2004). It is also clear that other factors, such as how intelligence is defined; the relationship between measured IQ and group differences in terms of

access to quality education; cultural differences; and cultural influences on test administration and test interpretation are all likely to affect the extent to which diverse individuals perform well on these tests.

OVERLAP BETWEEN ABILITY AND ACHIEVEMENT

Traditional measures of intelligence are strongly related to academic achievement (Sattler, 2008). However, at least part of the variance in this relationship seems due to the high overlap between measures of “ability” and measures of achievement. Traditional IQ measures (e.g., Wechsler scales, Stanford-Binet, Woodcock Johnson, etc.) include similar, if not the same, verbal and quantitative tests/items as measures of achievement. It not only seems counterintuitive to define both academic achievement and ability (i.e., cognitive potential or cognitive processing) as the same, but on some level, irresponsible. As other scholars have noted (e.g., Naglieri, 2008), this presents a serious problem for children who are persistently exposed to lower-quality education, who operate under the guise of being intellectually inferior, or who experience academic hegemony that excludes them as having any real historical and intellectual presence. For these children, traditional IQ tests represent a sort of double jeopardy in that their low performance on so-called tests of ability is used to explain their low performance on tests of achievement—even though the two tests, at least in part, measure some of the same things. If verbal and quantitative skills and cognitive ability are one and the same, then why purport to have two distinct measures? Moreover, if it is known that inequity exists in Black versus White educational experiences in general, then why continue to define intelligence in a way that includes measures of academic skills or that support European superiority and African/Black inferiority, which only serves to compound this inequity? To continue in this current vein would suggest that the latter continues to be the major emphasis and intent of mental testing.

Children’s knowledge of social conventions, vocabulary words, or math operations should not be deemed a reflection of their cognitive potential. Indeed, problems in these acquired areas are relevant to the assessment process because they may (a) be a manifestation of imperfect cognitive processes (i.e., a child may have difficulty with word knowledge or reading because of cognitive processing deficits), and (b) provide valuable diagnostic information about the nature and severity of specific learning problems. However, problems in these areas may also be reflective of pervasively poor instruction, fewer

educational opportunities, or socially constructed thought that suggests certain populations have innate intellectual deficits. Traditional IQ tests fail to adequately address this distinction, and put a large number of Black and minority children at a disadvantage in the process. This has been hypothesized to at least contribute to mean score differences between Black versus White populations on IQ measures, which ultimately is reflected in the disproportionate placement of Blacks into special education (overrepresentation) and gifted (underrepresentation) programs—both of which rely heavily on traditional measures of IQ (Naglieri, 2008).

Two well-known, but lesser-used tests of cognitive ability (the Cognitive Assessment System and the Kaufman Assessment Battery for Children, 2nd ed.) appear to recognize this problem and have moved toward a relatively more culturally fair approach to measuring cognitive ability. Both tests have moved toward neuropsychologically based approaches that rely less on academic tasks. Notably, both tests still correlate well with measures of academic achievement, while also yielding significantly smaller score differences between Black/White children (e.g., Naglieri, 2003). Of course, this does not explain all of the variance in mean IQ score differences, but it certainly warrants attention and further inquiry.

CULTURAL LOAD

Because intelligence tests have been determined to be “psychometrically sound,” it has been suggested that culture bias may be the incorrect term to use to describe the cultural features of a test that lead to interracial and interethnic differences in performance. Some advance that the problem with these tests is not culture bias, but rather, culture load. Culture load is the extent to which cultural content is explicitly or implicitly embedded within a test instrument or within test administration procedures (Helms-Lorenz & Von de Vivjer, 1995). This cultural content is typically that of the test composer. The intelligence test batteries most often used (e.g., Wechsler scales, Stanford-Binet) are currently developed by White American psychologists. As such, the cultural content embedded in intelligence tests is based on their associated culture and values; this yields biased results for non-White individuals. Performance on these tests is not a reflection of an individual’s intelligence, but rather the individual’s knowledge of the culture-specific test content. Those test takers who have a greater cultural match to the test authors are more likely to perform well on intelligence tests because they have a deeper familiarity

with the cultural content embedded in the test. Moreover, the philosophical thinking about various ethnic, racial, and linguistic groups influences the interpretation of the tests within a cultural context. The challenge to the cultural load idea is that these tests are an extension of the cultural worldview of their developers, as was the case with Lewis Terman, the developer of the Stanford-Binet Intelligence Test. As such, the content and interpretation are influenced by implicit or explicit racial views of human functioning.

Accordingly, many scholars (Boykin, 1986; Boykin and Bailey, 2000a; Delpit, 1995; Ford, 2004) have recognized the existence of a cultural mismatch (not to be confused with cultural deficit or inferiority) that affects Black children's success in various learning and performance environments. This cultural mismatch or conflict exists in the way(s) in which Black children experience the American educational system, including standardized tests. Boykin's view in this regard was well summarized in a 1996 APA task force report on knowns and unknowns of the topic of intelligence (Neisser et al., 1996). The report noted:

In Boykin's view, the combination of constriction and competition that most American schools demand of their pupils conflicts with certain themes in the "deep structure" of African-American culture. That culture includes an emphasis on such aspects of experience as spirituality, harmony, movement, verve, affect, expressive individualism, communalism, orality, and a socially defined time perspective. . . . While it is not shared by all African Americans to the same degree, its accessibility and familiarity give it a profound influence. The result of this cultural conflict, in Boykin's view, is that many Black children become alienated from both the process and the products of the education to which they are exposed . . . [including] the psychometric enterprise itself. (p. 95)

This idea of a cultural mismatch is not just important in terms of highlighting a potential explanation for lower test performance among Black children. In fact, the reverse is perhaps the more salient point. That is, research has suggested that Black children's cognitive functioning, development, and achievement is better facilitated in performance contexts that are well matched, or responsive, to their existing cultural experiences and such learning environments are preferred by these children (Boykin & Bailey, 2000a; Boykin & Bailey, 2000b). Although the precise degree of impact remains unclear, it would be irresponsible to

assume that this mismatch does little to impact Black children's performance on standardized IQ or achievement measures.

In sum, all tests are a reflection of the culture of the person who created the test. For the vast majority of intelligence tests, the creators are White Americans, meaning that White American values are embedded in the test content and interpretation. The performance of CLD individuals on these assessments is an indicator of how well they are acculturated to this culture as well as how their performance will be assessed by those who either developed the tests or whose philosophical understanding of human difference is similar. Although CLD individuals have likely been exposed to the cultural values of the dominant culture, they likely are not acculturated to the same extent as their White peers. Those who have not had sufficient opportunity to be acculturated to the same level as their peers are likely to score lower because they do not have the same level of cultural values, knowledge, and/or content—not because of their intellectual ability. This suggests that such tests are more of a cultural measure than they are of intellectual ability. The problem with such thinking is that it makes European (White) culture the norm. By extension this makes non-White cultures "incorrect" in their existence and presentation, thus expanding the idea of racial superiority and inferiority.

MINIMIZING CULTURAL INFLUENCE IN TESTING

All humans are cultural beings. Our values, assumptions, and biases are always with us and, as such, there is no way to eliminate the influence of cultural experiences and learning from intelligence tests. However, there are ways to minimize the cultural influence in testing and interpretation of results. Nondiscriminatory assessment may be accomplished by recognizing the nature and scope of potential and the use of procedures specifically designed to address such influences. Nonverbal intelligence tests can reduce cultural influence in the testing experience because these measures do not require verbal responses from test takers. While nonverbal intelligence tests have reduced linguistic demands, it is important to note that these tests are still influenced by cultural factors due to the interpersonal interaction between the examiner and examinee. Nonetheless, they may provide a more accurate depiction of the intellectual ability of CLD individuals than verbal intelligence tests.

Examiners who do choose to use a verbal intelligence test should be aware of the extent to which performance on the selected intelligence test is contingent on culture-specific

knowledge and perspective. Additionally, caution should be taken in interpreting the results when the individual's cultural background and experiences are significantly different from those in the norm sample (Sattler, 2008). The examiner should consider the CLD individual's level of acculturation as compared to same-aged peers.

Recommendations regarding the identification and assessment of gifted Black students vary, but they emphasize the need to find alternative and more reliable and valid ways to identify gifted minority students (Ford et al., 2002). These options include culturally sensitive instruments; multidimensional assessment strategies; and broader philosophies, definitions, and theories of giftedness. It is evident that there is a strong need to have a test that is not culturally biased and only depicts one particular group as the high achievers; however, no one can agree on one particular test existing today that society deems culturally fair for all groups. Several testing scholars have intimated that assessment measures are ethnocentrically created and that many tests tend to discriminate toward individuals from the culture from which they were developed (Anastasi & Urbina, 1997; Debb, 2007). According to Anastasi and Urbina (1997), "No single test can be universally applicable or equally fair to all cultures" (p. 342).

CLOSING THOUGHTS AND CONSIDERATIONS

Operating under the presumption of incompetence has been the lot of Blacks in the American testing machine historically and currently as revealed in their academic positioning within the No Child Left Behind Act of 2001, the Race to the Top Initiative of 2009, and the Common Core Curriculum Initiative of 2008/2013, all of which have been advanced or supported by the U.S. Department of Education. None of these initiatives appear to address the dynamics of human performance that is influenced by pedagogy, hegemony, and expectations.

In a similar vein, if there are to be any significant changes in Black individuals' performance on intelligence and other psychoeducational tests, then school psychologists, education specialists, and psychometricians will also need continued/enhanced training and professional development around the tangible impact that stereotyped or biased expectations may have on the administration, scoring, and interpretation of standardized measures. Test developers will need to take the stance that Blacks and Whites can and should have equivalent performances on these measures. It is suggested that the stakeholders in the educational and testing systems should

assume that all students present with multiple levels and degrees of proficiency in a variety of ways and that these differences will have to be accommodated for when testing and teaching diverse students in general and Black students specifically. Practitioners must recognize and work to avoid both underestimating the potential and overpathologizing the symptoms of Black and other diverse children (Ford, 2005).

SUGGESTIONS

- Consider educational pedagogy that inspires possibilities in order to create accurate testing and test results.
- Develop an inclusive curriculum that inspires Black children and adults.
- Move beyond the deficit thinking about Blacks and move toward affirming people of African ancestry.
- Change the way intelligence is defined and measured to a manner that is consistent with totality of human functioning rather than supportive of racial ideology.
- Honor Black students' rights to have equitable testing procedures such that their human potential is released rather than squelched.
- Practice in more culturally competent ways, particularly with regard to testing, by having an awareness of cultural nuances and perspectives.
- Use tests to diagnose intellectual challenges as well as strengths and to prescribe optimal treatment that facilitates change and growth associated with both.
- Ensure that tests avoid pathologizing and disenfranchising Blacks since such acts are genocidal in their outcome.
- Use tests to reveal areas where reform or redress are warranted.
- Allow tests to showcase intellectual prowess and profundity such that people of African ancestry can strive for standards that are consistent with their intellectual inheritance.

REFERENCES

- Anastasi, A., & Urbina, S. (1997). *Psychological testing* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Baldwin, A. (2002). Culturally diverse students who are gifted. *Exceptionality*, 10, 139–147. doi:10.1207/S15327035EX1002_7
- Blanchett, W. (2006). Disproportionate representation of African American students in special education: Acknowledging the role of White privilege and racism. *Educational Researcher*, 35(6), 24–28.
- Blanchett, W. J. (2010). Telling it like it is: The role of race, class, & culture in the perpetuation of learning disability as a privileged category for the White middle class. *Disability Studies Quarterly*, 30. Retrieved from <http://dsq-sds.org/article/view/1234/1287>

- Boykin, A. W. (1986). The triple quandary and the schooling of Afro-American children. In U. Neisser (Ed.), *The school achievement of minority children* (pp. 57–91). Hillsdale, NJ: Lawrence Erlbaum.
- Boykin, A. W., & Bailey, C. (2000a). *The role of cultural factors in school relevant cognitive functioning: Synthesis of findings on cultural contexts, cultural orientations and individual differences* (Report 42). Baltimore, MD: Center for Research on the Education of Students Placed at Risk (CRESPAR).
- Boykin, A. W., & Bailey, C. (2000b). *Cultural factors and stimulus variability on the academic performance of African American elementary children* (Report 43). Baltimore, MD: Center for Research on the Education of Students Placed at Risk (CRESPAR).
- Debb, S. M. (2007). Cross-cultural awareness in quality of life assessment. *The New School Psychology Bulletin*, 5(2), 11–16.
- Delpit, L. (1995). *Other people's children: Cultural conflict in the classroom*. New York, NY: The New Press.
- Ford, D. Y. (2004). *Intelligence testing and cultural diversity: Concerns, cautions and considerations* (RM04204). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- Ford, D. Y. (2005). *Intelligence testing and cultural diversity: Pitfalls and promises*. The National Research Center on the Gifted and Talented. Retrieved from <http://gifted.uconn.edu/nrcgt/newsletter/winter05/winter052.html>
- Ford, D. Y., & Grantham, T. C. (2003). Providing access for culturally diverse gifted students: From deficit to dynamic thinking. *Theory into Practice*, 42, 217–225. doi:10.1207/s15430421tip4203_2
- Ford, D. Y., Harris, J. J., Tyson, C. A., Trotman, M. F. (2002). Beyond deficit thinking: Providing access for gifted African American students. *Roeper Review*, 24, 52–57. doi:10.1080/02783190209554129
- Fuchs, D., Mock, D., Morgan, P. L., & Young, C. L. (2003). Responsiveness-to-intervention: Definitions, evidence, and implications for learning disabilities construct. *Learning Disabilities Research & Practice*, 18, 157–171. doi:10.1111/1540-5826.00072
- Galton, F. (1869). *Hereditary genius*. London, England: Macmillan.
- Graves, S., & Mitchell, A. (2011). Is the moratorium over? African American psychology professionals' views on intelligence testing in response to changes to federal policy. *Journal of Black Psychology*, 37, 407–425. doi:10.1177/0095798410394177
- Gregory, R. J. (2004). *Psychological testing: History, principles and applications* (3rd ed.). Boston, MA: Allyn & Bacon.
- Guthrie, R. (1998). *Even the rat was white: A historical view of psychology*. Upper Saddle River, NJ: Pearson.
- Harry, B., & Klingner, J. (2006). *Why are so many minority students in special education? Understanding race and disability in schools*. New York, NY: Teachers College Press.
- Helms-Lorenz, M., & Von de Vivier, F. J. R. (1995). Cognitive assessment in education in a multicultural society. *European Journal of Psychological Assessment*, 11, 158–169. doi:10.1027/1015-5759.11.3.158
- Hosp, J. L., & Reschly, D. J. (2004). Disproportionate representation of minority students in special education: Academic, demographic, and economic predictors. *Exceptional Children*, 70, 185–199.
- Individuals with Disabilities Education Improvement Act (IDEIA) of 2004, Pub. L. 108-446. Retrieved from <http://idea.ed.gov/explore/view/p/root/statute>
- Jenkins, M. D. (1936). A socio-psychological study of negro children of superior intelligence. *Journal of Negro Education*, 5, 175–190.
- Kearns, T., Ford, L., & Linney, J. A. (2005). African American student representation in special education programs. *Journal of Negro Education*, 74, 291–310.
- Losen, D. J., & Weiner, K. G. (2002). Legal challenges to inappropriate and inadequate special education for minority children. In D. J. Losen & G. Orfield (Eds.), *Racial inequity in special education* (pp. 167–194). Cambridge, MA: Harvard Education Press.
- Naglieri, J. A. (2008). *Essentials of CAS assessment*. Tokyo, Japan: Nihon Bunka Kagakusha.
- Naglieri, J. A., & Das, J. P. (1997). *Cognitive Assessment System: Interpretive handbook*. Chicago, IL: Riverside.
- Naglieri, J. A., & Ford, D. Y. (2003). Addressing underrepresentation of gifted minority children using the Naglieri Nonverbal Ability Test (NNAT). *Gifted Child Quarterly*, 47, 155–160.
- Naglieri, J. A., Rojahn, J. R., Matto, H. C., & Aquilino, S. A. (2005). Black-white differences in cognitive processing: A study of the planning, attention, simultaneous, and successive theory of intelligence. *Journal of Psychoeducational Assessment*, 23, 146–160. doi:10.1177/073428290502300204
- Neisser, U., Boodoo, G., Bouchard, T., Boykin, A. W., Brody, N., Ceci, S., . . . Urbina, S. (1996). Intelligence: Knowns and unknowns. *American Psychologist*, 51, 77–101. doi:10.1037/0003-066X.51.2.77

- Pitre, E. (2009). Overrepresentation of African American males in special education: An examination of the referral process in the K-12 public school setting. In A. Pifre, E. Pitre, R. Ray, & T. Hilton-Pitre (Eds.), *Educating African American students* (pp. 79–94). Lanham, MD: Rowman & Littlefield.
- Poortinga, Y. H. (1995). Cultural bias in assessment: Historical and thematic issues. *European Journal of Psychological Assessment*, 11, 140–146. doi:10.1027/1015-5759.11.3.140
- Powers, K. M., Hagans-Murillo, K. S., & Restori, A. F. (2004). Twenty-five years after Larry P.: The California response to overrepresentation of African Americans in special education. *The California School Psychologist*, 9, 145–158.
- Proctor, S. L., Graves, S. L., & Esch, R. C. (2012). Assessing African American students for specific learning disabilities: The promises and perils of response to intervention. *Journal of Negro Education*, 81, 268–282.
- Rhodes, R. L., Ochoa, S. H., & Ortiz, S. O. (2005). *Assessing culturally and linguistically diverse students: A practical guide*. New York, NY: Guilford Press.
- Sattler, J. M. (2008). *Assessment of children: Cognitive foundations* (5th ed.). San Diego, CA: Sattler.
- Skiba, R. J., Poloni-Staudinger, L., Gallini, S., Simmons, A. B., & Feggins-Azziz, R. (2006). Disparate access: The disproportionality of African American students with disabilities across educational environments. *Exceptional Children*, 72, 411–424.
- Skiba, R. J., Simmons, A. B., Ritter, S., Gibb, A. C., Rausch, M. K., Cuadrado, J., & Chung, C. (2008). Achieving equity in special education: History, status, and current challenges. *Exceptional Children*, 74, 264–288.
- Shealey, M. W., McHatton, P. A., & Wilson, V. (2011). Moving beyond disproportionality: The role of culturally responsive teaching in special education. *Teaching Education*, 22, 377–396. doi:10.1080/10476210.2011.591376
- Smith, A., & Kozleski, E. B. (2005). Witnessing Brown: Pursuit of an equity agenda in American education. *Remedial and Special Education*, 26, 270–280. doi:10.1177/07419325050260050201
- Sullivan, A. L., & Artiles, A. J. (2011). Theorizing racial inequity in special education: Applying structural inequity theory to disproportionality. *Urban Education*, 46, 1526–1552. doi:10.1177/0042085911416014
- Sullivan, A. L., A'Vant, E., Baker, J., Chandler, D., Graves, S., et al. (2009). Confronting inequity in special education. Part I: Understanding the problem of disproportionality. *NASP Communiqué*, 38(1), 14–15.
- Terman, L. (1916). *The measurement of intelligence*. Boston, MA: Houghton Mifflin.
- U.S. Department of Education, Office of Civil Rights, Civil Rights Data Collection. (2012). *Civil Rights Data Collection 2012 Data Summary*. Retrieved from <http://www2.ed.gov/about/offices/list/ocr/docs/crdc-2012-data-summary.pdf>
- U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs. (2011). *Thirtieth annual report to Congress on the implementation of the Individuals with Disabilities Education Act, Parts B and C* (p. 50). Washington, DC: U.S. Department of Education.
- Valencia, R. R., & Suzuki, L. A. (2001). *Intelligence testing and minority students*. Thousand Oaks, CA: Sage.
- Williams, R. L., Dotson, W., Dow, P., & Williams, W. S. (1980). The war against testing: A current status report. *Journal of Negro Education*, 49, 263–273.
- Yoakum, C., & Yerkes, R. (1920). *Army Mental Tests*. New York, NY: Holt.

III. Psychological Assessment Considerations for American Indians, Alaska Natives, and Native Hawaiians

Jacqueline S. Gray, PhD

University of North Dakota

Wendy M. K. Peters, PhD

Wright State University

John A. McCullagh, PhD

University of Wisconsin–Madison

Among the most heterogeneous of ethnic groups are the peoples commonly referred to as “indigenous.” Defined loosely as peoples who are descended from the first inhabitants of a place or geographic region, the term is generally used to describe persons of native heritage and also applies to their biological descendants who may or may not have been born at that same place or in that region. This chapter focuses on the indigenous peoples also known as American Indians, Alaska Natives, and Native Hawaiians (AI/AN/NH) and is a critical review regarding current aspects of psychological assessment of those peoples. At the outset, it should be noted that the sheer diversity of cultures, ethnicity, traditions, and geographical dispersal of indigenous peoples in the United States and throughout North America makes for layers of complexity that encompass a psychology that is best understood in context. While not implying any notion of homogeneity among indigenous peoples, there are, however, threads of commonality that can be found woven throughout their cultural values, belief systems, and histories of acculturation.

For the individual, epistemology, culture, values, and beliefs all coalesce to shape and inform their worldview. Serving as the lens through which a person perceives, interprets, and processes all of their lived experiences, an individual’s worldview may also be reflective of (and biased by) the larger contexts of which they are a part, such as community, organization, profession, and more. Given their parallel and oppressive histories of acculturation, as well as the number of fundamental beliefs and values they each have in common, the worldviews of AI/AN/NH peoples tend to be characteristically similar.

Conversely, in circumstances where cultures and worldviews are dissimilar, actions, behaviors, motivation, and even pathology can often be misinterpreted or misunderstood. In terms of

assessment, frameworks developed by dominant groups often implicitly reflect value systems that conflict with the values of minority groups (Gilligan, 1982). Therefore, if a clinician or researcher is unfamiliar with the cultural mores or worldview of the client and the extent to which the client is acculturated, more often than not, assumptions or bias may influence the outcome of the assessment. For AI/AN/NH populations, one of the most significant cultural aspects to recognize is that, unlike many Western cultural paradigms, spirituality is often a major factor of influence and underlies their values and belief systems. Furthermore, indigenous worldviews of spirituality are characteristically monistic. An existential notion that all things, material or otherwise, are connected in some way or fashion, monism is a fundamental philosophy espoused by most indigenous spiritual traditions. In this regard, it can be understood that for many with an indigenous/native worldview, all things—temporal, material, and even spiritual—are interconnected. This relational perspective informs the entirety of native psychology and is inherent in the indigenous worldview.

HISTORICAL PERSPECTIVES

Barbara Perry and Linda Robyn (2005) referred to the assimilation of Native Americans as “[the] genocidal and ethnocidal practices that have characterized White-American Indian relations.” Perry and Robyn (2005) also stated that the cycle of oppression, hegemonic practice, and Western control over Native Americans has always been met by activism and resistance. Historically, the U.S. government has declared itself remedial and paternalistic in its view of the Native American tribes under its purview (including Alaska Natives and Hawaiians). Legal proceedings in the United States have deemed native peoples as “uneducated, helpless and dependent people, needing protection against the selfishness of others and their own improvidence” (*United States v. Kagama*, 118 U.S. 375, 383–384, 1886, as cited in Heffner, 2002, p. 559). In Canada, the legal status of indigenous peoples is no less convoluted or reproachful. According to the Canadian Indian Act, “Indians were wards of the government and were to be treated as minors without the full privileges of citizenship” (Kunnie & Goduka, 2006, p. 56).

Over centuries and generations, hegemonic practices such as legislation and mandates according to sovereignty, legal status, race, blood quanta, descendency, geographic relocation, barriers, and boundaries, to name a few, have interfered with the native psyche and clouded cultural notions of identity. Accordingly, issues such as these have contributed to AI/AN/NH's receptivity, or lack thereof, to Western acculturation. In fact, recent studies indicate that the negative history AI/AN/NHs have experienced with Western integration into their homelands have resulted in a widespread phenomenon that pervades much of the native communities and societies in the United States and Canada today (Brave Heart, 2003; Brave Heart, & DeBruyn, 1998; Brave Heart-Jordan, 1995; Duran, 2006). Characterized by Eduardo Duran (1995) as "a common thread . . . that weaves across much of the pain and suffering found in the Native American community across the United States and perhaps the entire Western Hemisphere" (p. 24), the Indigenous Soul Wound, also referred to as intergenerational or historical trauma, encapsulates the aftermath of imposed alien values, historical oppression, unresolved grief related to massive group trauma, and the forced acculturation and adaptation of native peoples to Western society and culture.

CONTEMPORARY CHALLENGES

Having previously noted the heterogeneity of native peoples and the diversity in their circumstances, it becomes extremely challenging to fit native persons into existing taxonomies of Western worldviews and according to mental health norms that have been validated by and for persons with distinctly different perceptions and understanding. Accordingly, the few studies that have been carried out expressly with and for AI/AN/NHs have asserted that the assumptions that inform wellness in mainstream mental health discourse are frequently incongruent with native suppositions regarding wellness (Coates, Gray, & Hetherington, 2006; Gone, 2004; Dauphinais & King, 1992; Pace et al., 2006). Cultural psychologists have expressed similar concerns with regard to ethnic minorities in America, alleging culture bias in psychological assessment and arguing that commonly used personality assessment measures in Western cultures are developed on the basis of Caucasian American norms (Leong, Leung, & Cheung, 2010). Likewise, effective assessments and corresponding service provision can only be accomplished through cultural competency because AI/AN/NHs tend to operate from a different worldview than the dominant secular culture (French, 2004; Whitbeck, 2006).

When assessing an AI/AN/NH client, the individual's level of acculturation should also be taken into account. Depending on background, personal circumstances, and life experience, the native person's level of acculturation to Western cultural norms can vary greatly (Rezentes, 1993; Streltzer, Rezentes, & Arakaki, 1996). For example, an individual with a very traditional background, upbringing, and cultural values may have markedly different assessment outcomes than an individual who has fully assimilated and identified with Western societal values. Furthermore, native peoples can be found all across the spectrum of acculturation. Persons of native descent will tend to vary in their level of acculturation according to demographics such as residing in an urban area versus a more rural reservation setting. Urban natives may also have a greater tendency toward a pan-Indian worldview versus someone from a more rural setting, such as a reservation, who may have more traditional values and a more tribal-centric worldview.

MENTAL HEALTH ASSESSMENT

The research on AI/AN/NH well-being indicates that AI/AN/NHs have some of the greatest mental health disparities. Many AI/AN/NH communities are characterized by high rates of substance abuse and dependence, post-traumatic stress disorder, suicidal tendencies, and childhood conduct disorders (IHS, 2011; Gray & McCullagh, 2014). The prevalence of these issues in AI/AN/NH communities highlights the need for effective mental health screening.

Unfortunately, very few mental health assessment instruments have been designed specifically for AI/AN/NH individuals or have had norms developed with these individuals in mind. This represents a major problem in the evaluation of mental health in AI/AN/NH communities since differences in beliefs regarding health and well-being, the etiology of mental health problems, and mental health stigma may all contribute to different expressions and self-report of mental health concerns among AI/AN/NHs (Allen, 2002; Hodge & Limb, 2010; Mitchell & Beals, 2011; Mohatt, Fok, Burket, Henry, & Allen, 2011). In addition to training culturally competent providers, there is a great need for additional research examining the validity of the more common mental health screening instruments that are used with AI/AN/NHs.

PERSONALITY ASSESSMENT

The only personality assessment instrument that has received a significant level of attention with regard to its cross-cultural

validity with AI/AN/NHs is the MMPI-2. In one of the more comprehensive examinations of the cross-cultural validity of the MMPI-2 with American Indians, Robin, Greene, Albaugh, Caldwell, and Goldman (2003) compared MMPI-2 scores of American Indians to the MMPI-2 normative group. Even when controlling for sociodemographic factors such as age, gender, and education level, American Indians were likely to score higher (greater than 5 T points) on two of the validity scales (L and F, 1, 4, 8, 9), three of the clinical scales (Pd, Sc, and Ma), six content scales (DEP, HEA, ASP, CYN, BIZ, and TRT), and two supplementary scales (MAC-R and AAS). In a follow-up article, Greene et al. (2003) further examined these differences and concluded that they were likely due to actual differences rather than any inherent bias of the instrument. Similar research by Pace et al. (2006) was conducted in which they compared the MMPI-2 scores of two different AI tribes to the overall MMPI-2 normative sample. Pace and his colleagues found significant differences on eight of the validity and clinical scales (F, 1, 4, 5, 6, 7, 8, and 9). The authors stated that the elevated scores among the American Indian participants may reflect a number of factors, including elevated distress as well as different cultural belief systems.

A more in-depth analysis of specific items on the MMPI-2 by Hill, Pace, and Robbins (2010) lends some support to the premise that differential scores on the MMPI-2 between American Indian individuals and the general population may reflect unique aspects of the American Indian worldview and culture. Hill and her colleagues identified 30 questions from the MMPI-2 through item analysis and had American Indian participants discuss their interpretations of these items in semistructured interviews. The themes that emerged through these interviews indicated that the MMPI-2 may pathologize American Indian individuals due to unique aspects of their worldview, belief systems, and cultural heritage. The results of the different studies on the cross-cultural applicability of the MMPI-2 to AI/AN/NH individuals indicate that though the MMPI-2 may have some clinical utility, caution should be exercised in the interpretation of results when using the MMPI-2 with AI/AN/NH individuals.

COGNITIVE AND INTELLECTUAL ASSESSMENT

Despite overrepresentation in special education programs, there is a great dearth of research on the validity of the major intellectual assessment instruments as applied to ethnic minority individuals in general, and AI/AN/NH individuals in particular. Studies that have compared the IQs of natives versus non-natives have found consistently lower scores among Native

American individuals (e.g., McShane & Has, 1982; Suzuki & Valencia, 1997; Beiser & Gotowiec, 2000; McShane & Has, 1982; Suzuki & Valencia, 1997). Despite these differences, relatively few studies have investigated the major variables that may account for these differences. In a study by Beiser and Gotowiec (2000) that examined potential explanatory variables behind the relatively lower IQ scores on the Wechsler Intelligence Scale for Children, Third Edition (WISC-III, Wechsler, 1991) among Native American children, it was found that when socioeconomic status, maternal and child health, language skills, and parental attitudes toward school and cultural separation were statistically controlled for, the differences between Native American and non-Native American children's IQ scores were greatly reduced. The results of Beiser and Gotowiec's study indicated that these aforementioned variables accounted for 67% of the variance of the differences between Native American and non-Native American children on the verbal scale scores and 57% of the variance on the performance scale scores of the WISC-III, and highlighted the importance of environmental factors on influencing IQ.

The Wechsler Intelligence Scale for Children (currently the WISC-IV, Wechsler, 2003) has received a substantially greater level of attention with regard to Native American assessment compared to its counterparts. Factor analyses of the WISC-III and WISC-IV have supported the overall validity of the WISC as an appropriate measure of IQ for American Indians (Beiser & Gotowiec, 2000; Kush & Watkins, 2007; Nanako & Watkins, 2013). Despite this support of the cross-cultural validity of the WISC-IV, further investigations are warranted.

In addition to examining the cross-cultural validity of the WISC-IV and other cognitive assessment instruments, it is equally important that assessments are used to guide the implementation of culturally appropriate interventions that address the academic and intellectual needs of AI/AN/NH students. In this regard, programs that take a holistic approach to addressing student issues may be particularly effective. For example, Soaring Eagle, which is a short-term psychoeducational therapy program designed specifically for intellectually gifted American Indian adolescents, employs a holistic, culturally sensitive, and family-oriented approach to increasing leadership qualities and enhancing self-efficacy, and preliminary results support the effectiveness of this program (Robbins, Tonemah, & Robbins, 2002).

CAREER AND VOCATIONAL ASSESSMENT

The literature on career and vocational assessment specifically with AI/AN/NHs is minimal; however, the work by a few researchers provides some information regarding how AI/AN/NHs perceive and navigate the world of work and offers preliminary support toward the use of career/vocational assessment instruments with AI/AN/NHs. Cultural variables, level of acculturation, and socioeconomic status are all major factors that affect the long-term career development of AI/AN/AH individuals (Johnson, Swartz, & Martin, 1995). One of the most important factors in understanding vocational development in AI/AN/NHs relates to socioeconomic status. The lack of long-term academic and career guidance, the absence of educational and vocational role models in the community, and the shortage of career opportunities in many AI/AN/AH communities can all contribute to academic and vocational disenfranchisement. Level of acculturation is also a major factor in the vocational development of AI/ANs. In an exploratory qualitative study, Juntunen et al. (2001) examined the meanings of career in a group of Northern Plains Indians. One of the major themes that arose focused on the idea of having to live and function in two different worlds. Some participants indicated that this was difficult while others stated that it was possible to draw positives from both worlds (their native world and the mainstream White world). The authors of the study hypothesized that these different perspectives possibly reflected different acculturative beliefs of the participants and thus the individuals in this study had different career-related experiences.

The vocational assessment instrument that has received the greatest amount of attention with regard to its cross-cultural validity is the Strong Interest Inventory (SII) (Harmon, Hansen, Borgen, & Hammer, 1994). The SII is a 317-item measure that assesses a person's preferences for a wide array of occupations, activities, and subjects and is based on John Holland's theory of vocational choice. The SII is quite popular and is widely used in the field of vocational assessment. Additionally, the cross-cultural validity of the SII has been the subject of a greater level of empirical study compared to other vocational assessment instruments. In a study examining the cultural validity of the SII in a sample of Native American, Black, White, Hispanic, and Asian participants, Fouad and Mohler (2004) found that there were minimal differences in the patterns of response due to racial or ethnic group membership. This indicates that the career interests and aspirations of AI/AN/NHs may be similar to those

of the general population even though AI/AN/NHs are severely underrepresented in many career fields.

RECOMMENDATIONS WHEN USING ASSESSMENTS WITH AI/AN/NH INDIVIDUALS

- Culture must be taken into consideration when conducting psychological assessments and interpreting assessment results with AI/AN/NHs. Cultural variables such as historical trauma effects, spirituality, traditional belief systems, collectivistic orientation, and acculturation all affect the lived experience of AI/AN/NHs and influence the psychological assessment of these individuals.
- When conducting assessments with AI/AN/NH individuals, clinicians must be aware of their own biases, attitudes, and assumptions, and clinicians must work to understand how these affect the assessment process.
- Language differences may affect the understanding and interpretation of test items by AI/AN/NH individuals. It is important for clinicians take language effects into account when administering and interpreting psychological assessments.
- Clinicians must be familiar with the literature on AI/AN/NH assessment and have the skills to effectively conduct and interpret psychological assessments with diverse AI/AN/NH peoples. Clinicians must also take into account the dearth of research on the cross-cultural validity of psychological instruments as applied to AI/AN/NHs and be aware of how test bias may pathologize AI/AN/NH individuals due to differences in culture and worldview.
- AI/AN/NHs are faced with many social and economic barriers in the United States. Disparities in health care access, mental and physical health, and educational and career opportunities are aspects of many AI/AN/NH communities. Clinicians must be aware of these barriers and understand how these factors affect psychological assessment with AI/AN/NH individuals.

CONCLUSIONS

Although publications on mental health disparities have been on the rise in the past decade, too few studies have addressed the issues and challenges that are unique to special populations such as AI/AN/NHs (Hodge & Limb, 2010; Mitchell & Beals, 2011; Mohatt et al., 2011). Moreover, even when cultural awareness is present, associated caveats regarding the cultural limitations of standardized diagnostic systems are often forgotten when assessing findings based on such systems (Safran et al., 2009). Overall, the experience of psychological assessment in relation to AI/AN/NH is often negative due to culturally inappropriate services, test interpretation, and labels.

This highlights the necessity of cultural competence on the part of the researcher or clinician. It is important for

individuals who conduct assessments with native populations to have an understanding of native culture and possess the ability to interpret assessment results according to a native person's perspective, and to keep cultural variables in mind. Furthermore, the researcher or evaluator should be cognizant of their own cultural biases and account for it in relation to the results (Leong, Leung, & Cheung, 2010).

Increased collaboration and partnering across tribes, regions, institutions, and related mental health organizations is also advisable to support the review and evaluation of cultural appropriateness in existing instruments. Initiatives in cooperation with native-specific organizations such as the Indian Health Service (IHS) or the Society of Indian Psychologists (SIP) are also highly encouraged. Similarly, research studies and outcomes should be disseminated across disciplines such as medicine, psychology, anthropology, sociology, education, and social work as each has the potential to contribute greatly to the overarching discourse of health disparities in special populations.

REFERENCES

- Allen, J. (2002). Assessment training for practice in American Indian and Alaska Native settings. *Journal of Personality Assessment*, 79(2), 216–225. doi:10.1207/S15327752JPA7902_05
- Beiser, M., & Gotowiec, A. (2000). Accounting for native/non-native differences in IQ scores. *Psychology in the Schools*, 37(3), 237–252.
- Brave Heart, M. Y. H. (2003, January/February). The historical trauma response among Natives and its relationship with substance abuse: A Lakota illustration. *Journal of Psychoactive Drugs*, 35(1), 7–13. Retrieved from <http://proquest.umi.com/pqdweb?did=338232111&Fmt=3&clientId=45836&RQT=309&VName=PQD>
- Brave Heart, M. Y. H., & DeBruyn, L. M. (1998). The American Indian holocaust: Healing historical unresolved grief. *American Indian and Alaska Native Mental Health Research*, 8(2), 56–80. Retrieved from <http://proquest.umi.com/pqdweb?did=36164473&Fmt=3&clientId=45836&RQT=309&VName=PQD>
- Brave Heart-Jordan, M. Y. H. (1995). *The return to the sacred path: Healing from historical trauma and historical unresolved grief among the Lakota* (Doctoral dissertation). Retrieved from <http://proquest.umi.com/pqdweb?did=741209551&Fmt=2&clientId=45836&RQT=309&VName=PQD>
- Coates, J., Gray, M., & Hetherington, T. (2006). An “ecospiritual” perspective: Finally, a place for indigenous approaches. *British Journal of Social Work*, 36, 381–399.
- Dauphinais, P., & King, J. (1992). Psychological assessment with American Indian children. *Applied and Preventive Psychology*, 1(2), 97–110.
- Duran, E. (1995). *Native American postcolonial psychology*. Albany, NY: State University of New York Press.
- Duran, E. (2006). *Healing the soul wound: Counseling with American Indians and other native peoples*. New York, NY: Teachers College Press.
- Fouad, N. A., & Mohler, C. J. (2004). Cultural validity of Holland's theory and the Strong Interest Inventory for five racial/ethnic groups. *Journal of Career Assessment*, 12(4), 423–439.
- French, L.A. (2004). Alcohol and other drug addictions among Native Americans: The movement toward tribal-centric treatment programs. *Alcoholism Treatment Quarterly*, 22(1), 81–91.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.
- Gone, J. P. (2004). Mental health services for Native Americans in the 21st century United States. *Professional Psychology: Research and Practice*, 35, 10–18.
- Gray, J. S., & McCullagh, J. A. (2014). Suicide in Indian country: The continuing epidemic in rural Native American communities. *Journal of Rural Mental Health*, 38(2), 79–86.
- Greene, R. L., Robin, R.W., Albaugh, B., Caldwell, A., & Goldman, D. (2003). Use of the MMPI-2 in American Indians: II. Empirical correlates. *Psychological Assessment*, 15(3), 360.
- Harmon, L.W., Hansen, J. C., Borgen, F. H., & Hammer, A. L. (1994). *Applications and technical guide for the Strong Interest Inventory*. Palo Alto, CA: CA Consulting.
- Heffner, J. (2002, Summer). Between assimilation and revolt: A third option for Hawaii as a model for minorities world-wide. *Texas International Law Journal*, 37(3), 591–621. Retrieved from <http://proquest.umi.com/pqdweb?did=128435531&Fmt=4&clientId=45836&RQT=309&VName=PQD>
- Hill, J. S., Pace, T. M., & Robbins, R. R. (2010). Decolonizing personality assessment and honoring indigenous voices: A critical examination of the MMPI-2. *Cultural Diversity and Ethnic Minority Psychology*, 16(1), 16–25.
- Hodge, D. R., & Limb, G. E. (2010). A Native American perspective on spiritual assessment: The strengths and limitations of a complementary set of assessment tools. *Health & Social Work*, 35(2), 121–131. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,url,uid,cookie&db=psyh&AN=2010-10211-004&site=ehost-live>
- Indian Health Service, Office of Public Health Support, Division of Program Statistics. (2011). *American Indian/Alaska Native Behavioral Health Briefing Book*. Retrieved from <http://www.ihs.gov/behavioral/documents/AIANBHBriefingBook.pdf>

Johnson, M. J., Swartz, J. L., & Martin, W. E, Jr. (1995). Applications of psychological theories for career development with Native Americans. In F. T. L. Leong (Ed.), *Career development and vocational behavior of racial and ethnic minorities* (pp. 103–133). Mahwah, NJ: Erlbaum.

Juntunen, C. L., Barraclough, D. J., Broneck, C. L., Seibel, G. A., Winrow, S. A., & Morin, P. M. (2001). American Indian perspectives on the career journey. *Journal of Counseling Psychology*, 48(3), 274.

Kunnie, J. E., & Goduka, N. I. (Eds.). (2006). *Indigenous peoples' wisdom and power: Affirming our knowledge through narratives*. Hampshire, England: Ashgate.

Leong, F. T. L., Leung, K., & Cheung, F. M. (2010). Integrating cross-cultural psychology research methods into ethnic minority psychology. *Cultural Diversity and Ethnic Minority Psychology*, 16(4), 590–597. doi:10.1037/a0020127

McShane, D. A., & Has, J. M. (1982). Wechsler scale performance patterns of American Indian children. *Psychology in the Schools*, 19, 8–17.

Mitchell, C. M., & Beals, J. (2011). The utility of the Kessler screening scale for psychological distress (K6) in two American Indian communities. *Psychological Assessment*, 23(3), 752–761. doi:10.1037/a0023288

Mohatt, N. V., Fok, C. C. T., Burket, R., Henry, D., & Allen, J. (2011). Assessment of awareness of connectedness as a culturally-based protective factor for Alaska Native youth. *Cultural Diversity and Ethnic Minority Psychology*, 17(4), 444–455. doi:10.1037/a0025456

Nakano, S., & Watkins, M. W. (2013). Factor structure of the Wechsler Intelligence Scales for Children–Fourth Edition among referred Native American students. *Psychology in the Schools*, 50(10), 957–968.

Pace, T. M., Robbins, R. R., Choney, S. K., Hill, J. S., Lacey, K., & Blair, G. (2006). A cultural-contextual perspective on the validity of the MMPI-2 with American Indians. *Cultural Diversity and Ethnic Minority Psychology*, 12, 320–333.

Perry, B., & Robyn, L. (2005). Putting anti-Indian violence in context: The case of the Great Lakes Chippewas of Wisconsin. *American Indian Quarterly*, 29(3), 590–625. doi:10.1353/aiq.2005.0102

Rezentes, W. C. (1993). Nā mea hawai'i: A Hawaiian acculturation scale. *Psychological Reports*, 73(2), 383–393. Retrieved from <http://search.ebscohost.com.ezproxy.undmedlibrary.org/login.aspx?direct=true&AuthType=ip,url,uid,cookie&db=psyh&AN=1994-12031 001&site=ehost-live>

Robbins, R., Tonemah, S., & Robbins, S. (2002). Project Eagle: Techniques for multi-family psycho-educational group therapy with gifted American Indian adolescents and their parents. *American Indian and Alaska Native Mental Health Research*, 10(3), 56–74.

Safran, M. A., Mays, R. A., Jr., Huang, L. N., McCuan, R., Pham, K. P., Fisher, S. K., Trachtenberg, A. (2009). Mental health disparities. *American Journal of Public Health*, 99(11), 1962–1966.

Streltzer, J., Rezentes, W. C., & Arakaki, M. (1996). Does acculturation influence psychosocial adaptation and well-being in native Hawaiians? *International Journal of Social Psychiatry*, 42(1), 28–37.

Suzuki, L. A., & Valencia, R. R. (1997). Race–ethnicity and measured intelligence: Educational implications. *American Psychologist*, 52(10), 1103.

Wechsler, D. (1991). *WISC-III: Wechsler intelligence scale for children*. San Antonio, TX: Psychological Corporation.

Wechsler, D. (2003). *Wechsler intelligence scale for children* (4th ed., WISC-IV). San Antonio, TX: The Psychological Corporation.

Whitbeck, L. B. (2006). Some guiding assumptions and a theoretical model for developing culturally specific preventions with Native American people. *Journal of Community Psychology*, 34, 183–192.

IV. Psychological Testing and Assessment in the Asian American Community

Lisa A. Suzuki, PhD

New York University

Philip S. Wong, PhD

Long Island University

Grace Wong, PhD

Southbeach Psychiatric Center

Testing is one of the hallmarks of the psychological profession. Assessment practices have been refined over the years though challenges and concerns have continually arisen regarding the application of various measures and procedures to racial and ethnic minority communities. The purpose of this chapter is to highlight specific issues pertaining to Asian American communities.

The U.S. Census Bureau identifies Asians as those people originating from the “Far East, Southeast Asia, or the Indian subcontinent” (U.S. Census Bureau, 2007). The number of ethnic subgroups classified as Asian has been cited as high as 40, including Indian, Bangladeshi, Bhutanese, Burmese, Cambodian, Chinese, Filipino, Hmong, Indochinese, Iwo Jiman, Japanese, Korean, Laotian, Maldovian, Malaysian, Nepalese, Okinawan, Pakistani, Singaporean, Sri Lankan, Taiwanese, Thai, and Vietnamese. Each group possesses a unique history, relationship with country of origin, acculturation levels, language, and culture (Sandhu, 1997). In 2010, 17.3 million U.S. residents identified as Asian alone or Asian in combination with one or more other races, comprising 5.6% of the total population (U.S. Census Bureau, 2012). Overall, census data indicate that Asians have higher proportions of college graduates and higher median incomes in comparison to non-Hispanic Whites. The median household income for single-race Asians in 2010 was \$67,022; however, this amount varied greatly by Asian group. For example, Asian Indians reported a median income of \$90,711 in comparison to \$48,471 for Bangladeshi (U.S. Census Bureau, 2012). In addition, lower rates of divorce, criminal activities, and drug abuse are associated with Asian communities in comparison to other groups (i.e., Whites and African Americans; cited in Meyer, Dhindsa, & Sue, 2009).

HISTORICAL PERSPECTIVES

Asian Americans in the United States must be understood in light of their social, economic, and political oppression over the past century (Root, 1995). Historical and political narratives point to the significant role of immigration policies, prohibitions regarding citizenship (e.g., undocumented), and anti-Asian sentiment exacerbated by long-standing economic and political conflicts. Literature focusing on the psychological assessment of Asian Americans is limited in scope and affected by stereotypes of Asian Americans as perpetual foreigners and the model minority. In addition, language proficiency is a prominent factor that affects the assessment process when tests that were designed for use with native English speakers are administered to English Language Learners. This is especially of concern given current demographics of Asians in the United States. For example, in 2010, the Census indicated that 2.8 million people age 5 and over speak Chinese at home. Proficiency is often determined based on the accuracy of the speaker in the second language, which may take as long as 4 to 7 years to acquire. For older adults, acquiring mastery of English might take considerably longer, especially in the absence of educational opportunities, or interference of other factors including mental illness and cognitive limitations.

ASSESSMENT OF ASIAN AMERICANS

Some psychological instruments have been examined with respect to their use with members of particular Asian American populations. This information, however, is limited due to small sample sizes and a lack of representation of many communities. Further, many studies are based on college students, excluding other ages and developmental phases that are especially important in Asian families (e.g., children and older adults). The following sections highlight information regarding the use of mental health assessment tools, personality tests, and cognitive measures with Asian Americans.

MENTAL HEALTH ASSESSMENT

In general, depression and anxiety are the most common presenting complaints in mental health clinics and are the most frequently studied symptoms among Asian Americans (Kim, Wong, & Maffani, 2010; Gonzalez, Tarraff, Whitfield,

& Vega, 2010). Various tests are used to assess for depression and for social anxiety, often with an implicit assumption that such measures are applicable across ethnic and racial groups. Challenges have arisen in the usage of common measures of dysphoria, worry, and social anxiety with Asian Americans, as comparisons with other racial and ethnic groups have resulted in misleading conclusions (Hambrick et al., 2009). Most psychological measures do not include attention to the creation of specific norms for the Asian American population.

Studies using instruments such as the Beck Depression Inventory (BDI; Beck et al., 1961) or Center for Epidemiologic Studies–Depression Scale (CES-D; Radloff, 1977) indicate that Asian Americans have consistently higher levels of dysphoria than other groups (e.g., Mak, Law, & Yue, 2010). However, these widely used tests may yield biased results and should be interpreted cautiously. For example, it appears that there are generally lower levels of endorsement of positive affect on the CES-D for Asian Americans compared to non-Asians, yet increased acculturation to Western values leads to greater endorsement of these items (i.e., acculturation is a moderator; Jang, Chiriboga, Kim, & Rhew, 2010). Evidence also exists that the BDI results are not consistent with other qualitative indicators of depression, such as those gleaned from structured diagnostic interviews (e.g., Lam, Pepper, & Ryabchenko, 2004). Studies like these suggest that assessment of depression using common self-report instruments such as the BDI or CES-D may lead to inaccurate conclusions regarding depression among Asian Americans.

There is also consistent evidence that Asian Americans have higher levels of social anxiety (e.g., Hong & Woody, 2007; Lee, Okazaki, & Yoo, 2006; Mak et al., 2010), based on a variety of measures such as the Zung Self-Rating Anxiety Scale (Zung, 1971) or the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998). However, closer examination of the SIAS (Hambrick et al., 2009), suggests that there may be item variability across different ethnic groups such that measures of anxiety may be subtly biased depending on the size and coherence of the samples. While this finding may be specific to the SIAS or to a college-aged cohort, future studies examining item coherence across different ethnic groups are needed.

In conclusion, although Asian Americans report higher levels of depression and social anxiety, additional study is clearly needed, especially with regard to item variation across ethnic groups, with attention to sampling heterogeneity and moderating factors.

There is considerable uncertainty in using “established” cutoff scores on self-report measures to assess for clinical significance. For practical purposes it is important to rely on multimethod approaches to the assessment of mental health with Asian Americans. Using more than one-self report or performance-based measure (e.g., functional assessment) in conjunction with a clinical interview is strongly suggested.

PERSONALITY ASSESSMENT

The number of personality assessment tools has increased dramatically over the years. Tests include self-report inventories and projective (or performance-based) measures. In general, however, there is a glaring dearth of normative data and systematic study of Asian Americans using these instruments.

The MMPI-2 is the most extensively researched multifaceted personality inventory, especially given its translation and application in overseas Asian countries (Butcher, 2004). A review of the MMPI-2 literature on Asian Americans, however, found significant limitations in the populations sampled and the numbers of participants included in the studies, as well as a failure to account for varied linguistic abilities of the respondents (Okazaki, Okazaki, & Sue, 2009; Okazaki & Sue, 2000). Although there is more information on the MMPI-2 in two Asian groups given translated versions (Vietnamese and Hmong in the United States), in general there is a lack of attention to the many Asian American ethnic groups found in American society. In general, reviews indicate that Asian Americans score higher on scales 1, 2, 4, 6, 7, 8 and 0 (highlighting physical symptoms, potentially significant internal unrest, and social introversion) than Caucasian Americans (e.g., Kwan & Maestas, 2008). Acculturation may also play a role in moderating scores as low-accultured Asian groups scored higher on various subscales than high-accultured Asian Americans.

Studies of the projective Human Figure Drawing test indicate the existence of cultural influences on this measure as well as differences in the content, use of color, and gender representations (Esquivel, Oades-Sese, & Olitzky, 2008). For example, drawings from particular Asian communities (i.e., Japan) had lower frequencies of smiles, greater detail, and larger human figures when compared to American drawings. The larger sizes have been thought to represent the culture’s collectivistic orientation and a greater emphasis on group belongingness and sociocultural worth. Authors emphasize the need to examine culture-specific variables in relation to

projective drawings, including country of origin, reason for immigration, and level of acculturation.

Similar limitations are evident for performance-based tests such as the Rorschach or storytelling tests such as the TAT. Concerns have arisen highlighting the potential misunderstandings of the instructions or that the meaning of certain aspects of these measures may not be experientially relevant to members of Asian communities. Studies indicate, however, that projective measures that rely on the absence of structure may induce reactions that are more personally meaningful and that reflect individual dynamics (Esquivel, Oades-Sese, and Litzky, 2008). However, some of the storytelling tests include antiquated pictures that reflect a lack of diversity of characters and environments. Therefore, challenges have arisen regarding the inherent cultural and generational bias of such tests. For the most part, however, studies indicate that the TAT and other storytelling tests have good clinical utility. Many respondents, including Asian Americans, seem to be able to draw on themes regardless of their identification with the images. Accurate and appropriate interpretations, however, require awareness of the cultural and personal context of the respondent; coding approaches developed within a majority culture should be used with caution. The absence of multicultural norms and lack of information about the moderating effects of acculturation status hampers accurate interpretation of these measures. Despite these limitations, because these performance-based tests rely on psychological processes that are presumably universal (i.e., perception of an ambiguous object or telling meaningful stories), they are often used to develop clinical hypotheses that contribute to accurate assessment.

COGNITIVE ASSESSMENT

Asian Americans have been identified as the “model minority” for their educational and socioeconomic success in the United States. As a group, Asian Americans have higher test scores and educational achievements than the general population (U.S. Census Bureau, 2015). Studies focusing on the cognitive abilities of Asian Americans indicate that they score slightly higher than Whites on traditional intelligence, aptitude, and achievement measures (e.g., Suzuki, Short, & Lee, 2011). Higher abilities are attributed to the areas of nonverbal reasoning, visual analysis and visual synthesis, and numerical reasoning. Research conducted on the SAT indicates that Asian Americans outperform Whites and every other ethnic group in the areas of mathematics and writing (College Board, 2013).

In particular, strengths are noted in relation to the quantitative portion of the test in comparison to verbal areas.

The Wechsler scales are identified as the most popular measures of intelligence in the United States. The Wechsler Intelligence Scale for Children and its various editions has been translated for usage in a number of Asian countries including Japan, South Korea, China (i.e., Hong Kong), and India (Georgas, Weiss, van de Vijver, & Saklofske, 2003). Similar to findings on the SAT, performance on the nonverbal and numerical reasoning subtests reflects strengths for Asian students. Testing-the-limits practices may be implemented when examiners are concerned about potential cultural factors influencing performance following a standardized administration of the intelligence test (e.g., suspending time constraints, providing paper and pencil to solve math problems, allowing the client to use a vocabulary word in a sentence rather than providing a definition, implementing a test-teach-test procedure; Sattler, 2006). It is critical, however, to understand the potential impact of these alterations in relation to the original purpose and intention of the measure.

CONTEMPORARY CHALLENGES

A number of challenges exist in the assessment of Asian Americans as noted in the preceding sections of this paper. These include issues related to diversity among the Asian American ethnic subgroups, varying histories in the United States, language, acculturation, and generational differences within the Asian communities. Historical factors and stereotypes of the model minority and perpetual foreigner affect provision of services to Asian communities. Asian Americans are often underrepresented or absent from studies of mental illness, despite documented problems of racism, suicide, substance abuse, and poor access to health care. Asian Americans often do not use the mental health system, and those who do often access services only after exhausting all other potential sources of support. Thus, clients who use services are often experiencing more severe levels of disturbance. Cultural factors affect patterns of low utilization, and premature termination from services is often noted.

The heterogeneity of the Asian population presents a number of concerns in the assessment process. This variability is reflected in the diversity of languages spoken, generational differences within the community, and potential stressors associated with the process of acculturation. Most clinicians conducting assessments are limited to the standard batteries such as the

Wechsler scales, MMPI, Rorschach, TAT, HTP, and so on and must be aware of the usefulness as well as the limitations of these instruments.

Clinicians working in other domains also encounter challenges with heterogeneity of the Asian population. For example, traditional assessment practices may prove challenging when applied with clients who have limited English proficiency (e.g., Sue & Sue, 1987). Similar challenges exist in assessment of those who require neuropsychological assessment (e.g., Davis & D'Amato, 2014; Fujii, 2011), or in the assessment of vocational interests (e.g., Kantamneni & Fouad, 2013) where contextual factors may play a major role in interpreting the results of standardized measures.

CULTURE-SPECIFIC TOOLS

Comprehensive psychological assessment practices do not include attention to culture-specific measures. Instead, traditional instruments, as discussed the assessment section, are often administered with some consideration of how different racial and ethnic groups may score on the particular measures. Language differences are often addressed using translated measures or with an interpreter.

For Asians Americans, culture-specific measures have focused on constructs of racial and ethnic identity and acculturation. These include the Asian American Multidimensional Acculturation Scale (Gim Chung, Kim, & Abreau, 2004), East Asian Acculturation Measure (Barry, 2001), East Asian Ethnic Identity Scale (Barry 2002), Internal-External Ethnic Identity Measure (Kwan, 2000), Suinn-Lew Asian Self-Identity Acculturation Scale (Suinn, Rickard-Figueroa, Lew, & Vigil, 1987), and the Taiwanese Ethnic Identity Scale (Tsai & Curbow, 2001). These instruments address important variables that may affect performance on the more mainstream mental health, personality, and cognitive measures discussed earlier. Unfortunately, their use has remained in research and they have not infiltrated clinical practice.

RECOMMENDATIONS

- The potential impact of cultural factors can be subtle and varied. Clinicians must be sensitive to the potential impact of these factors in administering and interpreting the results of psychological instruments with Asian Americans.
- Psychometric properties of translated instruments must be examined with respect to Asian American test takers to address issues of cultural validity.

- Interpreters must be trained in psychological assessment practices when working with clinicians assessing Asian Americans. The interpreter must have fluency in two languages, understanding of the testing rules and goals of the various instruments, and the ability to remain open to alternative perspectives from the client that may differ from their own.
- The clinician must be familiar with the literature regarding use of mental health, personality, and cognitive measures with Asian Americans. Standardized scoring and coding procedures should be used with caution as they may yield inaccurate results.
- It is important to rely on multimethod approaches to the assessment of mental health with Asian Americans. Using more than one self-report or performance-based measure, in conjunction with a clinical interview, is strongly suggested.

FUTURE DIRECTIONS

Testing of Asian American clients must take into account highly idiographic information in order to arrive at accurate interpretations of test results. Administering what might be considered a “standard” measure and comparing that individual’s results to a normative (cross-ethnic) sample may lead to biased conclusions without careful attention to cultural issues (e.g., acculturation). Multiple sources of data, including quantitative and performance-based measures, are recommended.

RECOMMENDED READINGS

- Suzuki, L. A., & Ponterotto, J. G. (2008). *Handbook of multicultural assessment: Clinical, psychological and educational applications* (3rd ed.). San Francisco, CA: Jossey-Bass.
- Okazaki, S., Okazaki, M., & Sue, S. (2009). Clinical personality assessment with Asian Americans. In J. N. Butcher (Ed.), *Oxford handbook of personality assessment* (pp. 377–395). New York, NY: Oxford University Press.

REFERENCES

- Barry, D. T. (2001). Development of new scale for measuring acculturation: The East Asian Acculturation Measure (EAAM). *Journal of Immigrant Health*, 3(4), 193–197.
- Barry, D. T. (2002). An ethnic identity scale for East Asian immigrants. *Journal of Immigrant Health*, 4(2), 87–94.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561–571.
- Butcher, J. N. (2004). Personality assessment without borders: Adaptation of the MMPI-2 across cultures. *Journal of Personality Assessment*, 83(2), 90–104.

- College Board. (2013). *2013 college-bound seniors: Total group profile report*. Retrieved from <http://www.media.collegeboard.com/digitalresources/pdf/research/2013/TotalGroup-2013.pdf>
- Davis, J. M., & D'Amato, R. C. (Eds.). (2014). *Neuropsychology of Asians and Asian Americans*. New York, NY: Springer Science + Business Media.
- Esquivel, G. B., Oades-Sese, G., & Olitzky, S. L. (2008). Multicultural issues in projective assessment. In L. A. Suzuki & J. G. Ponterotto (Eds.), *Handbook of multicultural assessment: Clinical, psychological, and educational applications* (3rd ed., pp. 346–374). San Francisco, CA: Jossey-Bass.
- Fujii, D. E. M. (Ed.). (2011). *The neuropsychology of Asian Americans*. New York, NY: Taylor & Francis.
- Georgas, J., van de Vijver, F. J. R., Weiss, L. G., & Saklofske, D. H., (2003). A cross-cultural analysis of the WISC-III. In J. Georgas, L. G. Weiss, F. J. R. van de Vijver, & D. H. Saklofske (Eds.), *Culture of children's intelligence* (pp. 277–313). San Diego, CA: Academic Press.
- Gim Chung, R. H., Kim, R. S. K., & Abreau, J. M. (2004). Asian American Multidimensional Acculturation Scale: Development, factor analysis, reliability, and validity. *Cultural Diversity and Ethnic Minority Psychology, 10*(1), 66–80.
- Gonzalez, H. M., Tarraf, W., Whitfield, K. E., & Vega, W. A. (2010). The epidemiology of major depression and ethnicity in the United States. *Journal of Psychiatric Research, 44*, 1043–1051.
- Hambrick, J. P., Rodebaugh, T. L., Balsis, S., Woods, C. M., Mendez, J. L., & Heimberg, R. G. (2009). Cross-ethnic measurement equivalence of measures of depression, social anxiety, and worry. *Assessment, 17*(2), 155–171.
- Hong, J. J., & Woody, S. R. (2007). Cultural mediators of self-reported social anxiety. *Behavior, Research, Therapy, 45*, 1779–1789.
- Jang, Y., Chiriboga, D., Kim, G., & Rhew, S. (2010). Perceived discrimination in older Korean Americans. *Asian American Journal of Psychology, 1*(12), 129–135.
- Kantamneni, N., & Fouad, N. A. (2013). Contextual factors and vocational interests in South Asian Americans' vocational development. *Journal of Career Assessment, 21*(1), 57–72.
- Kim, B. S. K., Wong, Y. J., & Maffini, C. S. (2010). Annual review of Asian American psychology, 2009. *Asian American Journal of Psychology, 1*(4), 227–260.
- Kwan, K.-L. K. (2000). The Internal-External Ethnic Identity Measure: Factor-analytic structures based on a sample of Chinese Americans. *Educational and Psychological Measurements, 60*(1), 142–152.
- Kwan, K.-L. K., & Maestas, M. L. (2008). MMPI-2 and MCMI-III performances of non-white people in the United States: What we (don't) know and where we go from here. In L. A. Suzuki & J. G. Ponterotto (Eds.), *Handbook of multicultural assessment: Clinical, psychological, and educational applications* (3rd ed., pp. 425–446). San Francisco, CA: Jossey-Bass.
- Lam, C. Y., Pepper, C. M., & Ryabchenko, K. A. (2004). Case identification of mood disorders in Asian American and Caucasian American college students. *Psychiatric Quarterly, 75*, 361–373.
- Lee, M. R., Okazaki, S., & Yoo, H. C. (2006). Frequency and intensity of social anxiety in Asian Americans and European Americans. *Cultural Diversity and Ethnic Minority Psychology, 12*, 291–305.
- Mak, W. W. S., Law, R. W., & Yue, T. (2010). Cultural model of vulnerability to distress: The role of self-construal and sociotropy on anxiety and depression among Asian Americans and European Americans. *Journal of Cross-Cultural Psychology, 42*(1), 75–88.
- Mattick, R. P., & Clarke, J. C. (1998). Development and validation of measure of social phobia scrutiny fear and social interactive anxiety. *Behavior Research Therapy, 36*, 455–470.
- Meyer, O., Dhindsa, C. G., & Sue, S. (2009). Psychopathology and clinical issues in Asian American populations. In N. Tweekari & A. N. Alvarez (Eds.), *Asian American psychology: Current perspectives* (pp. 519–536). New York, NY: Taylor & Francis.
- Okazaki, S., Okazaki, M., & Sue, S. (2009). Clinical personality assessment with Asian Americans. In J. N. Butcher (Ed.), *Oxford handbook of personality assessment* (pp. 377–395). New York, NY: Oxford University Press.
- Okazaki, S., & Sue, S. (2000). Implications of test revisions for assessment with Asian Americans. *Psychological Assessment, 12*(30), 272–280.
- Radloff, L. S. (1977). The CES-D Scale: A new self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385–401.
- Root, M. P. P. (1995). The psychological browning of America. In N. Zack (Ed.), *Mixed race: The culture of microdiversity* (pp. 231–236). New York, NY: Rowman & Littlefield.
- Sandhu, D. S. (Ed.). (1997). *Asian Pacific Islander Americans: Issues and concerns for counseling and psychotherapy*. Commack, NY: Nova Science.
- Sattler, J. M., & Hoge, R. D. (2006). *Assessment of children: Behavioral, social and clinical foundations* (5th ed.). La Mesa, CA: Sattler.
- Sue, D., & Sue, S. (1987). Cultural factors in the clinical assessment of Asian Americans. *Journal of Consulting and Clinical Psychology, 55*(4), 479–487.

- Suinn, R. M., Rickard-Figueroa, K., Lew, S., & Vigil, P. (1987). The Suinn-Lew Asian Self-Identity Acculturation Scale: An initial report. *Educational and Psychological Measurement*, 47, 401–407.
- Suzuki, L. A., Short, E. L., & Lee, C. (2011). Multicultural perspectives of racial and ethnic group differences on intelligence in the United States. In R. J. Sternberg and S. B. Kaufman (Eds.), *Cambridge handbook of intelligence* (pp. 273–292). New York, NY: Cambridge University Press.
- Tsai, G., & Curbow, B. (2001). The development and validation of the Taiwanese Ethnic Identity Scale (TEIS): A “derived etic” approach. *Journal of Immigrant Health*, 3(4), 199–212.
- U.S. Census Bureau. (2007). *The American community—Asians: 2004: American community survey reports*. Retrieved from <http://www.census.gov/prod/2007pubs/acs-05.pdf>
- U. S. Census Bureau. (2010). *Profile America facts for features—Asian/Pacific American heritage month: May 2010*. Retrieved from http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb11-ff06.html.
- U.S. Census Bureau. (2012). *Profile America facts for features—Asian/Pacific American heritage month: May 2012*. Retrieved from http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb12-ff09.html.
- U.S. Census Bureau. (2015). *Profile America facts for features—Asian/Pacific American heritage month: May 2015*. Retrieved from <http://www.census.gov/newsroom/facts-for-features/2015/cb15-ff07.html>
- Zung, W. W. K. (1971). A rating instrument for anxiety disorders. *Psychosomatics*, 12, 371–379.

V. Psychological Testing and Assessment of Latina/os

Geneva Reynaga-Abiko, PsyD

California Polytechnic State University, San Luis Obispo

Saul G. Alamilla, PhD

Kennesaw State University

Andrés J. Consoli, PhD

University of California, Santa Barbara

Jesús Aros, PhD

Tennessee State University

Psychological testing and assessment is typically undergone for an important reason that affects the person's life in a significant way. Whether it is to determine if someone has a learning disability, traumatic brain injury, schizophrenia, or other possible outcome, great care must be taken to administer and interpret testing and assessments in as accurate and ethical a manner as possible, considering the psychometrics of instruments employed as well as individual and group differences (Keitel, Kopala, & Adamson, 1996). Given the history of institutionalized racism, classism, colorism, nativism, and other biases that lead to discrimination against Latina/os, it is especially important to ensure that testing and assessment do not reify these systems. This chapter focuses on ethical and culturally competent testing and assessment of Latina/os.

WHO ARE LATINA/OS?

Estimated at 54 million and representing almost 17% of the U.S. population, Latina/os are the second-largest and fastest-growing ethnocultural group in the United States (Ennis, Rios-Vargas, & Albert, 2011; U.S. Census Bureau, 2010). Some projections suggest that by 2050, the U.S. Latina/o population will increase to 29% (Passel & Cohn, 2011). Latina/os already represent more than 50% of the population in California (Saenz, 2010). There is remarkable heterogeneity among U.S. Latina/os, starting with country or region of origin, which includes Mexican Americans (63%), Puerto Ricans (9.2%), Cuban Americans (3.5%), Dominicans (2.8%), Central Americans (7.9%), South Americans (5.5%), and others (6.8%; Ennis et al., 2011). The heterogeneity among U.S. Latina/os is further represented by various racial (i.e., skin color) and ethnic backgrounds (Gloria & Segura-Herrera, 2004).

Latina/os experience various sociopolitical issues, such as racism, discrimination, and anti-immigrant sentiment, which negatively affect their psychological and social well-being (Casas & Cabrera, 2011). Discrimination due to either language or ethnicity/race is common (Perez, Fortuna, & Alegria, 2008) and a growing body of research has documented the negative effects of perceived racism for Latina/os (e.g., Alamilla, 2010; Alamilla, Kim, & Lam, 2010; Hwang & Goto, 2008; Major, Kaiser, O'Brien, & McCoy, 2007). Treatment may vary significantly by country of origin, linguistic abilities, socioeconomic status, and phenotype, with upper-class, higher-educated, lighter-skinned Latina/os (e.g., some Cubans, South Americans of European descent) generally suffering less discrimination than poor, darker-skinned, undereducated Latina/os (e.g., some Mexican Americans, Puerto Ricans, Central Americans; Hall, 2011).

Ethical and competent assessment that incorporates and addresses sociocultural factors with Latina/os is imperative. Biased psychological testing and assessment, whether intentional or unintentional, can result in misdiagnosis (Balsa & McGuire, 2001), inappropriate services and treatment (Iwamasa, Larrance, & Merritt, 2000), and the continuation of institutionalized inequities that contribute to health disparities (Smedley, Stith, & Nelson, 2003). Thus, clinicians must be aware of their own biases and the limitations of testing instruments in all facets and components of the assessment process (American Psychological Association [APA], 2002; APA, 2003) with Latina/os, and specific issues related to Latina/o populations (e.g., language ability and fluency, level of education, etc.).

HISTORICAL PERSPECTIVES

Evidence suggests that Latina/os underutilize or do not readily seek mental health treatment and have higher premature termination rates and less satisfaction when compared to European Americans (Anez, Paris, Bedregal, Davidson, & Grilo, 2005; Atkinson, 2004; U.S. Department of Health and Human Services [USDHHS], 2001; Zane, Nagayama Hall, Sue, Young, & Nunez, 2004). This may be due to institutional barriers, including lack of bicultural and bilingual staff, as most mental health professionals do not speak Spanish (USDHHS, 2001), but other possibilities include the affordability of mental

health services, cultural factors (i.e., client values and beliefs regarding mental illness and help seeking compared to those held by therapists) (Consoli, Kim, & Meyer, 2008), cultural mistrust, therapist–client mismatch, and cultural insensitivity of treatment approaches (Atkinson, 2004; Kim, Soliz, Orellana, & Alamilla, 2009; Zane et al., 2004).

The underlying theories of mental health that inform testing measures and assessment protocols are based on Western-European culture and worldviews (Butcher, Cabiya, Lucio, & Garrido, 2007; Dana, 1997; Marsella & Yamada, 2007). For most standardized instruments, the majority of the normative samples consists of European Americans and contain few, if any, Latina/os. When Latina/os are included, specific within group details (e.g., Mexican American, Cuban American) and other demographic data (e.g., acculturation level, language of origin) are rarely provided, making generalizations difficult (Umana-Taylor & Fine, 2001).

An important, often unexamined issue in psychological testing and assessment with Latina/os concerns bias. Bias occurs whenever a test or item measures different constructs in different groups. Although assessing test bias has been problematic and controversial, statistical measures used to infer test biases have been proposed (Nunnally & Bernstein, 1994). A related concern is the potential cultural bias of an instrument for Latina/os. This is particularly relevant for measures that have been translated and/or adapted for use with Latina/os. Cultural bias is minimized when the following are present: conceptual equivalence, functional equivalence, linguistic equivalence, and psychometric equivalence (Helms, 1997; Kwan, Gong, & Maestas, 2010; Puente & Agranovich, 2004). In light of these issues, it is critical that clinicians are knowledgeable about, understand, and incorporate relevant sociocultural factors when assessing Latina/os (APA, 2002; APA, 2003; Sue, Arredondo, & McDavis, 1992).

CONTEMPORARY CHALLENGES

There are many challenges when attempting to assess Latina/os in a culturally competent way and many concerned the appropriateness of current assessment tools for Latina/os (Dana, 1995, 1998, 2000; Paniagua, 2005). It is likely that bias can occur at different levels of the assessment process: at the level of items or scales, or during the interview, administration, and interpretation of findings.

Administration

When testing and assessing Latina/os, culturally competent clinicians identify the most appropriate test versions and norms for the individual and situation, considering regional differences in language, culture, education, and other sociodemographics (Judd et al., 2009; see p. 133 for a list of 20 goals and objectives to improve neuropsychological evaluation for Latina/os). Language is perhaps the most important sociocultural variable to consider when working with Latina/os (Leong, Wagner, & Tata, 1995). In fact, mismatches based on language ability and fluency will not only create communication difficulties but may also lead to misunderstanding and possible misdiagnosis (Altarriba & Santiago-Rivera, 1994). Moreover, language ability and fluency significantly affect which testing instruments and assessment protocols may be used. Clients may experience stress if they are unable to communicate effectively (Cofresi & Gorman, 2004), leading to the possible over- or underreporting of psychological symptoms.

Although many people consider themselves bilingual, an assessment of language proficiency must be conducted, as there may be varying levels of ability and fluency in each language (Cofresi & Gorman, 2004; Ponton & Ardila, 1999; Santiago-Rivera & Altarriba, 2002). There are various instruments available to assess language ability and fluency, and it is advisable to use well-established measures (see Test of English as a Foreign Language Organization [www.toefl.org]; Language Testing International [www.language-testing.com]; Center for Applied Linguistics [www.cal.org]; Alta Language Services [www.altalang.com]; Language Learning Enterprises [www.lle-inc.com]).

When the mental health professional and client are unable to communicate due to language barriers, a professional interpreter should be used. Competent professional interpreters possess verifiable language fluency and knowledge of interpreting ethics (Acevedo, Reyes, Annett, & Lopez, 2003). Since some psychological concepts may not be readily translatable into Spanish, distortion of information may occur if caution (Altarriba & Santiago-Rivera, 1994) and sufficient training of the interpreter (Kapborg & Bertero, 2002) are not ensured. When an interpreter is used, both the clinician and the interpreter must work hard to maintain culturally appropriate verbal and nonverbal communication (Hwa-Froelich & Westby, 2003), including knowledge of the specific Latina/o group being tested and assessed. Proper documentation in the reports, explaining what the interpreters did, their qualifications, and the likely

impact of the validity of the results (Acevedo-Polakovich et al., 2007) is required whenever interpreters are used. It is considered unethical to use family members or other untrained people as interpreters.

Norms

When Latina/os are represented in the normative group, it is often at levels lower than their representation in the U.S. populations and it is typically without regard to their specific group (e.g., Dominican, Puerto Rican; Padilla, 2001; Umana-Taylor & Fine, 2001). Further, most test norms do not include information regarding socioeconomic status (Dana, 2001), even though statistically significant differences between Latina/os and other ethnocultural groups often disappear after socioeconomic status is controlled for (Thakker, Ward, & Strongman, 1999).

Translation

If a test or assessment protocol needs to be translated because it is not available in the language of the person being tested or assessed, it is important to appropriately translate measures and protocols according to established guidelines (e.g., Test Adaptation Guidelines; International Test Commission, 2002) rather than relying on ad hoc translations (Judd et al., 2009). Appropriate translation requires trained professionals engaging in forward and back translations and is typically very expensive (Gutierrez, 2002). Nonetheless, contemporary perspectives on translation emphasize matters beyond language and accentuate meaning rather than word accuracy. This development requires that the translator pay keen attention to issues such as local context and cultural norms while trying to adapt or develop an equivalent form of a test or an assessment protocol in another language. Even after a test or protocol has been translated, it is imperative to ensure that appropriate norms are available for a sound interpretation of the results because the issues mentioned in the previous section apply to any measure, regardless of language (Geisinger, 1995).

Specifically with regard to Spanish, the second most widely spoken language in the United States (and the second language in the world by the sheer number of people who speak it as their first language), culturally competent clinicians must keep in mind the considerable variations among Spanish speakers. These variations can include pronunciation differences (e.g., the letters *ll*, *r*, *y*, *z*), accent variants, idiomatic expression choices, and, particularly among Spanish speakers in the United States, the extent to which English words have been adapted into

Spanish (e.g., “mopear” for “to mop,” “parkear” for “to park,” “lonche” for “lunch”).

Interpretation

The ability to establish valid interpretations from measures that potentially differ from Latina/os in important ways (i.e., definitions of psychopathology, native language, norms) is difficult, and the clinician must be cautious in using the norms and interpretive data that exist for conventional measures due to their Eurocentric assumptions (Dana, 1998). The following factors are also relevant to the psychosocial functioning and mental health of Latina/os (Atkinson, 2004) and should be incorporated into the assessment process: acculturation level, ethnic identity, language fluency, socioeconomic status (including education, occupation, and wealth), and religion/spirituality (Reynaga-Abiko, 2005). The incorporation of these factors is consistent with published guidelines and cultural formulation models (American Psychiatric Association, 2013; APA, 2002, 2003; see Paniagua, 2005, p. 120 for a list of acculturation measures).

There are no uniformly superior or inferior methods of psychological assessment because the method chosen depends on the rationale, referral question, individual's history and context, and purpose of the assessment (Meyer et al., 2001). In order to provide more valid assessment for Latina/os, assessment instruments can be adapted by translation, renormed to include a representative sample of Latina/os, or replaced as new measures are created (Gutierrez, 2002).

CULTURE-SPECIFIC TOOLS

Currently, there are few measures that effectively represent Latina/os culturally or statistically. Some are translations or renorming of existing measures (e.g., MMPI-2) while others are new measures that were created for and normed on Latina/os (e.g., TEMAS and NeSBHIS). This section focuses on three assessment instruments that can be considered models for psychological assessment with Latina/os: the MMPI-2 is a representation of translation; the TEMAS is an example of creation of a new measure; and the NeSBHIS is a representation of adaptation and norming. This section is by no means exhaustive but offers some exemplary models of assessment instruments that attempt to overcome shortcomings of other instruments, allowing for more culturally competent assessment of Latina/os.

MMPI-2

The Minnesota Multiphasic Personality Inventory, Second Edition (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) is an exemplar of research on various types of validity with Latina/os in the United States (Velásquez et al., 1997, 2000; Velásquez, Garrido, Castellanos, & Burton, 2004). It has been translated into several different versions of Spanish, making it useful for English- and Spanish-speaking Latina/os. Some notable versions include the Spanish translation for use in Mexico (Lucio, Reyes-Lagunes, & Scott, 1994) and the Spanish translation for Spanish speakers in the United States (Garcia-Peltoniemi & Chaviano, 1993).

TEMAS

The Tell-Me-A-Story test (TEMAS) is a projective measure that assesses some personality, cognitive, and affective functions of children and adolescents. It is used to screen for emotional and behavioral problems. TEMAS is known as the multicultural derivative of the Thematic Apperception Test (Conklin & Westen, 2001) and is one of the few assessment measures specifically designed for and normed on Latina/os (Costantino & Malgady, 2000). Although most of the Latina/os in the standardization sample are Puerto Ricans from New York City (Flanagan & Di Giuseppe, 1999), the TEMAS is an exemplar of creating an instrument that is designed to be culturally relevant for Latina/os instead of adapting an existing measure.

NeSBHIS

The Neuropsychological Screening Battery for Hispanics (NeSBHIS) was created by Ponton and colleagues (Ponton, Gonzalez, Hernandez, Herrera, & Higuera, 2000; Ponton, Satz, Herrera, Ortiz, Urrutia, Young, et al., 1996) to measure language, memory, attention, motor, and visuospatial functioning in Spanish-speaking Latina/os ages 16 to 75. It incorporates a variety of previously available neuropsychological instruments in one battery that was normed on representative numbers of various Latina/o groups stratified by age, gender, and education. The NeSBHIS is one of the few assessment instruments available that provides such rich normative data by several demographic characteristics of the U.S. Latina/o population and is a model of the demographic data needed for any measure used with U.S. Latina/os.

RECOMMENDATIONS

Given the information presented in this monograph, there are several issues to consider and practices to follow when assessing Latina/os, regardless of the setting or purpose of the assessment.

- In addition to the required training and experience in psychological assessment, ensure formal training in the assessment of Latina/os, including understanding of Latina/o-specific cultural constructs (Acevedo-Polakovich et al., 2007).
- Maintain working knowledge about the specific Latina/o group(s) with which an assessment is being conducted (Dana, 1998).
- Use only properly normed, standardized, and translated measures chosen specifically based on the Latina/o client's ethnic subgroup, acculturation level, language proficiency, education level, socioeconomic status, and other relevant demographic factors (Reynaga-Abiko, 2005).
- Assess the language abilities and fluency of the Latina/o client to determine the most appropriate assessment instrument(s), using interpreters as necessary (Acevedo-Polakovich et al., 2007).
- Interpret and report assessment results in a culturally contextualized manner (Acevedo-Polakovich et al., 2007; Alamilla & Wojcik, 2013), including family and/or community members in the feedback session(s) when appropriate (Reynaga-Abiko, 2005).
- Consult with an expert in Latina/o assessment whenever needed to ensure cultural competence throughout the assessment process (i.e., from instrument choice to interpretation and report writing; Acevedo-Polakovich et al., 2007).

FUTURE DIRECTIONS

There remains much work to be done in the culturally competent assessment of Latina/os in the United States. In this chapter, we discussed a variety of concerns related to the administration, norms, translation, and interpretation of assessment with Latina/os. It is clear that more research is needed on current assessment practices with all Latina/o groups present in the United States, including the development of standards of practice by which to assess Latina/os (Cermele, Daniels, & Anderson, 2001); an appropriate representation of Latina/os (including Latina/o groups whenever possible) in the normative samples of all assessment instruments; and additional research on equivalence and bias of measures for various Latina/o groups, such as how each Latina/o group performs on commonly used assessment measures (Reynaga-Abiko, 2005). The goal of culturally competent assessment with Latina/os must become a reality for the second-largest, and fastest-growing, ethnic group in the United States.

RECOMMENDED READINGS

Benuto, L. T. (Ed.). (2013). *Guide to psychological assessment with Hispanics*. New York, NY: Springer.

Dana, R. H. (1993). *Multicultural assessment perspectives for professional psychology*. Boston, MA: Allyn & Bacon.

Llorente, A. M. (Ed.). (2008). *Principles of neuropsychological assessment with Hispanics: Theoretical foundations and clinical practice*. New York, NY: Springer.

Marin, G., & Marin, B. V. (1991). *Research with Hispanic populations*. Newberry Park, CA: Sage.

REFERENCES

Acevedo, M. C., Reyes, C. J., Annett, R. D., & Lopez, E. M. (2003). Assessing language competence: Guidelines for assessing persons with limited English proficiency in research and clinical settings. *Multicultural Counseling and Development*, 31, 192–204.

Acevedo-Polakovich, I. D., Reynaga-Abiko, G., Garriott, P. O., Derefinco, K. J., Wimsatt, M. K., Gudonis, L. C., et al. (2007). Beyond instrument selection: Cultural considerations in the psychological assessment of U.S. Latina/os. *Professional Psychology: Research and Practice*, 38(4), 375–384.

Alamilla, S. G. (2010). *Examining the moderating effects of enculturation and color-blind racial ideology on the relationship between racism-related stress and psychological distress among Latino/as*. (Unpublished doctoral dissertation). University of California, Santa Barbara, CA.

Alamilla, S. G., Kim, B. S. K., & Lam, A. N. (2010). Acculturation, enculturation, perceived racism, minority status stressors, and psychological symptomatology among Latino/as. *Hispanic Journal of Behavioral Sciences*, 32(1), 55–76.

Alamilla, S. G., & Wojcik, J. V. (2013). Assessing for personality disorders in the Hispanic client. In L. T. Benuto (Ed.), *Guide to psychological assessment with Hispanics* (pp. 215–241). New York, NY: Springer.

Altarriba, J., & Santiago-Rivera, A. L. (1994). Current perspectives on using linguistic and cultural factors in counseling the Hispanic client. *Professional Psychology: Research and Practice*, 25(4), 388–397.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

American Psychological Association. (2002). *Ethical principles of psychologists and code of conduct*. Washington, DC: Author.

American Psychological Association. (2003). Guidelines on multicultural education, training, research, practice, and organizational change for psychologists. *American Psychologist*, 58(5), 377–402.

Anez, L. M., Paris, M. Jr., Bedregal, L. E., Davidson, L., & Grilo, C. M. (2005). Application of cultural constructs in the care of first generation Latino clients in a community mental health setting. *Journal of Psychiatric Practice*, 11(4), 221–230.

Atkinson, D. R. (2004). *Counseling American minorities* (6th ed.). Boston, MA: McGraw Hill.

Balsa, A. I., & McGuire, T. G. (2001). Statistical discrimination in health care. *Journal of Health Economics*, 20(6), 881–907.

Butcher, J. N., Cabiya, J., Lucio, E., & Garrido, M. (2007). *Assessing Hispanic clients using the MMPI-2 and MMPI-A*. Washington, DC: American Psychological Association.

Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *Minnesota Multiphasic Personality Inventory-2 (MMPI-2): Manual for administration and scoring*. Minneapolis, MN: University of Minnesota Press.

Casas, J. M., & Cabrera, A. P. (2011). Latino/a immigration: Actions and outcomes based on perceptions and emotions or facts? *Hispanic Journal of Behavioral Sciences*, 33(3), 283–303.

Cermele, J. A., Daniels, S., & Anderson, K. L. (2001). Defining normal: Constructions of race and gender in the DSM-IV casebook. *Feminism & Psychology*, 11(2), 229–247.

Cofresi, N. I., & Gorman, A. A. (2004). Testing and assessment issues with Spanish–English bilingual Latinos. *Journal of Counseling and Development*, 82(1), 99–107.

Conklin, A., & Westen, D. (2001). Thematic Apperception Test. In W. I. Dorfman & M. Hersen (Eds.), *Understanding psychological assessment* (pp. 107–133). New York, NY: Klumer Academic/Plenum Publishers.

Consoli, A. J., Kim, B. S. K., & Meyer, D. (2008). Counselors' values profile: Implications for counseling ethnic minority clients. *Counseling & Values*, 52, 181–197.

Costantino, G., & Malgady, R. G. (2000). Multicultural and cross-cultural utility of the TEMAS (Tell-Me-A-Story) test. In R. H. Dana (Ed.), *Handbook of cross-cultural and multicultural personality assessment* (pp. 481–513). Mahwah, NJ: Erlbaum.

Dana, R. H. (1995). Culturally competent MMPI assessment of Hispanic populations. *Hispanic Journal of Behavioral Science*, 17, 305–319.

Dana, R. H. (1997). Multicultural assessment and cultural identity: An assessment-intervention model. *World Psychology*, 3(1–2), 121–141.

- Dana, R. H. (1998). Cultural identity assessment of culturally diverse groups: 1997. *Journal of Personality Assessment*, 70(1), 1–16.
- Dana, R. H. (2000). Psychological assessment in the diagnosis and treatment of ethnic group members. In J. F. Aponte & J. Wohl (Eds.), *Psychological intervention and cultural diversity* (2nd ed., pp. 59–74). Boston, MA: Allyn & Bacon.
- Dana, R. H. (2001). Clinical diagnosis of multicultural populations in the United States. In L. A. Suzuki, J. G. Ponterotto, & P. J. Meller (Eds.), *Handbook of multicultural assessment: Clinical, psychological, and educational applications* (2nd ed., pp. 101–131). San Francisco, CA: Jossey-Bass.
- Ennis, S. R., Rios-Vargas, M., & Albert, N. G. (2011). *The Hispanic population: 2010*. Washington, DC: U.S. Census Bureau.
- Flanagan, R., & Di Giuseppe, R. (1999). Critical review of the TEMAS: A step within the development of thematic apperception instruments. *Psychology in the Schools*, 36(1), 21–30.
- Garcia-Peltoniemi, R., & Chaviano, A. A. (1993). *MMPI-2: Inventario Multifásico de la Personalidad—2—Minnesota, Version Hispana*. Available from National Computer Systems, P.O. Box 1416, Minneapolis, MN 55440.
- Geisinger, K. F. (1995). Cross-cultural normative assessment: Translation and adaptation issues influencing the normative interpretation of assessment instruments. *Psychological Assessment*, 6, 304–312.
- Gloria, A. M., & Segura-Herrera, T. A. (2004). ¡Somos! Latinas and Latinos in the United States. In D. R. Atkinson (Ed.), *Counseling American minorities* (6th ed., pp. 279–299). Boston, MA: McGraw Hill.
- Gutierrez, G. (2002). Ethnopsychological method and the psychological assessment of Mexican Americans. *Hispanic Journal of Behavioral Sciences*, 24(3), 259–277.
- Hall, R. E. (2011). Eurocentrism and the postcolonial implications of skin color among Latinos. *Hispanic Journal of Behavioral Sciences*, 33(1), 105–117.
- Helms, J. E. (1997). The triple quandary of race, culture, and social class in standardized cognitive ability testing. In D. P. Flanagan, J. L. Genshaft, & P. L. Harrison (Eds.), *Contemporary intellectual assessment: Theories, tests, and issues* (pp. 517–532). New York, NY: Guilford.
- Hwa-Froelich, D. A., & Westby, C. E. (2003). Considerations when working with interpreters. *Communication Disorders Quarterly*, 24(2), 78–85.
- Hwang, W. C., & Goto, S. (2008). The impact of perceived discrimination on the mental health of Asian American and Latino college students. *Cultural Diversity and Ethnic Minority Psychology*, 14(4), 326–335.
- International Test Commission. (2002). *International test commission test adaptation guidelines*. Retrieved from <http://www.intestcom.org/Guidelines/Adapting+Tests.php>
- Iwamasa, G. Y., Larranee, A. L., & Merritt, R. D. (2000). Are personality disorder criteria ethnically biased? A card-sort analysis. *Cultural Diversity and Ethnic Minority Psychology*, 6(3), 284–296.
- Judd, T., Capetillo, D., Carrion-Baralt, J., Marmol, L. M., San Miguel-Montes, L., Navarrete, M. G., et al. (2009). Professional considerations for improving the neuropsychological evaluation of Hispanics: A National Academy of Neuropsychology education paper. *Archives of Clinical Neuropsychology*, 24, 127–135.
- Kapborg, I., & Bertero, C. (2002). Using an interpreter in qualitative interviews: Does it threaten validity? *Nursing Inquiry*, 9(1), 52–56.
- Keitel, M. A., Kopala, M., & Adamson, W. S. (1996). Ethical issues in multicultural assessment. In L. A. Suzuki, P. J. Meller, & J. G. Ponterotto (Eds.), *Handbook of multicultural assessment: Clinical, psychological, and educational applications* (pp. 29–48). San Francisco, CA: Jossey-Bass.
- Kim, B. S. K., Soliz, A., Orellana, B., & Alamilla, S. G. (2009). Latino/a Values Scale: Development, reliability, and validity. *Measurement and Evaluation in Counseling and Development*, 42(2), 71–91.
- Kwan, K.-L. K., Gong, Y., & Maestas, M. (2010). Language, translation, and validity in the adaptation of psychological tests for multicultural counseling. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (3rd ed., pp. 397–412). Thousand Oaks, CA: Sage.
- Leong, F. T. L., Wagner, N. S., & Tata, S. P. (1995). Racial and ethnic variations in help-seeking attitudes. In L. A. Suzuki, P. J. Meller, & J. G. Ponterotto (Eds.), *Handbook of multicultural assessment: Clinical, psychological, and educational applications* (pp. 415–438). San Francisco, CA: Jossey-Bass.
- Lucio G. M., E., Reyes-Lagunes, I., & Scott, R. L. (1994). MMPI-2 for Mexico: Translation and adaptation. *Journal of Personality Assessment*, 63(1), 105–116.
- Major, B., Kaiser, C. R., O'Brien, L. T., & McCoy, S. K. (2007). Perceived discrimination as worldview threat or worldview confirmation: Implications for self-esteem. *Journal of Personality and Social Psychology*, 92(6), 1068–1086.

- Marsella, A. J., & Yamada, A. M. (2007). Culture and psychopathology: Foundations, issues, and directions. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 797–818). New York, NY: Guilford.
- Meyer, G. J., Finn, S. E., Eyde, L. D., Kay, G. G., Moreland, K. L., Dies, R. R., et al. (2001). Psychological testing and psychological assessment: A review of evidence and issues. *American Psychologist*, 56(2), 128–165.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York, NY: McGraw Hill.
- Padilla, A. M. (2001). Issues in culturally appropriate assessment. In L. A. Suzuki, J. G. Ponterotto, & P. J. Meller (Eds.), *Handbook of multicultural assessment: Clinical, psychological, and educational applications* (2nd ed., pp. 5–27). San Francisco, CA: Jossey-Bass.
- Paniagua, F. A. (2005). *Assessing and treating culturally diverse clients: Practical guide* (3rd ed.). Thousand Oaks, CA: Sage.
- Passel, J. S., & Cohn, D. (2011). *How many Hispanics? Comparing new census counts with latest census estimates*. Washington, DC: Pew Hispanic Center.
- Perez, D. J., Fortuna, L., & Alegria, M. (2008). Prevalence and correlates of everyday discrimination among U.S. Latinos. *Journal of Community Psychology*, 36(4), 421–433.
- Ponton, M. O., & Ardila, A. (1999). The future of neuropsychology with Hispanic populations in the United States. *Archives of Clinical Neuropsychology*, 14(7), 565–580.
- Ponton, M. O., Gonzalez, J. J., Hernandez, I., Herrera, L., & Higareda, I. (2000). Factor analysis of the Neuropsychological Screening Battery for Hispanics (NeSBHIS). *Applied Neuropsychology*, 7(1), 32–39.
- Ponton, M. O., Satz, P., Herrera, L., Ortiz, F., Urrutia, C.P., Young, R., et al. (1996). Normative data stratified by age and education for the Neuropsychological Screening Battery for Hispanics (NeSBHIS): Initial report. *Journal of the International Neuropsychological Society*, 2(2), 96–104.
- Puente, A. E., & Agranovich, A. V. (2004). The cultural in cross-cultural neuropsychology. In G. Goldstein, S. R. Beers, & M. Hersen (Eds.), *Comprehensive handbook of psychological assessment, Vol. 1: Intellectual and neuropsychological assessment* (pp. 321–332). Hoboken, NJ: Wiley.
- Reynaga-Abiko, G. (2005). *Towards a culturally relevant assessment of psychopathology with Mexicans/Mexican Americans* (Unpublished doctoral dissertation). Pepperdine University, Malibu, CA.
- Saenz, R. (2010). *Latinos in America 2010*. Washington, DC: Population Reference Bureau.
- Santiago-Rivera, A. L., & Altarriba, J. (2002). The role of language in therapy with the Spanish-English bilingual client. *Professional Psychology: Research and Practice*, 33(1), 30–38.
- Smedley, B. D., Stith, A. Y., & Nelson, A. R. (2003). *Unequal treatment: Confronting racial and ethnic disparities in health care*. Washington, DC: National Academies Press.
- Sue, D. W., Arredondo, P., & McDavis, R. J. (1992). Multicultural counseling competencies and standards: A call to the profession. *Journal of Counseling and Development*, 70, 477–483.
- Thakker, J., Ward, T., & Strongman, K. T. (1999). Mental disorder and cross-cultural psychology: A constructivist perspective. *Clinical Psychology Review*, 19(7), 843–874.
- Umana-Taylor, A. J., & Fine, M. A. (2001). Methodological implications of grouping Latino adolescents into one collective ethnic group. *Hispanic Journal of Behavioral Sciences*, 23(4), 347–362.
- U.S. Census Bureau. (2010). *Facts for features: Hispanic heritage month*. Retrieved from http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb10-ff17.html.
- U.S. Department of Health and Human Services. (2001). *Mental health: Culture, race, and ethnicity—A supplement to mental health: A report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.
- Velásquez, R. J., Chavira, D. A., Karle, H. R., Callahan, W. J., Garcia, J. A., & Castellanos, J. (2000). Assessing bilingual and monolingual Latino students with translations of the MMPI-2: Initial data. *Cultural Diversity and Ethnic Minority Psychology*, 6(1), 65–72.
- Velásquez, R. J., Garrido, M., Castellanos, J., & Burton, M. P. (2004). Culturally competent assessment of Chicanas/os with the Minnesota Multiphasic Personality Inventory-2. In R. J. Velásquez, L. M. Arellano, & B. W. McNeill (Eds.), *The handbook of Chicana/o psychology and mental health* (pp. 153–174). Mahwah, NJ: Lawrence Erlbaum.
- Velásquez, R. J., Gonzales, M., Butcher, J. N., Castillo-Canez, I., Apodaca, J. X., & Chavira, D. (1997). Use of the MMPI-2 with Chicanos: Strategies for counselors. *Journal of Multicultural Counseling and Development*, 25, 107–120.
- Zane, N., Nagayama Hall, G. C., Sue, S., Young, K., & Nunez, J. (2004). Research on psychotherapy with culturally diverse populations. In M. J. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (5th ed., pp. 767–804). New York, NY: Wiley.

