Introduction

Intergroup relations and migration have been increasingly examined in the field of psychology which resulted in a growing interest in assessing acculturation and similar concepts (i.e., multiculturalism) (a more elaborate assessment of acculturation and multiculturalism measures can be found in Celenk & van de Vijver, in press). In the present chapter, we systematically review publicly available acculturation instruments (we refer to online resources in which items of the instruments are available) and give guidelines for choosing or developing acculturation instruments for researchers and policy makers (detailed instrument overviews as well as listings of the items included in the present article can be downloaded free of charge from http://www.tilburguniversity.edu/ccis). Our systematic review aims at identifying strengths and weaknesses of publicly available acculturation measures by focusing on three areas: scale descriptors, psychometric properties, and conceptual and theoretical structure; extensive, non-evaluative overviews can be found in Rudmin (2009, 2011) (see http://scholarworks.gvsu.edu/orpc/vol8/iss1/9) and Taras (2007; see http://ucalgary.ca/~taras/_private/Acculturation_Survey_Catalogue.pdf).

Acculturation Theory

Acculturation is defined as “the process of cultural change that occurs when individuals from different cultural backgrounds come into prolonged, continuous, first-hand contact with each other” (Redfield, Linton, & Herskovits, 1936, p. 146). This first-hand contact results in changes at both individual (i.e., values, attitudes, beliefs and identities) as well as group level (i.e. social and cultural systems) (Berry, 2003). Salient forms of the acculturation process are composed of antecedent factors (acculturation conditions), strategies (acculturation orientations), and consequences (acculturation outcomes) (see Figure 1; Arends-Tóth & van de Vijver, 2006b).

Acculturation conditions are individual- and group-level factors, such as the characteristics of the receiving society (e.g., perceived or objective discrimination), characteristics of the society of origin (e.g., political context), characteristics of the immigrant group (e.g., ethnic vitality) and personal characteristics (e.g., expectations, norms and personality). These characteristics define the context that impinges on the process of acculturation (Arends-Tóth & van de Vijver, 2006b).

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1 It is important to emphasize that there may be additional acculturation instruments that were not mentioned in our chapter. They might be excluded if they did not match our overview criteria, or they may be commonly used in other disciplines but not that frequently cited in psychological research and did not come up in our search. We would like to note that authors of scales, not included in our database, are invited to submit their scales (including a paper or other documentation so that new scales can be added; this information can be sent to o.celenk@tilburguniversity.edu or fons.vandevijver@tilburguniversity.edu).
The second dimension of the process, *acculturation orientations* (also referred to in the literature as acculturation strategies, styles, and attitudes) involves the way immigrants prefer to relate to the society of settlement (cultural adoption) and country of origin (cultural maintenance). Acculturation orientations are mostly related to *acculturation attitudes* (preferences). It is argued that there are two major theoretical perspectives on acculturation which are related to acculturation orientations: dimensionality and domain-specificity (Arends-Tóth & van de Vijver, 2003).

*Dimensionality* refers to the relations between cultural adoption and maintenance. A unidimensional model describes cultural maintenance and adoption as bipolar opposites. An individual can either maintain the culture of origin or adapt to the culture of settlement. A major critique of the unidimensional model was leveled at the main assumption that the acculturation process varies along a single continuum from identification with the country of origin to the country of settlement (Benet-Martínez, in press). Unlike unidimensional models, bidimensional models treat cultural maintenance and adoption as two distinct dimensions which are conceptually unrelated and empirically often show weak, negative correlations (Berry, 1997). Studies have addressed acculturation preferences among mainstreamers; these expected acculturation orientations reflect ways mainstreamers like to see immigrants deal with the ethnic and mainstream cultures. It is suggested that there can be differences in dimensionality among immigrant members and the mainstreamers; for example, it is found to be unidimensional in majority group members and bidimensional in minority groups in the Netherlands (Van Oudenhoven, Prins, & Buunk, 1998; Verkuyten & Thijs, 1999).

![Figure 1: Framework of Acculturation (Arends-Tóth & van de Vijver, 2006b)](image-url)
Domain-specificity refers to the finding that acculturation orientations and behaviors can vary across life domains and contexts. The main distinction is between public and private life spheres. Thus, it has been found that Turkish and Moroccan immigrants in the Netherlands and Belgium prefer differing acculturation strategies in the public domain (preference of cultural adoption) and private domain (preference of cultural maintenance) (Arends-Tóth & van de Vijver, 2003; Snaauwaert, Soenens, Vanbeselaere, & Boen, 2003).

The final component of the acculturation process refers to acculturation outcomes. A distinction has been made between psychological outcomes (internal adjustment) and behavioral adaptation (social, external adjustment) (Van Oudenhoven, Judd, & Ward, 2008; Ward, Leong, & Law, 2004). Internal adjustment is composed of the emotional and affective (psychological) acculturation outcomes, which involve well-being, mental health, and satisfaction with life in the new cultural context. The second acculturation outcome, external adjustment, can be thought of as acquiring culturally appropriate knowledge and skills, which results in interacting with the mainstream culture and dealing with stressors. It is predicted by cultural knowledge, cultural distance, cultural identity, language ability, length of residence in the new culture, and amount of contact with hosts (Ataca & Berry, 2002; Galchenko & van de Vijver, 2007). It is argued that acculturation outcomes are mostly linked to acculturation behaviors. Sam (2006) referred to behavioral adaptation as long-term acculturation outcome and acculturation behaviors as short-term acculturation outcomes.

Arends-Tóth and van de Vijver (2006a) argued that in addition to social adjustment to the mainstream culture, sociocultural competence in ethnic culture needs to be addressed as it is an essential outcome of acculturation. Maintenance in the sociocultural domain (e.g., ethnic language proficiency and cultural maintenance) is

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### Glossary

**Acculturation conditions**: Refer to the resources behind the acculturation process. Antecedent conditions can include factors such as perceived discrimination, personality, situational context.

**Acculturation orientations**: Refer to acculturation strategies, styles. Mediators in the acculturation process such as cultural maintenance vs. cultural adoption, or integration, marginalization, separation and assimilation.

**Acculturation outcomes**: Refer to consequences of the acculturation process which can be psychological (internal adjustment, well-being) and behavioral (external adjustment, doing well). From our perspective, acculturative stress is presumed to be part of psychological adjustment and is believed to be affected by acculturation conditions and orientations (unlike other disciplines which may evaluate it as input to other resources).

**Acculturation attitudes**: Refers to acculturation preferences. They are believed to be mostly related to acculturation orientations.

**Acculturation behaviors**: Refers to actual acts. They are assumed to be mostly related to acculturation outcomes.

**Domain-specificity**: Refers to private (marriage, family) vs. public (school, work) life domains. It is argued that acculturation orientations are domain-specific; they may vary among private and public domain.

**Dimensionality**: Refers to unidimensional (individual either maintain the ethnic culture or adopt the dominant culture) and/or bidimensional (individual may both maintain the ethnic culture and adopt the dominant culture depending on the context) conceptual models.
less frequently studied than sociocultural adjustment (e.g., friendships with members of the mainstream culture and mainstream language proficiency).

**Issues in the Assessment of Acculturation**

Elizabeth Howe Chief (1940), working among Native Americans, is believed to be the first researcher who administered an acculturation scale. Self-report acculturation instruments have been in regular use ever since. Previous reviews were mainly restricted to US samples (i.e., Zane & Mak, 2003). In order to overview instruments that are not restricted to US samples and broaden previous research, publicly available self-report acculturation measures were searched via various English peer-reviewed journals’ electronic databases such as PsycINFO and PsycArticles. Several keywords were used including “assessment of acculturation”, “acculturation”, “measurement”, and “meta-analysis”. Furthermore, a message was posted on the IACCP listserv for cross-cultural psychologists for additional instruments (www.iaccp.org). Our search resulted in 50 publicly available measures (items of the instruments that are available online). In order to systematically overview each instrument, a classification scheme was developed (a list of the instruments can be seen in Table 1). We used three main categories to classify scales: **scale descriptors** (name of the scale, authors, year, target group, age group, subscales, number of items), **psychometric properties** (notably reliabilities), and **conceptual and theoretical structure** (acculturation conditions, acculturation orientations, acculturation outcomes, acculturation attitudes, acculturation behaviors, conceptual model and life domains).

**Scale Descriptors**

**Target group**

Our overview of the publicly available measures pointed out that 60.9% are directed to a specific group. Most are targeted at various ethnic groups in the United States (i.e., Mexican-Americans, Hispanic-Americans, Cuban-Americans, Southeast Asian-Americans, Vietnamese-Americans, Puerto Rican-Americans, Hawaiian-Americans, and Native Americans) (e.g., Acculturation Scale for Mexican-American; Cuéllar, Harris, & Jasso, 1980; Acculturation Scale for Vietnamese Adolescents; Nguyen & von Eye, 2002).

**Age group**

While focusing on the age group of the targeted population, 34% are directed to a specific age group; 14% are developed in particular for an adult immigrant population (e.g., Abbreviated Multidimensional Acculturation Scale; Zea, Asner-Self, Birman, & Buki, 2003), 12% are targeted at youth and adolescents (e.g., Acculturation, Habits and Interests Multicultural Scale for Adolescents; Unger, Gallaher, Shakib, Ritt-Olson, Palmer, & Johnson, 2002) and 8% are for children (e.g., Acculturative Stress Inventory for Children; Suarez-Morales, Dillon, & Szapocznik, 2007).
**Subscales**
The majority of acculturation measures (54%) include a single scale (one overall scale measuring various aspects of acculturation) (e.g., Acculturation Index; Ward & Rana-Deuba, 1999); the remaining 46% comprise two or more subscales. The latter refer to subscales (identified as such by the authors), that measure various aspects of acculturation (e.g., heritage and mainstream subscales of Vancouver Index of Acculturation; Ryder, Alden, & Paulhus, 2000). The subscales are usually based on a conceptual analysis or factor analytic evidence.

**Number of items**
The minimum number of items in the measures (we counted the number of items per instrument for single scale measures and per subscale for multiple scale measures) is 2 and the maximum number of items is 39 ($M = 11.1$, $SD = 8.5$). The minority of the measures (35.2%) are longer than the mean of 11.1 items (e.g., Cultural Readjustment Rating Questionnaire, Spradley & Phillips, 1972); 64.8% are shorter (e.g., Psychological Acculturation Scale, Tropp, Erkut, Coll, Alarcón, & Garcia, 1999).

**Psychometric Properties**

**Reliabilities**
For most of the measures (80%), psychometric properties were reported (e.g., Native American Acculturation Scale; Garrett & Pichette, 2000). Reliabilities lower than .70 (the minimum value required by common standards; see, e.g., Cicchetti, 1994) are reported for 11.1% of the scales (single scale instrument) and 13.3% of the subscales (multiple subscale instrument) (e.g., reliability is .53 for the interpersonal stress subscale of the Culture Shock Questionnaire; Mumford, 1998). Additional psychometric properties, such as factorial validity, are infrequently addressed.

**Conceptual and Theoretical Structure**

**Acculturation conditions**
Statements such as “I have been discriminated against because I have difficulty speaking Spanish” (Multidimensional Acculturative Stress Inventory; Rodriguez, Myers, Mira, Flores, & Garcia-Hernandez, 2002) assess acculturation conditions. The majority of the instruments (50.5%) do not comprise any statement measuring acculturation conditions.

**Acculturation orientations**
Sample items measuring acculturation orientations are “I would prefer to live in an American community” (General Ethnicity Questionnaire; Tsai, Ying, & Lee, 2000) and “I would like closest friends who are not relatives in the U.S. to be mostly Chinese” (Internal-External Ethnic Identity Measure; Kwan & Sodowsky, 1997). The majority of the measures (50.5%) do not include items assessing acculturation orientations.
**Acculturation outcomes**

Statements in order to measure psychological acculturation outcomes (internal adjustment) involve “I feel pessimistic about the future” (Benet-Martínez Acculturation Scale; Benet-Martínez, 2006) and “I feel uncomfortable because my family members do not know Mexican/Latino ways of doing things” (Multidimensional Acculturative Stress Inventory; Rodriguez, Myers, Mira, Flores, & Garcia-Hernandez, 2002). Behavioral outcomes (i.e., long-term acculturation outcomes related to external adjustment) are assessed by statements such as “Accepting /understanding the local political system” (Sociocultural Adaptation Scale; Ward & Kennedy, 1994). A minority of 23.4% of the measures does not contain any statements measuring acculturation outcomes, and most scales of the remaining 76.6% assess behavioral outcomes (64.9%) rather than psychological outcomes (11.7%).

Additionally, we examined to what extent instruments assess three dimensions of acculturation process (namely conditions, orientations and outcomes), either separately or combined. A small majority of 54.7% of the instruments deals with one aspect only (conditions, orientations, or outcomes), and 30.5% involved two aspects, and 14.8% measured each aspect.

**Acculturation attitudes**

Acculturation attitudes represent preferences (likes and dislikes) of the immigrant group (or the mainstreamer group) towards the acculturation process; these attitudes usually refer to acculturation orientations. These attitudes can be viewed as mediators/moderators between acculturation conditions and acculturation outcomes (Arends-Tóth, van de Vijver, & Poortinga, 2006). Statements such as “I like to speak my native language” (Stephenson Multigroup Acculturation Scale; Stephenson, 2000) and “I best prefer to be with my co-nationals” (Acculturation Attitudes Scale; Sam & Berry, 1995) are directed to measure acculturation attitudes. A majority of the measures assesses acculturation attitudes (66.7%).

**Acculturation behaviors**

Items about acculturation behaviors usually refer to obvious and explicit experiences of the immigrant and mainstream groups, hence acculturation behaviors can be assumed to be associated to short-term acculturation outcomes (Arends-Tóth & van de Vijver, 2006b). Sample statements are “Often participate in celebrations or observance of traditional Chinese holidays and festivities” (Internal-External Ethnic Identity Measure; Kwan & Sodowsky, 1997) and “In what languages are the T.V. programs you usually watch?” (Short Acculturation Scale for Hispanic Youth; Barona & Miller, 1994). Most subscales have items aiming to measure acculturation behaviors (86.3%). In addition to this, we have analyzed to what extent measures combine attitudes and behaviors and it was found that instruments mostly assess both attitudes and behaviors (53.7%). The remaining 46.3% measure attitudes and behaviors separately; subscales measure either attitudes (14%) or behaviors (32.3%).
**Conceptual model**
Unidimensional measures (41.5%) contain statements such as “In which culture(s) do you feel confident that you know how to act?” with response options ranging from Only Hispanic/Latino to Only Anglo/American (Psychological Acculturation Scale; Tropp, Erkut, Coll, Alarcón, & Garcia, 1999) or “Marriage partner preference” with the options Totally Mexican—Totally American (Cultural Life Style Inventory; Mendoza, 1989). Bidimensional acculturation strategies (58.5%) can be assessed by statements such as “I speak English at home.” (Stephenson Multigroup Acculturation Scale; Stephenson, 2000) or “At home, I eat American food.” (General Ethnicity Questionnaire; Tsai, Ying, & Lee, 2000).

**Life domains**
Most scales (91.3%) include statements to assess acculturation in multiple domains (private domain such as family and marriage and public domain such as work and school). 70% of the measures have a variety of statements for language, followed by food (36%), and media (music, television, books, newspapers, and radio; 28%). Examples of statements to measure acculturation in the public domain are “How much do you speak English at work?” (General Ethnicity Questionnaire; Tsai, Ying, & Lee, 2000) and “How well do you speak English at school?” (Abbreviated Multidimensional Acculturation Scale; Zea, Asner-Self, Birman, & Buki, 2003). Sample items to assess acculturation in the private domain are “There should be more marriages between our people and other Australians” (Acculturation Scale; Ghuman, 1997) and “How important is it to you to raise your children with American values?” (American Puerto Rican Acculturation Scale; Cortes, Deren, Colon, Robles, & Kang, 2003).

**Conclusions: General evaluation of strengths and weaknesses of the reviewed acculturation measures**
Most instruments are single-scale measures that are directed to specific target groups. Many measures are short and aim at assessing acculturation outcomes (more often behavioral adjustment than psychological outcomes); acculturation conditions and orientations are less frequently addressed. In the reviewed measures, priority is given to both explicit behaviors and preferences of immigrant as well as the mainstream groups. Most measures show an adequate internal consistency. Information on cross-cultural validity of the measures and the applicability in other groups than the target group is scarce.
Guidelines for choosing or developing acculturation instruments

1. The conceptual background (bidimensional vs. unidimensional) of the acculturation measure needs to be clearly addressed.

2. The potential domain specificity regarding acculturation process should be considered, which may require the coverage of multiple domains (both private and public sphere).

3. It should be clear whether the instrument measures acculturation conditions, orientations or outcomes. The current emphasis on acculturation outcomes (and behavioral adjustment) may be counterproductive. Acculturation conditions and orientations may also be relevant to consider.

4. There should be sufficient number of items per domain or aspect measured in the instruments.

5. Good internal consistencies are important; however, other psychometric properties including validity should also be assessed and reported in the studies.

Our review was based on three aspects of acculturation measures, namely scale descriptors, psychometric properties and conceptual and theoretical issues. It can be concluded that many measures only capture a small part of the acculturation process. For instance, acculturation conditions are usually covered inadequately in the measures. Moreover, acculturation orientations are often ignored. We argue that a balanced and comprehensive view of the acculturation process can only be based on much broader measures than currently applied in most studies. The current emphasis on single groups and short measures that cover only parts of the acculturation process challenges the validity and generalizability of findings.

References


References beginning with a single asterisk involve acculturation measures.

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2 References beginning with a single asterisk involve acculturation measures.


<table>
<thead>
<tr>
<th>Name of the Acculturation Measure</th>
<th>Author(s)</th>
<th>Year</th>
<th>Strengths</th>
<th>Weaknesses</th>
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</thead>
<tbody>
<tr>
<td>Abbreviated Multidimensional Acculturation Scale</td>
<td>Zea, Asner-Self, Birman, &amp; Buki</td>
<td>2003</td>
<td>High internal consistency, multiple domains covered</td>
<td>Only measures host domain outcomes</td>
</tr>
<tr>
<td>Acculturation Attitudes Scale</td>
<td>Sam &amp; Berry</td>
<td>1995</td>
<td>Measures each orientation separately</td>
<td>Psychometric properties not available, few items in measures of strategies</td>
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<tr>
<td>Acculturation Attitudes Scale-Revised</td>
<td>Berry</td>
<td>2010</td>
<td>Uses bidimensional framework</td>
<td>Psychometric properties not available, double-barreled questions</td>
</tr>
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<td>Acculturation Index</td>
<td>Ward &amp; Rana-Deuba</td>
<td>1999</td>
<td>Multiple domains, good psychometric properties</td>
<td>Only measures behaviors</td>
</tr>
<tr>
<td>Acculturation Rating Scale for Mexican Americans</td>
<td>Cuéllar, Harris, &amp; Jasso</td>
<td>1980</td>
<td>Frequently used, multiple domains</td>
<td>Only measures host domain outcomes</td>
</tr>
<tr>
<td>Acculturation Rating Scale for Mexican-Americans- Short Form</td>
<td>Dawson, Crano, &amp; Burgoon</td>
<td>1996</td>
<td>Multiple domains</td>
<td>Psychometric properties not available</td>
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<td>Acculturation Scale</td>
<td>Ghuman</td>
<td>1997</td>
<td>Multiple domains</td>
<td>Only measures host domain outcomes</td>
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<td>Acculturation Scale for Mexican-American</td>
<td>Deyo, Diehl, Hazuda, &amp; Stern</td>
<td>1985</td>
<td>Frequently used</td>
<td>Psychometric properties not available, only measures host language knowledge</td>
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<td>Acculturation Scale for Mexican-American-II</td>
<td>Cuéllar, Arnold, &amp; Maldonado</td>
<td>1995</td>
<td>Multiple domains, good psychometric properties</td>
<td>Only measures host domain outcomes</td>
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<tr>
<td>Acculturation Scale for Vietnamese Adolescents</td>
<td>Nguyen &amp; von Eye</td>
<td>2002</td>
<td>Multiple domains, good psychometric properties</td>
<td>Only measures host domain outcomes</td>
</tr>
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<td>Acculturation, Habits and Interests Multicultural Scale for Adolescents</td>
<td>Unger, Gallaher, Shakib, Ritt-Olson, Palmer, &amp; Johnson</td>
<td>2002</td>
<td>Covers conditions, orientations and outcomes, good psychometric properties</td>
<td>Covers few domains</td>
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<td>Acculturative Hassles</td>
<td>Vinokurov, Trickett, &amp; Birman</td>
<td>2002</td>
<td>Multiple domains</td>
<td>Only measures host domain outcomes</td>
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<td>Acculturative Stress Inventory for Children</td>
<td>Suarez-Morales, Dillon, &amp; Szapocznik</td>
<td>2007</td>
<td>One of the few scales that measure conditions</td>
<td>Covers few domains</td>
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<td>Acculturative Stress Scale</td>
<td>Salgado de Snyder</td>
<td>1987</td>
<td>Multiple domains</td>
<td>Poor psychometric properties</td>
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<td>Scale Name</td>
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<td>Year</td>
<td>Key Features</td>
<td>Notes</td>
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<td>Adopt and Keep Scale</td>
<td>Swaidan, Vitell, Rose, &amp; Gilbert</td>
<td>2006</td>
<td>Clear measure of orientations, uses bidimensional framework</td>
<td>Few items per subscale</td>
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<td>African American Acculturation Scale</td>
<td>Landrine &amp; Klonoff</td>
<td>1994</td>
<td>Multiple domains, good psychometric properties, covers both attitudes and behaviors</td>
<td>Uses unidimensional framework, some items are not unique for maintaining African-American culture</td>
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<td>American Puerto Rican Acculturation Scale</td>
<td>Cortes, Deren, Andia, Colon, Robles, &amp; Kang</td>
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<td>Multiple domains</td>
<td></td>
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<td>Asian American Multidimensional Acculturation Scale</td>
<td>Gim Chung, Kim, &amp; Abreu</td>
<td>2004</td>
<td>Multiple domains, good psychometric properties</td>
<td>Does not cover orientations</td>
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<td>Benet-Martínez Acculturation Scale</td>
<td>Benet-Martínez</td>
<td>2006</td>
<td>Multiple domains, covers psychological outcomes</td>
<td>Psychometric properties not available, does not cover orientations</td>
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<td>Bicultural Identity Integration Scale (BIIS-1)</td>
<td>Benet-Martínez &amp; Haritatos</td>
<td>2005</td>
<td>Detailed measure of integration</td>
<td>Few items per subscale</td>
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<td>Bicultural Identity Integration Scale (BIIS-2)</td>
<td>Huynh &amp; Benet-Martínez</td>
<td>2009</td>
<td>Detailed measure of integration</td>
<td>Psychometric properties not yet available</td>
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<td>Bicultural Involvement Questionnaire</td>
<td>Szapocznik, Kurtines, &amp; Fernandez</td>
<td>1980</td>
<td>Multiple domains, frequently used, good psychometric properties</td>
<td>Only measures outcomes</td>
</tr>
<tr>
<td>Bidimensional Acculturation Scale for Hispanics</td>
<td>Marín &amp; Gamba</td>
<td>1996</td>
<td>Adequate number of items in subscales</td>
<td>Only measures outcomes, some subscales low reliability, no information on question format and response options</td>
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<td>Brief Acculturation Scale</td>
<td>Meredith, Wenger, Liu, Harada &amp; Kahn</td>
<td>2000</td>
<td>Good psychometric properties</td>
<td>Few items, covers few domains</td>
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<td>Brief Acculturation Scale for Hispanics</td>
<td>Norris, Ford, &amp; Bova</td>
<td>1996</td>
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<td>Few items, covers few domains</td>
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<td>Children's Hispanic Background Scale</td>
<td>Martinez, Norman, &amp; Delaney</td>
<td>1984</td>
<td>Good psychometric properties, adequate number of items in scale</td>
<td>Only measures outcomes</td>
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<td>Children's Acculturation Scale</td>
<td>Franco</td>
<td>1983</td>
<td>Good psychometric properties, covers multiple domains</td>
<td>Uses unidimensional framework</td>
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<td>Cultural Life Style Inventory</td>
<td>Mendoza</td>
<td>1989</td>
<td>Good psychometric properties, adequate number of items in scale</td>
<td>Uses unidimensional framework</td>
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<td>Instrument</td>
<td>Authors</td>
<td>Year</td>
<td>Coverage and Design</td>
<td>Psychometric Properties</td>
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<td>Cultural Readjustment Rating Questionnaire</td>
<td>Spradley &amp; Phillips</td>
<td>1972</td>
<td>Covers multiple domains, adequate number of items in scale</td>
<td>Psychometric properties not available</td>
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<td>Culture Shock Questionnaire</td>
<td>Mumford</td>
<td>1998</td>
<td>Covers psychological outcomes</td>
<td>One subscale with poor psychometric properties, uses unidimensional framework</td>
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<td>General Ethnicity Questionnaire</td>
<td>Tsai, Ying, &amp; Lee</td>
<td>2000</td>
<td>Good psychometric properties, covers multiple domains, covers conditions/orientations/outcomes</td>
<td>Good psychometric properties, covers multiple domains, covers conditions/orientations/outcomes</td>
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<td>Homesickness and Contentment Scale</td>
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<td>1999</td>
<td>Good psychometric properties, adequate measure of outcomes, infrequently studied concept</td>
<td>Good psychometric properties, adequate measure of outcomes, infrequently studied concept</td>
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<td>Internal-External Ethnic Identity Measure</td>
<td>Kwan &amp; Sodowsky</td>
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<td>Good psychometric properties, covers multiple domains, covers conditions/orientations/outcomes</td>
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<td>Italian Ethnic Identity Measure</td>
<td>Laroche, Kim, Tomiuk &amp; Belisle</td>
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<td>Covers both attitudes and behaviors</td>
<td>Few items per subscale, uses unidimensional framework</td>
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<td>Media Acculturation Scale</td>
<td>Ramirez, Cousins, Santos, &amp; Supik</td>
<td>1986</td>
<td>Good psychometric properties, covers multiple domains, covers conditions/orientations/outcomes</td>
<td>Good psychometric properties, covers multiple domains, covers conditions/orientations/outcomes</td>
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<td>Multicultural Experience Survey</td>
<td>Leung &amp; Chiu</td>
<td>2010</td>
<td>Good psychometric properties, covers multiple domains</td>
<td>Uses unidimensional framework</td>
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<td>Multidimensional Acculturative Stress Inventory</td>
<td>Rodriguez, Myers, Mira, Flores, &amp; Garcia-Hernandez</td>
<td>2002</td>
<td>Good psychometric properties, covers multiple domains, covers conditions/orientations/outcomes</td>
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<td>Multidimensional Acculturative Stress Scale</td>
<td>Jibeen &amp; Khalid</td>
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<tr>
<td>Na Mea Hawai'i Scale</td>
<td>Rezentes</td>
<td>1993</td>
<td>Covers multiple domains</td>
<td>Psychometric properties not available, only covers outcomes, uses unidimensional framework</td>
</tr>
<tr>
<td>Native American Acculturation Scale</td>
<td>Garrett &amp; Pichette</td>
<td>2000</td>
<td>Covers multiple domains, covers conditions and outcomes</td>
<td>Uses unidimensional framework</td>
</tr>
<tr>
<td>Scale Name</td>
<td>Authors</td>
<td>Year</td>
<td>Properties</td>
<td>Framework/Item Count</td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>------</td>
<td>---------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Perceived Discrimination</td>
<td>Berry</td>
<td>2010</td>
<td>Measures acculturation conditions</td>
<td>Psychometric properties not available, uses unidimensional framework</td>
</tr>
<tr>
<td>Psychological Acculturation Scale</td>
<td>Tropp, Erkut, Coll, Alarcón, &amp; Garcia</td>
<td>1999</td>
<td>Good psychometric properties, covers multiple domains, covers conditions/orientations/outcomes</td>
<td>Uses unidimensional framework, few items</td>
</tr>
<tr>
<td>Scale of Acculturation</td>
<td>Rissel</td>
<td>1997</td>
<td>Good psychometric properties, covers multiple domains</td>
<td>Uses unidimensional framework, few items</td>
</tr>
<tr>
<td>Short Acculturation Scale</td>
<td>Wallen, Feldman, &amp; Anliker</td>
<td>2002</td>
<td>Good psychometric properties, covers multiple domains</td>
<td>Psychometric properties not available, uses unidimensional framework, few items</td>
</tr>
<tr>
<td>Short Acculturation Scale for Hispanic Youth</td>
<td>Barona &amp; Miller</td>
<td>1994</td>
<td>Good psychometric properties, covers multiple domains</td>
<td>Covers only sociocultural outcomes, uses unidimensional framework</td>
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<td>Short Acculturation Scale for Hispanics</td>
<td>Marín, Sabogal, Marín, Otero-Sabogal, Perez-Stable</td>
<td>1987</td>
<td>Frequently used, good psychometric properties, covers multiple domains</td>
<td>Uses unidimensional framework</td>
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<td>Sociocultural Adaptation Scale</td>
<td>Ward &amp; Kennedy</td>
<td>1994</td>
<td>Good psychometric properties, covers multiple domains</td>
<td>Covers only sociocultural outcomes, uses unidimensional framework</td>
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<td>Stephenson Multigroup Acculturation Scale</td>
<td>Stephenson</td>
<td>2000</td>
<td>Good psychometric properties, covers multiple domains</td>
<td>Uses unidimensional framework</td>
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<tr>
<td>Suinn-Lew Asian Self-Identity Acculturation Scale</td>
<td>Suinn, Ahuna, &amp; Khoo</td>
<td>1992</td>
<td>Good psychometric properties, covers multiple domains</td>
<td>Uses unidimensional framework</td>
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<tr>
<td>Vancouver Index of Acculturation</td>
<td>Ryder, Alden, &amp; Paulhus</td>
<td>2000</td>
<td>Frequently used, good psychometric properties, covers multiple domains</td>
<td>Covers only orientations</td>
</tr>
</tbody>
</table>
About the Authors

Ozgur Celenk is a PhD researcher at the Department of Cross-Cultural Psychology at Tilburg University. She has had a BA in Psychology, followed by a Msc. in Cross-Cultural Psychology in which she mainly focused on adult attachment styles, sex roles, and self construals as predictors of romantic relationship satisfaction among Turkish and British individuals. Her current research concentrates on the differences and similarities in marital and family dynamics among Turkish, Turkish-Dutch and Dutch couples and the particular role of acculturation in understanding these differences.
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Fons van de Vijver is professor of cultural psychology at Tilburg University, the Netherlands, and Professor Extraordinary at North-West University, South Africa and the University of Queensland, Australia. He obtained a PhD from Tilburg University in 1991. The study dealt with cross-cultural differences and similarities in inductive reasoning in Zambia, Turkey, and the Netherlands. He has written over 350 publications, mainly on cognition, acculturation, multiculturalism, and methodological aspects of cross-cultural studies (how can we design and analyze cross-cultural studies so as to maximize their validity?). With Kwok Leung from Hong Kong, he wrote a book on cross-cultural research methods (1997, Sage). He is the former Editor of the *Journal of Cross-Cultural Psychology*. He is the current President of the European Association of Psychological Assessment.
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Discussion Questions

1. What are the different aspects (both conceptual and empirical) a researcher needs to consider while adapting an existing acculturation measure to a new cultural context?
2. What may be the disadvantages of assessing acculturation by only focusing on a single life domain?
3. While focusing on strengths and weaknesses of scales in Table 1, do you think you can name a single winner?
4. Do you think information on internal consistencies (reliabilities) is sufficient enough to evaluate an acculturation instrument? What may be the other psychometric properties?
5. While assessing acculturation, how would you justify using a unidimensional framework?
6. What would be the advantages and disadvantages of assessing acculturation with few items?
7. What would be the advantages and disadvantages of assessing acculturation conditions, orientations and outcomes in a single scale? If you need to choose one aspect only (either conditions, orientations or outcomes), how would you decide?

8. Suppose that you are interested in acculturation of an immigrant or indigenous group in your country. Select the instrument from the table that would be best for your study (use the website at http://www.tilburguniversity.edu/ccis for additional information). Explain the strengths and weaknesses of the instrument for your study.