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Psychological assessment in vocational rehabilitation: A qualitative exploration of acculturation assessment and clinician testing practices

Oscar A. Donoso

DePaul University, odonoso@depaul.edu

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PSYCHOLOGICAL ASSESSMENT IN VOCATIONAL REHABILITATION:
A QUALITATIVE EXPLORATION OF
ACCULTURATION ASSESSMENT AND CLINICIAN TESTING PRACTICES

A Dissertation
Presented in
Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy

By
Oscar A. Donoso
July 22, 2010

Department of Psychology
College of Liberal Arts and Sciences
DePaul University
Chicago, Illinois

DISSERTATION COMMITTEE

Christopher Keys, Ph.D.

Chairperson

Sheldon Colter, Ph.D.

Bernadette Sanchez, Ph.D.

Gayle Mindes, Ed.D.

Ronald Chennault, Ph.D.

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VITA

The author was born in Los Angeles, California, April 10, 1975. He graduated from St. John Bosco High School, received his Bachelor of Arts degree from University of California, Irvine in 1997, Master of Education degree in Counseling in Student Affairs from University of California, Los Angeles in 2000, Master of Arts degree in Clinical Community Psychology from DePaul University in 2008, and Doctor of Philosophy degree in Clinical Community Psychology in 2010.

TABLE OF CONTENTS

DISSERTATION COMMITTEE.....	ii
ACKNOWLEDGEMENTS.....	iii
VITA.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	viii
CHAPTER I. INTRODUCTION	1
Statement of Problem.....	2
Disability and its Prevalence in the U.S.....	5
Disability and Employment.....	6
Vocational Rehabilitation	6
Ethnic/Racial Disparities in the VR System.....	8
Psychological Testing and Bias.....	11
Ethic and Standards for Testing.....	16
Test Adaptations.....	18
Multicultural Competence in Assessment.....	20
Acculturation.....	24
Definitions of Acculturation.....	25
Acculturation Strategy Models.....	26
Acculturation and Assessment.....	31
Acculturation Measurement.....	36
Rationale.....	40
Research Questions.....	41

CHAPTER II. METHOD.....	42
Researcher’s Perspective.....	43
Participants.....	46
Measures.....	50
Procedures.....	51
Data Analysis.....	53
Coding.....	54
Credibility of the Findings.....	56
Consistency of Coding.....	57
CHAPTER III. RESULTS.....	58
Research question I: How is acculturation defined by psychologists?.....	58
Assimilation.....	59
Cultural maintenance in acculturation.....	60
Adapt to local culture.....	61
Bidirectional influence of acculturation.....	62
Research question II: What do clinicians perceive to be the role that acculturation plays in the testing process for clients?.....	62
Disadvantaged by the testing process.....	63
Acculturation is irrelevant.....	66
Research question III: How does client acculturation influence clinicians’ testing practices?.....	67
Non-standard interpretation of tests.....	68
Test adaptations.....	69

Selection and omission of tests.....	71
Exclusion from testing.....	72
Acculturation plays no role in testing.....	73
Research question IV: How is level of acculturation accessed?.....	74
Standard measures of acculturation are not useful.....	74
Assessment of acculturation via clinical interview.....	74
Acculturation is not assessed.....	76
Research question V: What challenges do clinicians perceive about testing clients who are culturally different from themselves?.....	80
Questionable validity.....	80
Extra effort.....	82
Frustration testing culturally different clients.....	83
Testing culturally different clients is not challenging.....	84
Research question VI: How do psychologists perceive the role of their cultural background on the testing process?.....	85
Increased awareness of cultural issues.....	86
Uncertainty about how clinician cultural background plays a role.....	87
Clinician cultural background does not play a role in testing.....	88
White privilege and power in the testing process.....	88
CHAPTER IV. DISCUSSION.....	91
Definition of Acculturation.....	91
Perceptions of the Role of Acculturation in the Testing Process.....	94

Assessment of Acculturation.....	97
Challenges of Assessing Culturally Different Clients.....	101
Perception of Clinicians' Cultural Background on the Testing Process..	104
Contributions and Limitations of the Study.....	107
Implications for Theory, Research, and Practice.....	109
Conclusions.....	114
CHAPTER V. SUMMARY	116
REFERENCES.....	121
APPENDIX A. Interview Protocol.....	142
APPENDIX B. Final Coding Manual.....	145

LIST OF TABLES

Table 1. Demographic Characteristics of the Sample.....	48
Table 2. Professional Characteristics of the Sample.....	49

CHAPTER I

INTRODUCTION

Psychological testing and assessment have continually grown and developed into an integral part of our society since their inception in the early part of the 20th century. Institutions such as the vocational rehabilitation (VR) system, which provides services to people with disabilities to gain employment, often require testing to determine whether individuals qualify and thus will be provided services given the limited availability of resources (Hayward & Schmidt, 2003a). Although psychological testing has helped many people obtain services that benefit their lives, inappropriate administration of tests can lead to considerable harm to test takers. In many ways psychological testing is a cultural interaction between the test developer, test administrator, and test taker. When there is cultural incongruity between any of these parties, there is potential for misdiagnosis, misunderstanding, and/or miscommunication which can adversely affect the opportunities available to the test taker. Over the course of the last century, the U.S. population has grown exponentially diverse in terms of race/ethnicity, nationality, disability, religion, and sexuality. More and more, interactions between psychologists and clients are intercultural exchanges that require increased cultural competence. This need for cultural competence is particularly pertinent to the psychological testing process. Researchers, practitioners, (Allen, 2007; Dana, 2005) and the American Psychological Association (APA; 1993, 2003) have recognized that multicultural populations are

often disadvantaged when taking standardized tests and have called for psychologists to increase their competency in multicultural assessment.

Statement of the Problem

To address the inadequacies of standardized tests when assessing multicultural populations, researchers, and scholars have suggested the development of culture-specific tests. Unfortunately, this psychometric endeavor has not been a priority and few culture-specific instruments currently exist, other than those tailored to the mainstream culture of the United States which is the culture of those who are typically white, middle-class, able-bodied and heterosexual. As an alternative approach to remediating potential standardized test bias, a growing number of researchers and practitioners have encouraged the use of test adaptations and the assessment of acculturation (Arends-Tóth & Van de Vijver, 2006a, Cuellar, 2000, Dana, 1998, 2005; Hambleton, Merenda, & Spielberger, 2005; Van de Vijver & Phalet, 2004). The body of research related to test adaptations has focused primarily on educational testing practices with students with disabilities. The frequency with which test adaptations are made based on clients' race/ethnicity and disability is largely unknown. In an exploratory study of the topic, Hernandez, Horin, and Donoso (unpublished) found that few psychologists made test adaptations based on these factors. The acculturation literature is similarly extensive, but is focused mainly on theoretical conceptualizations of this construct and the development of acculturation measures. Missing from the research is if and how clinicians assess clients' level of acculturation, and data on how they conceptualize this construct in the midst of

the assessment process. In addition, clinicians' perceptions of testing multicultural populations and how they perceive of their own cultural background within the dynamics of assessment is another area that has not been investigated. Therefore, the purpose of this qualitative study, informed by a phenomenological approach was to explore (a) clinicians' definitions/conceptualizations of acculturation, (b) clinicians' perceptions of the role of acculturation in the testing process, (c) the method in which acculturation is assessed, (d) clinicians' perceptions of the challenges of testing clients who are culturally different from themselves, and (e) clinicians' perceptions of the role of their cultural background on the testing process.

Self-awareness, knowledge of diverse worldviews, developing appropriate skills and putting them into practice are the hallmarks of multicultural competence (Balcazar, Suarez-Balcazar, Willis, & Alvarado, 2010; Sue, Arredondo, & McDavis, 1992). Guided by this framework this study explored the following areas. First, this study examined how psychologists' conceptualize acculturation (in terms of race and ethnicity) compared to the extant literature. The definitions and models of acculturation in psychological theory, research, and practice have changed and grown more complex over time. Simplified notions of acculturation may impact how psychologists view diverse clients during the assessment process. Second, this study explored clinicians' knowledge and awareness of how clients' level of acculturation may impact the testing process. Third, this study explored clinicians' testing practices, in particular the use of adaptations to test procedures and interpretation based on client level of

acculturation. Fourth, researchers have developed a number of standardized measures of acculturation. However, there is no published empirical data on how and to what extent they are used by clinicians in the assessment process. This study investigated psychologists' use of standardized, non-standardized, and/or informal measures of acculturation when testing multicultural populations. Finally, research has focused much of its attention on client factors that impact performance on psychological assessment. Clinician variables have been largely ignored in research, even though the multicultural assessment literature has suggested that clinician bias is one of many barriers to fairness in testing (Dana, 2005; Roysircar, 2005). Therefore, this study also examined psychologists' perceptions of testing multicultural populations and the role of their own cultural background in the testing process.

It is important to note that for the purposes of this study, the constructs of culture and acculturation referred to the aspects of race and ethnicity. It is recognized that people with disabilities form a community with characteristics similar to that of non-disabled groups. In addition, people with disabilities share several characteristics, customs, traditions, and experiences unique to the disability community which constitutes a culture and/or many subcultures (Olkin, 1999). Although these aspects of the term 'culture' are worthy of inquiry, this study focused its scope to members of racial/ethnic groups who have a condition of disability. Nonetheless, to understand vocational rehabilitation and the diverse population it serves, it is important to understand certain facets of disability.

Disability and its Prevalence in the U.S.

The Americans with Disabilities Act (ADA) of 1990 defines disability using the following criteria: (a) an individual with a physical or mental impairment that substantially limits one or more major life activities, (b) an individual with a record of a substantially limiting impairment, or (c) an individual who is perceived to have such impairment. The current figures according to the Rehabilitation Research and Training Center on Disability Demographics and Statistics (RRTCDDSS; 2007) indicate that 41.2 million people ages 5 and older (15% of the U.S. population) reported one or more disabilities. Of all people with any disability, 62.4% report having a physical disability, making it the most prevalent type of disability (9.4%) in the U.S. population. Severely disabled individuals meet additional criteria to those of the ADA disability definition which may include but not be limited to use of a wheelchair, need of personal assistance with an activity of daily living, lack the ability to perform functional activities, and/or unable to work at a job or business.

Among racial and ethnic groups of working-age (16-64 years old), rates of disability vary. Native Americans constitute only a fraction of this population and have the highest rate of disability (27%) among all racial/ethnic groups (U.S. Census Bureau, 2003). Similarly high, disability rates for African Americans and Latinos are 26% and 24%, respectively. The rates for Asian Americans (17%) and Non-Hispanic Whites (16%) are the lowest overall. These data suggest multicultural populations (with the exception of Asians Americans) are more likely to experience disability than non-Hispanic Whites.

Disability and Employment

Of 194 million working-age adults aged 16 to 64 in the U.S., 24 million (12%) have a disability (RRTCDDS, 2007). Historically, rates of employment among people with and without disabilities have been widely disproportionate and this disparity continues (Harris, 2004). Estimates indicate that 37.7% of working-age people (ages 21-64) with any disability are currently employed, while 79.7% of the working-age non-disabled population is employed (RRTCDDS, 2007). Closely related to employment, rates of poverty afflict working-age (21-64) people with disabilities disproportionately. The poverty rates for people with and without disabilities are 25.3% and 9.2%, respectively (RRTCDDS, 2007). Among disability types, people with mental disabilities have the highest rate of poverty (32.5%), while those with sensory disabilities have the lowest rate of poverty (23.3%).

Vocational Rehabilitation

The federally funded and state-operated vocational rehabilitation (VR) system was created to ameliorate the employment disparities experienced by people with disabilities. As such, it is one of the largest suppliers of services to persons with disabilities in the U.S. (Ficke, 1992). In the 2005 fiscal year, for example, \$3.4 billion were spent on various VR programs to serve 1.4 million adults (U.S. Department of Education, 2006a, 2006b). A total of 576,503 eligibility determinations were made, of which 467,982 (81%) individuals were accepted for services.

Hayward and Schmidt-Davis (2003a, 2003b) conducted a 3-year longitudinal study that included a random sample of 8,500 current and former VR clients. The study reported that VR provided a total of 57 different services which included psychological and vocational assessment; restoration of physical or mental function; academic, business, or vocational training; personal or vocational adjustment training; employment counseling; and job placement and referral. Approximately 74% of the sample received cognitive/psychological assessment services or had existing psychological evaluations obtained for the purpose of eligibility determination, and nearly 31% received educational or vocational assessment (Hayward & Schmidt-Davis, 2003b). To underscore the importance of psychological testing in VR, results showed that 92% of clients receiving a psychological evaluation were subsequently eligible for VR services.

People who gained access worked with VR counselors to identify vocational goals and develop service plans that enable clients to achieve an employment outcome. Typically clients who engaged in VR services and were successfully rehabilitated spent an average of two years in the program from the time of application to closure (Kaye, 1998). Clients who received VR services and exited with an employment outcome were significantly more likely to be employed compared to clients who were eligible for VR services but did not receive them (Hayward & Schmidt-Davis, 2003a). Although VR service provision and employment rates appear positive at first glance, members of multicultural groups exhibit negative eligibility and employment outcome disparities compared to White clients.

Ethnic/Racial Disparities in the VR System

Over the last quarter century, a body of research has emerged addressing racial/ethnic disparities within the VR system (Atkins & Wright, 1980; Capella, 2002; Dziekan & Okocha, 1993; Hayward & Schmidt-Davis, 2003a; Herbert & Martinez, 1992; Kaye, 1998; Moore, 2001; Moore, Fiest-Price, & Alston, 2002; Wilson, 2000, 2002, 2004; Wilson & Senices, 2005, 2010). Early studies regarding VR acceptance by Atkins and Wright (1980) and Herbert and Martinez (1992) found that African Americans and Latinos were more likely to be ineligible for VR services compared to European Americans. Similarly, Dziekan and Okocha (1993) reported that European Americans were accepted at a higher rate (60%) than members of multicultural groups (50%) during a five-year period (i.e., 1985-1989). Although the methodology (e.g., lack of statistical tests, oversimplified use of chi-squares analysis) of these early studies has been questioned, Capella (2002) applied logistic regression in an analysis of 1997 fiscal year data and also found that European Americans' acceptance rates were higher than those of African Americans after controlling for age and education. However, when Wilson, Alston, Harley, and Mitchell (2002) analyzed the same data (RSA-911 data from 1997 fiscal year) using the same methodology (i.e., logistic regression) controlling for gender, education, work status at application, and primary source of support at application status, African Americans were two times more likely to be accepted for VR services than European Americans. Among Native Americans or Alaskan Natives and European Americans,

differences in rates of acceptance have been found to be statistically insignificant (Wilson, 2004).

To further address methodological limitations of using chi square or logistic regression for analysis in the previous studies, Chan, Wong, Rosenthal, Kundu, and Dutta (2005) used chi-squared automatic interaction detector (CHAID) to analyze VR acceptance rates using 2001 fiscal year data. The researchers reported that severity of disability was the biggest predictor of VR acceptance. Specifically, people with severe disabilities were more likely to be accepted for services (94%) than those with non-severe disabilities (45%), consistent with the Rehabilitation Act mandate concerning the order of selection. However, they also concluded that race/ethnicity was the second most important factor in eligibility. For clients with severe disabilities, Asian Americans had the highest acceptance rate (96%), European Americans rated in the middle (93%), and African Americans and Latinos had the lowest (91%) acceptance rate. The difference was starker among clients with non-severe disabilities. Acceptance rates were highest for Asian and Latino Americans (50%) and the lowest for African Americans (37%), while European Americans (45%) rated in between. These findings corroborate previous research indicating eligibility disparities for African Americans (Atkins & Wright, 1980; Capella, 2002; Dziekan & Okocha, 1993) but also contrast with earlier findings on Latinos (Herbert & Martinez, 1992).

It is important to note that Latinos are a unique ethnic group in that they can be of any race, which may complicate analyses that treat this group as

homogeneous. Wilson and Senices (2005) found that Latinos were more likely to be accepted for VR services when compared with people who classified themselves as non-Hispanic (e.g., African Americans, White Americans, American Indians or Alaska Natives, and Asian or Pacific Islanders). However, the researchers discovered that within the VR system Latinos were overwhelmingly (91.5%) classifying themselves as White Americans in terms of race. Wilson and Senices found that clients with a lighter phenotype (i.e., White Latinos) were more likely to be accepted for VR services than clients with a darker phenotype (i.e., Black Latinos). In a recent review of the literature related to acceptance and outcome disparities in VR with African Americans/Black Latinos and White Americans/White Latinos, Wilson and Senices (2010) found support for the notion that lighter skinned people with disabilities experience preferential treatment when compared to their darker skinned counterparts in the U.S. VR system.

In terms of VR outcomes, White Americans were more likely to be successfully rehabilitated than members of multicultural populations (Capella, 2002; Herbert & Martinez, 1992). Specifically, European Americans' odds of achieving a positive employment outcome were 1.25 and 1.73 times higher than for African Americans and Native Americans, respectively (Capella, 2002). Similarly, Hayward and Schmidt-Davis (2003a) found that being a member of a diverse racial/ethnic group decreased the probability of achieving a positive employment outcome. Along with the disparate VR access and outcomes for various racial/ethnic groups, it is important to examine the psychological

assessment process and its instruments, given that they are an important gateway to the receipt of VR services.

Psychological Testing and Bias

Psychological assessment results that are used to make long term and important decisions such as academic placement, funding, entry into professional or graduate school, diagnosis, and treatment is considered high-stakes testing (Padilla, 2001). VR counselors determine client eligibility and future goal development based on several factors, including the psychological evaluations performed by psychologists. Hayward and Schmidt-Davis (2003b) found that nearly three-quarters of VR clients received some type of psychological testing either before applying for services or in order to be accepted for services. Given the widespread use of testing within the VR system, it is important to remain cognizant that the use of standardized tests with racial/ethnic minorities and people with disabilities may be culturally inappropriate (Dana, 1995, 1996, 2005; Frisby, 1998; Gray-Little & Kaplan, 1998; Hays, 1996; Holzbauer & Breven, 1999; Padilla, 2001; Rogler, 1999; Smart & Smart 1993, 1997; Zea, Belgrave, Garcia, & Quezada, 1997).

More specifically, Dana (2005) identified 4 factors that may adversely influence the assessment process: clinician bias, service delivery bias, test/technique bias, and bias within the Diagnostic Statistical Manual of Mental Disorders-IV (DSM-IV; American Psychiatric Association, 2000). First, clinician bias refers to covert or overt actions, thoughts, or feelings of racism, ableism, prejudice, or ethno-centricism on the part of clinicians. Racial/ethnic

discrimination and prejudice can operate underneath the awareness of people who view themselves as liberal and enlightened (Quillian, 2008). Prejudicial attitudes can also be exacerbated by training programs in which the underlying assumption is that psychologists are universalists with the capacity to interact with all clients in a culturally neutral fashion (Roysircar, 2005). It is impossible to overstate the importance of self-awareness, the limits of one's objectivity, comfort with one's culture, and prejudices that color evaluations of people who are culturally different.

Second, service delivery bias pertains to clinicians' behaviors during test administration that are incongruous with the social etiquette expected by clients. Service delivery styles that are incompatible with culture-specific expectations, interests, or task orientations may result in adverse response sets and interpretation procedures. Similarly, Baker and Taylor (1995) found that linguistic differences, distrust of the examiner, and test environment create a potential bias by clinicians that can affect their services to African Americans.

Third, test/technique bias refers to the inadequacy of testing methods or testing instruments for use with multicultural populations or people with disabilities. Currently, psychological assessments rely largely on standardized tests created with a European-American frame of reference (Dana, 2005). Although culture specific instruments have emerged in the literature (Jones, 1996), they are underutilized in practice (Dana, 2005). At times, imposed etic instruments are translated literally from English for use with non-English speaking cultures (e.g., Spanish, American Sign Language). Moreover, cross-

cultural construct equivalence cannot be assumed under systematic translations alone. Dana (2005) and Hambleton, Merenda, and Spielberger (2005) highlighted, among other things, the underutilization of construct validation and metric/scalar equivalence during these translation processes. Psychometric bias is also evident when score distributions and score ranges differ from the established norms due to cultures not being adequately represented in the normative sample. Such differences may be due to item bias or differential item functioning that lead to unequal item endorsement across groups.

For decades researchers have conducted studies comparing the performance of White Americans with multicultural groups on various standardized tests. One of the most investigated tests is the Minnesota Multiphasic Personality Test (MMPI), an objective personality test (designed to assess psychopathology) published in the U.S. 68 years ago. The MMPI was restandardized in 1989 to increase the representativeness of the normative sample using data from the 1980 Census (Roysircar, 2005). Since this restandardization, several demographic shifts have occurred in this country due to high immigration and ethnic minority birth rates. In terms of the MMPI-2 content, few items were eliminated or changed from the original version, which are based on the dominant European-American culture's psychiatric nosology. Hence, generalizability and accurate diagnosis can be problematic. For instance, criteria for depression have not only changed over the years, but depression is also conceptualized differently across cultures and languages (Dana, 2005). Furthermore, research has shown that African Americans, Latinos, and Asian Americans may respond to the

MMPI-2 in a manner that leads to greater psychopathology than their White American counterparts (Dana, 1995, 2002, 2005; Hall, Bansal, & Lopez, 1999; Velasquez, Callahan, & Carrillo, 1991). For people with spinal cord injury (Rodevich & Wanlass, 1995) or closed head injuries (Gass, 1991), traditional interpretation of the MMPI may lead to the misdiagnosis of psychiatric problems due to a high endorsement of somatic symptoms which are associated with scales of hysteria, hypochondriasis, and schizophrenia. The MMPI contains several items that reflect bona fide physical and cognitive symptoms of brain lesions or sequelae of spinal cord injury, which may not be related to psychopathology or personality disorders.

Neuropsychological tests of attention, information processing speed, and executive functioning (i.e., WAIS Digit Span and Digit Symbol, Trails Making Test A & B, Stoop Test), which tend to require less verbal involvement than MMPI, have also been found to have differential performance between cultural groups. Razani, Burciaga, Madore, and Wong (2007) compared test scores among healthy monolingual English speaking Anglo-Americans (MEAA; $n = 39$) and ethnically diverse (ED; $n = 84$) participants fluent in English. The MEAA group outperformed the ED group consistently on a number of tests, especially those that require verbal mediation. The findings are noteworthy given that both groups were fluent English speakers and the tests do not require a myriad of language skills.

Another prominent instrument containing potential bias is the Rorschach Inkblot Test. Research dating back over forty years has found significant

differences in performance when comparing members of certain multicultural groups to those from the White majority culture (Bachran 2002; Johnson & Sikes, 1965; Kluckhohn & Strodtbeck, 1961; Velasquez & Callahan, 1992). Bachran (2002) investigated the Popular responses (an indicator of conventionality) of 152 Latinos using Exner's Comprehensive System (2003). Latinos reported fewer Populars than Exner's normative sample and clinical samples. According to Exner low Popular responses may be indicative of a person who has a "persistent tendency to disregard social conventions or expectations in favor of individual needs or wants" (p. 381). Bachran concluded that Rorschach results of Latinos may not be valid given that Latinos tend to perceive the inkblots differently from Exner's norms.

Some of the Wechsler Adult Intelligence Scale (WAIS) subscales are also subject to bias. Although the Performance Scale of the WAIS-Revised was found to have concurrent validity for individuals with hearing impairments, biased or inaccurate scores may result from the Verbal Scale for this population (Gordon, Stump, & Glaser, 1996). Similar to non-English spoken languages, American Sign Language has grammatical and syntax differences from the English language. Moreover, the mean reading level of deaf individuals is estimated to be at a third or fourth grade level nationally. Because the Verbal section of the WAIS-R is based on the English language, this scale may be measuring deaf persons' disability and associated reading and language competency rather than the verbal abilities operationalized by the test. Although the WAIS-R is now an

outdated version of the test, the current WAIS-IV version contains similar verbal scale content and format.

The final source of potential bias is the DSM-IV (American Psychiatric Association, 2000), which is the most prominent nosological reference for making psychiatric diagnoses in the U.S. The utility of DSM-IV has been questioned since it was first published (Duffy, Gillig, & Tureen, 2002; Malik & Beutler, 2002). The diagnostic criteria of the DSM are based on European American social norms and lack a comprehensive delineation of multicultural variability in terms of pathology (Roysircar, 2005). A culturally narrow orientation in the DSM increases the possibility of misdiagnosis, incorrect prognosis, and inappropriate treatment of multicultural populations.

In sum, the assessment process suffers when an imposed etic orientation is used. Typically, testing procedures assume White, middle-class standards, values, attitudes, beliefs, experiences, and knowledge as the norm (Samuda, 1998). Consequently, multicultural populations may be denied their cultural distinctiveness and forced to compete on unequal terms with European Americans, who in turn, have a marked advantage. Moreover, members of multicultural groups tend to score differentially on tests when constructs are foreign to their culture and their culture is underrepresented during test standardization (Padilla, 1991; Razani et al., 2007).

Ethics and Standards for Testing

The *Standards for Educational and Psychological Testing (Standards)*, established by the American Educational Research Association, American

Psychological Association, and National Council on Measurement in Education (1999), is another reference that outlines a number of standards to minimize bias in testing. The *Standards* recognize that the psychological testing process is not infallible and involves the participation of many stakeholders (e.g., test developers, publishers, marketers, administrators, interpreters, decisions-makers). All have some responsibility in promoting the sound and ethical use of tests to ensure the fair treatment of all test-takers. However, people of diverse ethnic and linguistic backgrounds are particularly vulnerable to inequitable treatment in testing.

The American Psychological Association Ethics Code (2002) includes two standards that address testing bias. In selecting tests, Standard 9.02 stipulates that it is incumbent on psychologists to determine if a particular test can be used validly and reliably given clients' population characteristics such as race, ethnicity, culture, language, gender, age, or disability. If reliability or validity data do not exist (or if psychologists use tests without established norms for the group of which the individual being assessed is a member), psychologists should include the strengths and limitations of using tests in the report of interpretations and recommendations. Further, Standard 9.02c states that an individual's language preference and competence be taken into account when selecting an assessment method, if and when the alternative language is not the relevant testing issue. For example, caution is necessary when assessing the cognitive abilities of a non-native English speaking client with a test such as the WAIS

(there is only an English version) given that several subtests are culturally loaded and require English language skills.

Test Adaptations

Although Dana (1998) has called for the validation and creation of culture-specific tests, he has conceded the unlikelihood that this kind of test development will become a major psychometric endeavor. Instead, scholars have suggested the use of adaptations, accommodations, modifications, and/or translations (Behuniak, 2002; Dana, 1998; Hambleton, 2005). They argue that implementing adaptations can strengthen the applicability of standardized tests with populations that were inadequately considered during test construction and norming.

It is important to note that the terms adaptation, modification, accommodation, and translation are often used interchangeably in the literature. Hambleton (2005) suggested that test adaptation is an umbrella term which all other terms fall under. Specifically he stated:

Test adaptation includes all the activities from deciding whether or not a test could measure the same construct in a different language and culture, to selecting translators, to deciding on appropriate accommodations,...to adapting the test and checking its equivalence in the adapted form (p. 4).

The provision of adaptations is intended to improve assessments and extend potential benefits resulting from test scores (Behuniak, 2002). The *Standards* (1999) and APA Ethical Code (2002) have also called for psychologists to administer and interpret standardized tests with caution and

implement adaptations when appropriate. Ethical Standard 9.02a (APA, 2002)

states:

Psychologists administer, *adapt* [italics added], score, interpret, and use assessment techniques, interviews, tests, or instruments in a manner and for purposes that are appropriate in light of the research on or evidence of the usefulness and proper application of the techniques.

The inclusion of the word “adapt” in this standard suggests that departures from standard administration procedures are allowed if the reason for test adaptations are not associated with the test’s construct. For instance, some clinicians create or allow extra practice trials on subtests that include stimuli (e.g. blocks, puzzles, drawing) that may not familiar to the client. Another example is paraphrasing test instructions or items that may be complicated or at a higher reading level for clients with limited reading ability. Omitting culturally inappropriate items from tests may also be warranted. The Boston Naming Test (BNT), for example, is a naming task in which the client is presented with a picture and asked to name the object on a stimulus card. One of the items on the BNT is a picture of a ‘noose’ which may be very offensive to some African American clients.

Adaptations that have been suggested when working with multicultural populations include use of local norms; statistical corrections; test translations; special scales; culture-specific interpretations; and changes in response mode, test presentation, timing allotted for tasks, and settings in which tests are given (Cuellar, 2000; Dana, 1995; Olkin, 1999; Pullin, 2002). However, there is a lack of consensus and empirical research regarding how often, if ever, such

adaptations are implemented when testing diverse populations. Hernandez, Horin, and Donoso (unpublished) examined the extent to which psychologists testing for the VR system made test adaptations based on clients' race/ethnicity and disability. Of 150 participants, 22% reported making at least one adaptation based on client race/ethnicity, with paraphrasing or clarifying instructions/items as the most common. Approximately a third of participants reported making at least one adaptation based on client disability, with administering alternate formats of tests as the most common. Participants were more likely to take race/ethnicity and disability into consideration during the interpretation of test results and/or writing reports; 70% indicated they considered clients' race/ethnicity, while 73% reported they considered clients' disability.

It appears that despite the encouragement from scholars and changes to the *Standards* (APA) and Ethics Code (APA), few psychologists make adaptations during the administration of tests. However, considerably more clinicians indicate that race and ethnicity are considered during the interpretation of results and report writing. Although these findings offer an initial glimpse into clinicians' test practices regarding test adaptation and the consideration of race/ethnicity in interpretation, the client factors and/or clinician rationale that underlie the decisions to make test adaptations or not, remain unclear.

Multicultural Competence in Assessment

The APA has released a number of publications calling for increased cultural sensitivity and competence when working with multicultural populations including the *APA Ethical Code* (APA, 2002), *Guidelines and Principles for*

Accreditation of Programs in Professional Psychology (APA, 1996), Guidelines for Providers of Psychological Services to Ethnic, Linguistic, and Culturally Diverse Populations (APA, 1993), Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists (APA, 2003), and *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999). These guidelines along with numerous conferences held by the APA and other government sponsored events have attempted to address the inadequacy of training programs in dealing with issues of culture.

A tripartite model of multicultural competence was advanced by Sue, Arredondo, and McDavis (1992) to provide a conceptual framework from which competencies can be organized into three characteristics and three dimensions of a culturally skilled clinician. The first characteristic identifies competent clinicians as those who are actively in the process of becoming aware of their biases, values, and assumptions. Their worldview is brought to the fore in order to understand how it may influence their work with members of multicultural groups. Second, competent clinicians actively attempt to understand the worldviews of culturally diverse clients and can accept them as other legitimate perspectives. Appreciation and respect of diverse worldviews are crucial and do not necessarily mean the clinician must hold them as their own. Third, competent clinicians are actively in the process of developing and practicing culturally sensitive intervention strategies. For each of the three cultural competency characteristics mentioned above, a matrix can be developed by applying three dimensions of cultural competency which include: (a) attitudes and beliefs (e.g.,

about diverse groups, the need to check biases and how they may hinder work with culturally different people); (b) knowledge (e.g. of sociopolitical influences, and of the clinician's and client's worldviews); and (c) skills (e.g., intervention techniques and strategies need to work with diverse groups). Thus, each characteristic could be described as having three dimensions, which produces nine competency areas. For instance, under the first characteristic of *awareness of own biases, values, and assumption* there would be three associated competencies that correspond to attitudes and beliefs (e.g., culturally competent clinicians recognize the limits of their competencies and expertise), knowledge (e.g., culturally competent clinicians possess knowledge of how oppression, racism, discrimination affects them in their work and acknowledge their own racist attitudes, beliefs, and feelings), and skills (e.g., culturally competent clinicians seek consultation or further education to improve their effectiveness in working with culturally different people).

Revisions to this model encourage psychologists to develop skills in becoming advocates and agents of social change and to incorporate research regarding racial and ethnic identity models (Constantine & Sue, 2005). In addition, Balcazar and his associates (2010) proposed a model of cultural competence based on their thorough review of the literature which incorporated two additional components. The first is *willingness to engage* which refers to a clinician's overall attitude and desire to learn and interact with people who are culturally different. Willingness to engage was an assumption most previous models took for granted. The second addition is *cultural practice* which refers to

applying the awareness, knowledge, and skills and experiencing cultures different from one's own. It is also important to highlight that becoming a culturally skilled clinician is an active process and one that is always on-going (Balcazar, et al., 2010; Sue & Sue, 2008).

Despite APA's call for multicultural competence, there is no consensus among experts as to how much or what types of knowledge are desirable or required for multicultural assessment purposes (Dana, 2005). In addition, evidence suggests graduate training varies widely in terms of multicultural training and methods for imparting such knowledge and skills (Magyar-Moe, et al., 2005). Recently, Allen (2007) proposed knowledge and skill areas pertinent to multicultural assessment. Specifically, knowledge of measurement theory and construct validity relevant to culture is paramount. In addition, Allen suggested the following skills: (a) multicultural collaborative assessment, (b) culturally appropriate interviewing and culturally congruent assessment practices, (c) assessment of acculturation, (d) culturally grounded test interpretation, (e) culturally appropriate norms and tests, (f) multicultural report writing, and (g) multicultural assessment ethics decisions.

Several self-report measures have been developed to assess clinician multicultural competence such as the California Brief Multicultural Competence Scale (CBMCS; Gamst, et al., 2004); Cross-Cultural Counseling Inventory-Revised (CCCI-R; LaFromboise et al., 1991); Multicultural Awareness, Knowledge, and Skills Survey (MAKSS; D'Andrea et al., 1991); Multicultural Counseling Awareness Scale-Form B (MCAS-B; Ponterotto & Alexander, 1996);

and Multicultural Counseling Knowledge and Awareness Scale (MCKAS; Ponterotto, Gretchen, Utsey, Rieger, & Austin, 2002). Although, none of these measures was specifically developed to assess multicultural competence in assessment, a recent study (Hernandez et al., unpublished) found that psychologists who test clients of the VR system endorsed high levels of multicultural competence using the CBMCS. Other studies that have examined mental health professionals' level of multicultural competence have also tended to find that participants rated themselves as being culturally competent (Mckee-Williams, 2007; Whitehead, 2004; Whitney, 2007). Self-report measures of multicultural competence are often viewed with suspicion despite the use of psychometric reliability and validity procedures that attempt to control for social desirability (Gamst et al., 2004). Qualitatively exploring assessment practices may provide a new window into the awareness, knowledge, and skills of psychologists. Qualitative methods do not necessarily eliminate the confound of social desirability, nor can a qualitative interview or focus group serve as a psychometrically sound measure of multicultural competence. Nonetheless, it can afford a deeper and richer understanding of psychologist's practices and perceptions of the testing process with members of multicultural groups in light of the principles of multicultural competence.

Acculturation

The assessment of client acculturation has repeatedly been suggested as a construct that should be evaluated when working with multicultural populations in therapeutic and testing contexts (Allen, 2007; Dana, 1993, 1996, 1998, 2005;

Padilla, 2001; Sciarra, 2001; Sue & Sue, 2008; Van de Vijver & Phalet, 2004).

Acculturation research in psychology has grown tremendously over the last 25 years and has its earlier roots in the field of anthropology (Berry, 2006a). Despite the rich history of acculturation research, there remains a lack of consensus regarding definitions, conceptualizations, and measures of this construct.

Nonetheless, acculturation is a significant construct and variable in multicultural research.

Definitions of Acculturation

Acculturation has occurred on earth since human groups started to interact several thousands of years ago. Acculturation research had its incipience when anthropologists became interested in the effects that European domination had over indigenous peoples (Berry, 2006a). Later, it focused on the changes of immigrant groups as they entered and settled into new societies. Contemporarily, a significant portion of the work has focused on how ethno-cultural groups interact and affect one another in culturally pluralistic societies. An early anthropological formulation of acculturation suggested that: “acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous contact, with subsequent changes in the original culture patterns of either or both groups” (Redfield, Linton, & Herskovits, 1936). A prominent acculturation researcher, Berry (2006a) has posited that “acculturation is a dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members.” These definitions state and/or imply that acculturation is an

interactive, developmental, multifactorial and multidimensional process.

Acculturation has a dualistic effect that influences the culture at a group level and the psychology of the individual. Changes in social structures, institutions, and cultural practices represent changes at the group level, while individual level changes are reflected in a person's behavior. This process is generally long-term, taking several years to generations. Berry (1997) recognized the impact contextual factors noting that people come into the acculturation process depending on three factors: voluntariness (immigrants, forced refugee, sojourner); mobility (having to immigrate or being colonized); and permanence (settling vs. migratory or sojourner). The process of acculturation varies widely for individuals and groups in terms of how people engage in their acculturation and the degree to which they adapt.

Acculturation Strategy Models

The unidimensional model of acculturation contends that the acculturative process is one that moves along a single continuum ranging from adherence to one's culture of origin to immersion in the dominant culture (Cabassa, 2003; Gordon, 1964). This conceptualization posits that both of these processes are part of the same phenomenon, and that cultural change only impacts the non-dominant group. Further, this model assumes that during the acculturation process of moving toward the dominant culture, individuals lose aspects of their culture of origin (Marin & Gamba, 1996). Critics of the unidimensional model have noted limitations including the fact that, although individuals may adhere to the

dominant culture, they may also maintain their ties to their original culture (Cuellar, Arnold, & Maldonado, 1995).

Given the limitations of the unidimensional model, researchers have advanced a bidimensional or fourfold model that distinguishes maintenance of the original culture and adherence to the dominant or host culture as distinct processes (Berry, 1997, 2006a; Berry & Sam, 1996). Cultural maintenance is the extent to which individuals value and adhere to their culture of origin. Adherence to the dominant culture is the level of contact and participation that the individual has with the dominant culture. The degree to which individuals adhere to these domains is dependent on an attitudinal component (preference for how to acculturate) and a behavioral component (the individuals' actual activities).

Individual valences on these two dimensions are used to identify four acculturation (fourfold model) strategies by members of the non-dominant group: a) assimilation, which is characterized by an individual who has little identification with their own culture but identifies strongly with the dominant culture; b) separation, in which the individual retains a strong identification with the culture of origin and rejects or avoids contact with the dominant culture; c) integration is characterized by individuals who value and embrace both their culture of origin and the dominant culture (biculturalism); and d) marginalization which involves individuals who are excluded from culture of origin and the dominant culture (Berry, 1980, 2006a).

The bidirectional formulation of acculturation assumes that groups and individuals are free to choose how they want to acculturate. However, this is not

always the case because dominant groups have a powerful influence on the way acculturation can take place in a given society (Berry, 2006a). The aforementioned definitions indicate that acculturation is an interactional process and contextual factors are paramount to this process. Therefore, Berry (1980) added a third dimension which reflects four strategies enforced by the dominant group that correspond to the non-dominant group strategies including: melting pot, separation, exclusion, and multiculturalism. When assimilation is sought by the dominant group, the corresponding strategic term is melting pot. Segregation is the dominant group strategy when separation is enforced. Exclusion is the tactic when marginalization is sought. Finally, multiculturalism is the strategy when integration including affirmation of one's culture of origin is favored by the dominant group. Berry (2006b) has also noted the impact of acculturative stress which can occur when individuals or groups experience problems during the acculturation process due to conflicts or inconsistencies from the various acculturation preferences of dominant and non-dominant groups. Berry, Phinney, Sam, and Vedder (2006) and Ryder, Alden, and Paulhus (2000) have conducted studies that lend empirical support for these four acculturation strategies.

Although the fourfold acculturation theory is considered a significant advancement over the unidimensional approach, considerable criticism of the fourfold paradigm has surged in the literature. Rudmin (2003) synthesized the arguments of several researchers who asserted that the fourfold theory of acculturation is deficient in its utility and explanatory power. Specifically, the fourfold paradigm and its scales for measuring these constructs were criticized for

lack of psychological and cultural content, ineffectiveness in explaining differences between groups or people, measuring only one dimension instead of four, and lack of focus on subcultures, dominant group attitude, or acquisition of cultural skills. In addition, Rudmin and Ahmadzadeh (2001) have noted confounds and complications with the way the four acculturation strategies are defined. For instance, if acculturation is defined by intercultural contact, then 'separation' and 'marginalization' cannot be strategies of acculturation because they focus on withdrawal from intercultural contact. Further, the validity of the marginalization strategy has been called into question (Del Pilar & Udasco, 2004). First, Rudmin and Ahmadzadeh (2001) contend that marginalization is not a strategy of acculturation, rather a situation of discrepancy between preference and reality. Second, empirical studies have found few or nonexistent marginalization groups (Schwartz & Zamboagna, 2008; Unger, Gallaher, Shakib, Ritt-Olson, Palmer, & Johnson, 2002), and poor reliability and validity of the scales that attempt to measure marginalization (Cuellar et al., 1995; Unger et al.). Finally, Rudmin and Ahmadzadeh argue that full bicultural integration is not possible for many aspects of culture (e.g. religion, laws, etc.) because the concept of integration mistakenly presumes that all cultural practices are personal preferences thus allowing the freedom to switch cultural codes.

One of the most recent conceptualizations of acculturative strategies is the domain-specific model which operates on the assumption that an individual's inclination for cultural adaptation and maintenance may vary across the life domains and situations (Arends-Tóth & van de Vijver, 2006b). The domain-

specificity model proposed by Arends-Tóth and van de Vijver (2003, 2006b) integrates the unidimensional and bidimensional models and contends that acculturation can be viewed as a hierarchical concept. At the top, unidimensionality is represented as a global preference for either maintenance or adaptation. The second level is composed by the broadly defined public (functional, utilitarian) domain and private (social-emotional, value related) domain. The public domain entails those behaviors and activities that strive for social participation (e.g., education and job) in both the dominant and culture of origin groups. Personal and value related matters such as childrearing and marriage constitute aspects of the private domain. In a study of Turkish Dutch living in the Netherlands, there was a preference for adaptation to Dutch culture in the public domain, while cultural maintenance was considered important in both domains (Arends-Tóth & van de Vijver, 2003). The third level is constituted by specific life domains such as peer relationships and language in the public domain, and religious holidays and childrearing in the private domain. Lastly, at the fourth domain, individual level of adaptation and maintenance can vary by situation or setting. For instance, Sodowsky and Carey (1988) found that first-generation Indians living in the U.S. preferred Indian food and dress at home and American food and dress outside the home. Thus, within the domain specific framework, it is possible for people to engage in more than one of Berry's (1980, 2006a) acculturative strategies simultaneously depending on the type on life domain. An individual may prefer assimilation in their work environment (economic assimilation), speak both their native language and the dominant

culture language (linguistic integration), and maintain traditional parent-child relationships at home (separation in private relationships; Arends-Tóth & van de Vijver, 2006b).

Another formulation was recently advanced that focuses on the multidimensionality of acculturation (Schwartz, Unger, Zamboanga, & Szapocnik, 2010). Schwartz and his colleagues contend that beyond the independent dimensions of cultural maintenance and adaptation, consideration should be given to three conceptually and empirically related components that are assumed to change which include: a) cultural practices (e.g., language use, media preferences, cultural customs), b) cultural values (e.g., belief systems such as collectivism vs. individualism), and c) cultural identifications (e.g., attachments to cultural groups). The researcher's expanded perspective of acculturation essentially integrated these cultural components which have a vast literature independent from one another. Within this framework six components of acculturation are proposed which include the practices, values, and identifications of culture of origin and those of the new culture. Similar to the domain-specificity model, these processes may change at different rates or directions, simultaneously or independently, and change in one area does not guarantee change in another.

Acculturation and Assessment

Although a plethora of acculturation measures exist (for lists of acculturations measures see: Collier, Brice, & Oades-Sese, 2007; Cuellar, 2000; Roysircar-Sodowsky & Maestas, 2000), it is assumed that clinicians who conduct

psychological testing rarely assess acculturation with members of multicultural groups (Arends-Tóth & van de Vijver, 2006b; van de Vijver & Phaet, 2004). Suppositions for this phenomenon include clinician assumption of Eurocentric belief assimilation, lack of awareness of measures, and a lack of widely accepted conceptualizations and measurement methods for acculturation. Despite these obstacles, Dana (1993) has suggested that the assessment of multicultural people can only be done competently and ethically by clearly recognizing the contribution of culture to the presenting problem and symptomatology. A first step in this process is measuring acculturation to understand the extent to which individuals retain their original culture, as well as the extent to which the culture of the dominant society has been embraced.

Ascertaining a client's level of acculturation can serve as a moderating variable in psychological assessment (Cuellar, 2000, Dana, 1993, 1998, 2005; Thompson, 1999). A moderator variable helps estimate the potential contribution of cultural variance to an assessment procedure and can be applied as a correction (i.e., adaptation) for cultural differences. With this knowledge an assessor can make a more informed decision whether standard measures can be administered and interpreted without modifications. Dana (2005) has asserted strongly that corrections are mandatory to increase the validity of test interpretations whenever standard test norms are inapplicable. If standard tests are administered and cultural variance is high due to a client endorsing a *separation* acculturation strategy, caution is needed during the interpretation of results.

Studies with multicultural groups have demonstrated the need for moderator variables such as acculturation in testing (Dana, 1993). For instance, Velasquez (1984) concluded in his review of MMPI use with Mexican Americans that acculturation accounted for a significant part of the variance in MMPI scores. Therefore, special norms and/or adequate standardization sampling of Latinos are needed. Montgomery and Orozco (1985) found that Mexican American and White American college students were significantly different on 10 of 13 MMPI scales, with elevated scores on the Infrequency, Psychasthenia, Schizophrenia, and Hypomania scales. However, when acculturation was controlled using the Acculturation Rating Scale for Mexican Americans (ARSMA) there were only differences on the Lie and Masculinity/Femininity scales which are not clinical scales. For African American clients, the racial identity development process is an important moderator variable to assess depending on one's stage of development (Dana, 2002). Whatley, Allen, and Dana (2003) found that using measures such as the Developmental Inventory of Black Consciousness (DIB-C) and the Racial Identity Attitude Scale (RAIS) functioned as predictors of various MMPI scale scores.

In summary, three reasons for the inclusion of acculturation in assessment have been posited based on evidence from acculturation studies (Van de Vijver & Phalet, 2004). First, research has found that acculturation orientations are related to mental health, self esteem, social deviancy, alcoholism, suicide, academic performance, well being, motivation and value orientations, competence and skills (Berry & Kim, 1988; Cuéllar, & Paniagua, 2000; Negy & Woods, 1992; Pham &

Harris, 2001). Data suggest that personality variables are significantly related to acculturation, although drawing definite conclusions is cautioned against (Cuellar, 2000). Specifically, some MMPI clinical scales (e.g., Psychopathic Deviate, Paranoia, and Schizophrenia) seem to be more sensitive to the moderating influence of acculturation, especially the Psychopathic Deviate scale. However, not all personality variables are equally moderated by or malleable to the influences of culture. Personality is also heavily influenced by the interaction of genetic and environmental factors. In his review of acculturation and personality, Cuellar concluded generally that less acculturated persons, particularly when they are of lower SES and education, have elevated scores suggesting psychopathology.

The second reason to include acculturation assessment is to identify possible problems in the acculturation process (e.g., adjustment problems in immigrant youth; Van de Vijver & Phalet, 2004). Acculturative stress is the term coined by Berry (1970, 2006b) to describe the response by people to experiences of cultural conflicts that are perceived as problematic yet surmountable. In other words, individuals are aware they are facing problems due to intercultural contact that are not easily overcome by simply adjusting or assimilating. In relation to Berry's acculturation strategies, research has found that individuals who attempt to integrate experience the least amount of acculturative stress (given the dominant society is open to cultural pluralism), whereas marginalization is the most stressful (Berry, 1997). The level of stress experienced by people engaging in the assimilation and separation strategies tends to be in between.

The third reason to measure acculturation is to detect acculturation-based biases in psychological tests (e.g., construct bias, method bias, and item bias). Depending on a person's level of adaptation to the dominant culture, one can answer the following two questions: (a) is this person considered to belong to the population for which the test or scales have been developed, and (b) is the instrument suitable for this particular person to measure the intended construct? (Van de Vijver & Phalet, 2004). For instance, in a study on tests of attention, Razani et al. (2007) found that acculturation was a strong predictor of attention. They concluded that cultural familiarity with the testing format, test taking approach, attitude toward test taking, and participants' comfort with lengthy test sessions may influence test performance. The implications are that as one becomes more acculturated to US culture, neuropsychological tests scores tend to increase, most likely due to increased familiarity with the test format. Education outside the US was another strong predictor of test performance. More years of education in the US lead to increased scores on the WAIS-III and WMS-III. However, the study suggests that the quality of education or educational experience is more important than the number of years of education. In addition, percentage of English spoken while growing up was also significantly correlated with timed measures. Bilingual individuals who have not fully mastered English or who have equal fluency in English and a native language perform worse on learning and memory tasks relative to monolingual speakers.

Acculturation Measurement

The development of acculturation measures tends to mirror the predominant theoretical conceptualization of the time (Arends-Tóth & Van de Vijver, 2006b). The first empirical instrument to measure psychological acculturation was the Acculturative Balance Scale (ABS; Pierce, Clark & Kiefer, 1972). Early measures such as the ABS assessed acculturation as a single dimension, but they provided the foundational methodology for many measures in the future. The 1970s and 1980s saw a boom in the emergence of acculturation measures that eventually assessed multiple dimensions. Measures come in a variety of statement formats (i.e. one, two, and four statements) that increased with more complex understandings of acculturation (Van de Vijver & Phalet, 2004).

Unidimensional measures assess acculturation along a single continuum that scores individuals ranging from low to high. The original Acculturation Rating Scale for Mexican Americans (ARSMA; Cuellar, Harris, & Jasso, 1980) was based on a unidimensional conceptualization that rated people from traditionalism to assimilation based on language use and preference, ethnic identity and classification, cultural heritage and ethnic behaviors, and ethnic interaction (Dana, 1996). Some have relied on the use of proxy variables such as generation status, age at immigration, proportion of years in U.S. versus country of origin, place of birth, and place of education to measure acculturation (Cassaba, 2003). It is assumed that from these proxy variables one can infer exposure to the dominant culture. Unidimensional measures are regarded as

inadequate because maintenance of connections to one's culture of origin is either absent from the conceptualization or is considered simply as one end of a single continuum of acculturation, viz., traditionalism (Ryder et al., 2000).

Bidimensional measures of acculturation have largely replaced unidimensional measures and they allow for varying combinations of positive or negative attitudes toward adaptation and maintenance. Among the various measures, three different question formats have been used: one, two, or four questions (Van de Vijver & Phalet, 2004). The Culture Integration-Separation index (CIS; Ward & Kennedy, 1992) is an example of a one-question format measure. These measures typically asked forced choice questions between either valuing the ethnic culture or host culture, or both, or neither. An advantage of the one question format is that they tend to be efficient and short, but they can not distinguish the complexities of bicultural individuals. The two-question format gauges the individuals' valence for cultural maintenance and adaptation to host culture separately (e.g., Acculturation in Context Measure (ACM); Phalet & Swyngedouw, 2003). For example, the ACM asks these two questions "Do you think that [Turks in the Netherlands] should maintain the [Turkish] culture (4) completely, (3) mostly, (2) only in part, or (1) not at all?" and "Do you think that [Turks in the Netherlands] should adapt to the [Dutch] culture (4) completely, (3) mostly, (2) only in part, or (1) not at all?" The four-question format measures use agreement ratings with four statements that independently assesses each of Berry's four strategies (e.g., Acculturation Attitudes Scale (AAS); Berry, Kim, Power, Young, & Buyaki, 1989). Two- and four-question format measures have

been shown to discriminate between the integration strategy (considered more adaptive) and the other, less adaptive, strategies (Arends-Tóth & Van deVijer, 2003).

Conversely, Rudmin and Ahmadzadeh (2001) have criticized the fourfold scales of acculturation for poor psychometric properties. They describe their findings, based on new data and reanalysis of published studies, as demonstrating that: (a) the marginalization strategy was misconceived and incorrectly operationalized, (b) the fourfold scales are ipsative with one another (viz., not independent of one another and do not have null intercorrelations of $r = 0.00$), (c) fourfold data are systematically contaminated by acquiescence bias, and (d) fourfold questionnaire items violate several established standards for adequate psychometric items. They concluded that acculturation measures based on the fourfold paradigm lack utility and explanatory power. Such measures focus on preferences which can be explained by other preferences rather than by perceptual, cognitive, social, and emotional processes. Further, the researchers allege that the fourfold paradigm commits the Fundamental Attribution Error by presuming that acculturation outcomes are caused by the preferences of the acculturating individuals rather than by the acculturation situations.

Proponents of the domain specificity model have developed a measure that goes beyond the assumption of Berry's model that an individual will prefer one acculturation strategy in all domains of life. Arends-Tóth and Van deVijer (2003) introduced the notion of public and private acculturation domains in which strategies are influenced by one's culture and the host culture. The ACM is a

two-question format measure that repeats the same questions in multiple context areas (e.g., home, family, school, and work situations). Phalet and Swyngedouw (2003) found that willingness to engage in maintenance or adaptation was context-dependent. Specifically, studies have found that most migrants tend to favor cultural maintenance in the private domain (e.g., family relationships) and adaptation to the host culture in public domain (e.g., school, work; Arends-Tóth & Van deVijer, 2003; Phalet & Andriessen, 2003; Phalet & Swyngedouw, 2003). Moreover, these studies considered this acculturation profile as the most adaptive pattern.

Given the vast number of conceptualizations and measures of acculturation, Arends-Tóth & Van deVijer (2006b) have provided five guidelines for the assessment of acculturation. First, acculturation conditions, orientations, and outcomes usually cannot be combined in a single measure. Combining makes it difficult to determine how acculturation could explain other variables (e.g., cognitive developmental outcomes) if all aspects of acculturation are used as predictors. In general, attitudes are associated with acculturation orientations and can be mediating or moderating variables. On the other hand, acculturation behaviors can refer to either orientations or outcomes (e.g., use and knowledge of the mainstream language). Another example is Berry's concept of marginalization which, according to his framework, is an orientation. However, in real life, marginalization is seen as negative outcome of the acculturation process. Second, a measure of acculturation can only be comprehensive if it contains aspects of both the mainstream and heritage cultures. Third, proxy

measures (e.g., generation, number of years living in the country) can provide valuable complementary information to other measures of acculturation, but are usually poor stand alone measures of acculturation. Simply taking stock of a set of background conditions and ignoring psychological aspects results in an indirect, limited appraisal of acculturation. Fourth, the use of single-index measures should be avoided. The content validity of these types of measures is typically low and inadequate to capture the multifaceted complexities of acculturation. Moreover, there is no support in the literature for any single-index measure of acculturation. Lastly, the psychometric properties of instruments (validity and reliability) should be reported.

Rationale

Acculturation assessment has repeatedly been recommended as a construct that should be evaluated when working with multicultural populations in testing contexts (Allen, 2007; Dana, 1993, 1996, 1998, 2005; Padilla, 2001; Sue & Sue, 2008; Van de Vijver & Phalet, 2004). According to Dana (1993), competent and ethical assessment of multicultural populations is achieved when clinicians clearly recognize the contribution of culture to the presenting problem and symptomatology. Therefore, the purpose of this study was to gain a better understanding of psychologist's perceptions and testing practices related to issues of acculturation.

First, this study explored clinician's definitions/conceptualizations of acculturation. Second, clinician's perceptions of the role of acculturation in the testing process were assessed. Third, this study examined the method in which

acculturation is assessed when testing members of multicultural populations. Fourth, clinicians' perceptions of the challenges of testing clients who are culturally different from themselves were investigated. Lastly, this study explored clinicians' perceptions of the role of their cultural background on the testing process.

Research Questions

The current project explored the following research questions:

Research question I: How is acculturation defined by clinicians?

Research question II: What do clinicians perceive to be the role that acculturation plays for clients in testing?

Research question III: How does client acculturation influence clinicians' testing practices?

Research question IV: How is level of acculturation assessed?

Research question V: What challenges do clinicians perceive about testing clients who are culturally different from themselves?

Research question VI: How do psychologists perceive the role of their own cultural background on the testing process?

CHAPTER II

METHOD

Qualitative research involves an inductive process to explore social or human phenomenon based on distinct methodological approaches that allows the researcher to amass a holistic picture based on the analysis of an informant's words and views (Creswell, 1998). Specifically, the phenomenological approach allows for the examination of the meanings of lived experiences of individuals about a phenomenon in order to better understand the essential structures of the experiences (Moustakas, 1994). Due to the lack of relevant literature regarding the clinicians' conceptualization of acculturation or use of associated measures in psychological testing, implementation of adaptations to test procedures and interpretation, or clinicians' perception of the role of their cultural background in testing, qualitative research methodologies are appropriate. Although the present study used principles of multicultural competence (Balcazar, et al., 2010; Sue et al., 1992) to guide the exploration of the phenomenon of interest, an approach informed by phenomenology was used to collect the data, while the qualitative analyses was informed by a grounded approach that parallels the three-step coding process described by Creswell (1998), and Miles and Huberman (1994).

A phenomenological approach was used to explore participants' subjective experiences of the phenomenon of interest (i.e., clinician perceptions and practices in psychological assessment). A phenomenological approach helped describe the meaning of the lived experiences for several individuals about the phenomenon (Creswell, 1998). The phenomenological approach is driven by four

themes (Stewart & Mickunas, 1990). First, the search for wisdom or meaning is salient rather than empirical, experimental science. Second, judgments about the phenomenon are suspended until they can be based on the substantive experiences of the group. Third, the phenomenological approach places primary emphasis on conscious experience as basis for what is considered reality. Finally, phenomenology departs from the subject-object dichotomy such that the phenomenon is perceived within the meaning of the experience of the individual. This approach helped me describe the meaning of the lived experiences of clinicians about their testing practices and self perceptions. As noted in the second theme of the phenomenological approach, researchers are cognizant to set aside all prejudgments and bracket their experience to obtain a picture of the experiences of others. In order to bracket my prejudgments, I acknowledge how my background and experience has played a role in the formation of my views and my interest in studying multicultural assessment.

Researcher's Perspective

I am a second generation Peruvian-American bilingual male who was born and raised in the suburbs of Los Angeles. My parents immigrated to the United States from Peru in their early twenties and I was the first person in my extended family to be born outside of Peru. My first language as a child was Spanish and my early school report cards indicated that I struggled with English language acquisition. I attended an English-only parochial school from 1st through 12th grade and over time English became my dominant language, while Spanish was the language spoken in my home.

I was very cognizant as a child that my cultural background was different from that of the dominant culture and the Mexican-American and African-American subcultures in my neighborhood. Even though I shared some cultural similarities with my Mexican-American peers, my Spanish was often ridiculed by my peers because I used several words that were unfamiliar to them. I found solace among my Peruvian-American family friends who were also second generation and had no extended family in the United States. They too experienced similar ridicule and endured the frequent, mistaken assumption by others that we are Mexican. Eventually a sense of antipathy (toward Mexican-Americans and those that assume I was Mexican) was fostered by my parents who reminded me that we were different from White Americans (e.g., celebration of holidays, parents going on vacation without children) and Mexican Americans (e.g., we speak 'correct' Spanish and are educated).

My experiences in college and course work in psychology opened my eyes to new realms of diversity and appreciation for multiculturalism. I immediately gravitated toward all things multicultural, from the themed residence halls I lived in, co-teaching experiential courses in multiculturalism in the residence halls, engaging in diversity trainings through residence life para-professional positions, to becoming an executive board member of the Pan-American Latino Society in college. As a student affairs professional, I have also facilitated diversity and cultural competence trainings for students and professionals. However, the defining moment of my career in psychology was enrolling in an African American psychology course my second year of undergraduate studies at

University of California, Irvine, taught by Dr. Thomas Parham. This was the moment that truly inspired me to become an advocate of multicultural populations. I was motivated to action by learning about the myriad of ways the field of psychology had vilified, pathologized, and marginalized people from non-European American cultures through its Euro-centric theories, interventions, and measures.

I realized that a method for making substantive change in the field was from within. A doctoral degree in clinical community psychology is my vehicle to obtaining the education and skills necessary to provide multicultural populations with competent service provision. I selected my graduate program because its faculty is engaged in research and practice that includes diverse populations. As a graduate student I have been exposed to conducting therapy and psychological assessment with diverse populations through three practicum sites in Chicago. My internship included an intensive assessment rotation which included performing language assessments with bilingual children to determine the language in which the assessment should be conducted.

During my first year in graduate school I was involved with the first phase of this research project which was a study of clinicians' testing practices with clients from the vocational rehabilitation system. My dissertation ideas arose from some of the implications for future research that I outlined in my masters thesis. I wondered how client level of acculturation may influence clinicians' decisions to make test adaptations based on client cultural factors. As I continued to develop my ideas for the study, I realized that I was making a potentially false

assumption that clinicians shared my view of acculturation, or that they consider acculturation an important factor in assessment. I came to the conclusion that it may be prudent to start with a basic understanding of clinicians' perceptions about issues of acculturation in testing.

Participants

The study included 25 psychologists who conducted psychological assessment with vocational rehabilitation clients. Qualitative research typically conducts 20 – 30 interviews to achieve category saturation and detail a framework (Creswell, 1998). A criterion sampling typology (Miles & Huberman, 1994) was used to select participants from the Psychological Assessment Study (PAS; Hernandez et al., unpublished). PAS participants were selected to participate in this project for several reasons. First, this group met the level of homogeneity (i.e., conduct testing for VR clients) desired in order to study the phenomena of interest. Second, according to the foot-in-the-door effect (Freedman & Fraser, 1966), there was a higher likelihood this group would be willing to participate given they agreed to participate previously. Third, using some of the same informants from the PAS could provide continuity of data collection which may facilitate understanding findings from both studies in the future.

The sample of 25 was drawn from the sample of 150 psychologists' who participated in the PAS (Hernandez et al., unpublished). The PAS participants are psychologists who conducted psychological assessments for VR agencies during a 12-month period. They were identified using mailing lists from each state's VR director. A letter and flyer provided a description of the study and instructions to

complete an online survey. In addition, information about the PAS was posted on websites for each state's psychological association and APA listservs for the Division of Rehabilitation Psychology and Division of Clinical Psychology. PAS participants were recruited from five ethnically diverse states: California, Florida, Illinois, New York, and Texas.

Table 1 displays the demographic characteristics of the sample as obtained from the interview. The participants included 16 men and 9 women with a mean age of 54 years ($SD = 12.2$) and a range of 38 to 77 years of age. The majority self identified their race/ethnicity as Caucasian/White ($n = 21, 84\%$), followed by Latino/Hispanic ($n = 3; 12\%$), and African American ($n = 1; 4\%$). Thirty-two percent ($n = 8$) reported they consider themselves fluent in a non-English language. Over a third of participants reside and practice in the state of Texas ($n = 9; 36\%$) followed by Florida ($n = 7; 28\%$), Illinois and New York ($n = 4; 16\%$ respectively), and California ($n = 1; 4\%$).

Table 1
Demographic Characteristics of the Sample

Group	n	Percent
Sex		
Male	16	64.0
Female	9	36.0
Age		
< 40 years	2	8.0
40 - 49 years	9	36.0
50 - 59 years	1	4.0
> 60 years	12	48.0
Race/ethnicity		
Caucasian/White	21	84.0
Latino/Hispanic	3	12.0
African American	1	4.0
State		
California	1	4.0
Florida	7	28.0
Illinois	4	16.0
New York	4	16.0
Texas	9	36.0
Non-English Language Fluency		
Yes	8	32.0
No	17	68.0

Table 2 displays the professional characteristics of the sample as obtained from the interview. Participants profession characteristics indicated that 92% (n = 23) had a doctoral degree in psychology and the rest had masters level degrees in psychology. Over half of participants earned their graduate degree before 1990 (n = 13; 52%). The mean number of years testing overall and for VR was approximately 24 years (SD = 11.6) and 15 years (SD = 10.9), respectively.

Table 2
Professional Characteristics of the Sample

	n	Percent
Academic Degree		
Ph.D. Clinical Psychology	8	32.0
Psy.D. Clinical Psychology	5	20.0
Ph.D. Counseling Psychology	5	20.0
Ph.D. Other Psychology	5	20.0
MA/MS. Clinical Psychology	2	8.0
Year Graduated		
1960s	1	4.0
1970s	5	20.0
1980s	7	28.0
1990s	7	28.0
2000s	5	20.0
Years testing overall		
<10	2	8.0
10 – 19	11	44.0
20 – 29	3	12.0
30 – 39	6	24.0
> 40	3	12.0
Years testing for VR system		
<10	8	32.0
10 – 19	9	36.0
20 – 29	5	20.0
30 – 39	3	12.0

Measures

A semi-structured interview protocol (See Appendix A) was created and used to gather information from participants. The literature on multicultural competence (Balcazar et al., 2010; Sue et al., 1992), multicultural assessment (Allen, 2007; Dana, 2005) and acculturation (Arends-Tóth & van de Vijver, 2006b; Berry, 2006a) guided the development of the protocol. Questions were formulated a priori and reviewed by experts for content, clarity and neutrality. Qualitative methodology also allowed the flexibility to modify or include new questions as data was collected (Patton, 2002, Miles & Huberman, 1994).

There were five main sections in the interview protocol (Appendix A). The first section included introductory remarks about the study and questions related to their graduate education and cultural background to build rapport and gain a sense of participants' professional practice. The second section inquired on their general approach to testing, type of assessments performed, and descriptions of their clientele, test administration process, and approach to interpretation of results. The third section of questions focused on their definition of acculturation, how they assessed client acculturation, if at all, and how they incorporate client acculturation into the assessment process. The fourth section inquired about their thoughts and practices related to test adaptations. Finally, in the last section, participants were asked to describe their thoughts when it comes to testing people who are culturally different from themselves and their perception of the role of their cultural background on the testing process. Participants were reminded that all the information they provided is confidential and would be de-identified. The

interview protocol was piloted with three psychologists prior to interviewing participants to help ensure question clarity and good flow. Results from the pilot testing indicated the interview protocol was clear and did not need to be altered.

Procedures

Recruitment of participants was carried out in a series of stages. The first stage of recruitment was through a PAS results feedback survey. Personalized electronic communications strategies as suggested by Dillman (2007) were incorporated to maximize the response rate. Participants were sent a prenotice informing them they would receive a brief report with the results of the PAS study they participated in the previous year, and were asked to complete a short survey. Two days later they were emailed the report and asked to complete a brief 10-item online survey that asked for their impressions of the report. The third solicitation to participate was made one week after the second email. This solicitation was made via email and standard mail. The standard mail solicitation contained a hard copy of the report, survey, and a postage paid envelope to return the survey.

Once participants completed the survey, they were navigated to a second webpage to enter their contact information in order to receive their \$20 gift card. At the bottom of the second web page, or the contact information page of the hardcopy version, participants were also asked if they were interested in participating in a future study related to testing practices and acculturation. Participants had the option to check one of three boxes stating (a) Yes, I'm interested in participating; (b) Maybe, I need more information; and (c) No thank

you. Contact information was made available if they wished to obtain more information about the study.

The feedback survey was emailed or sent via standard mail to 148 participants from the PAS. A total of 63 completed the feedback survey, of which one stated he was not interested, 15 indicated maybe, and 47 stated they were interested in participating in the present study. Participants that indicated a desire to participate in the study were contacted in random order approximately 3 months later. The first 25 people that demonstrated interest in participating were schedule for the phone interview.

Interviews were conducted by the author over telephone given that participants reside in geographically distinct parts of the country, which made face-to-face access impractical. Interviews were recorded using an audio digital recorder. As part of the introduction to the study, participants were asked to give verbal informed consent to participate in the study. The interviewer rephrased statements and asked clarifying questions to verify an accurate understanding of the participants' perspective. After all questions were asked, the interviewer briefly summarized the main points that were mentioned in the interview. This step served as a method of member checking to increase the reliability of the data (Lincoln & Guba, 1985). Field notes were also written during and after the interview to note impressions and major themes. The length of interviews ranged between 30 minutes to 80 minutes, with most averaging about 40 - 45 minutes. Participants were compensated for their time and effort with \$50 in gift cards.

Data Analysis

Due to the lack of empirically driven literature on clinicians' acculturation conceptualization and assessment, adaptations to test procedures and interpretation, and psychologists' perceptions of assessment with culturally different clients and the role of their cultural background in testing, analyses were conducted with an approach informed by phenomenology. This approach entailed focusing on the meanings of an individual's lived experience about a phenomenon (Creswell, 1998). In the case of this study, the focus was on the meanings participants gave about their perceptions of their testing practices with VR clients of color. Specifically, the study explored participants' testing practices (i.e., lived experiences) and perceptions (i.e., belief and attitudes) about acculturation, test adaptations, and interpretation of results. In addition, participants provided insight into their cultural background and how they perceived it to interact with the assessment process. To understand the participant views and experiences in a systematic fashion, data collected in the interviews was analyzed by a grounded approach. This involved the process of coding data, and identifying and comparing themes in order to explain the phenomenon of interest (Creswell, 1998; Miles & Huberman, 1994; Strauss & Corbin, 1998).

Interviews were transcribed verbatim by undergraduate research assistants after the data collection was complete. The author verified all of the transcripts against the original audio recordings to ensure that the transcripts were accurate. After each transcript was verified, it was imported into a free qualitative analysis

software application, Weft QDA version 1.0.1 (Fenton, 2006), to assist in data analysis.

Coding

A three-step approach guided the data analysis to create a coding manual (See Appendix B) as suggested by Creswell (1998) and Miles and Huberman (1994) which included descriptive, interpretive, and thematic coding. Five interviews with divergent impression and themes noted in the field notes were selected for descriptive coding to create a preliminary coding manual. Generally, all sentences of the interview were coded during this descriptive phase to ensure that unexpected themes were not missed. In this study, the unit of analysis was generally each participant's response to a question. Because many responses contained multiple beliefs, the number of codes assigned to each unit of analysis varied. However, any one code was used only once per response. From one interview to the next, codes were created for novel content while previous descriptive codes that were applicable to content within the next interview were assigned to the relevant segments of data. The descriptive codes identified and labeled participant's experience with minimal interpretation (Miles & Huberman, 1994). After the descriptive codes were developed for the five initial interviews, each interview contained between 75 and 145 descriptive codes.

As the descriptive codes were examined and compared across the five interviews, initial groupings of these codes were developed to create a coding manual. This second step of data analysis, called interpretative coding, involved assembling the descriptive codes and creating categories. The purpose of this step

was to identify central phenomenon, explore causal conditions, specify the actions or interactions associated with the central phenomenon, and identify the context and consequences of this phenomenon (Creswell, 1998). The derivation of categories was guided, in part, by the literature. For instance, codes related to acculturation were closely linked to theoretical models of acculturation in the literature. Thus, codes were created that reflect unidimensional and bidimensional conceptualizations of acculturation. Definitions and boundary conditions of the interpretive codes were formulated to create codes that were mutually exclusive. Through this ongoing process of coding, descriptive and interpretive codes were combined with other similar codes, certain codes were expanded to include a broader range of ideas, irrelevant codes were eliminated, and new codes emerged. After the interpretative coding process was completed with all the interviews, the interviews and the codes from the coding manual were entered into the qualitative analysis software. The interpretative coding was repeated a second time using the software. This process allowed for interviews that were coded earlier to be reanalyzed and/or recoded with newer or refined codes that were developed in the later stages of coding.

The third step of the analysis involved thematic coding. With the aid of the qualitative analysis software, descriptive categories were examined and compared to identify connections between codes that formed major themes that addressed the research questions. Thematic coding made it clear that the major themes that emerged from the interviews matched the research questions. During

this process the coding manual was further refined to reflect the codes relevant to the phenomena of interest.

Credibility of the Findings

Lincoln and Guba (1985) discussed the importance of insuring the credibility of qualitative data and its interpretation. Several strategies were used enhance the credibility of the present research in addition to the member checking noted above. These included peer debriefing and negative case analysis.

Peer debriefing entails discussing results with professionals who are not involved in the study to challenge researcher bias. This process provides an external check of the research process (Creswell, 1998). In the current study, peer debriefing occurred through the frequent discussions of study findings with the dissertation chair. In addition, the coding process and findings were discussed with peers at a biweekly dissertation support group.

Negative case analysis involves searching the data for instances that go against the conclusions, thereby forcing the researcher to re-evaluate the findings and minimize overgeneralizations due to researcher biases. For example, clinicians tended to provide unidimensional definitions of acculturation that described the assimilation to the dominant culture. However, one participant provided a unique definition which suggested that the acculturation process is one in which a majority group takes on the characteristics of the immigrant group and the influence can be bidirectional between majority and minority groups. This comment led to the incorporation of a new code labeled bidirectional influence of acculturation.

Consistency of Coding

Inter-rater reliability served as method for checking the data coding process. After the coding manual was developed, an independent scorer was trained on the coding system and some of the nuances of psychological assessment. One interview was chosen at random to serve as a training case on how to code the interviews. Twenty percent ($n = 5$) of the transcripts were selected at random for the independent scorer to code. Meetings were arranged between the author and the independent scorer to discuss the codes and resolve discrepancies in data interpretation. Joint coding was geared toward arriving at a consensus of understanding regarding the ideas presented. Disagreements were resolved by discussing the disputed section of data until a consensus was reached about the appropriate codes. Inter-rater reliability was calculated using a Kappa reliability score which measures agreement between raters beyond chance (Cohen, 1968). Kappa was 82%; a Kappa score over 80% is considered satisfactory.

CHAPTER III

RESULTS

The aim of this study was to understand psychologists' perceptions of the concept of acculturation, its role in the testing process, its influence on testing practices, and the method in which it is assessed. In addition to these aims, this study sought to understand psychologists' perceptions of the challenges of testing clients who are culturally different and their perception of the role of their cultural background on the testing process. The findings related to these aims are discussed below. It is important to note that the results in this qualitative research focused primarily on the meaning of emergent themes and placed lesser emphasis on quantitative aspects such as frequencies. Therefore, some quantity qualifiers such as "a few" or "several" refer roughly to three to ten subjects.

Research question I: How is acculturation defined by psychologists?

In order to address the research question regarding how participants define or conceptualize acculturation, codes were developed that tie in with theoretical formulations that have emerged in the acculturation literature. In general, all but two participants provided a definition of acculturation which could be associated with a theoretical formulation from the literature. Of the two participants that did not provide a definition, one participant was not familiar with the concept and could not provide a definition, while the second participant provided a definition of the concept of multicultural competence.

Assimilation

An overwhelming majority of participants provided definitions/conceptualizations that focused on the idea that an individual from a non-dominant culture assimilates to or becomes familiar with the dominant culture, mainstream society, or host community. These definitions could be characterized as variants of a unidimensional model of acculturation in that the process of acculturation occurs on a single continuum that ranges from adherence to one's culture of origin to immersion in the new and/or dominant culture. Absent from these definitions is the notion that individuals can maintain their culture of origin while also adapting to a new culture. The overarching understanding is that there is a singular shift within the individual from identifying with one's culture of origin to adapting, assimilating, blending, and/or identifying with the mainstream culture.

As I understand the word...acculturation to me means the process by which a person from one culture becomes familiar with and incorporated into a new culture. For example, I see sometimes people who are refugees from Latin American countries and they have, even though living in Tampa is a highly Latin Hispanic area, they have difficulty adjusting to what the States are like and what the values are like and how to get around and how to make things work for themselves here. So acculturation would be the process by which they begin to blend.

Another participant tenuously stated:

Acculturation, I guess is to what extent a person, I guess, I don't know if it's adapts, is of the mainstream culture.

A common thought within several of the conceptualizations provided was the idea that the process of adopting or assimilating to a new culture involves acceptance of various cultural attitudes and beliefs as one's own.

I guess I see acculturation as assimilation of a specific culture's attitudes, beliefs, [and] value systems. I think of acculturation as having adopted those, having assimilated into them. I can see that you might think of it just understanding it but I am inclined to think of acculturation as having adopted them...and accepting them as your own.

A few of the definitions are accompanied by a sense of dismay when individuals do not move along the single continuum of acculturation despite living in the United States for long periods of time.

My definition of acculturation, I guess to what extent people have adapted to the prevailing cultural norms of society or cultural expectations, I guess. Some people were born here and live here forever and really never acculturate. They just stay with their own, very, very narrow reference group. Others acculturate very quickly. I suppose if they're moving away from whatever native or indigenous culture, whether it's their immediate neighborhood or coming from a different country and trying to broaden into a larger society.

Cultural maintenance in acculturation

A handful of participants endorsed definitions of acculturation that included the cultural maintenance dimension of the bidimensional model of acculturation. Specifically, this dimension refers to the awareness that individuals going through a process of acculturation may maintain their cultural identity of origin while integrating into the majority culture. For instance, one participant stated:

Well that would be, in this particular country it would be someone who has either themselves been born in another country or maybe parents or family have been. And it has to do with the extent to which that individual retains their cultural identity and roots while also accommodating to the majority culture.

One participant recognized that individuals can acculturate via distinct strategies (e.g., assimilation or integration) such as those identified by Berry (1997).

I guess it would be a person's adaptation to another culture which may take the form of assimilating into that culture or learning how to maintain a distinct [ethnic] identity but still function within that culture.

Another participant appeared to qualify his definition by suggesting that an integration strategy is an optimal method of acculturation.

My understanding of acculturation is the degree to which an individual has successfully maintained their own cultural identity while incorporating and assimilating the cultural identity of the host community.

Adapt to local culture

A third perspective was endorsed in which a distinction is made in regard to the culture to which an individual adapts. Most theoretical formulations posit that an individual acculturates from his or her culture or origin (non-dominant culture) to the dominant culture of the country to which the individual immigrated. In other words, a person born outside the United States would acculturate to "mainstream American culture." In defining acculturation, a few participants described acculturation as a process of adapting to the local culture in which the individual has immigrated. Moreover, one of the participants asserted that it may be more necessary or desirable to adapt to the local culture than to dominant culture.

But acculturation kind of just more... if you look at it by regions how somebody adapts their uh ways and customs and language to their new settings so and their ability to function within that settings. So there is a lot things that translate easily. So if you have a good work ethic that's gonna go just about anywhere but if you have, you know uh, a certain way of approaching the world that doesn't fit, they need to adjust or not. On a simple level people will talk about issues of language as one of the crucial aspects, but if you look in Southern California, you have people who have been here forty years who haven't learned the language. But they're very familiar with how things are done, what they need to, so I would say acculturation is a multi-factorial constellation of factors that assists you in joining in with the local culture, not necessarily the dominant culture.

Bidirectional influence of acculturation

Lastly, a fourth broad definition of acculturation was asserted that is similar to Redfield et al.'s (1936) anthropological formulation which suggests that groups from different cultural backgrounds that come into continuous contact can effect changes in each other. In other words, changes in culture may be bidirectional in nature between the dominant culture and individuals from non-dominant cultures.

Acculturation is the process by which one group takes on some of the cultural characteristics of another and that can go either way from majority to minority, or minority to majority.

In brief, the prevailing understanding of acculturation among the participants of this study is closely similar to the unidimensional model of acculturation. However, a couple participants also recognized that in order to function successfully in a different country, people do not necessarily adapt to the dominant culture of the country, rather to the local culture in which they reside, which may or may not require learning the dominant language of the host country. Only a handful of participants provided definitions of acculturation that included the cultural maintenance aspect of the bidimensional model of acculturation. Finally, only one participant defined acculturation as a bidirectional concept in which dominant culture and members from the non-dominant culture can take on characteristics from one another.

Research question II: What do clinicians perceive to be the role that acculturation plays in the testing process for clients?

In order to address the research question regarding clinicians' perceptions of the role of acculturation for clients in the testing process, codes were developed to reflect any effect that cultural variables may have on the testing process when clients engage in assessment. Two broad themes emerged from the data which included: (a) *clients not well acculturated to mainstream US culture may be disadvantaged by the testing process*, and (b) *acculturation is irrelevant in certain situations*.

Disadvantaged by the testing process

The majority of participants identified that clients not well acculturated to US mainstream culture may be disadvantaged. The disadvantage was described as occurring at a more general level (e.g., unfamiliarity with broad cultural concepts) and at a more specific level related to actual performance on tests. Regarding the more general level of disadvantage, participants indicated that people who are less acculturated may be at a disadvantage if they are unfamiliar with certain Western concepts such as psychological testing and mental health, or if they do not share certain American cultural values. This view was characterized by a participant who stated:

I'd say less acculturated individuals are probably going to be less familiar with even something like you know, psychology in general, working with bureaucracies like Department of Assistive and Rehabilitative Services, giving personal details about their lives, the extent to which they interpret the problems that they're having.

Participants also noted that less acculturated clients are sometimes unfamiliar with certain test stimuli despite familiarity with the English language.

I've had some patients from other cultures who speak terrific English but some of the test stimuli I use might not be as familiar to them. You know, just the

pictures, or the drawings even, or the concepts that are discussed, they might not be discussed at the supper table, even though they know the words, it's just not that familiar to them. So asking a question like "Who was president during the Civil War?" or there's a couple other ones that are kind of uniquely American that I think that someone whose parents are from another country might not have discussed quite as frequently as people from the majority culture.

Similarly, less acculturated clients may be perplexed by the testing procedures because they appear irrelevant (viz., lack face validity) to the ultimate goal of obtaining employment.

[Some Asian clients have] come [to the U.S.] and they're thirty years old and have two years of schooling and worked in the field for fifteen years,...[T]hey show up at my office and [I have to determine]... "Okay what kind of work can this person do?" And [I] try to do things...like a Block Design and they are looking at you like "why you doing this?" So it's pretty unusual to them.

Certain American cultural values permeate most testing measures such as the common instruction to examinees to try his or her best. However, as one participant highlighted a client's approach to the test can be influenced by his or her level of acculturation.

Well at the very basic level [acculturation] influences how you approach the test. Back in the late 60s I did some testing on the Navajo reservation testing Indian kids with academic achievement tests to see what kind of setting they do best in, schools, reservation schools, that kind of thing. Now what I discovered was that... Indian Navajos and Pueblo Indians are uncomfortable being different, so everybody will regress to the mean. If you're very smart you will not answer questions in class and you won't try to look smart on the test. If you're very dumb, you do the best you can. If you're very smart you do average because it's worse to be different than it is to do poorly on the test. But there's no value that says everybody should try to do as well as they can on the test or everybody should try to be average. Well if you have that attitude and you're taking a test that was designed to select the top few percent, it's gonna be completely misleading.

The disadvantage described at the specific level referred to the idea that people who are less acculturated to or less familiar with the dominant culture may

perform poorly on norm-based standardized tests. The results from standardized testing may overpathologize or inadequately demonstrate the client's true abilities. Several participants identified subtests of the WAIS-III, a popular intelligence test, as measures that carry significant cultural bias toward U.S. cultural values and knowledge.

On an intelligence test, if you're familiar with it, you know that in the Information subtest on the WAIS, that there are questions that are very heavily loaded towards American culture.

Participants also noted that poor performance on standardized tests is not necessarily associated with low education, rather with differences in how subjects are taught across cultures.

The WRAT is a timed [academic achievement]test and it starts off really easy and just simpleminded "two plus three equals" kind of thing, gets to things like "which is bigger $7/8$ or $13/16$?" and then you have to manipulate some fractions that are uncommon. When I had a Vietnamese [ship navigator who] did poorly on the math I said "but he can navigate, something's wrong with this" and we looked into it. The problem is that it's a timed test and people who were not raised in the United Kingdom or in the United States do everything in decimals. So when you give them a problem that says multiply $3/4$ times $7/8$ times $3/16$ they don't do that or cancel the stuff out diagonal and stuff. They convert it into a decimal first and then they multiply. Well that takes a lot longer than what the norms were. So the norms are actually invalid unless you learned to manipulate common notation fractions.

Another participant also highlighted the problem of applying U.S. norms to individuals from cultural groups that have a different orientation toward interpreting test stimuli.

Say you're using the Rey-Osterrieth complex figure drawing. The literature will tell you that some cultures don't pay attention to those kinds of details or do things in a certain structure, [in] the way that you would be taught in the U.S. So if you use U.S. norms these people will come across as severely impaired.

Still another participant remarked that, in addition to norms being problematic for clients less acculturated to US mainstream culture, the dynamic with the clinician also adversely impacts test performance.

For the most part I think people who are fully, if that's possible, acculturated would better meet the normative sample and better relate to the examiner. So there's going to be probably less negatives or effects that would deleteriously affect their performance.

Acculturation is irrelevant

The second theme related to some clinicians' belief that acculturation is an irrelevant issue in certain situations. One example was a clinician who reported that acculturation is an irrelevant variable to consider in the testing process due to the sheer cultural diversity of the region in which the clinician practices.

P: I think [acculturation is] less of an issue down here in South Florida than it would be up north where it's a more dominant white culture. I mean down here the norm is to have all different cultures all together and it's really hard, ...there's no mainstream South Florida culture.

I: So in south Florida, acculturation doesn't seem to affect testing as much?

P: I don't think so. I mean, I don't know if some of the, maybe some of the kids, I don't even think some of the kids look at me and think, "oh what does this white women know about me?" or anything. I think everybody is so used to seeing a variety of people.

Another participant felt that issues of acculturation are important in the testing process depending on the type of employment that is suitable for the client. Specifically, acculturation is considered irrelevant to testing if the client is associated with the unskilled labor force.

If somebody [who is not acculturated] is coming in [for testing], my job is to say "Okay, would it be okay [for this person] to put plastic wrapping on chicken?", you know that's not much of an issue as opposed to if they wanted to do something, let's say work in an office.

Similarly, another participant noted that issues of acculturation become irrelevant when the demands of specific jobs require a certain level of performance from the employee.

Because if a guy is very slow with everything and it's a cultural factor, that doesn't matter, he's still not going to get hired. You gotta be able to make enough widgets fast enough for the boss to be satisfied with you. And if you don't do that because you're a member of a culture that thinks you should work slower or something, it wouldn't matter.

Overall, participants indicated that acculturation played a significant role in testing. Specifically, clients who are considered less well acculturated could be adversely affected in testing due to unfamiliarity with Western concepts and values that are an integral part of most standardized tests. Subsequently, performance on standardized tests may be superficially low which may be more a function of cultural bias rather than a true deficit in their functioning. In contrast, a small subset of clinicians discounted the role of acculturation in testing in situations where the client is considered for unskilled labor jobs or when testing in regions that are culturally pluralistic.

Research question III: How does client acculturation influence clinicians' testing practices?

To address the research question of how client acculturation influences clinicians' testing practices, interview data were coded to identify themes of clinician testing behavior that occurred in response to client acculturation. Three prominent themes emerged from the data regarding the influence of acculturation on participants' testing practices including: (a) *non-standard interpretation of test results*, (b) *test adaptations to administration and/or scoring*, (c). *selection or*

omission of specific tests. In addition, two less prominent yet important themes also emerged including: (d) *exclusion from testing*, and (e) *acculturation plays no role in testing*.

Non-standard interpretation of tests

Participants primarily indicated that acculturation influenced the manner in which they interpreted tests and reported results in their testing reports. About a quarter participants stated that they assessed the client's level of acculturation to determine the validity of the results.

Well I think, in its really technical level, I need to assess to what degree a person is familiar with the majority culture here in the United States in order to determine whether or not the test norms that I used are going to provide valid results. So I'll ask questions in my clinical interview about if the person speaks a different language or if they're bilingual, ask what kind of language they speak at home. If they were born in another country, I'll ask when they came to this country, where they did their schooling. I'll try to get some sense, in some cases, if the person is bilingual but they were born and raised in this country, I'll ask some questions about their parents. All of which is designed, first of all, to determine like I said whether or not the norms I'm using will provide a valid score, but also determine to what extent I can understand some of the other ways that their background would impact interpretation.

Another participant stated that despite valid scores, acculturation is still a factor that must be taken into consideration during the interpretation process.

But I also believe valid standard scores don't tell the whole story. They may make a low score on this test, but they may have an understanding of what it is. This may be due to acculturation, this may be due to their ability to understand or speak.

For one of the participants, the lack of appropriate tests available to properly assess clients with limited English proficiency influenced the type of assessment he used to make diagnostic interpretations.

Well if they have limited English proficiency and they are an adult I will use... The fact of the matter is there aren't many good psychometrically sound

instruments that have been appropriately normed, so in my reports... the majority of my diagnostic impression is based on data rendered from the interview process. I will place a secondary emphasis on the test data or formal assessment data.

A participant commented that level of acculturation impacts not only how test results are interpreted, but also how the tests are administered.

What I am looking for is information that would tell me why somebody, how somebody would take the test in a different way. Information that would make me think the norms may not apply properly to this person. Because that tells me I can't rely on the norms, I have to do some non-standardized administration of stuff or I have to interpret the norms with a grain of salt.

In addition to altering their methods of interpretation, a few clinicians are cautious about what information is included in their testing reports when issues of acculturation are present.

Sometimes you just have to address in [the testing report] "this is the score they obtained, but it doesn't likely reflect their skill level in this area because of this issue." Or if I feel like it's not a valid score, I may not even report it because you don't want somebody else to misinterpret that.

Still others believed that all the data should be included in the report, even when the clinician thinks acculturation issues influenced poor performance on tests.

If somebody has a low score and I believe that there are a number of cultural factors that have lowered that score, unrelated to any type of brain development or brain injury, then I would still report the scores as they are, because I can't misrepresent what the data says. But the interpretation of the data is that this may not necessarily be accurate. This may not reflect their current level of functioning due to various cultural factors. I kind of identify some things that I thought may have interfered.

Test adaptations

The second theme that emerged was *test adaptations to administration and/or scoring*. Nearly half of participants indicated that they had made test

adaptations to the standard administration or scoring based on client acculturation. Of these, about a handful of clinicians felt making test adaptations is often essential to answering the referral question. One clinician described his thoughts on testing multicultural populations by stating:

My honest thought is that you do what's effective. Meaning, you don't totally invalidate, [but] I do believe in adapting the test so that you get a better picture, a clinical picture of the person you are evaluating both cognitively and even emotionally. So I believe that the evaluator with their graduate skills, what they have learned, but also with their experience over time in getting kind of [an] understanding of the different cultures, that you would incorporate all of this in order to make a more valid and possibly a more accurate determination of a person's strengths and weaknesses.

About nine types of test adaptations were noted by participants. One type of adaptation that was mentioned by a few participants involved changing responses, which would have lowered the standard score, based on the clinician's knowledge of the client's cultural norms.

When I do the Vineland Adaptive Behavior Scale, I know when they ask in there on the Socialization [domain], and I do this with like people from India, the person is 18 years old and I [asked] "does he go out on single or group dates?" Not that he can't, but because culturally they don't do that, they kind of, their marriages are still arranged, or they don't go out until they are 24-25. That is not an adaptive behavioral issue, that's a cultural issue. So I try, I put down "yes", this person is capable of doing those actions, going out on [dates], but because of the culture that you gotta wait until you are older. I take those things into consideration.

It is important to note on the above example that the Vineland instructions specifically instruct the examiner to score the actual behavior a client engages in regardless if he or she is capable of the behavior. Another clinician described adapting standard correct responses on an intelligence test.

If you ask questions like "who's president of the U.S in the civil war?", and they say "I don't know, but in our country this guy was the president in our civil war" I give them credit for that just in a superficial basis of that.

Another common test adaptation was the use of interpreters in the testing process. Almost all clinicians that reported using interpreters noted some reservation in making this adaptation

Well, I think using an interpreter... is a pretty huge adaptation because you're changing the test stimuli themselves... But often times, at least in the Chicago area, there are very few bilingual neuropsychologists. So, I more often just take the case.

A couple of clinicians work in areas that have few resources such as interpreter services and need to rely on family members.

Well, another [adaptation] I've done is I have used [interpreters]. There was a gentleman from Africa that didn't speak English and his daughter had to [interpret] the items.

Still other clinicians find themselves in odd situations and make do as best they can.

I've had guys that speak languages, a bunch of Russian guys [came] in one day, I had to do everything by pantomime because they didn't speak English and we didn't speak Russian.

Selection and omission of tests

The third theme that emerged was clinician *selection or omission of specific tests* as it relates to client acculturation. Altering the testing battery was an attempt by clinicians to either administer tests that provided valid data or omit tests that were considered culturally inappropriate to administer. For instance, a participant reported that acculturation variables such as language influenced test selection:

In terms of one example of a specific [acculturation] issue in testing would be, if you have a student ... whose first language was something other than English, then for example, you would probably want to select a nonverbal measure of

cognitive ability because if you give them a verbal IQ test, it would kind of be pejorative to them and not allow them to really fully express their ability.

A participant recognized that clients from certain cultures may be more sensitive to discussing certain topics and therefore omit certain tests to avoid offending the client.

If I am testing a woman who is Muslim and she comes across a question on the MMPI saying 'My sex life is satisfactory', that's not going to go over very well. And knowing something about their culture before hand, I also try to provide tests which may not have the power of the MMPI in terms of their predict[ive] validity, but they may be more culturally appropriate.

Another participant stated that he selected a projective test because of his self-proclaimed astuteness with the test and his perception that his manner of administration is culturally fair.

I have been able to use [the Rorschach] with different cultural types and because I speak Spanish, where we might say card 5 "it looks like a bat", they'll say "un mursielago" and I know it's a bat. I'll translate it into English. But I am able to use the projective techniques in a way that I feel I am being fair to different cultural groups.

Exclusion from testing

Level of acculturation was also considered by a couple of participants as a gauge for inclusion or exclusion in the testing process. One participant maintained a strict policy of only testing English-proficient people who were educated and raised in the U.S. for the purpose of obtaining valid results.

Race and ethnicity is only important if the person is unable to comprehend the test itself or if they are totally unfamiliar with the [American] culture which would invalidate the use of that tests in which I wouldn't test.

Acculturation plays no role in testing

Finally, a few clinicians held the belief that acculturation does not play a role in testing. This belief had implications for testing practices with clients. For instance one participant stated,

P: [Acculturation] doesn't play any role in the testing that I do.

I: How so?

P: Well I don't administer any tests depending on the person's ethnicity.

Other participants had no idea how acculturation played a role in testing.

I: How do you use acculturation information in the testing process?

P: In the process itself, I probably don't, off the top of my head.

I: Or interpretation or any part of the testing process, I suppose.

P: I...hmmm... it would go to what I put into the mental status exam and how I diagnose, but during the testing process, I'm not sure. I'm just gonna write down what they tell me and that isn't an answer. I'm just not sure how to answer that.

Overall, client acculturation had an impact on some participants' testing practices by influencing the way they interpreted tests, administered and scored standardized tests, and selected or omitted tests. The clinicians that incorporated these changes often felt they were trying to help or be fair to clients that may otherwise be adversely affected by engaging in routine selection, administration, and interpretation of standardized tests. On the other hand, a few clinicians discounted or appeared oblivious to role of acculturation in the testing process, while others used acculturation as exclusion criteria based on limits of the test battery's normative sample.

Research question IV: How is level of acculturation assessed?

The fourth research question to determine the methods for assessing client level of acculturation was addressed via a two-part question that inquired: (a) if participants have assessed acculturation in the past, and (b) if so, how they obtain acculturation information, and if not, why not. Three themes emerged from the data which included: (a) *standardized measures of acculturation are not useful*, (b) *acculturation information is assessed via the clinical interview*, and (c) *acculturation is not assessed*.

Standard measures of acculturation are not useful

The first theme that *standardized measures of acculturation are not useful* was endorsed mostly by the few participants that were aware that measures of acculturation even exist. Only one participant reported that he had ever actually used measures of acculturation and stated the following,

I have [used measures of acculturation] in the past, and I've used different instruments and never found any of them to be helpful.

The overall sentiment regarding standard measures of acculturation was summarized by a participant, who said,

A lot of the acculturation measures that I've seen tend to be kind of crude and, at least my way of looking at it, don't really get at the most important issues of how this person interacts with important people in their environment...I think the construct itself is highly relevant, but at least [from] what I've seen in terms of questionnaires assessing it, they tend to be kind of simplistic.

Assessment of acculturation via clinical interview

The majority of participants reported that they assessed acculturation regularly in the testing process. The primary method clinicians used to obtain

client acculturation information was through the clinical interview. It was apparent that assessment of acculturation was more comprehensive with some participants than others. For instance, one participant's response described questions regarding various domains (e.g., work, family, home life, etc.) of the client's life.

Basically [I include] a discussion on where were they born? Where were they raised? When did they come to the U.S? Under what circumstances did they come to the U.S? Did they come with their family? Did they come on their own? Is the rest of their family here now or are they still back home? What languages are they capable of speaking? What languages to they have to speak at work? At home? How do they socialize? What do they do to socialize? And where do they get their information and if they are able to read? Do they actually read a Spanish newspaper? And where do they get their information? What stations do they watch? You know, do they watch Spanish soap operas or do they not? And the other issues, you know, there's a lot of stereotypes about the Hispanic culture and trying to get at how they perceive themselves within those stereotypes. Would they consider themselves macho and if they are what does that mean to them?

While another participant described his assessment of acculturation in the following manner,

Probably no more than just asking about background, particularly English speaking, you know, when did they learn English, how comfortable are they, uh and generally that can be picked up in the interview as well.

In addition, there was a participant whose assessment of acculturation appeared to rely mostly on his behavioral observations of the client.

I happen to assess [acculturation] informally, but you genuinely have to have an idea. If the people are, you know, seem to be reasonably, you know, I mean the way they dress, the social references they use. You know, most people seem to be reasonably okay in that regard, I believe, but I certainly do see people who just clearly [are] not of the usual, of the popular culture. But, I just, they seem to be with their own very limited view.

Other clinicians appeared more thoughtful in their approach to assessing acculturation. They also reported a preference for assessing acculturation informally because it aided in building rapport and empowered clients.

So [assessment of acculturation is] more of a semi-structured set of questions that kind of assist in the building of rapport in that these are questions that they're experts, on their own lives. So it allows them a lot of questions that they can answer without having to be seen as answering wrong.

Another clinician endorsed a broader understanding of acculturation and stated that she assessed acculturation with all clients due cultural difference between her background and that of the people in her region of practice.

There's a lot of rural areas in Florida and around Tampa as well, and those people have different backgrounds and histories than somebody like me who came from Washington D.C. So [they have] a different way of looking at the world, they probably have a different knowledge base than I do... Acculturation isn't just race and ethnicity it's also rural versus urban, it's also young versus old and I try to get some sense of that with every client that I see. Again, talking with them, trying to explore their backgrounds and so on.

Finally, one clinician felt that obtaining acculturation information through informal means may have some limitations compared to using a standard measure. When asked if he had assessed acculturation in the past he responded,

I mean yes and no. I don't have a formal instrument or questionnaire that I use. It's part of my interview in a more informal way. It is discussed and talked about and I get their input on their sense of it. So, for all of the positive about that there are probably some flaws with that as well, but that's what I do, it's just part of the interview, part of discussing, but not formally assessed with any particular acculturation scale.

Acculturation is not assessed

The third theme that emerged regarding assessment of acculturation in the past came from a subset of participants that reported they do not assess

acculturation in the testing process. This group of participants provided a wide range of reasons for not assessing acculturation. For instance, one participant said that she would not know how to assess acculturation and felt that it may appear judgmental. Another client cited fiscal reasons for not assessing acculturation.

I: Are there some reasons you don't assess acculturation ?

P: Mostly for practicality. The reimbursement from the rehabilitation services for an evaluation is less than half of what Blue Cross Blue Shield will pay. And so from a pure business perspective, you can only afford the client so much of your time.

A few participants reported that, although they do not assess acculturation, it is a variable they keep in mind as they are testing clients. One participant captured this sentiment when was asked if he assessed acculturation.

Ahh, no, not formally. Well actually, not even informally. I just, well, I guess it's just in the back of my mind. I'm asking myself "what kind of sense is this client going to be able to make out of these questions given their level of acculturation?" Well, I guess you could say while I am not assessing for it, I'm mindful of that variable throughout the process.

Another participant stated that she does not assess acculturation because she feels it is irrelevant given the diverse nature of the region in which she practices. This participant appeared to make some broad assumptions of unknown accuracy about how multicultural populations perceive their environment and acculturation experience.

Like I said, you know what, if they themselves have immigrated, I'll kind of take that experience into account, but I think because, it's even if somebody is, let's say their parents were the immigrants and they are first generation here. Being in Miami, you're landing in a culturally safe place, for the most part. Speaking Spanish is the norm. You're not landing in Minnesota where nobody speaks your language. They don't have your food. Here there's Haitians. There's all kinds of Latin Americans and islanders. And I think I'm probably in the minority just speaking English, most people are bilingual, you know, it's less of an issue. But

the fact that somebody's parents came from Colombia, it just, more than likely would not impact this person, you know the acculturation experience.

One participant reported that he does not assess acculturation because he perceives his clients as highly acculturated. When asked if he assessed acculturation, he stated,

No, not specifically. One reason being I haven't had that many people that I have felt it necessary. If I had one that I really thought acculturation was a problem, yes I would do that. But thus far, like I say most of these people are 2nd or 3rd generation immigrants and they seem to be pretty acculturated as far as I can tell from the way they respond to the interview and testing and their history. Most of them have even gone through our school systems. Most of these people, most of the cultures, work in places where there is both white and Caucasian and Hispanic. Our Blacks are very well acculturated.

Similarly, another participant appeared to make a broad assumption about multicultural populations in that he perceived all people that he tests as culturally similar to himself. Consequently, people that do not fit within certain cultural parameters are excluded from the testing process.

Uh no, I haven't [assessed acculturation], as I said I don't use interpreters, so the people that I assess are all American background, English speaking, typically they are familiar with the culture, so it has not been a significant factor...I just want to be sure they understand...The only culture would be dealing with non-white folks, black folks, those,...and again their culture is dominant American. They have grown up in the same culture, the same that I have, so it's not really that culturally different, even though they're, they themselves may have differences, as long as they've grown up in a dominant American, English speaking society, I don't see it as a problem.

Finally, a couple of participants seemed opposed to the idea of assessing acculturation based on the belief that all people living in the U.S. should speak English or conform to the norms of U.S. society. For instance, one participant exclaimed,

It's my philosophy, if a person moves to another country, it is their responsibility to learn the language and adapt to the dominant culture rather than have the dominant culture learn their language and adapt to them, but then that's my philosophy. If I move to another country, I expect to learn their language and become familiar and comfortable with their culture not the other way around. That's why the idea of interpreters, to me, is kind of, "let the person learn the language, why should I learn a foreign language in my country."

And the second participant stated,

No [I don't assess acculturation]. It's my belief that we have norms in our society for performance and no matter what ethnic background a person has, they have to perform to those norms.

In sum, three themes were identified regarding the assessment of acculturation and the manner in which it is assessed. In general, participants were unfamiliar with standardized measures of acculturation and those that were familiar felt they lacked utility in testing due to their oversimplified treatment of the concept. However, most participants stated that they have assessed acculturation in the past via the clinical interview. There was notable variation in how comprehensively participants assessed acculturation. In addition, some participants used the assessment of acculturation as an opportunity to build rapport and empower clients in the testing process. Finally, there was a subset of participants that do not assess acculturation. Reasons varied widely, from not knowing how to assess acculturation, to the perception and/or misperception that clients are highly acculturated or that acculturation is irrelevant, to opposition to the idea of assessing acculturation in the first place.

Research question V: What challenges do clinicians perceive about testing clients who are culturally different from themselves?

A total of four themes emerged concerning the challenges clinicians perceived in testing clients who are culturally different from themselves. Two prominent themes were that (a) *the validity of the assessment is in question*, and (b) *it takes extra effort to test people who are culturally different*. Two distinct, less prominent themes were also endorsed by participants: (c) *the challenges of testing culturally different clients can lead to feelings of frustration*, and (d) *testing culturally different clients is not challenging*.

Questionable validity

The first prominent theme that surfaced from the participants concerned thoughts suggesting the validity of the assessment was questionable when testing clients who are culturally different from themselves. The issue of validity is at the core of psychological assessment. A participant described concern about how to interpret testing data when basic assumptions about the testing process are violated.

Well, the first thought I have is that I am anxious about how I'm going to be able to do something that has any actuarial validity simply because a lot of the assumptions for actuarial interpretations are violated. Where it becomes difficult is when you're writing the report and you need to figure out what those scores mean and you need to determine whether or not even something as simple as a naming test [is valid]. So you got the numbers all out in front of you but the problem, the challenge, is figuring out what those numbers mean. And it requires thinking about a bunch of things that you don't normally have to think about.

Lack of familiarity with the client's culture can also invalidate key aspects of the assessment process. One participant recounted her experience in which her worldview may have clouded her perception of the client's family dynamic.

I remember working with this young lady who was, she was from a country in the Middle East and culture became a very important issue in my work with her. But I didn't have much of an understanding of her cultural background so I kind of misinterpreted some things that were going on in her family. For example, with the powerful presence her father had and the kind of subservient presence that I got the sense of that her sisters and she and her mother had. If you were just coming at that from an American White perspective, Protestant perspective, you would think that that was an abusive relationship, an abusive family dynamic. But being that she was from a Middle Eastern country and the particular country she was in that was a role that often took place in homes and plays a different slant on it.

Another participant expressed concerns regarding validity due to his lack of familiarity with the client's cultural background, which may negatively affect the dynamic between the clinician and client, and adversely affect test performance.

I need to, first of all, determine if my testing and assessment would be valid given their acculturation problems. If we were so different, it just wasn't gonna work. They couldn't understand and I couldn't understand them, or they were so inhibited in their response style because of my background or their background. Or if there were some areas of that background that I was completely unaware of. For example, if I was testing a person of Chinese or Oriental background, I probably would be very very uneasy in terms of, very very aware of what was impairing our ability to get the information and communicate and observe their mannerisms, cultural mannerisms that I was not really aware of. So that's what I look for, is cultures that, you know there may be some things affecting their behavior and their response style and their vocabulary. If I think there's a lot of things going on there, then I say there is probably, it is of questionable validity.

Another participant expressed the multiple reasons doubt and ambiguity are present in the testing process when assessing some clients who have low English proficiency or are non-English speakers.

Um, usually that I'm confused, that, well it's one of those things that when you're testing, that if it's a different language you know it's very hard to have any idea what you're doing and what's really coming. How do you know you're getting a good translation? Um, if they are able to speak English, usually there is a lot of clarification going on. Where depending on what they talk about if you're doing more of a psychological evaluation, it's hard to know whether things make or don't make sense from their perspective... So it's just, it makes your confidence for what you're doing, [it] shouldn't be as high.

Challenges are also faced when clinicians need to obtain precise scores on certain psychological tests. Obtaining valid results is always important, but in some instances the consequences may be dire. One participant noted the difficulty of relying on scores obtained from culturally different people who may not understand the test.

[It is challenging] if you really wanna get something that's really specific. Somebody who's going for a... surgical procedure and you really wanna know how good can they do this, you know pre op and you test them post op and you really wanna try to get some pretty hard objective data. If you get people with a lot of cultural differences and who can't really understand the material, that's a problem. The neurosurgeon doesn't wanna hear that. He might say "what's the score here? Okay we gotta see what's [the patient] gonna do afterwards." So those sorts of things can be challenging. Sometimes there's this certain material that you wanna be able to get a report on. If you can't do it, it kind of renders what your doing, not having that much purpose if it's not that rigid to what you need.

Extra effort

The challenge of dealing with issues of validity when testing members of multicultural populations is often complicated. In addition, almost half of participants also noted that it *takes extra effort to test people who are culturally different*. This second prominent theme was described by participants in a myriad of ways. Participants discussed the importance of multicultural competence in conducting assessments with members of multicultural populations. One participant illustrated the effort one needs to expend in providing culturally competent services.

[It is challenging to test people who are culturally different] because I'm going to have to take myself out of my comfortable culture, out of my own comfortable knowledge of my own culture [and] I try to see things through their eyes.

Others felt that the extra effort of testing clients who are culturally different from themselves related to building rapport and interpretation of results.

Oh yes, [it's challenging]. The extra effort it takes to make a connection and to build a relationship sometimes. Also the extra effort in interpreting results, making sure [I] try to be as evenhanded as possible as well as realizing "is this a cultural response or is this a typical response for that culture, too?" Trying to keep it in perspective. So that does take extra energy.

Another participant felt that establishing rapport was difficult with specific cultural groups and people with lower levels of education. For this participant rapport served the purpose of obtaining optimal test performance from the client.

I think at times, I've had persons who are highly uneducated, or Black, or Latino who are reluctant to respond to me and I have to work harder at getting some rapport....It's my job to get the best performance out of them that I can. So, sometimes it's a little bit more difficult to do that.

Frustration testing culturally different clients

A few participants endorsed a third less prominent theme that testing clients who are culturally different from themselves can be frustrating on various levels. One participant appeared to express frustration that he is limited in his ability to optimally serve clients who are culturally different from himself.

I try to be really vigilant in how I present the data or the test stimuli to the patients and I then try to be very very vigilant when I'm writing the report. So the thoughts that I have often are "how am I going to do this? I wish I spoke the language that this patient speaks. I wish there were someone in town who was a boarded neuropsychologist who was bilingual who could help this person better than me." A lot of the, it's really negative cognitions actually. I pretty much beat myself up when I get one of these cases. But those are the kinds of things I think about. So I do feel bad. I would like to get these people the help they deserve but in some cases there's nothing else, no alternative so I just try and take these things into consideration as I'm writing them up.

Another participant recognized that the challenges of testing culturally different clients can wear on one's good nature.

Well honestly, sometimes I think I get impatient and I recognize that. Sometimes I'm genuinely curious. Other times I'm, impatient I guess is a good way to put it. Sometimes it's the force of the job, that I have so many things that I'd like to do and I really don't want to take the time to explain [testing] in detail.

Testing culturally different clients is not challenging

Lastly, about a quarter of clinicians indicated that testing clients who are culturally different from themselves is not challenging. The reasons varied widely among participants. For instance, one clinician noted that his graduate clinical training emphasized testing diverse populations.

My whole doctoral program was about, for example, my dissertation was about the psychometric analysis of the Spanish version preschool screening instrument. The backbone of my program was on bilingual assessment and cultural diversity, so I am pretty fluent in terms of my awareness, so it's not a big deal.

Another participant reiterated his belief that he avoids the challenges of testing people who are culturally different because he only tests a specific subset of the population.

I don't have that problem, 'cause I really, I don't see [African Americans and Latinos raised in the United States] as being culturally different, and if they are not American, not English speaking then I don't test them, so that eliminates that problem.

There were a couple of participants who believed that due to their vast experience testing diverse populations, the challenge had somehow vanished.

uh, after the first 25,000 you kind of know how to handle it...I mean literally I've had 20,000, 30,000, I have no idea how many tens of thousands of evaluations I have done over the past 30 years in my variety of roles.

Finally, another participant felt she is able to keep issues of culture from becoming a challenge. When asked what made testing culturally different clients unchallenging she stated,

I'm not exactly sure. I don't know if it's my personal comfort level, that I'm just comfortable with people who are different than I am. I don't let the culture itself be something that would get in the way. And again, whether it's age, or color, or anything else that is different... I don't think that in particular... If I walk into a school, and I've been to all different types of schools, and I'm still the authority figure who's giving the test and I need to overcome that whether the person I'm talking to is White, Hispanic, Black, or Asian or whatever.

Overall participants identified several challenges of testing clients who were culturally different from themselves. A major area of concern is the validity of the assessment. Clinicians are often faced with the challenge of making interpretations using normative data that may not apply to the client. A related challenge is the extra effort (i.e., mental and temporal) that it takes to assess culturally different clients. More energy is spent on thinking about interpretation, building rapport, or explaining test procedures that are unfamiliar. In addition, clinicians sometimes feel frustrated by their own limitations in assessing culturally different clients optimally, or with the fact that extra effort is required. Still others believe testing culturally different clients does not pose a challenge either because of their graduate training, vast experience, sense of comfort with diverse populations, or belief that all Americans share the same culture.

Research question VI: How do psychologists perceive the role of their cultural background on the testing process?

To address the research question regarding clinicians' perception of the role of their own cultural background in the testing process participants were asked the question "Does your cultural background play a role in your testing"? Three themes were emerged from the data which included (a) *clinician's cultural background allowed for increased awareness and appreciation of client cultural*

variables and experiences, (b) clinicians believed their cultural background plays a role in testing but are unsure how, and (c) clinicians believed their cultural background does not play a role in testing. In addition to the three themes, an important point worth mentioning was made by a single participant related to issues of privilege.

Increased awareness of cultural issues

Almost half of participants reported that their cultural background was instrumental in empathizing with some of the struggles their clients experienced due to common cultural experiences. One participant's experience learning English echoed the thoughts many participants shared.

Yes. I think I find that I grew up in a culture in which I spoke Greek first, and then I learned English. I can understand where it's difficult to learn English especially if you are coming from another country. And most of them will tell me, the non-[native]English speaking ones, that English is a very hard language to learn.

In addition, a few participants felt that their cultural background and experiences raised their multicultural competence in working with diverse populations. Specifically, shared cultural experiences helped temper overpathologizing certain behaviors that are considered common and appropriate in non-U.S. culture. In the following example the participant who made the scoring test adaptations on the Vineland Behavior Scales stated.

Even in my culture girls aren't supposed to date until they are nineteen or twenty. So when [Vineland Behavior Scales] ask these questions "does this person go on single or group dates?", if I know the culture, then I am more likely to be more accurate in assessing your adaptive behavior. So I think my own upbringing, and being that I am of a different culture as well has helped me understand cultures that are different from my own, but they are similar in the sense that I also came from a different culture.

Similarly, a few participants indicated that the combination of their cultural background, evaluation methods, and exposure to other cultures increased their multicultural competence compared to others.

I: Does your cultural background play a role in your testing?

P: In my evaluation process? Sure it does.

I: How so?

P: The biopsychosocial interview. I think I am more sensitive than most to cultural components in a person's life.

I: Because you do this thorough evaluation?

P: Well because of my own cultural background too. I've lived in a lot of different countries. I've learned to appreciate that people aren't the same.

Uncertainty about how clinician cultural background plays a role

The second theme involved participant comments stating they believed their cultural background plays a role in testing, but they were unsure how it plays a role. A few participants felt that the role that their cultural background plays in testing is outside the realm of awareness, yet somehow they try to be aware.

I: Does your cultural background play a role in your testing?

P: Well I'm sure it does but I don't know that that would be up to the level of awareness. I think we have to, I don't know, I'm sure it does. I try to make myself aware when there's differences and how to interpret and I give myself a latitude, wide range of interpretation, more cautions at least. I don't know quite how to say it would, it would.

Similarly, another participant stated,

Um. I'm sure it does. Uh. I mean I try not, I try, I mean it's part of, you know, who I am so I'm, it influences me in ways that I'm not even aware of. But I do try to be aware of it and you know, um, do the best that I can.

Another participant felt compelled to state that his cultural background played a role in testing without knowing a reason.

I have to say yes, but I'm not really sure how (laughs). I wouldn't know if it does.

Clinician cultural background does not play a role in testing

The third theme included participants that reported their cultural background does not play a role in testing. A handful of participants endorsed a belief that specific cultural traits do not impact testing. For instance, one participant responded in the following manner.

I: Does your cultural background play a role in your testing?

P: I don't think so.

I: If not, then how so?

P: I'm not sure. I don't think that my whiteness impacts my test giving.

For another participant, the concept of culture, including his, were not issues he considers in testing.

I: Does your cultural background play a role in your testing?

P: I don't believe so, no.

I: If not, how is it that you think it doesn't?

P: I don't attend to it.

White privilege and power in the testing process

One final point is worth mentioning as part of the results for the final research question regarding the role that clinicians' cultural background plays in testing. The statement is not part of a theme due to the fact that only one

participant endorsed this salient and cogent point about the role of his cultural background. The participant recognized some of the privileges and power associated with his cultural background. Further, he acknowledged that his position as the examiner is also linked to his privilege.

I: Does your cultural background play a role in your testing?

P: Yeah and again when you're part of the forest you don't see the trees. The fact that I'm the one doing the testing is probably the product of being, you know, the benefit of White privilege much of my life. So the fact that I'm the one sitting on this side of the table with the tests and being the one to administer it to them is in some way part of my cultural background and some of the benefits that I've had. And that's the first thing that comes to my mind.

In addition, the participant also felt it was important to acknowledge issues of power and address those issues by engaging in conversations that attempt to make the client feel comfortable.

Well, I'm pretty aware of being a White male even though this is a significantly Hispanic sort of community. I'm aware of the power differential. I'm aware of needing to sort of address that with them or at least acknowledge that. That's most obvious to me with therapy clients, but, it will be addressed in the testing situation as well. I am kind of doing that in the context of "my appointments are at night, we're in this situation. This person works for the university and I'm a White male. This is your background and how does this feel? Anything we can do to make this comfortable for us, for you?" So we'll have those types of conversations.

Overall, most participants reported that their cultural background played a role in testing. Several clinicians stated that their cultural background helped with delivering culturally competent services because they have shared some of the same struggles as their clients. Moreover, this deeper understanding of cultural nuance tempered overpathologizing of behaviors that are appropriate in non-U.S. cultures. The second theme illustrated that some clinicians believed their cultural background played a role in testing, but the manner in which it did is elusive to

them. In the third theme, participants expressed beliefs that their cultural background plays no part in testing either because they do not attend to issues of culture or they felt their culture is irrelevant to the testing process. Lastly, only one participant recognized the influence of his privilege and power as a White person on the testing process. In addition, he was cognizant that clients may react adversely to someone of his cultural background, and therefore engaged in conversations to very respectfully build rapport with the client.

CHAPTER IV

DISCUSSION

The purposes of this study were to explore (a) clinicians' definitions/conceptualizations of acculturation, (b) clinicians' perceptions of the role of acculturation in the testing process, (c) the method in which acculturation is assessed, (d) clinicians' perceptions of the challenges of testing clients who are culturally different from themselves, and (e) clinicians' perceptions of the role of their cultural background on the testing process.

Definition of Acculturation

Based on the analysis from this study clinicians define acculturation in terms similar to unidimensional formulations of acculturation. That is, they equated the acculturation process as one in which an individual transitions from his or her culture of origin toward absorption of the dominant or host culture (Gordon, 1964). Inherent in this paradigm is the expectation that migrant populations trade-off the beliefs, values, and practices of the culture of origin for those of new (dominant) culture. Moreover, the results confirm Schildkraut's (2007) finding that many Americans believe earlier European waves of immigrants to the United States assimilated in a similar fashion. In addition, some of the views espoused by participants confirm previous assertions that newer migrants are criticized for not following the trajectory of assimilation (Huntington, 2004).

The unidimensional model of acculturation has been criticized for several decades by researchers (Berry, 1970, 1980, 1997; Cuellar et al. 1995; Marin &

Gamba, 1996) for failing to recognize maintenance of the heritage culture as part of the acculturation process. Clearly missing from the definitions generated by most participants is the notion that individuals can maintain ties to their culture of origin while integrating into a new culture. The bidimensional or fourfold model, largely credited to Berry and his associates (Berry, 1970, 1997; Berry & Annis, 1974; Berry et. al., 1989), addressed the shortcomings of the unidimensional model by incorporating cultural maintenance as a second and independent dimension from cultural adaptation. The fourfold model suggests that based on migrants' valence for cultural maintenance and adaptation, four acculturation strategies are possible including assimilation, separation, integration, and marginalization. The analyses from this study showed that few clinicians recognized cultural maintenance as an integral component of the acculturation process. Although it remains unclear to what degree these anomalous participants are familiar with bidimensional acculturation theory, it is evident that their definitions of acculturation are more expansive than those provided by participants who described unidimensional formulations. Participants who recognized cultural maintenance alluded to a "successful" balance between maintaining a distinct ethnic identity and incorporating the new culture. This is also congruent with Berry's (1997) assertion that the integration strategy is the most preferred, adaptive, and recommended.

However, Berry's contention that integration is the most adaptive strategy has been called into question (Rudmin, 2003). Rudmin reexamined findings from the first eighteen samples studied that were cited by Berry (1997) as evidence that

integration is the most successful adaptation strategy. Rudmin posited that for integration to be deemed the most positive form of adaptation three criteria should be observed in the data: (a) integration should be significantly negatively correlated with measures of maladaptation (i.e., operationalized as marginality and stress), (b) negative correlations should be significantly more negative than the corresponding correlations for the assimilation and separation strategies and maladaptation measures, and (c) the R^2 values of the negative correlation should demonstrate substantial effect sizes. In his analysis Rudmin found that (a) two thirds of the correlations (28 of 33 correlations) were non significant between integration and maladaptation, (b) only twice was a negative correlation of integration and maladaptation significantly more negative than the corresponding correlation for assimilation and separation, and (c) integration attitude accounted for 15% or less of the variance in maladaptation. Thus Rudmin concluded that the evidence from these initial studies does not favor an argument to necessarily promote integration.

Based on the analysis from the current study, participants did not directly endorse more contemporary conceptualizations of acculturation. These models of acculturation seek to expand and reformulate aspects of previous paradigms. For instance, Schwarts and his colleagues (2010) have expanded the bidimensional model to include three components that are assumed to change (i.e., valance between culture of origin and new culture) in the acculturation process which include cultural practices, cultural values, and cultural identifications.

The domain-specific model contends that an individual's inclination for cultural adaptation and maintenance may vary across the life domains and situations (Arends-Tóth & van de Vijver, 2006b). The domain-specificity model proposed by Arends-Tóth and van de Vijver (2003, 2006b) integrates the unidimensional and bidimensional models and contends that acculturation can be viewed as a four-tiered hierarchical concept. Within this formulation individuals can engage in multiple acculturation strategies simultaneously depending on the life domain (public vs. private), situation, or setting. The results showed that one participant alluded to thinking about domain specific issues when he described the acculturation questions he asks in the clinical interview. Again, it is unclear if he is aware of a domain specific model of acculturation, but his conceptualization of what is significant regarding the acculturation process suggests assessing life domains is important.

Perceptions of the Role of Acculturation in the Testing Process

Previous research has found that acculturation is an important factor to consider because it serves as a moderating variable in psychological assessment (Cuellar, 2000; Dana, 1993, 1998, 2005; Thompson, 1999). Results from this study also found that most participants' believed acculturation plays an important role in the testing process. Specifically, participants' perceptions are supported by previous research which has found that less well acculturated individuals perform differently on standardized tests due to unfamiliarity with Western concepts, values, and/or the test stimuli (Bachran 2002; Dana, 1995, 2002, 2005; Hall, Bansal, & Lopez, 1999; Razani et al., 2007; Velasquez, Callahan, &

Carrillo, 1991). It was apparent that most clinicians were cognizant of the cultural bias inherent in many standardized tests and demonstrated awareness that the client's unique worldview, cultural experiences, and values can color test performance.

However there was a subset of clinicians who discounted the role of acculturation in the testing process, particularly in situations where the client is considered for unskilled labor jobs. The presumption that acculturation is unimportant for low skilled employees can exacerbate the acculturative stress that is often experienced by individuals who are unemployed or underemployed (Aycan & Berry, 1996). Specifically, Aycan and Berry developed and tested a model that demonstrated that employment-related experience has a significant role in predicting psychological well-being and adaptation to the host country. Thus, in the testing process, even when a client scores in a range that is commensurate with a desired vocation, issues of acculturation are important to consider when making recommendations for job accommodations or placement.

The results also demonstrated that clinicians are concerned about the validity of assessments conducted with multicultural populations. More specifically, it is unclear to many participants to what degree the norms of standardized tests can be applied to clients from diverse cultural backgrounds. Consequently, the results indicated that, in consideration of client acculturation, participants altered their test selection and implemented adaptations to test administration and scoring. They also made adjustments to test interpretation and report writing. To the author's knowledge this is the first study to explore the

influence of acculturation on psychologists' testing practices. However, the findings demonstrated that psychologists are heeding the call of researchers and the APA to address issues of acculturation in testing. For instance, Van de Vijver & Phalet (2004) proposed three reasons for assessing acculturation, one of which is to detect acculturation-based biases in psychological tests (e.g., construct bias, method bias, and item bias). Depending on a person's level of adaptation to the dominant culture it is possible to make two determinations: (a) if the client is considered to belong to the population for which the test has been developed, and (b) if the instrument is suitable enough for the client that it can measure the intended construct. The findings from this study suggest that participants are asking themselves these questions and deciding which tests to select or omit based at least in part on acculturation factors.

Adaptations to standardized tests and non-standard test interpretation based on client cultural features or level of acculturation is another area in which there is paucity in the research literature. However Dana (1996, 2005) has asserted that adaptations are mandatory to increase the validity of test interpretations whenever standard test norms are inapplicable. He has also argued that measuring acculturation helps estimate the potential contribution of cultural variance to an assessment procedure and can be applied as an adaptation for cultural differences. In this way an assessor can make a more informed decision whether standard measures can be administered and interpreted without modifications. It appears that some psychologists in this study share similar views and have taken it upon themselves to deviate from the standard

administration or scoring procedures in order to increase the validity of the assessment.

Assessment of Acculturation

Researchers have called for the assessment of acculturation within the context of psychological testing (Arends-Tóth & Van de Vijver, 2006b, Dana, 1996, 2005). To the author's knowledge this study is the first to explore psychologists' assessment practices of acculturation. The results demonstrated that most participants assessed client acculturation through their clinical interview. This finding sheds some new, albeit not surprising, light on clinicians' practices in the assessment of acculturation. In the past, acculturation researchers have made general suppositions that acculturation is rarely, if ever, assessed by clinicians (Arends-Tóth & van de Vijver, 2006b; van de Vijver & Phalet, 2004). It is unclear from these authors' statements how broadly or narrowly they define assessment. Nonetheless, participants generally obtained acculturation information through the interview for the purpose of making testing decisions (e.g. method of interpretation, test adaptations, selection/omission of tests) and diagnostic formulations. However, it is also evident that what constitutes assessment of acculturation (e.g., which cultural domains are assessed, level of comprehensiveness of the assessment, how questions are asked, etc.) varies widely among clinicians. Given that most clinicians endorsed a unidimensional conceptualization of acculturation, it seems likely that they are trying to determine where on the continuum of assimilation the client falls. Although an empirically validated interview is still lacking, researchers have offered semi structured intake

forms and questions to obtain client cultural information during the interview (Roysicar, 2005; Takushi and Uomoto, 2001). For instance, Takushi and Uomoto suggested a multiculturally sensitive interview and mental status exam in which clinicians can pose questions related to how clients meet basic human needs.

With this approach one can tap into culturally relevant issues since the manner in which any individual expresses a need or concern is culturally derived.

Specifically, Berg-Cross and Chinen (1995) recommended using items from the Person-in-Culture Interview which are associated with four criteria relevant to assessing multicultural clients including (a) know the client's culture-specific definition of deviancy, (b) know what accepted norms of behavior are, (c) be familiar with culturally acceptable methods of social influence (e.g., advice from elders or healing rituals), and (d) know what community resources are available to the client which are likely to be used.

The study also found that few participants are familiar with standardized measures of acculturation and only one used standard measures in the past. These findings confirm past suppositions that use of standardized acculturation measures in clinical practice is rare and that most clinicians lack awareness of measures (Arends-Tóth & van de Vijver, 2006b). Further, those participants that were familiar with formal measures regarded them as lacking in utility due to their oversimplified conceptualization of the acculturation construct. Betancourt and Lopez (1993) have also accused acculturation measures to be of limited usefulness because they primarily use proxy variables such as language usage and birthplace to indirectly measure cultural values. In addition, they argued that

acculturation is a poor measure of cultural influences because it may be confounded with acculturative stress. In other words, acculturation indices may be indirect measures of adherence to cultural values, but they may also be indicators of stress associated with adjusting to the dominant culture. Dana (1996) conceded that the relationship between distress and acculturation varies from one study to another depending on the sample and indices used to measure acculturation and distress. However, Dana also concluded that advocating for disuse of acculturation measures is premature based on meta-analytic data (Moyerman & Forman, 1992) that demonstrated that acculturation may or may not be accompanied by maladjustment.

Additional support for the participants' perceptions that acculturation measures lack utility is found in Rudmin and Ahmadzadeh's (2001) research of Berry's fourfold scales. Based on their analysis of previous studies and new data, they cited poor operationalization of constructs, the ipsative nature of the fourfold constructs, acquiescence bias, and poor psychometrics as evidence for the inadequacy of the measure.

Despite the criticism related to certain measures of acculturation, some researchers continue to push for the assessment of acculturation using standard measures (Dana, 1996; Thompson, 1999). As previously stated in the introduction, Arends-Tóth & Van deVijer (2006b) developed five guidelines for assessing acculturation that address some of criticisms described. Dana concedes that an interview format may be appropriate for people with limited education, but generally decries unstructured interviews as a method for acculturation

assessment because it is difficult to quantify and obtain reliability and validity information. In addition, Thompson asserts that selecting an appropriate acculturation measure is a more judicious and accurate means for obtaining acculturation information.

The study also found that there are clinicians who stated they do not assess acculturation during the testing process. However, broad generalizations can not be made about this group because the reasons for not assessing acculturation varied widely. For instance, a couple of psychologists reported not assessing acculturation per se but were mindful of how cultural factors impacted testing. It was also evident from these participants' responses that they engaged in the testing process in a culturally sensitive manner. On the other hand, the rationale from a few other psychologists demonstrated contrarian views to those suggested by researchers who advocate for culturally competent assessment (Allen, 2007; Dana, 2005; Hernandez, Horin, Donoso, & Saul, 2010). Some of the comments made by these participants appeared to be based on faulty assumptions about the experiences of multicultural populations in pluralistic societies and/or the expectation of assimilation to the dominant culture. For instance, a Caucasian psychologist made the assumption that he and the English-speaking African American and Latino clients he decides to test shared the same dominant American cultural upbringing. Another psychologist made the assumption that diverse cities are culturally safe places for members of multicultural populations and that having immigrant parents does not impact acculturation experiences. A third psychologist believed all people regardless of culture should conform to a

single normative standard. For these reasons acculturation assessment was believed to be unnecessary.

First, these beliefs dismiss the acculturation experiences and struggles of African Americans and Latinos who were born and raised in the United States (Cole & Arriola, 2007; Dana, 2005; Rogler, Cortes, & Malgady, 1991). Second, English language proficiency is erroneously used as an indirect indicator of cultural values which may be distinct from the dominant American culture (Arends-Tóth & van de Vijver, 2006b; Betancourt & Lopez, 1993; Schwartz et al., 2010). Third, the idea that a single normative American identity or standard exists in the United States is empirically unsupported (Schildkraut, 2007). Fourth, as culturally safe as an ethnic enclave might be for multicultural populations, it is foolhardy to assume that engaging with societal institutions (e.g. vocational rehabilitation, educational institutions, etc.) and service providers who are culturally different from the client is perceived as safe by the client (Dana, 2005) or equitable (Wilson & Senices, 2010). Lastly, questionable assumptions and beliefs such as those endorsed by some of the psychologists in this study signals the need for greater cultural competence in assessment. Unless psychologists are willing to engage in the ongoing process of building their awareness, knowledge, skills and apply these components in their practice, clients may continue to face poor outcomes (Balcazar et al., 2010).

Challenges of Assessing Culturally Different Clients

The practice of psychological assessment is a complex and challenging endeavor in the best of circumstances. The results from this study demonstrated

that clinicians perceived that an additional challenge was the extra effort expended by the clinician in testing multicultural populations. Specifically, extra effort was often required of clinicians in building rapport, learning about cultural differences, bringing awareness of one's culture to the fore, and interpreting test data. Additionally, the extra effort sometimes led to feelings of frustration with various aspects of the testing process. Many of these findings speak to the much larger issue of the inadequacy of standardized test usage with multicultural populations (Dana, 1993, 2005; Hernandez et al. 2010; Samuda, 1998; Suzuki, Ponterotto, & Meller, 2001). Due, in part, to the inadequacy of standardized tests in validly assessing multicultural population, researchers (Behuniak, 2002; Dana, 1998; Hambleton, 2005) and the APA (1993, 2002) have called for clinicians to make adaptations and consider culture in their interpretation. Taking the initiative to answer this call can take extra time and mental energy. It requires collecting acculturation information in order to make decisions about adaptations, implementing adaptations, scoring, and interpreting results that may or may not be valid. It is also justifiably frustrating having to contend with one's own personal limitations as an assessor (e.g., monolingual English speaker) and the limitations of psychological testing (e.g. inadequate test psychometrics for the member of the cultural group being tested , lack of normative samples for the member of the cultural group, lack of nuanced measures of acculturation).

The extra effort that psychologists gave in testing members of multicultural populations may also be an indicator of cultural competence in assessment. Becoming a more culturally competent clinician requires extra work:

to learn about and understand different cultures, build rapport, and simultaneously be aware of one's own worldview. Balcazar et al. (2010) described the first step toward cultural competence as willingness to engage in the process. They also suggested that the process itself is an ongoing life-long endeavor of personal growth that leads to an improved ability to adequately serve people who behave, think, and look different from ourselves. As one participant described the challenge of testing people who are culturally different from him, it can be an uncomfortable process to face one's biases and try to see things through the eyes of someone different.

Conversely, the results also demonstrated that some people do not find testing people who are culturally different from themselves challenging. More specifically, some credit their extensive training in multicultural assessment in graduate training, vast amount of testing experience with diverse clients, or a keen ability to keep issues of culture from becoming challenging. On the one hand, it appears that the APA's (1996) increased emphasis on greater cultural competence in accreditation over the last 20 years has paid dividends among some psychologists. On the other hand, the tenets of cultural competence tell us that cultural competence is a life-long process of *becoming*; therefore, one never fully achieves cultural competence because culture and knowledge are always evolving (Balcazar et al., 2010). Hence, it may be naïve to think that all the training any graduate program could provide, all the tens of thousands of assessments one could administer in 30 years, or the presumed ability to halt culture at the assessor's door, could prevent intercultural exchanges from being at least slightly

challenging. In the final analysis, the results demonstrated that psychologists approached testing from a variety of paths in which some are sensitized to culture, while others appeared desensitized to it. The multicultural competence and assessment literature reminds us that ignoring cultural differences creates and strengthens barriers and conflicts between groups, which may exacerbate racism, prejudice, discrimination, mistrust and related undesired outcomes (Balcazar et al.; Dana, 2005; Suzuki et al. 2001). Attending to issues of culture can be overwhelming and desensitization to culture may be a mechanism for coping with the complexities of testing culturally different people. However, it is important to keep in mind the inherent difficulty of understanding the worldview of any person whether culturally similar or different (Yalom, 1980). As one of the participants from the study stated:

The bottom line is your dealing with humans and there are a lot of similarities across cultures but there's as much variations within a culture, so you're always trying to figure out what make sense and what doesn't make sense.

Perception of Clinicians' Cultural Background on the Testing Process

The process of conducting psychological assessment involves an intercultural exchange between at least three parties: the test developer, the clinician administering the tests, and test taker. Little to no attention has been paid in the research literature to the perceived role of the clinicians' cultural background in the assessment process (viz., self-awareness of one's own culture). To the author's knowledge this is the first study to explore psychologist's perceptions of the role of their cultural background in testing. Overall the study found that most clinicians perceived that their cultural background allowed for

increased awareness and appreciation of client cultural variables and experiences. In other words, clinicians empathized with the struggles their clients encountered or had an awareness and knowledge of cultural nuances based on similar cultural experiences. This, in turn, influenced interpretation of test results and/or behavioral observations. This finding underscores the value and utility of the APA's diversity policies (APA, 1993, 1996) of increasing the diversity (e.g., cultural, gender, sexual orientation, disability, religions, etc.) of clinicians, faculty, and students within the discipline of psychology. With a greater diversity of psychologists and attention to issues of culture and acculturation, inroads are made towards addressing the Euro-American bias prevalent in the theories, interventions, and psychometric instruments of psychology (Constantine & Sue, 2005).

The results also found that some psychologists are uncertain of the role their cultural background plays in testing, while others believed it does not play a role. Specifically, some psychologists reported an elusive awareness that their cultural background is part of the assessment equation. However, it appeared they are still struggling to understand how it plays a role. Other psychologists either did not attend to their cultural background or dismissed the role it may play in testing entirely. From a multicultural competence perspective these findings highlighted issues related to self-awareness. On the one hand, the uncertain participants showed signs of positive progress toward cultural competence (Balcazar et al., 2010), yet have not developed their cultural awareness beyond the point of recognizing that their own culture is a factor in their assessment work.

On the other hand, the need for cultural competence training was particularly evident from the participants who denied the role of their cultural background in testing (Matteliano & Stone, 2010). The APA's Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists (APA, 2003) have addressed the importance of clinician self-awareness through its principles and guidelines. For instance, the second principle calls for psychologists to understand and recognize how their own cultural identities affect interpersonal dynamics in their practice (Constantine & Sue, 2005). The fifth principle states that psychologists are able to promote racial equality and social justice when they are aware of their impact on others and the influence of their personal and professional roles in society. Further, the first guideline calls for psychologist to recognize that they may hold attitudes or beliefs that can detrimentally influence their perception of and interactions with people who are culturally different from themselves (APA, 2003). Therefore, culturally competent psychologists among other things are aware of their own cultural assumptions and are cognizant that their worldview is neither universal, nor objective (Ibrahim, Roysircar-Sodowsky, & Ohnishi, 2001; Sue et al., 1992).

In sum, the findings from this study regarding participants' perceptions of the role of their cultural background in testing demonstrated a wide range of perspectives. The most notable contrast was that between the participants who believed their cultural background did not play a role in testing, with that of a single participant who was aware of his White privilege and power and how this might affect the client's performance and feelings of comfort. Recognition of

White privilege is an essential aspect of engaging with culturally different clients in an authentic manner and providing culturally competent services (Case, 2007; Sue & Sue, 2008). Lastly, the role of psychologists' cultural background in testing was explicitly noted by Roysircar (2005) who asserted that all assessment questions are influenced by the psychologist's culture and level of comfort with his or her own cultural identity. Thus one of the challenges facing clinicians is how to apply this principle to their assessment practices. When clinicians are genuinely self aware of their power and privilege (e.g., White privilege, male privilege, heterosexual privilege, social status, power to influence client life choices and options, etc.), they can start to engage in honest and collaborative conversations with clients to address these issues which may potentially impact the testing process.

Contributions and Limitations of the Study

This study has several contributions to the research literature and methodological limitations that are important to note. In terms of contributions, this study is unique in that it is the first to qualitatively explore the perceptions and practices of psychologists who conduct psychological assessment. Specifically, this is the first study to examine psychologists' conceptualization and assessment of acculturation in the context of psychological testing. Prior to this study, theory and supposition were what the literature had to offer regarding the use of acculturation measures in assessment. This study was also the first to qualitatively investigate psychologists' use of adaptations to standardized test administration, scoring and subsequent interpretations based on client level of

acculturation. The call was made by researchers (Cuellar, 2000,; Dana, 1996) to include corrections that address cultural bias in testing, and this is the first study to shed some light on the rationale for and types of adaptations implemented. Lastly, this is the first study to explore psychologist's perceptions of the role of their cultural background in the testing process. The literature is plentiful in examining the role of client cultural factors in testing, yet the culture of assessors has largely been ignored until now.

The conclusions that are drawn from this study must be evaluated by also considering its methodological limitations. The first limitation is sampling bias. A convenience sample, participants were subjects from an earlier study related to psychological assessment practices. It is possible that subjects who agreed to participate in a study about acculturation and test adaptations were more interested in sharing their views related to issues of culture than those who did not participate. In all likelihood the participants were more engaged in and favorable toward recognizing and addressing acculturation issues in testing than a random sample of clinicians who do considerable testing in their practices. Sampling bias and the shared quality among participants of testing for vocational rehabilitation also limit the generalizability of the findings to psychologists who may test different populations. Future research should include psychologists who are not self-selected to participate in a study related to issues of culture.

Second, the interviews were conducted over telephone which limited the author's ability to observe participants non-verbal behavior. In-person interviews likely would have provided more context to the data. On the other hand, a

telephone interview could also serve to eliminate potential bias (from the participants and the author) based on physical appearance. In addition, participants may have felt freer to express their true opinions related to sensitive topics such as culture.

Another limitation was the retrospective nature of the interviews. Some of the questions asked participants to recall past testing practices (.e.g., assessment of acculturation in the past, reason and use of test adaptations in the past) which may have been influenced by recency and primacy effects. In addition, the responses provided by participants of their testing behavior in the past may have been colored by their current developmental age and not necessarily reflect their state of mind at the time. These considerations suggest the need for prospective longitudinal research that tracks psychologists' perceptions and testing practices over time.

Implications for Theory, Research, and Practice.

The findings from this study have several further implications for future research and practice. First, although a plethora of standardized acculturation measures have been developed, theoretical questions persist about the definition and operationalization of acculturation (Rudmin, 2003; Schwartz et al., 2010). Acculturation theory has advanced in addressing the limitations of previous conceptualizations and recognizing the complexity of the construct in real life. However, the utility of formal acculturation scales is questioned based on poor psychometrics and theoretical weaknesses (Rudmin & Ahmadzadeh, 2001). Research is needed to address the theoretical gaps of the acculturation construct in

order to develop scales based on sound theory as well as those with good psychometrics.

Second, several researchers have asserted that formal measures of acculturation should be used to conduct culturally competent psychological assessment with members of multicultural populations (Arends-Tóth & Van deVijer, 2006b; Cuellar, 2000; Cuellar et al., 1995; Dana, 1996, 2005; Thompson, 1999). However, it is unclear if contemporary acculturation measures used in research were also designed for the purpose of aiding assessors to make testing decisions based on the results. Research is needed to examine the specific qualities assessors may require from an acculturation measure. The findings from this study indicated that most assessed acculturation informally through the interview and the few psychologists who are aware of formal acculturation measures also perceive them as lacking in clinical utility. To increase awareness and utility, researchers need to involve the end users including both clinicians and their diverse clients (Patton, 2002) in developing an acculturation instrument. Further researchers may usefully consider moving beyond or augmenting the paper-and-pencil self report measures that abound, with a validated structured or semi-structured interview. For example, a structured interview of acculturation was recently developed and validated for use with children based on Berry's framework (Nigbur, D., Brown, R., Cameron, L., Hossain, R., Landau, A., Le Touze, D., et al., 2008). However, there is no such empirically validated interview procedure yet for adults.

Third, the results from this study demonstrated that psychologists often make adaptations and modifications to standard test procedures and interpretation due to the cultural incongruence between psychological tests and the test takers. Research is needed by test publishers to develop testing instruments that take into consideration the growing diversity of people who undergo psychological, educational, and vocational testing. This research includes but is not limited to expanding the normative samples to more adequately include multicultural populations and people with disabilities, developing local norms where appropriate, and ensuring construct and language equivalence. Although Dana (1996) has advocated for test “corrections” in light of the limitations of contemporary measures, he concedes that these adaptations are temporary solutions until culture-specific measures are available. It is important to remember that test publishers are first and foremost a business, and redesigning or re-norming tests is expensive. Having culturally valid tests will make them much more acceptable to both psychologists who conduct multicultural testing and the individuals whose lives may be shaped by the testing process and results. Thereby the markets of these businesses may be increased. There are approximately 48.4 million Latinos, 37.6 million African Americans, and 13.6 million Asian American in the US today (U.S. Census Bureau, 2010). These are significant markets for whom culture specific tests could be developed. However, it is incumbent on psychologists and the APA to place political and fiscal pressure on test publishers to make this line of research and development a priority. Pursuing this agenda or maintaining the status quo means psychologists may face major

ethical dilemmas. If psychologists continue to use current testing instruments only with people who are adequately represented in norming sample, large segments of the population would not be well served (e.g. immigrants, non-English speakers, etc.). If psychologists continue to test without regard for cultural variables or implement test adaptations as quick fixes to address cultural bias in current measures without making their concerns known, then test publishers may lack the ethical and financial incentives to make needed changes since psychologists and organizations still purchase their testing materials.

The field could benefit from an assessment task force that includes various stakeholders such as test publishers, researchers and practitioners under the aegis of relevant Divisions of the American Psychological Association (e.g., Divisions 5, 12, 16, 17, 18, 22, 40, & 45). Such a task force could develop a joint action plan for developing needed measures including both assessment and acculturation measures.

Fourth, the results of this study highlighted several challenges the psychologists perceive when testing clients who are culturally different from themselves. Although, the study had a focus on perceived challenges, more open-ended questions were initially asked about clinicians' thoughts of testing culturally different clients. Nonetheless, only themes related to challenges emerged. Future research of psychologist perceptions can also valuably focus on the perceived and actual benefits of multicultural assessment for the clinician. Working with diverse people can be an enriching experience that offers

opportunities to think and connect with others in new ways, or can serve as vehicle for personal and professional growth and renewal.

Finally, the study has implications for practice. First, the high-stakes nature of testing in VR means clients have much to gain or lose depending on the quality and cultural sensitivity of the assessment. This study demonstrated that although many clinicians consider issues of acculturation in testing, a subset do not which many result in decreased opportunities for some clients due to invalid assessments. Clients are usually unaware of the limitations of psychological assessment which may hamper their ability to be critical consumers of psychological services. Client advocacy services may be helpful in empowering and educating clients about strengths and limitations of psychological assessment

Second, it was apparent from some participant's responses that cultural competence training could be beneficial to psychologists. It is important to keep in mind that we all could use cultural competence training, given that we are engaged in a life-long learning process (Balcazar et al., 2010). A phrase that is often presented as a mantra for students and professionals in clinical and counseling psychology programs is "know thy self." All the knowledge that one could possibly learn about the traditions and customs of world cultures is nearly pointless unless one is self aware of one's values, worldview, and biases. Many clinical and counseling psychology programs accredited by the APA are working to seamlessly weave issues of culture into their curriculum (APA, 1996). However, it is unclear to what extent, if at all, graduate programs expose students to theories and measures of acculturation and its implications for the testing

process. What is clear from this study is that several psychologists continue to conceptualize acculturation in a manner that most acculturation and multicultural psychology researchers would consider archaic (Arends-Tóth & Van deVijer, 2006b; Cuellar, 2000; Cuellar et al., 1995; Dana, 1996, 2005; Rudmin, 2003; Schwartz et al., 2010; Thompson, 1999). Therefore, it is important that graduate training curricula stay current with the advances in theory, research, and practice and that clinicians are life-long learners about culture and diversity.

Conclusions

The principles of cultural competence (Balcazar et al., 2010; Sue et al., 1992) and multicultural assessment (Allen, 2007; Dana 2005, Suzuki et al., 2001) were used as a guiding framework in this study. The findings of this investigation emphasized the importance of these principles in attempting to conduct culturally valid assessments with multicultural populations. This is especially salient given the high-stakes nature of the testing in VR (Padilla, 2001). Critical long-term and sometimes permanent decisions are made based on test results. This study provided some preliminary evidence that clinicians' are heeding the call by researchers and the APA to assess acculturation and address cultural bias in testing by making adjustments to test administration and interpretation. It is important to keep in mind that test adaptations are temporary fixes to the inadequacies of psychological measures (Dana, 1996, 2005). Additionally, the results of this study illustrated that, notwithstanding all the conferences, articles, education and training, guidelines, and ethical codes about culture over the last

two decades, there are some clinicians who minimize it in different ways in psychological assessment.

This study was also a first step toward moving the discussion of multicultural assessment from solely focusing on the culturally different client. The discipline of psychological assessment and many assessors often operate under the assumption that standardized testing is a completely objective enterprise. However, psychological assessment involves a unique cultural interaction among the clinician, client, and testing instruments with the purpose of answering specific clinical questions. The findings from this study demonstrated that clinicians' perceptions about their clients' culture, the role of their cultural background, role of client acculturation, the clinicians' own cultural perspective and conceptualizations of acculturation influenced their testing practices. By shedding light on clinician perceptions and practices, it is hoped that this study will serve as an impetus for further scientific inquiry and psychologist self-contemplation into the role of the clinician and culture in testing. Specifically, clinician level of self awareness appears to be a primary barrier to or facilitator of multicultural assessment. Further, it is hoped that the findings regarding perceived inadequacies of psychological acculturation measures stimulate future collaborative efforts with multiple stakeholders to develop culturally sensitive instruments.

CHAPTER V

SUMMARY

Psychological testing and assessment has developed into an integral part of our society. Institutions such as the vocational rehabilitation (VR) system, which provides services to people with disabilities to gain employment, often require testing to determine whether individuals qualify and thus will be provided services given the limited availability of resources (Hayward & Schmidt, 2003a). Evidence over the last two decades has found racial/ethnic disparities between White Americans and people of color regarding acceptance rates and vocational outcomes within the VR system (Capella, 2002; Dziekan & Okocha, 1993; Hayward & Schmidt-Davis, 2003a; Herbert & Martinez, 1992; Kaye, 1998; Moore, 2001; Moore, Fiest-Price, & Alston, 2002; Wilson, 2000, 2002, 2004; Wilson & Senices, 2005, 2010). Although psychological testing has helped many people obtain services that benefit their lives, the cultural bias inherent in standardized tests and inappropriate administration of tests can lead to considerable harm to test takers.

As a method of remediating standardized test bias, a growing number of researchers and practitioners have encouraged the use of test adaptations and the assessment of acculturation (Arends-Tóth & Van de Vijver, 2006a, Cuellar, 2000, Dana, 1998, 2005; Hambleton, Merenda, & Spielberger, 2005; Van de Vijver & Phalet, 2004). The research related to test adaptations has focused primarily on educational testing practices with students with disabilities. The frequency with which test adaptations are made based on clients' race/ethnicity is largely

unknown. An exploratory study of the topic found that few psychologists made test adaptations based on client cultural factors (Hernandez et al., unpublished). The acculturation literature has focused mainly on theoretical conceptualizations of this construct and the development of acculturation measures. Missing from the research has been research concerning if and how clinicians assess clients' level of acculturation, and data on how they conceptualize this construct in the midst of the assessment process. In addition, clinicians' perceptions of testing multicultural populations and how they perceive of their own cultural background within the dynamics of assessment is another area that has not been investigated.

The purpose of this qualitative study, informed by a phenomenological approach was to explore (a) clinicians' definitions/conceptualizations of acculturation, (b) clinicians' perceptions of the role of acculturation in the testing process for clients, (c) the influence of client acculturation of clinician testing practices, (d) the method in which acculturation is assessed, (e) clinicians' perceptions of the challenges of testing clients who are culturally different from themselves, and (f) clinicians' perceptions of the role of their cultural background on the testing process.

Using a qualitative phone interview, this study explored the perceptions and testing practices of 25 clinicians who test VR clients, and results related to six key areas. First, most participants' conceptualization of acculturation closely paralleled the unidimensional model which emphasized assimilation to a new culture. Only a handful of participants provided definitions that included the cultural maintenance, while others were not familiar with the concept. Second,

participants indicated less well acculturated clients were disadvantaged in testing (i.e., superficially low test scores) due to unfamiliarity with Western concepts and values that are an integral part of most standardized tests. In addition, a group of clinicians discounted the role of acculturation in testing in situations where the client is considered for unskilled labor jobs or when testing in regions that are culturally pluralistic. Third, client level of acculturation influenced some to engage in non-standard test interpretation, adaptations to test administration and scoring, and selection and omission of specific tests. On the other hand, a few clinicians discounted or appeared oblivious to role of acculturation in the testing process, while others used acculturation as an exclusion criterion based on limits of the test battery's normative sample.

A fourth finding was that acculturation information was assessed via the clinical interview. Comprehensiveness and thoughtfulness of the information obtained varied widely. No one reported using standardized measures of acculturation but a few criticized them for their lack of utility and oversimplification of the concept. In addition, some participants reported they do not assess acculturation for reasons that range from not knowing how, to the perception and/or misperception that clients are highly acculturated or that acculturation is irrelevant, to opposition to the idea of assessing acculturation in the first place. Fifth, participants identified the questionable validity of the assessment and extra effort as top challenges of testing culturally different clients. In addition, some clinicians felt frustrated by their own limitations in assessing culturally different clients optimally, or with the fact that extra effort is required.

Still others believed that testing culturally different clients does not pose a challenge either because of their graduate training, vast experience, sense of comfort with diverse populations, or belief that all Americans share the same culture. Finally, most participants reported that their cultural background helped increase their awareness and appreciation of client cultural variables. It also helped temper overpathologizing of behaviors that are appropriate in non-U.S. cultures. Other participants believed their cultural background played a role in testing, but the manner in which it did is elusive to them. Still others felt their cultural background plays no part in testing either because they do not attend to issues of culture or they felt their culture is irrelevant to the testing process. Lastly, only one participant recognized the influence of his privilege and power as a White person on the testing process. In addition, he was cognizant that clients may react adversely to someone of his cultural background, and therefore engaged in conversations to very respectfully build rapport with the client.

Findings from this study have several implications for research. First, research is needed to address the theoretical gaps of the acculturation construct in order to develop scales based on sound theory as well as those with good psychometrics. Second, in collaboration with end-users, research is needed to examine the specific qualities assessors may require from an acculturation measure. Further, researchers may usefully consider moving beyond or augmenting the paper-and-pencil self report measures with a validated structured or semi-structured interview. Third, research is needed by test publishers to develop testing instruments that take into consideration the growing diversity of

people who undergo psychological, educational, and vocational testing. Also a multiple stakeholder assessment task force is needed to develop a joint action plan for developing needed measures including both assessment and acculturation measures. Fourth, while understanding challenges is important, future research is also needed regarding the perceived and actual benefits of multicultural assessment for the clinician. Finally, a research agenda that focuses on clinician self-awareness as a barrier to or facilitator for multicultural assessment would be a valuable addition to the assessment literature. It was apparent from some participants' responses that cultural competence training could be beneficial to psychologists. It is important that graduate training curricula stay current with the advances in theory, research, and practice and that clinicians are life-long learners about culture and diversity.

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Appendix A

Interview Protocol

Acculturation and Test Adaptation Study

Opening Remarks: Hello. Thank you for agreeing to participate in this study. We will spend about 40 to 45 minutes discussing some questions about you and your thoughts about testing. Specifically, I am interested in your approach to testing with the people who are referred to you from the VR system.

Before we get started, I want to make sure you understand your rights as a participant. Your participation in this study is completely voluntary and there will be no negative consequences if you choose not to participate or if you change your mind later. Also, you are not required to participate by your employer and your decision to participate (or not participate) will not affect your employment. Please keep in mind that your name and any other identifying information will not be associated with any of the responses that you provide, and as a result they are anonymous. For your time and effort you will be compensated with \$50 in gift cards. Do you have any questions before we begin?

Participant background

1. How long have you been testing over all?
 - a. Where do you practice?
 - b. What interests you the most about testing? The least?
 - c. How long have you been testing for VR?
 1. How often do you test people from VR?
2. Could you tell me where you went for graduate school and what type of program it was? (i.e. Clinical, Rehabilitation, School, etc.)
 - A. What degree did you earn?
3. Could you tell a little about your cultural background?
 - A. Where were you born?
 - B. Where did you grow up?
 - C. Would you mind telling your date of birth?
 - D. Are you fluent in any non-English languages? If so, which one(s)?

Approach to testing

4. Let's switch gears a little. Could you spend some time describing your approach to testing? For instance, what are some the things you think about when you first get the name of a referral?
 - A. What type of assessments do you perform?

- a. How do you decide which testing instruments to administer?
- B. Describe the clients/patients do you typically assess for VR?
 - a. What types of disabilities do they have?
 - b. How often do you assess people who are culturally different from you?
 - 1. What are they like?
 - a. Do you test non-English speakers?
 - b.
- C. Could you describe your process for administering tests?
- D. Please describe your approach to interpreting test results?
 - a. What information do you include in your reports?

Acculturation

- 5. Now we are going to switch gears a little again. Please tell me your definition or your understanding of acculturation?
- 6. What role, if any, might acculturation play in testing?
 - A. When you've tested people, have you ever assessed acculturation in the past?
 - a. YES
 - 1. For which clients?
 - 2. At what point in the testing process?
 - 3. What information about acculturation do you hope to obtain?
 - 4. How do you get this information?
 - a. Ever use any standard measures? Which ones?
 - 5. How do you use acculturation information in the testing process?
 - b. NO
 - 1. What are some reasons acculturation is not assessed?
 - 2. Can you think of situations in which you might assess acculturation?
 - a. Which ones?
 - b. For what reasons?
 - c. How would you assess acculturation?
 - d. How would you use this information?

Test Adaptations

- 7. When testing clients of the VR, have you ever made any kind of test adaptation or accommodations?

A. YES

- a. Describe some of the reasons you made adaptations?
 1. What type of test adaptation?
 2. For which clients?

B. NO

- a. Describe some of the reasons you have not made test adaptations in the past?
- b. Could you think of a situation in which you might make a test adaptation?
 1. What type of adaptation?
 2. For which clients?

Participant Role

8. When testing clients who are culturally different from you, what thoughts do you have?
 - A. Are those thoughts similar to those you have when testing any other person?
 - a. If yes, how so?
 - b. If no, are those thoughts different? If yes, how so?
 - B. Is testing people who are culturally different from you ever challenging?
 - a. If yes, how so?
 - b. If no, what makes it not challenging or different?
 - C. Does your cultural background play a role in your testing?
 - a. If yes, how might your cultural background interact in testing?
 - b. If not, how so?
 - D. Did your graduate training address testing diverse populations?
 - a. If so, how?
 - b. To what extent did your graduate training prepare you to conduct assessments with members of diverse populations?
 1. Especially people from other racial and ethnic groups?
 2. And people with disabilities?
9. What other thoughts do you have about testing, adaptations, or acculturation?

Let me summarize what we have discussed:

Reminder that your responses are confidential.

May I call you if I need to clarify anything?

Thank you for participating!

Appendix B

Final Coding Manual

Acculturation conceptualization/definition

1. **Bidimensional conceptualization** - Emphasis on the idea that a person can maintain their own cultural identity while integrating cultural components of the dominant/host culture. No mention of acculturation within different life domains.

Ex. “My understanding of acculturation is the degree to which an individual has successfully maintained their own cultural identity while incorporating and assimilating the cultural identity of the host community.”
2. **Unidimensional conceptualization** - Emphasis on the idea that a person assimilates to or becomes familiar with the dominant culture, mainstream society, or host community. No mention of cultural maintenance of person’s own culture (e.g. Unidimensional model of acculturation)

Ex. “Acculturation, how a person becomes... how an ethnically diverse person becomes acculturated to the main stream of society.”

 - a. **Adapt to local culture** - Emphasis on the idea that a person can integrate or adapt to the local culture (e.g., neighborhood, city, state) and not necessarily the dominant culture. Cultural maintenance is not mentioned

Ex. “I would say acculturation is a multi-factorial constellation of factors that assists you in joining in with the local culture not necessary the dominant culture. And so you can be.... if you live in east LA you know, 90 something % of the people are Hispanic and Spanish speaking. You can go your, you can go a whole day without hearing any English”
3. **Unfamiliar with acculturation** - Clinician is not familiar (or does not seem familiar) with concept of acculturation

Ex. Um. I’m not sure what would be my.... Well, there would be um.... How much a person is still.... is integrating into their own culture which would be a little bit of a sub-culture of the general culture.”
4. **Bidirectional influence of acculturation** - Emphasis on the idea that in the process of acculturation a group adopts characteristics from another group. Adoption of characteristics may be from majority to minority or minority to majority.

Ex. “Acculturation is the process by which one group takes on some of the cultural characteristics of another and that can go either way from majority to minority, or minority to majority.”

5. **Domain-specificity conceptualization** – Emphasis on the idea that it is important to obtain information about various life domains (e.g., work, school, home, family, friends, etc.)

Role acculturation plays in testing for client

1. **Poor test performance** - The idea that people who are not acculturated to or familiar with the dominant culture may perform poorly on standardized tests. Results from standardized tests may not adequately demonstrate the person's abilities, and may be adversely affected by the testing process.
Ex. "Well, if they are not very acculturated, some of the items on the WAIS-IV, like the Information subtest, tends to be probably the most influenced by cultural, certainly American education."
2. **Unfamiliar with dominant culture** - The idea that people who are not acculturated to or familiar with the dominant culture may be disadvantaged because they may be unfamiliar or uncomfortable with testing procedures (e.g. test stimuli), Western notions or perceptions of mental health, cultural norms or mores.
Ex. "Well if the person is not familiar with the norm or the mores of the culture they are living with, it can affect them negatively."
Ex. "In the clinical interview if they come from a culture where mental health is still considered taboo or frowned upon, I'm going to be a little more gentle in terms of getting to the pathology and talking about it."
3. **Acculturation irrelevant** – Idea that issues of acculturation or culture do not matter in testing (e.g. interpretation). For instance, if the client is not fit/qualified (e.g. too slow, poor social skills for a job that requires social skills) for the job. Issues of acculturation do not matter in testing if the client is interested or headed for an unskilled job. On the other hand, acculturation matters (e.g. is considered in testing) if the client wants a more skilled job (e.g. office work)

Impact of acculturation on clinician testing practices

1. **Interpretation**- The client's type and level of acculturation and/or life experiences influence the interpretation of results.
Ex. " Well, if they have limited English proficiency and they are an adult, I will use.... the fact of the matter is there aren't many good, psychometrically sound instruments that have been appropriately normed, so in my reports, the majority of my diagnostic impression is based on data rendered from the interview process. I will place a secondary emphasis on the test data or formal assessment data."
- a. **Non-standard interpretation** – Interpretation that does not follow the interpretive procedures outlined by the test publisher. For instance interpreting a second administration of the test over the

first administration as a more valid reflection of abilities. Discounting standard scores obtained by test because the clinician believes that are not representative of true abilities.

Ex. “say you’re using the Rey-Osterrieth complex figure drawing, that the literature will tell you that some cultures don’t pay attention to those kind of details or do things in a certain structure... the way that you would be taught in the U.S. So if you use U.S. norms that these people will come across as severely impaired”

- i. **Applicability of test norms** - Interpretation involves the clinician evaluating beyond the test scores or deciding if the test norms are or are not applicable to the individual tested. May help clinician understand or explain the pattern of results obtained from the client and provide more adequate recommendations.
- b. **Emphasis on client contextual factors** - Interpretation of test results occur in the context of client’s history, cultural background, and/or current experiences (e.g., personal history, psychiatric history, events that led to the need for testing, disability).

Ex. “Usually, uh, we like to have the complete history and everything that led up to them coming to me.”

Ex. “I think the interpretation occurs in the context of what they’re experiencing immediately...”
- c. **Holistic interpretation** - Emphasis on the idea that all information about the client (test scores, clients history and background, records, present problem etc.) are considered together during interpretation.

Ex. “usually we put up the database in a spreadsheet format and kind of work my way down a looking at each specific test and looking at specific domains and such as attention or working memory or executive function looking for trends patterns or obvious areas of problems to see how they correlate with their subjective complaints.”
- d. **Behavioral observations** – Idea that interpretation based on behavioral observations and/or interview data may be more indicative of client potential (e.g., work potential) than his/her score on the test. For example, test results may underpredict what client can do.
- e. **Psychometrics of test** – Interpretation takes into consideration the psychometric strengths and weakness of particular tests. For example, a clinician might have less confidence in interpreting the standard scores produced by a test with a small or narrow standardization sample.

Ex. “Whereas other tests that we give in neuropsychology may not have as robust standardization sample so instead of

being standardized on 1,000 people it might be standardized on 60. So you kind of have to know how to interpret those tests so you wouldn't interpret them with the same degree of vigor or what that standard scores means so you have to keep that in mind.”

- f. **Unusual results** - Interpretation involves finding a (parsimonious) explanation (e.g., is it a cultural factor, psychiatric diagnosis, etc.) for test scores that may be inconsistent or involve unusual patterns, are contrary to what is hypothesized or seems reasonable (e.g. profile analysis) For instance, Vietnamese navigators that perform poorly on math academic achievement tests.
2. **Test Adaptations** - Clinician indicated that he or she made some test adaptation, accommodation, modification based on level of acculturation or due client cultural feature/race/ethnicity (e.g. non-English speaker). Clinician does not feel bound by the standard administration if it means that certain populations will be disadvantaged or not adequately assessed by adhering to it strictly. Clinician will use his/her judgment to determine how the test will be utilized.
 - a. Making test adaptation/accommodations is necessary to provide clinical service when testing people outside the scope of the normative sample.

Ex. “So I think people do what they have to, to try to provide clinical services [such as to people from Andean Peru],and usually when I adapt anything in the middle of a test, given you know if you work with people with expressive or receptive language issues, you have to get creative”
 - b. The test constructs (e.g. depression, attention, etc.) or test stimuli (e.g. paper-pencil test, low frequency words, odd pictures, test/subtests that require English proficiency, etc.) are unfamiliar or inappropriate (e.g. insulting, offensive words, etc.) to use with a person from particular culture.

Ex. “Or the words mean nothing to them or they have a different words to describe that concept or that concept doesn't apply to them.”

Ex. “... uh depending on where you live in Peru and you're using a memory tests and you have them look at a picture of people mowing the lawn you know where nobody has a lawn or know what a lawn mower is especially if your up in the Andes, not a good tests to use (chuckle) because it has nothing to do with their uh with how they view the world. So if it's a test of visual memory, it's not uh... its not going to be helpful”

Ex. “...just the language is kind of an awkward phrasing... so it makes sense in one country but in another it might be offensive.”

3. **Types of adaptation** - Adaptation/accommodation based on client cultural feature/race/ethnicity.
 - a. **Adaptation of standard correct response** - For example, score the item correct if response is given in a different language or regional language usage, adjust score so that certain cultural behaviors do not count against the client (e.g. marking yes on Vineland that 18 year old boy goes on single or group dates even though he really does not because that is not allowed in his culture).

Ex. “So I will adapt a word or two so if you’re in Peru and you’re talking and, you know, you show a stove. The word for stove is actually kitchen which would be an incorrect answer, but given the local culture that’s appropriate.”
 - b. **Practice trials** - Create or allow more practice trials beyond those established by the test
 - c. **Interpreter** - Use of interpreter for oral language (Could be professional, staff or family member) during an portion of the testing process.
 - d. **Translation** - Translate tests items/instructions from English into local language or dialect.
 - e. **Non-verbal instructions** - Use of non-verbal instruction (e.g. pantomime) when client does not speak a language familiar to the clinician. This does not include use of pantomimes or gestures that are part of standardized non-verbal tests such as the Universal Non-Verbal Intelligence Test.

Ex. “I’ve had guys that speak languages, a bunch of Russian guys [came] in one day, I had to do everything by pantomime because they didn’t speak English and we didn’t speak Russian.”
 - f. **Alternate format of the test** – Administering tests using a different medium than what is typical. This included test formats that are distributed by the publisher or created by the assessor. For instance instead of giving the paper-and-pencil or computer version of MMPI, the questions are audio/video recorded in English or non-English language.
 - g. **Read to client** - Reading test items to the client due to low language proficiency.
 - h. **Non-individual administration** – Allowing people other than the client to be present during testing administration that requires individual administration. For example client’s extended family are present during testing.
 - i. **Extra breaks** – Allow breaks as needed during testing to allow client to participate in cultural rituals (e.g. prayer breaks)
4. **Selection/omission of tests** – Tests selected or omitted based on level of acculturation and or client cultural features. This includes selecting culture

specific tests (e.g. Roberts Apperception Test – Latino or African American version), or tests thought to be culturally fair.

Ex. “Well, for example, if you have somebody who has five years of education from small farming communities certain parts of Mexico, then my battery usually starts off by asking them to write the alphabet, uh and depending on their ability to write or the familiarity with the alphabet then that will adjust my battery as I go on”

- a. **Reading ability** - Tests are selected or omitted depending on patient’s reading/writing ability and/or the reading level required by the test (e.g. a tests that is easier to read is selected).
- b. **Primary language** - Tests are selected or omitted depending on client’s primary language. If patient is primarily Spanish speaking, the clinician might select language tests or tests available in a specific language.

Ex. “In terms of one example of a specific issue in testing would be, if you have a student that is a language, minority students whose first language was something other than English, then for example, you would probably want to select a nonverbal measure of cognitive ability because if you give them a verbal IQ test, it would kind of be pejorative to them and not allow them to really fully express their ability

- i. **Language preference** - Clinician asks the client (through interview) for his/her language preference for test administration. This does not include determining language proficiency with standardized tests.

Ex. “But many times I’ll leave it up to the client and I say ‘What are you most comfortable with?’”

5. **Exclusion from testing** - Client level of acculturation is used to determine if he or she will be tested. For instance, clinician refuses to test people that were not born or raised in the U.S.
6. **Acculturation no role in testing** - Clinician believes that acculturation does not play a role in testing

Ex. “It[acculturation] doesn’t play any role in the testing that I do.”
7. **Uncertain of role** - Clinician is not aware of how acculturation might play a role in testing. This also includes the belief that acculturation plays a role in testing, but the clinician is not fully aware of how much of a role acculturation plays in testing.

Assessment of acculturation in the past

1. **Formal assessment**- Clinician has used standardized acculturation measure(s) in the past (e.g., ARMAS, Marin et al.)

- a. **Lacks utility** - Use of acculturation measures was not helpful. There is little to no utility in using a formal/standardized measure of acculturation. Standard measures do not yield info that is as useful as can be obtained from an interview.
 - Ex. "I have [use acculturation measures] in the past and I've used different instruments and have never found any of them to be helpful"
 - Ex. "what would be the purpose of [using a standard measure of acculturation]? From my perspective."
2. **Informal Assessment** - Clinician performs an informal assessment of acculturation through an interview with the client (e.g. semi-structured format), people familiar with the culture to obtain pertinent information (e.g., cultural norms and values, immigration history, language requirements in work setting, manner of socializing with others, self perception, perception of stereotypes, worldview), or through behavioral observations.
 - Ex. "So [informal acculturation assessment is] more of a semi-structured set of questions that kind of assist in the building of rapport in that these are questions that they're experts on their own lives"
3. **Acculturation not assessed** - Clinician has not assessed acculturation in the past.
 - a. **Financial** - Assessment of acculturation is time consuming, and reimbursement rate is insufficient to justify the cost.
 - Ex. Interviewer: "**It sounded like generally it's not something you assess it, but it's in the back of your mind, are there some reasons acculturation you don't assess it?**"
 - Participant: "Mostly for practicality. The reimbursement from the rehabilitation services for an evaluation is less than half of what Blue Cross Blue Shield will pay. And so from a pure business perspective you can only afford the client so much of your time."
 - b. **Lacks knowledge** - Clinician would not know how to assess acculturation.
 - Ex. "Well I guess I wouldn't know how to [assess acculturation]"
 - c. **Judgmental** - Clinician is concerned that assessing acculturation would appear judgmental.
 - Ex. I: "**What are some reasons acculturation is not assessed?**"
 - P: "...I think uh, I would be maybe a little bit cautious in not wanting to be uh to appear judgmental."
 - d. **Mindful of acculturation** - Although acculturation is not assessed, clinician is mindful of acculturation as a variable throughout the process.

Ex. Well, I guess you could say while I am not assessing for it[acculturation], I'm mindful of that variable throughout the process

- e. **It is so diverse here** - Acculturation is not assessed because the clinician believes that acculturation is not a salient issue given the diverse nature of the region where she/he resides.

Ex. "...let's say their parents were the immigrants and their first generation here. Being in Miami, you're landing in a culturally safe place, for the most part. Speaking Spanish is the norm. You're not landing in Minnesota where nobody speaks your language. They don't have your food. Here there's Haitians. There's all kinds of Latin Americans and islanders and I think I'm probably in the minority, just speaking English. Most people are bilingual; you know, it's less of an issue."
 - f. **Not necessary** - Clinician has no need for assessing acculturation because the clients tested are believed/perceived to be acculturated (e.g., African Americans are thought to be part of American culture because they live in the US and are familiar/assimilated with American culture/society/norms and the English language.)

Ex. "Uh no, I haven't as I said I don't use interpreters, so the people that I assess are all American background, English speaking, typically they are familiar with the culture, so it has not been a significant factor"
 - g. **Opposed to assessing acculturation** - Clinician is opposed to the idea of assessing acculturation because individuals living in the US should be familiar/assimilated with American culture/society/norms and English language.

Ex. "It's my belief that we have norms in our society for performance and no matter what ethnic background a person has, they have to perform to those norms."
4. **Unfamiliar with measures** - Clinician is not familiar with or aware of formal/standardized measures of acculturation. This includes clinician mistaking culturally specific tests for standard measures of acculturation (e.g. projective tests such as the Roberts that have stimulus cards specific for African-American, Latino, and Caucasian clients)
- Ex. I don't have any formal tests of acculturation; and if there's any out there, I don't know of them, which makes me feel deficient if there are any out there.

Challenges of testing clients who are culturally different from themselves.

1. **Questionable validity** - The validity of the assessment is in question. This may be due to the nature of intercultural exchanges (e.g., misunderstandings in communication, lack of awareness of diverse worldview, questionable accuracy of information obtained from interpreter

or non-English speaking clients), concern that interpretation of results is questionable because test norms may not apply.

Ex. "I think the main thought is the validity of the standard protocol is in question."

Ex. "So I'm mindful not to not just take the data and run with it. I want to make sure that I'm really asking is this their interpretation of the data based on where they are coming from or how they are experiencing this process"

Ex. "How do you know you're getting a good translation?"

Ex. "if they're different[culturally and linguistically], why they came here and what problems did they have before and you often don't have records to from wherever they came from so you have to take everything at face value"

Ex. "Um, if they are able to speak English, usually there is a lot of clarification going on. Where depending on what they talk about if you're doing more of a psychological evaluation, it's hard to know whether things make or don't make sense from their perspective[if they do not speak English], uh.. So it's just, it makes uh, your confidence for what you're doing, shouldn't be as high"

2. **Extra effort** - It takes extra effort to test clients who are culturally different from the clinician. This may include extra effort in interpreting test results, because one has get out of his/her comfort zone, attempting to understand a worldview different than ones own, extra time in explaining things or getting information., building rapport with client can be difficult, etc.

Ex. "Interpreting results making sure try to be as evenhanded as possible as well as realizing "is this a cultural response or is this a typical response for that culture too". Trying to keep it in perspective.

So that does take extra energy

Ex. "I've had persons who are highly uneducated or Black or Latino who are reluctant to respond to me and I have to work harder at getting some rapport"

3. **Feelings of frustration** - Description of any negative affect of thoughts related to testing people who are cultural different. For example, feelings of impatience due to the extra effort required, or negative thoughts or affect (anxiety, concern) because the client may not be optimally served through the testing process.
4. **Not challenging** – Clinician perceives that testing clients who are culturally different from themselves is not challenging.

- a. **Trained** Clinician graduate training prepared him/her to test people who are culturally different.
Ex. “The backbone of my program was on bilingual assessment and cultural diversity, so I am pretty fluent in terms of my awareness, so it's not a big deal.”
- b. **All about me** - Clinician perceives that testing culturally different clients is not challenging because he/she focuses solely on his/her comfort with testing culturally different. As opposed to thinking about what the client might feel or think when being tested by the clinician.
Ex. “I’m not exactly sure. I don’t know if it’s my personal comfort level, that I’m just comfortable with people who are different than I am. I don’t let the culture itself be something that would get in the way.”
- c. **So much experience** - Clinician perceives that he/she has had so much experience testing that testing culturally different clients is not challenging.
Ex. “...after the first 25,000 you kind of know how to handle it...I mean literally I’ve had 20,000, 30,000, I have no idea how many tens of thousands of evaluations I have done over the past 30 years in my variety of roles.”
- d. **We are all the same** - Clinician does not perceive ethnically/racially different clients as culturally different if they were raised in the US and speak English.
Ex. “I don’t have that problem, ‘cause I really, I don’t see that [testing African Americans or Latinos raised in US and speak English] as being culturally different”

Role clinician cultural background plays in testing

1. **Appreciation** - Clinician’s cultural background may allow appreciation or awareness (cultural competence) of client cultural variables/experiences. This code includes awareness that other people may see the world differently and clinicians are cognizant that they should question their own assumptions.
Ex. “Um, I would say [my cultural background] allows me to appreciate a lot of things.... That uh, being familiar with the, you know, what it’s like being , growing up in a small ranch farm in a community of a couple hundred people that, you know, the nearest big city is 50 miles.”
- a. **Awareness** – Clinician feels his/her own cultural background provided insight into cultural idiosyncrasies which helped temper under- or over pathologizing of client behavior.

Ex. “so just knowing how they approach the world can give you a lot of information and just because they don’t complain openly doesn’t mean there aren’t problems”

- b. **Empathy** – Clinician described feeling of increased empathy with client related to own immigration experience

Ex. “Well part is the role is that, you know, I came here as an immigrant so I really have some understanding of what people go through when they come from a different country and a different culture.”

2. **Yes but not sure how** - Clinician believes/is aware that his/her cultural background probably plays a role in testing, but it is difficult to be fully aware or know how or when it might influence the testing process.

Ex. Well I’m sure it does but I don’t know that that would be up to the level of awareness. I think we have to, I don’t know, I’m sure it does. I try to make myself aware when there’s differences and how to interpret and I give myself a latitude, wide range of interpretation, more cautions at least. I don’t know quite how to say it would, it would.”
3. **Cultural background play no role** - Clinician believes his/her cultural background does **not** play a role in testing.

Ex. “I don’t believe so, no. **If not, how is it that you think it doesn’t?** I don’t attend to it.”
4. **Privilege** - Clinician is aware of his/her privilege (e.g., White privilege). This includes awareness that privileges related his/her cultural background afford him/her power and/or influence within the testing process.

Ex. “The fact that I’m the one doing the testing is probably the product of being, you know, the benefit of White privilege much of my life. So the fact that I’m the one sitting on this side of the table with the tests and being the one to administer it to them is in some way part of my cultural background and some of the benefits that I’ve had.”

Information included in testing reports

1. **Strengths and weaknesses** – Clinician identified clients’ strengths/weakness and/or accommodations that build on strength to obtain and/or maintain a job.

Ex. Typically [I’m] attempting to identify strengths and weaknesses, especially for voc rehab it's what they're asking. I kind of come in with a different mindset as to what's going to be hindrances or strengths that the person is going to have in obtaining or maintaining employment, it's the overriding principle.”
2. **Notify** – Clinician includes information about any omission of tests or adaptations/accommodations performed in the assessment process by the clinician

Ex. “And so I would rather modify the test instructions and note that on my report and in my interpretation of the standard score so that I can more describe their function but I will modify as needed.”

3. **Interpret with caution** – Includes warning in report regarding the limitations of the testing (e.g. norms did not fit the client, results are a best guess estimate., cultural variables impact scores, etc.)

Ex. If somebody has a low score and I believe that there are a number of cultural factors that have lowered that score, unrelated to any type of brain development or brain injury, then I would still report the scores as they are, because I can't misrepresent what the data says. But the interpretation of the data is that this may not necessarily be accurate. This may not reflect their current level of functioning due to various cultural factors. I kind of identify some things that I thought may have interfered