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**Assessment of acculturation and multiculturalism**

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## ⊟ Abstract and Keywords

This chapter presents an overview and content analysis of measures of psychological acculturation (referring to the psychological consequences of prolonged exposure to another culture) and psychological multiculturalism (referring to acceptance and support of the culturally plural composition of institutions such a class or society at large) available in the public domain. This chapter's presentation deals with the conceptual background (notably the dimensionality of the underlying conceptualization) and formal and psychometric properties of the measures, such as number of items, response anchors, and internal consistencies. A content analysis revealed that measures of acculturation tend to focus on sociocultural acculturation outcomes, followed by acculturation orientations and acculturation conditions. It is uncommon to assess the cultural context in which acculturation takes place. Multiculturalism is usually assumed to be a (conceptually) unidimensional, bipolar construct, although measures have pointed to differential endorsement across domains of multiculturalism. Multiculturalism measures target education, counseling, or society at large. Authors provide an Internet site with an overview of the measures and their characteristics; the measures can be downloaded from the site. This chapter formulates guidelines for choosing or developing measures of psychological acculturation and multiculturalism in the final section.
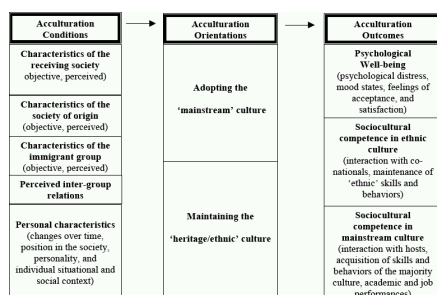
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# Assessment of Psychological Acculturation and Multiculturalism: An Overview of Measures in the Public Domain

Acculturation and multiculturalism are important concepts in culturally heterogeneous societies. The former refers to psychological changes that accompany prolonged intercultural contact, frequently as a consequence of migration, whereas the latter refers to individuals' recognition of and support for the plural composition of institutions like schools or society. The increased interest in migration and intergroup relations in psychology and related disciplines has led to a need to establish measures of these topics. The purpose of this chapter is to provide an overview of measures of both constructs that are available in the public domain so as to enable researchers and policy makers who plan to use these measures to make an informed choice. To our knowledge, this is the first overview that systematically reviews both the instrument characteristics and theoretical aspects of psychological acculturation and multiculturalism instruments that are available in the public domain. All measures in our overview can be downloaded free of charge from http://www.tilburguniversity.edu/ccis. More extensive overviews, not restricted to public domain measures, can be found in Rudmin (2009, 2011) and Taras (2007).

Measures of acculturation are described in the first section. The main characteristics of current models of acculturation are explained, followed by a systematic overview of the main characteristics of the instruments; these involve substantive aspects such as the theoretical background, as well as formal scale characteristics such as the number of items, response formats, and internal consistencies. The second part of the chapter follows the same format for multiculturalism. We present general conclusions and recommendations in the final part.

# Acculturation Theory



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Figure 1 . Model of Acculturation (Arends-Toth & Van de Vijver, 2006b)

Plural societies include distinct cultural groups, and contact among these groups can result in different individual and group processes. 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 definition is old yet still widely used. Acculturation affects individuals at behavioral, affective, and cognitive levels of functioning (Cuellar, Arnold, & Maldonado, 1995). A conceptual model is adopted here in which the process of acculturation is viewed as the interplay of three components: acculturation conditions, orientations, and outcomes (see Figure 1; Arends-Toth & Van de Vijver, 2006b).

*Acculturation conditions*, the first component of the model, refer to the context and resources behind the acculturation process. Examples are group-level factors, including characteristics of the receiving society (e.g., perceived or objective discrimination and integration policies in a country; Bourhis, Moise, Perrault, & Senecal, 1997; Huddlestone & Niessen, 2011), society of origin (e.g., political context), and the immigrant group (e.g., ethnic vitality, referring to institutions that cater to an ethnic group such as places of worship and social and material support networks; Giles, Bourhis, & Taylor, 1977). Personality factors can also be viewed as pertaining to acculturation conditions; for example, extraversion and openness have been shown to facilitate adjustment to a new cultural context (Matsumoto, Le Roux, Robles, & Campos, 2007; Van der Zee & Van Oudenhoven, 2000, 2001).

*Acculturation orientations* (also labeled acculturation strategies and styles), the second component of the model, refer to the way immigrants want to deal with the ethnic and mainstream culture (alternative names used in the literature for ethnic culture are heritage culture/country and culture/country of origin, whereas the mainstream culture is also referred to as receiving society, host society, and the dominant or majority culture). There are two theoretical perspectives on the relationships between the ethnic and mainstream culture. The original view holds that acculturation involves a single underlying dimension (e.g., Gordon, 1964). In this view, immigrants follow the same path that starts from being completely immersed in the ethnic culture at the time of arrival in the host country. They then embark on a process of adjustment. This dimension is bipolar with full immersion in the culture of origin at one end and full immersion in the mainstream culture at the other end.

The main assumption of the unidimensional model, that the acculturation process always ends with a state of full immersion in the new cultural context, has been criticized (for a recent critique, see Benet-Martinez, 2012. An alternative framework was developed by Berry (1984). This approach abandons the assumption of unidimensionality and holds that orientation toward or involvement with each culture (ethnic and host) are conceptually independent constructs in the acculturation process and that immersion in the ethnic and mainstream culture can be compatible. Based on this two-dimensional approach, Berry's (1984, 1997) model of acculturation identifies four possible types of acculturation orientations, based on whether the immigrant wants to adopt the mainstream culture and whether he or she wants to maintain the ethnic culture.[1] Integration amounts to a preference of both maintenance and adoption (biculturalism); assimilation refers to the desire to adopt the mainstream culture while losing the ethnic culture. Separation is the opposite of assimilation. The final type is marginalization, which applies when an immigrant does not want to relate to either culture. Marginalization is usually not a deliberate choice but rather a consequence of being unable to relate to one culture (e.g., the ethnic culture is viewed as backward by the immigrant) and being rejected by the other culture (e.g., the mainstream group discriminates against immigrants). Marginalization is a fairly uncommon orientation; the studies that reported relatively high frequencies involved adolescents and young adults (Eldering & Knorth, 1998). An international study involving more than 7,000 adolescents from 13 different societies found immigrant youth to display four different types of acculturation strategies (labeled integration, diffuse, national, and ethnic), which varied with the immigration policy and history of the country (Berry, Phinney, Sam, & Vedder, 2006). Based on the same study, Benet-Martínez (2012) suggests that the correlation between mainstream and ethnic orientation depends somewhat on the immigration policy and history of a country; slightly positive correlations have been reported in countries with a long immigration history such as the United States and Canada, whereas slightly negative correlations have been found in European countries that have a much shorter history of immigration (and in most cases a more restrictive immigration legislation; Huddlestone & Niessen, 2011). Another aspect of acculturation orientations is their *domain specificity*, notably the distinction between private and public domains. There is evidence that the preference for adopting the mainstream culture or maintaining the original culture varies across life domains. For instance, Gungor (2007) suggested that maintaining values of the culture of origin may have a positive adaptive value in private domains such as family and marriage, but supporting adoption to the mainstream culture may predict positive outcomes in public domains such as school or work settings. Also, Arends-Toth and Van de Vijver (2003) found evidence among Turkish-Dutch immigrants for more ethnic cultural maintenance in the private domain and more endorsement of both cultures in the public domain.

Two types of *acculturation outcomes* are commonly discerned, labeled psychological outcomes (internal adjustment, that is, "being well") and behavioral adaptation (external adjustment, that is, "doing well") (Ward, Bochner, & Furnham, 2001; Ward & Kennedy, 1999; Ward, Leong, & Low, 2004). Internal adjustment, usually referred to as psychological adjustment, includes the emotional and affective acculturation outcomes that are identified as psychological well-being and satisfaction in the new cultural context. The second acculturation outcome, external adjustment, refers to life skills needed to function in a specific cultural context. We make a distinction in Figure 1 between competencies in the ethnic and mainstream culture. Traditionally, external adjustment has focused on life skills in the host domain, such as speaking the mainstream language, having mainstream friends and acquaintances, being schooled in the mainstream country, or having a job. These outcomes are usually referred to as sociocultural adjustment (e.g., Ward & Kennedy, 1999).

However, we argue that life skills in the ethnic domain, such as maintaining the ability to speak the ethnic language and maintaining a support network in that group, are also outcomes of the acculturation process. So, we propose that "doing well" has two components for the immigrant, namely survival skills in the mainstream culture (such as speaking the host language) and in the ethnic culture (such as speaking the ethnic language). It is unfortunate and indeed counterproductive to associate acculturation outcomes only with adjustment to the mainstream culture. Furthermore, the neglect of outcomes in the ethnic domain creates a biased view of acculturation outcomes. It is very common in the literature nowadays to consider both the ethnic and host culture when assessing acculturation orientations. However, when assessing outcomes, it is easy to lose sight of the dual nature of acculturation and to focus only on adjustment. We would like to note that the emphasis on adaptation in acculturation outcomes and the lack of attention for outcomes in the ethnic domain is characteristic for the social and behavioral sciences; sociolinguists have been better at striking a balance between ethnic and mainstream outcomes. They study both language acquisition of the mainstream language and maintenance (or loss) of the ethnic language after immigration (e.g., Clyne, 1991). We think it is important to follow the same path.

## Two caveats about terminology

One important point to mention while assessing acculturation is the interpretation of the concept of unidimensionality. In the context of the present chapter, the term refers to the theoretical framework undergirding the assessment of acculturation orientations (e.g., Franco, 1983; Gordon, 1964). Thus, in a unidimensional framework, an individual identifies himself/herself as either belonging to the mainstream culture or the culture of origin and his or her acculturation can be represented on a continuum (line) that goes from complete maintenance to complete adoption. Another interpretation of unidimensionality does not address the relationship between belonging to the mainstream culture and the culture of origin but refers to the number of factors (in an exploratory or confirmatory factor analysis) identified either for the maintenance or adoption dimension (e.g., Leung & Chiu, 2010). In this chapter, we refer to the use of the *unidimensional* framework (either theoretical or methodological) and we refer to (or imply) *unifactorial* solutions of the scales in exploratory or confirmatory factor analyses.

Another caveat involves the use of the term *adaptation*. Despite its frequent usage in the literature, we argue here that adaptation is a problematic concept to use in acculturation for two reasons. Firstly, the concept can be questioned in the same way as it has been criticized in the domain of evolutionary biology (e.g., Lewontin, 1977). Lewontin argues, among other things, that the concept of adaptation is ambiguous, because it can refer to the process of an organism adapting to its environment as well as the end state of this process in which the organism is fully adapted to the context. This ambiguity has a linguistic origin. The Merriam-Webster defines adaptation as "the act or process of adapting: the state of being adapted" (http://www.merriam-webster.com/dictionary/adaptation). So, applied to acculturation, adaptation can refer to the process of the immigrant adjusting to the new culture and to the end state of this process. However, the distinction between process and endpoint is usually important in acculturation research; therefore, using a single term for both meanings can be misleading. Secondly, adaptation refers to a process in which the organism eventually becomes fully adjusted to the new context. Such a term may well be adequate in a unidimensional view of acculturation, in which all immigrants lose their ethnic identity to become fully immersed in the mainstream culture, but is inadequate in a bidimensional model in which more outcomes are possible. There are two ways to avoid the terminological confusion. The first is to refer to outcomes instead, as done in the present chapter. The word *outcome* is intentionally more ambiguous than *adaptation* to refer to the endpoint of the acculturation process, because the latter term only refers to the processes of adopting the host culture and does not refer to maintenance of the heritage culture. The second way to avoid the terminological confusion is to be more precise in what is meant: Is the process or the final state meant? Similarly, if sociocultural outcomes are discussed, it is important to mention the cultural context of the outcome (i.e., ethnic or mainstream).

# Content Analysis of Acculturation Measures

Zane and Mak (2003) conducted a content analysis of the acculturation scales most commonly used among Asian, Hispanic, and African Americans. We update their overview and broaden it to measures used outside the United States. The criterion for inclusion in our review was the public availability[2] of the instrument.

## Retrieval of instruments

Self-report acculturation measures were searched via various English peer-reviewed journals' electronic databases such as PsycINFO and PsycArticles. In order to identify the acculturation measures, several keywords were used such as *assessment of acculturation, acculturation, measurement,* and *meta-analysis.* Moreover, a message was posted on a listserv for cross-cultural psychologists to obtain additional measures. The search yielded 111 acculturation measures. An important inclusion criterion was the availability of the original items. Items of only 59 measures were available.

The measures were coded according to a scheme that was created by the authors. Each instrument was reviewed based on that coding scheme. The coding scheme consisted of two main sections. The first included *theoretical issues* including which aspects of the acculturation process were measured (conditions, orientations, and/or outcomes), which conceptual model was used (unidimensional or bidimensional), and which life domains were represented in the measure. The second involved *formal item/instrument characteristics* including name of the scale, authors, publication year, target group, age group, reliabilities, background questions, subscales, number of items, question format, and response format. Only 50 measures could be systematically reviewed based on all these criteria; these were used in further analyses (the final list of the instruments can be seen in Table 1). An extended version of the table that has all codings of each instrument on all categories can be accessed from http://www.tilburguniversity.edu/ccis. In the following section, each criterion is discussed in detail; the first part deals with the *theoretical issues* and the second part deals with *formal item/instrument characteristics*.

Table 1 *Alphabetic Listing of Acculturation Measures in the Public Domain (*More extensive version of the table, including review of the each instrument based on each criterion separately can be accessed from http://www.tilburguniversity.edu/ccis)

| Name | Author(s) | Year | Strengths | Weaknesses |
|------|-----------|------|-----------|------------|
| Abbreviated Multidimensional Acculturation Scale | Zea, Asner-Self, Birman, & Buki | 2003 | High internal consistency, multiple domains covered | Only measures host domain outcomes |
| Acculturation Attitudes Scale | Sam & Berry | 1995 | Measures each orientation separately | Psychometric properties not available |

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|---|---|---|---|---|
| Acculturation Attitudes Scale-Revised | Berry | 2010 | Uses bidimensional framework | Psychometric properties not available, double-barreled questions |
| Acculturation Index | Ward & Rana-Deuba | 1999 | Multiple domains, good psychometric properties | Only measures behaviors |
| Acculturation Rating Scale for Mexican Americans | Cuellar, Harris, & Jasso | 1980 | Frequently used, multiple domains | Only measures host domain outcomes |
| Acculturation Rating Scale for Mexican-Americans—Short Form | Dawson, Crano, & Burgoon | 1996 | Multiple domains | Psychometric properties not available |
| Acculturation Scale | Ghuman | 1997 | Multiple domains | Only measures host domain outcomes |
| Acculturation Scale for Mexican-American | Deyo, Diehl, Hazuda, & Stern | 1985 | Frequently used | Psychometric properties not available, only measures host language knowledge |
| Acculturation Scale for Mexican-AmericanII | Cuellar, Arnold, & Maldonado | 1995 | Multiple domains, good psychometric properties | Covers only sociocultural outcomes |
| Acculturation Scale for Vietnamese Adolescents | Nguyen & von Eye | 2002 | Multiple domains, good psychometric properties | Only measures host domain outcomes |
| Acculturation, Habits and Interests Multicultural Scale for Adolescents | Unger et al. | 2002 | Covers conditions, orientations and outcomes, good psychometric properties | Covers few domains |
| Acculturative Hassles | Vinokurov et al. | 2002 | Multiple domains | Only measures host domain outcomes |
| Acculturative Stress Inventory for Children | Suarez-Morales et al. | 2007 | One of the few scales that measure conditions | Covers few domains |
| Acculturative Stress Scale | Salgado de Snyder | 1987 | Multiple domains | Poor psychometric properties |
| Adopt and Keep Scale | Swaidan, Vitell, Rose, & Gilbert | 2006 | Clear measure of orientations, uses bidimensional framework | Few items per subscale |
| African American Acculturation Scale | Landrine & Klonoff | 1994 | Multiple domains, good psychometric properties, covers both attitudes and behaviors | Uses unidimensional framework, some items are unique for maintaining African-American culture |
| American Puerto Rican Acculturation Scale | Cortes et al. | 2003 | Multiple domains | Covers only sociocultural outcomes |
| Asian American Multidimensional Acculturation Scale | Gim Chung, Kim, & Abreu | 2004 | Multiple domains, good psychometric properties | Does not cover orientations |
| Bicultural Identity Integration Scale (BIIS-1) | Benet-Martinez & Haritatos | 2005 | Detailed measure of integration | Few items per subscale |
| Bicultural Identity Integration Scale (BIIS-2) | Huynh & Benet-Martinez | 2009 | Detailed measure of integration | Psychometric properties not yet available |

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|---|---|---|---|---|
| Bicultural Involvement Questionnaire | Szapocznik et al. | 1980 | Multiple domains, frequently used, good psychometric properties | Only measures outcomes |
| Bidimensional Acculturation Scale for Hispanics | Marin & Gamba | 1996 | Adequate number of items in subscales | Only measures outcomes, some subscales low reliability, no information on question format and response options |
| Brief Acculturation Scale | Meredith et al. | 2000 | Good psychometric properties | Few items, covers few domains |
| Brief Acculturation Scale for Hispanics | Norris et al. | 1996 | Good psychometric properties | Few items, covers few domains |
| Children's Hispanic Background Scale | Martinez et al. | 1984 | Good psychometric properties, adequate number of items in scale | Only measures outcomes |
| Children's Acculturation Scale | Franco | 1983 | Good psychometric properties, covers multiple domains | Uses unidimensional framework |
| Cultural Life Style Inventory | Mendoza | 1989 | Good psychometric properties, adequate number of items in scale | Uses unidimensional framework |
| Cultural Readjustment Rating Questionnaire | Spradley & Phillips | 1972 | Covers multiple domains, adequate number of items in scale | Psychometric properties not available |
| Culture Shock Questionnaire | Mumford | 1998 | Covers psychological outcomes | One subscale with poor psychometric properties, uses unidimensional framework |
| General Ethnicity Questionnaire | Tsai et al. | 2000 | Good psychometric properties, covers multiple domains, covers conditions/ orientations/outcomes | Covers only sociocultural outcomes |
| Homesickness and Contentment Scale | Shin & Abell | 1999 | Good psychometric properties, adequate measure of outcomes, infrequently studied concept | Uses unidimensional framework |
| Internal-External Ethnic Identity Measure | Kwan & Sodowsky | 1997 | Good psychometric properties, covers multiple domains | Uses unidimensional framework |
| Italian Ethnic Identity Measure | Laroche, Kim, Tomiuk & Belisle | 2005 | Covers both attitudes and behaviors | Few items per subscale, uses unidimensional framework |
| Media Acculturation Scale | Ramirez, Cousins, Santos, & Supik | 1986 | | Psychometric properties not available, only one domain covered, few items, uses unidimensional framework, only covers outcomes |
| Multicultural Experience Survey | Leung & Chiu | 2010 | Good psychometric properties, covers multiple domains | Uses unidimensional framework |
| Multidimensional Acculturative Stress Inventory | Rodriguez et al. | 2002 | Good psychometric properties, covers multiple domains, covers conditions/ orientations/outcomes | Covers only sociocultural outcomes |
| Multidimensional Acculturative Stress Scale | Jibeen & Khalid | 2010 | Covers multiple domains, covers conditions/ orientations/outcomes | Psychometric properties poor for two subscales |
| Na Mea Hawai'i Scale | Rezentes | 1993 | Covers multiple domains | Psychometric properties not available, only covers outcomes, uses unidimensional framework |
| Native American | Garrett & | 2000 | Covers multiple domains, covers | Uses unidimensional framework |

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| Acculturation Scale | Pichette | | conditions and outcomes | |
|---|---|---|---|---|
| Perceived Discrimination | Berry | 2010 | Measures acculturation conditions | Psychometric properties not available, uses unidimensional framework |
| Psychological Acculturation Scale | Tropp, Erkut, Coll, Alarcon, & Garcia | 1999 | Good psychometric properties, covers multiple domains, covers conditions/orientations/outcomes | Uses unidimensional framework, few items |
| Riverside Acculturation Stress Inventory | Benet-Martinez | 2003 | Covers multiple domains, covers conditions and outcomes | Covers only sociocultural outcomes |
| Scale of Acculturation | Rissel | 1997 | Good psychometric properties, covers multiple domains | Uses unidimensional framework, covers only sociocultural outcomes, few items |
| Short Acculturation Scale | Wallen et al. | 2002 | | Psychometric properties not available, uses unidimensional framework, few items |
| Short Acculturation Scale for Hispanic Youth | Barona & Miller | 1994 | Good psychometric properties, covers multiple domains | Covers only sociocultural outcomes, uses unidimensional framework |
| Short Acculturation Scale for Hispanics | Marin et al. | 1987 | Frequently used, good psychometric properties, covers multiple domains | Uses unidimensional framework |
| Sociocultural Adaptation Scale | Ward & Kennedy | 1999 | Good psychometric properties, covers multiple domains | Covers only sociocultural outcomes, uses unidimensional framework |
| Stephenson Multigroup Acculturation Scale | Stephenson | 2000 | Good psychometric properties, covers multiple domains | Covers only sociocultural outcomes |
| Suinn-Lew Asian Self-Identity Acculturation Scale | Suinn, Ahuna, & Khoo | 1992 | Good psychometric properties, covers multiple domains | Uses unidimensional framework |
| Vancouver Index of Acculturation | Ryder et al. | 2000 | Frequently used, good psychometric properties, covers multiple domains, covers orientations and outcomes | Covers only sociocultural outcomes |

## Theoretical issues

### Acculturation conditions

Acculturation conditions are defined as the background settings including the characteristics of the receiving society, characteristics of the society of origin, characteristics of the immigrant group, perceived intergroup relations (discrimination versus acceptance) and personal characteristics that capture both the individual and group level acculturation processes (see Arends-Toth & Van de Vijver, 2006a). Statements such as "I think that Canadian society discriminates against me just because I am Pakistani" (Multidimensional Acculturative Stress Scale; Jibeen & Khalid, 2010), and "You saw another Russian student treated badly or discriminated against" (Acculturative Hassles; Vinokurov, Trickett, & Birman, 2002) assess acculturation conditions. Half the measures (50%) do not include any statements measuring acculturation conditions. It is argued that it is critical to examine acculturation conditions in order to determine the context-specific aspect of acculturation processes (Arends-Toth & Van de Vijver, 2006b). Measures of acculturation conditions can help to provide an insight in the general context of acculturation. For example, there is evidence that ethnic vitality can play an important role in acculturation (e.g., Yagmur & Van de Vijver, 2012).

### Acculturation orientations

The second component of the acculturation process is called acculturation orientations, which are conceptualized in our mediation model of acculturation as the links between acculturation conditions and acculturation outcomes. Acculturation orientations refer to ways to deal with both the ethnic culture and the mainstream culture (adopting the mainstream culture and/or maintaining the ethnic culture) (Te Lindert, Korzilius, Van de Vijver, Kroon, & Arends-Toth, 2008). Examples of items assessing acculturation orientations include "I believe in the values of my heritage culture" (Vancouver Index of Acculturation; Ryder, Alden, & Paulhus, 2000) and "I enjoy going to American gatherings or parties" (Acculturation Scale for Vietnamese Adolescents (ASVA); Nguyen & von Eye, 2002). Although often considered to be the core of acculturation (Arends-Toth & Van de Vijver, 2006b), only 50% of the measures included statements to measure either dimensional (maintaining ethic culture and/or adopting the mainstream culture) or categorical (assimilation, marginalization, separation, integration) acculturation orientations.

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Acculturation orientations are mostly assessed by asking about attitudes. Acculturation attitudes are preferences (likes and dislikes) of the immigrant group or the mainstreamers toward the acculturation process (Arends-Toth, Van de Vijver, & Poortinga, 2006). Items such as "I like to have Mexican food better than the other food" (A Children's Hispanic Background Scale; Martinez, Norman, & Delaney, 1984) and "What language do you prefer?" (Native American Acculturation Scale; Garrett & Pichette, 2000) are aimed to measure acculturation attitudes. Acculturation attitudes are assessed in 66% of the measures.

## Acculturation outcomes

The third aspect of the acculturation process is related to the consequences of acculturation conditions and orientations. It involves both psychological outcomes such as well-being (presence of positive outcomes and absence of negative outcomes involving stress) and sociocultural outcomes such as achievement of effective and appropriate behaviors, culturally appropriate skills, language, and cultural knowledge (Te Lindert et al., 2008; Ward et al., 2001). Additionally, Arends-Toth and Van de Vijver (2006a) argued that sociocultural competence in ethnic culture as well as sociocultural adaptation to the mainstream culture are essential to study and need to be addressed in acculturation measures. Statements in order to measure psychological acculturation outcomes include "I feel sad when I do not see my cultural roots in this society" (Multidimensional Acculturative Stress Scale; Jibeen & Khalid, 2010). Sociocultural outcomes are measured by using statements such as "I am familiar with important people in American history" (Stephenson Multigrain Acculturation Scale; SMAS, Stephenson, 2000) and "I have a hard time understanding others when they speak English" (Multidimensional Acculturative Stress Inventory; Rodriguez, Myers, Mira, Flores, & Garcia-Hernandez, 2002). Most measures deal with outcomes, notably sociocultural skills in the mainstream culture (65.3 %) and psychological outcomes (11.6 %); 23.1% do not include any statements to assess acculturation outcomes. Sociocultural outcomes with regard to the host culture are the most common acculturation measure. Such items measure how far the immigrant has progressed in acquiring the new culture (and language). This preponderance is presumably the explanation of why adaptation is such a popular term in acculturation.

Acculturation outcomes are mostly measured by asking about usually overt, explicit behaviors or competencies of the immigrant or mainstream groups (Arends-Toth & Van de Vijver, 2006b). Items such as "I often participate in my heritage cultural traditions" (Vancouver Index of Acculturation; Ryder et al., 2000) and "What language do you usually speak at home?" (Brief Acculturation Scale for Hispanics; Norris, Ford, & Bova, 1996) are examples of acculturation behaviors. A vast majority of 86.3% of the subscales include items to measure behaviors. We should emphasize that percentages of acculturation outcomes and acculturation behaviors do not overlap (similar to percentages of acculturation orientations and acculturation attitudes). This difference between the percentages can be explained in terms of certain measures using acculturation attitudes to measure acculturation outcomes (e.g., Culture Shock Questionnaire; Mumford, 1998), or assessing acculturation orientations by using acculturation behaviors (e.g., Vancouver Index of Acculturation; Ryder et al., 2000).

In terms of the distinction between conditions, orientations, and outcomes, we have analyzed how many measures assessed each of these components separately or in combination. Just over half the instruments (54.2 %) addressed one aspect only (conditions, orientations, or outcomes), 31.2% involved two aspects, and 14.6% measured all three aspects (e.g., General Ethnicity Questionnaire; Tsai, Ying, & Lee, 2000). It can be concluded that there is an emphasis in the literature on assessing the level of adjustment to the host society, even though, from a conceptual point of view, adjustment to the host society constitutes just one aspect of acculturation and leaves out all maintenance-related aspects as well as an analysis of the acculturation context.

## Life domains

It has been found that cultural adoption and maintenance by immigrants vary across life domains. According to Arends-Toth and Van de Vijver (2003), the private domain involves more personal spheres (e.g., family), whereas the public domain involves social life (e.g., professional life and educational life). Multiple domains are mentioned in most scales (90.4%). The most frequently mentioned domains are language, food, media, friends, romantic relationships, and family. Interestingly, 70.6% of the measures include various statements for language, followed by food (35.3 %) and media (music, television, books, newspapers, and radio; 27.4 %).

Examples of public domain items are "I understand English, but I am not fluent in English" (Stephenson Multigrain Acculturation Scale (SMAS); Stephenson, 2000), "I like to eat American food" (Acculturation Scale for Vietnamese Adolescents (ASVA); Nguyen & von Eye, 2002) and "How often do you watch television programs in English?" (Bidimensional Acculturation Scale for Hispanics (BAS); Marin & Gamba, 1996). Acculturation in the private domain has been measured by items such as "How important would it be to you for your children to have all American friends?" (American Puerto Rican Acculturation Scale; Cortes et al., 2003s) and "Not being able to be a good Mexican wife because of unfamiliarity with new environment" (Acculturative Stress Scale; Salgado de Snyder, 1987). As the acculturation process can be domain specific, both public and private components need to be taken into consideration in measures of acculturation (Cabassa, 2003). Moreover, some domains are age dependent (e.g., Perceived Discrimination in School Domain; Acculturative Stress Inventory for Children; Suarez-Morales, Dillon, & Szapocznik, 2007, Marriage Domain; Acculturative Stress Scale; Salgado de Snyder, 1987). It can be concluded that many scales cover multiple domains. The choice-of-life domains depend on age and ethnic and target culture; clearly, local knowledge is essential in selecting the domains and specific items in acculturation instruments.

## Conceptual model

The conceptual model refers to the implicitly or explicitly mentioned (conceptual) dimensionality of measures. The most commonly employed measures are based on either a unidimensional or bidimensional (multidimensional) model. The former refers to measuring immersion in the ethnic culture and immersion in the host culture as polar opposites, whereas the latter treats adopting the mainstream culture and maintenance as two independent dimensions (Berry, 1984, 1992). Unidimensional measures include items such as "In what language do you usually think?" with response options ranging from "Only Arabic" to "Only English" (Scale of Acculturation; Rissel, 1997) or "How do you identify yourself?" with the options "Mexican-Chicano-Mexican American-Spanish American, Latin American, Hispanic American, American-Anglo American or other" (Acculturation Rating Scale

for Mexican Americans (ARSMA); Cuellar, Harris, & Jasso, 1980). Bidimensional acculturation can be assessed by items such as "How often do you speak Spanish?" (The Bidimensional Acculturation Scale for Hispanics (BAS); Marin & Gamba, 1996) or "How much do you enjoy American music?" (Bicultural Involvement and Adjustment Scale for Hispanic-American Youths; Szapocznik, Kurtines, & Fernandez, 1980). A majority of 59% have a bidimensional structure, whereas 41% measure the acculturation process as unidimensional. It seems fair to conclude that the bidimensional model dominates the literature in the last decades (LaFromboise, Coleman, & Gerton, 1993).

It has been argued that unidimensional measures cannot fully identify how individuals balance both the culture of origin and the host culture during the acculturation process (Marin & Gamba, 1996). Bicultural individuals will usually get a score close to the scale midpoint, because they are neither fully assimilated nor fully separated. However, such a midpoint score does not adequately capture their bicultural nature. A fully bicultural person would need a high score on both endpoints of the scale (cultural maintenance and cultural adoption). In some cases, it might be possible to compute biculturalism scores on the basis of a unidimensional measure by score conversion. A midpoint score would then be converted to a maximum score, and the other scores are transformed to measures of the distance to the midpoint. For example, suppose that we have a response scale with anchors ranging from 1 to 5. Scores of 1, 2, 3, 4, and 5, would then be converted to 1, 2, 3, 2, and 1, respectively. This scoring has a potential problem in the sense that it confounds integration and marginalization; a person with a score on the midpoint could be either integrated (as experiencing to be part of both cultures) or marginalized (as not experiencing to be part of either culture). This problem can be solved by adding a question on marginalization or including a separate category pointing to marginalization as a response anchor (e.g., *not belonging to either culture*). However, even this solution may yield less information than using a bidimensional measure in which cultural adoption and maintenance are independently assessed.

## Formal item/instrument characteristics

### Target group

It has been argued that a universal measure of acculturation that can be applied across different ethnic groups does not exist and that only group-specific instruments can be developed (Clark & Hofsess, 1998). This view seems to prevail among instrument developers. Our overview of the publicly available measures indicated that 54.9% of the measures are directed to a specific group and refer to this group in the items. The vast majority of the target groups include ethnic groups in the United States, such as Mexican-Americans, Hispanics, Cubans, Southeast Asians, Vietnamese, Puerto Ricans, Hawaiians, and Native Americans (e.g., A Short Acculturation Scale for Hispanics; Marin, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987; An Acculturation Scale for Mexican Americans; Deyo, Diehl, Hazuda, & Stern, 1985). Other groups are Russian, Pakistani, Soviet Jewish, and Arabic immigrants (e.g., Multidimensional Acculturative Stress Scale by Jibeen & Khalid, 2010; Scale of Acculturation by Rissel, 1997).

Scales that have been developed for a specific group may not show adequate validity in other groups and may need to be adapted, even if the underlying themes of the questionnaire are applicable in the other groups. Such test adaptations have two stages. The first involves a conceptual stage including an analysis of the target immigrant group and its cultural context. In some cases, the adaptation of the original instrument may be restricted to implementing new labels to other groups. However, such adaptations may not be adequate for items that refer to group-specific practices, such as celebrations, foods, or religious practices. The second involves a psychometric evaluation of the new instrument, addressing among other things, the internal consistency and factorial composition in the new group. Our literature review did not produce examples of tests of the equivalence of instruments across different groups. Yet, with the advent of comparative acculturation studies (Sam & Berry, 2006), the equivalence of the scales becomes an important issue to address.

### Age group

A sizeable minority of the measures, 33.3%, are directed to a specific age group. More specifically, 13.3% are developed for adults (e.g., Acculturation Rating Scale for Mexican-Americans; Cuellar, Harris, & Jasso, 1980), 12% are targeted at youth and adolescents (e.g., Acculturation Scale for Vietnamese Adolescents; Nguyen & Von Eye, 2002), and 8% are for children (e.g., A Children's Hispanic Background Scale; Martinez et al., 1984). It can be concluded that most measures are not developed for a specific age group, which does not imply their adequacy for all age groups. Some items and life domains may be applicable to all age groups (such as wanting or having friends from ethnic and mainstream groups), but others are age specific (such as preferred ethnicity of marriage partner).

### Reliabilities

It has been argued that, despite the fact that theoretical perspective is meticulously covered in the acculturation measure, low internal consistencies and misinterpretation of the reliabilities may result in misinterpretation of the results that are expected to affect the validity of the measures (Huynh, Howell, & Benet-Martinez, 2009). Reliabilities are reported for most measures; only 20% do not report any measure of internal consistency (e.g., Acculturation Attitudes Scale; Sam & Berry, 1995). Internal consistencies lower than 0.70 for one or more subscales are reported for 10.5% of the scales (where acculturation is measured in a single scale) and 13.1% of the subscales (where acculturation is measured in subscales) (e.g., reliability is reported as 0.64 for the language barrier subscale and 0.56 for the homesickness subscale of the Multidimensional Acculturative Stress Scale; Jibeen & Khalid, 2010). It can be concluded that internal consistencies are usually reported and that the reported reliabilities tend to be higher than 0.70, which is sufficient by common standards (e.g., Cicchetti, 1994).

### Proxy measures of acculturation

Proxies of acculturation refer to indirect measures that are presumably related to the process of acculturation. We refer here in particular to background variables as proxies for acculturation. The most commonly used proxies are place of birth, parental country of origin, length of stay, and generational status. Proxies are believed to yield reliable and valid information that is correlated with "softer" measures of the acculturation process such as preferences (Cruz, Marshall, Bowling, & Villaveces, 2008); yet, it is often neither well specified nor justified how the soft and hard measures can be combined. Several studies use one-item measures of acculturation, such as generation status (with a common distinction between the first generation that is foreign born and the second generation that is born in the host country, and infrequently a "1.5 generation" that is foreign born and

followed education in the host country). A minority of 19.6% of the reviewed measures include items about the background of the participants (e.g., language use items in Short Acculturation Scale; Wallen, Feldman, & Anliker, 2002). The use of proxy measures has some advantages in the sense that they are simple to assess. In conclusion, proxies often provide "quick and dirty" measures that can be valuable when complemented by other measures to yield a full-fledged picture of acculturation. However, when used in isolation, such measures lack detail and do not make any distinction between the process of acquiring a new culture (such as language acquisition) and the effects/outcomes of acculturation (e.g., acculturative stress) (Alegria, 2009; Cuellar, Arnold, & Maldonado, 1995).

## Subscales

We discuss both scales and subscales: When we mention single scales, we refer to instruments in which there is one scale measuring acculturation and when we mention multiple scales (subscales), we refer to instruments with two or more subscales measuring different components of acculturation in Figure 1 and we review each of them separately.[3] Some examples of the subscales are language competence, cultural identity, ethnic orientation, involvement in the country of origin and host culture, acculturative stress, and use of electronic media. A more elaborate description of the life domains covered in the measures (either as separate subscales or as part of a single scale) is given in the next section. Most measures of acculturation (52.9%) consist of a single scale (e.g., Acculturation Attitudes Scale; Sam & Berry, 1995), whereas 47.1% include two or more subscales (e.g., language use, linguistic proficiency, and use of electronic media subscales of Bidimensional Acculturation Scale for Hispanics; Marin & Gamba, 1996).

## Number of items

The minimum number of items in the measures is 2 and the maximum number of items is 39 ($M$ = 10.4, $SD$ = 8.4). The distribution is fairly skewed, with many relatively short scales; only 34.8% of the measures (either single scale or multiple scale measures) are longer than the mean of 10.4 items, whereas the remaining 65.2% are shorter. More than half (52.4%) of the measures (either a single scale or multiple scale measures) have fewer than 10 items (e.g., Brief Acculturation Scale; Meredith, Wenger, Liu, Harada, & Kahn, 2000). Short measures of acculturation (in our overview, measures with less than 10 items are considered short as they are below the mean of 10.4 items) can face validity problems (Bayer, Brisbane, Ramirez, & Epstein, 1998). It is difficult to see how the complexities and subtleties of the acculturation process can be assessed in just a handful of items. Even though there is not a widely accepted definition of when an instrument is too short, construct underrepresentation of acculturation is unavoidable in these measures.

## Question format

Open-ended questions are almost never used; almost all questionnaires employ only a forced-choice format. Two types of item formats are used: questions and statements. An example of the statement format is "My mother talks to her parents in Spanish" (A Children's Hispanic Background Scale; Martinez et al., 1984) and an example of the question format is "What is your food preference?" (Acculturation Rating Scale for Mexican Americans; Cuellar et al., 1980). These formats are typically used for all items of a scale; however, some scales combine both formats (e.g., Acculturation Scale for Vietnamese Adolescents; Nguyen, & von Eye, 2002. The statement format is used in 59.2% of the scales; the question format is used slightly less (36.7%), whereas the combined format is very infrequently used (4.1%). The use of a combined question format may be complex for both the participant (because it requires a mental switch in answering items) and the researcher (because different response formats have to be combined in a single score).

## Response format

Endorsement ratings ranging from "Strongly disagree" to "Strongly agree" or from "No difficulty" to "Extreme difficulty" are the most commonly used response format (30.9%). Forced choice format is the second most common format (27.2% of the scales). Examples of the response format of forced choice questions are "Only <Ethnic Language>"–"Only <Mainstream Language>," "Yes-No," "True-False" and *"Totally <Ethnic Culture>"*–"Totally <Mainstream Culture>." The third, most common response format is a combination of various formats including endorsement, frequency, proficiency, and forced choice format in a single scale/subscale (22.2%); the final one is the frequency format ranging from "Not Very Much–Very Much" and "Not At All–Almost Always" (17.3%).

## Conclusion

Researchers who want to select an existing instrument or to adapt an instrument for a specific group may be interested in an overview of measures, but they may be interested even more in an evaluation of the quality of the measures. In order to guide the search, we compiled a list of strengths and weaknesses of the instruments (see Table 1; an extended version can be found at http://www.tilburguniversity.edu/ccis). The first and most important conclusion of our overview is that various measures are adequate, but there is no clearly superior inventory in the sense that, from Table 1, there is no scale without any weaknesses. This is hardly surprising, considering the diversity of the field and complexity of the construct to be covered.

An inspection of the scales suggests that several authors seem to have worked from an implicit template in their design of acculturation measures. Various formal instrument characteristics are shared; thus, most instruments are targeted at a specific cultural group (though not at a specific age group), infrequently use proxy measures, comprise single scales including short and few items, use a Likert scale format and endorsement or forced choice response format, and show relatively high internal consistencies.

The question of whether an existing scale can be used in another cultural context with other groups than originally intended has both conceptual and empirical aspects. The main conceptual issue involves the adequacy of the instrument in the new context. Are the life domains that are covered in the instrument also relevant in the new cultural context? Should additional domains be covered? Are the question and response formats adequate in the target group? So, a choice of instrument should relate the instrument to an analysis of the context in which the group will be administered. In addition to the conceptual aspects, data-analytic aspects of the new instrument have to be addressed. Psychometric properties of the scales should be

established in the new cultural context. An important issue in future studies is validity evidence for the use of scale and subscale scores. Relatively few studies have addressed the statistical dimensionality of acculturation measures by using (exploratory or confirmatory) factor analyses or other techniques. Analyses that go beyond the mere reporting of internal consistencies are needed to support the use of scale and subscale scores.

Recent theoretical developments in acculturation research have not yet been translated into established assessment procedures. A first example is the lack of measures of fusion models (Hermans & Kempen, 1998; see also Arends-Toth & Van de Vijver, 2006a). These models apply to immigrants who create a new culture by creatively mixing elements from the heritage and ethnic culture and possibly other cultures. This acculturation orientation has been found in qualitative studies, but few quantitative measures have been developed yet (e.g., Bicultural Identity Integration Scale; Benet-Martinez & Haritatos, 2005). The second example is the absence of measures of individual differences in types of bicultural identity integration (for an exception, see Benet-Martinez, 2012). These models make a more detailed analysis of the integration orientation by examining how biculturals combine, blend, or alternate between cultures. Given the prevalence of integration as the preferred acculturation orientation, the development and validation of more detailed measures of integration are an obvious next step in the assessment of acculturation.

# Psychological Multiculturalism

## Theory

It has been argued that there are three distinct features of multiculturalism that can be named: the demographic, policy, and psychological aspects (Tiryakian, 2003; Van de Vijver, Breugelmans, & Schalk-Soekar, 2008). The demographic aspect refers to the plural composition of a population, usually in a nation state. The policy aspect is usually defined in terms of its goals: (1) stimulating the participation of immigrants to mainstream society including the support of cultural maintenance by minorities, (2) improving their social and economic position, (3) establishing equal rights, and (4) preventing and eliminating discrimination (Van de Vijver et al., 2008). Finally, the psychological aspects involve individuals' acceptance and support of the plural composition as well as appreciation of diversity and fairness by all groups. The psychological aspects can be seen as prerequisites for the establishment of multicultural policies. The concept of multiculturalism has also been used to describe approaches to deal with cultural pluralism in schools and counseling.

Psychological multiculturalism, the focus of this overview, can be conceptualized in different ways. In its most common conceptualization, multiculturalism involves positive attitudes toward a culturally plural institution (such as society, education, or counseling practice) in which members (professionals) accept and support diversity. Multiculturalism can also be taken to include behaviors and practices with regard to diversity, such as catering for religious diversity in classrooms. Furthermore, multiculturalism measures often target specific institutions in society where services are rendered to clients from various ethnic groups, notably education and counseling. In the last years, the concept of multiculturalism is also used in a slightly different context and with a different meaning than discussed here. In the literature on individuals with multiple cultural backgrounds (such as biculturals), the concept of multiculturalism has been used as a generic term for the cultural background of these individuals (Benet-Martinez, 2012). The concept refers to individuals who move between cultures by alternating, blending, or using other forms of combination of cultures. Therefore, it is a refinement of the concept of integration (the acculturation orientation is characterized by a combination of adoption of the mainstream culture and maintenance of the ethnic culture). Multiculturalism in this meaning is not discussed here.

Studying multiculturalism in cross-cultural psychology is essential as multiculturalism is known to contribute to favorable intergroup relations. Additionally, there is an association between acculturation and multiculturalism, in that multiculturalism is often related to positive acculturation outcomes such as psychological adjustment (e.g., general life satisfaction and self-esteem) and sociocultural adjustment (e.g., academic and career success and lack of behavioral problems) (Benet-Martinez, 2012). The attitudes of mainstreamers toward multiculturalism constitute an important antecedent condition in the acculturation process.

The psychological aspects of multiculturalism can be viewed as involving multiple domains when measures are targeted at the society at large. Breugelmans and Van de Vijver (2004) distinguished between four domains in their measure of multiculturalism: (1) (dis)approval of cultural diversity; (2) maintenance of the ethnic culture and adoption of the mainstream culture, which refers to the preferred orientations by the mainstream members; (3) adjustment orientations by the mainstream group to the multicultural society; and (4) anti-discrimination, societal participation, and interaction between the mainstream and immigrant groups.

Several factor analytic studies using the scale have confirmed that all these domains load on a single factor (see Van de Vijver et al., 2008). Arends-Toth and Van de Vijver (2003) also factor analyzed another scale that was used in the Netherlands, a Dutch adaptation of Berry and Kalin's (1995) Canadian scale, which also yielded a unifactorial solution. These studies strongly suggest that the psychological aspects of multiculturalism that deal with the acceptance of and support for the plural composition of the population in a nation state can be conceptually split up in strongly interrelated domains. Support for multiculturalism differs across these domains. Thus, Dutch mainstream samples show much support for multiculturalism in the domain of antidiscrimination and the need for equal opportunities, but they show much less support for cultural maintenance and are, on average, of the opinion that immigrants are insufficiently adjusted to the Dutch society (Van de Vijver et al., 2008). So, psychological aspects of multiculturalism in society are statistically unifactorial and show different endorsement rates across domains.

The role of differential support for multiculturalism in different societal domains is important in choosing or designing instruments. Studies on multiculturalism have shown neutral or indifferent attitudes (i.e., means that were close to the midpoint of the response scale) in Germany (Zick, Wagner, Van Dick, & Petzel, 2001), the United States (Citrin, Sears, Muste, & Wong, 2001), Australia (Ho, 1990), and the Netherlands (e.g., Breugelmans & Van de Vijver, 2004; Schalk-Soekar, 2007). Slightly more positive attitudes were found in Canada (Berry & Kalin, 1995) and New Zealand (Ward & Masgoret, 2008), whereas slightly more negative attitudes were observed in Spain (Medrano, 2005) and the United Kingdom (Heath & Tilley, 2005). The lower scores of the latter two countries were unexpected (in that there would not be a priori reason to expect lower scores in these countries, in particular because Spain has a fairly permissive immigration policy compared to most European countries; Huddlestone & Niessen,

2011). These cross-national differences in support for multiculturalism may well be valid, but these could also be related to the domains that were chosen in the various countries. The instruments used in Spain and the United Kingdom paid relatively much attention to adaptation by immigrants. We know from our own studies that instruments that have many items about adaptation of immigrants are likely to result in low levels of support for multiculturalism.

Support for multiculturalism varies among majority and minority members. Verkuyten (2007) argued that multiculturalism is two sided in the sense that the minority group needs to be accepted and recognized by the majority group and that minority groups should accept and recognize the majority group and each other. Moreover, multiculturalism has different dynamics for majority and minority members. For instance, Berry and Kalin (1995) indicated that, when groups benefit more from multiculturalism, they are more in favor of it. In line with this reasoning, it has been found that immigrant groups are more in favor of multiculturalism compared to the majority groups (Van de Vijver et al., 2008). In the Netherlands, there was a positive relationship between the support for multiculturalism and positive evaluation of the in-group among immigrant members and a positive relationship between the endorsement of multiculturalism and positive evaluation of the out-group among the majority members (Verkuyten, 2005).

## Content analysis of multiculturalism measures

### Retrieval of instruments

Similar to the acculturation measures, publicly available multiculturalism measures were systematically reviewed. Self-report multiculturalism measures were searched via a range of English peer-reviewed journals' electronic databases, such as PsycINFO and PsycArticles. In order to access the multiculturalism measures, different keywords have been used such as *assessing multiculturalism, multiculturalism, instruments,* and *meta-analysis*. In addition, a message was posted on a listserv for cross-cultural psychologists to obtain additional measures. The search resulted in 20 different multiculturalism measures. The items of 12 of those measures were not publicly available; so they were excluded, and the remaining eight measures were included. Compared to our search of acculturation instruments, we were less successful and identified a much smaller number of measures. In order to systematically overview each instrument, we created a coding scheme, and each instrument was reviewed using that coding scheme (a list of the instruments can be found in Table 2; an extended version of the table with codings for each instrument on all categories can be found at http://www.tilburguniversity.edu/ccis). Similar to the acculturation measures, the coding scheme to overview multiculturalism instruments can be divided into two main sections: namely theoretical issues (including multiculturalism attitudes and behaviors, conceptual models, and life domains) and formal item/instrument characteristics (including the name of the scale, authors, publication year, target group, age group, reliabilities, background questions, subscales, number of items, question format, and response format). The categories are discussed in detail in the following section. An extended version of the codings can be accessed from http://www.tilburguniversity.edu/ccis.

| Table 2 *Alphabetic Listing of Multiculturalism Measures in the Public Domain (*More extensive version of the table, including review of the each instrument based on each criterion separately can be accessed from http://www.tilburguniversity.edu/ccis) | | | | |
|---|---|---|---|---|
| **Name** | **Author(s)** | **Year** | **Strengths** | **Weaknesses** |
| Multicultural Attitude Scale | Breugelmans, & Van de Vijver | 2004 | Good psychometric properties, covers multiple domains | |
| Multicultural Awareness to School Environment | Morote & Tatum | 2010 | Good psychometric properties | |
| Multicultural Awareness, Knowledge, Skills Survey | D'Andrea et al. | 1991 | Frequently used, good psychometric properties, covers multiple domains | |
| Multicultural Competency scale | Holcomb-McCoy & Day Vines | 2004 | Covers multiple domains | Psychometric properties not available |
| Multicultural Counseling Knowledge and Awareness Scale | Ponterotto, Gretchen, Utsey, Rieger, & Austin | 2002 | Good psychometric properties, covers multiple domains | |
| Multicultural Efficacy Scale | Guyton & Wesche | 2005 | Good psychometric properties, covers multiple domains | |
| Multicultural Ideology Scale | Berry & Kalin | 1995 | Good psychometric properties, covers multiple domains | |
| Munroe Multicultural Attitude Scale Questionnaire | Munroe & Pearson | 2006 | Covers multiple domains | Low internal consistency in one subscale |

The majority of the multiculturalism measures reviewed in the present chapter focus on a specific context; more specifically, they are designed to measure multiculturalism in the school or counseling settings. An inspection of items on the website at http://www.tilburguniversity.edu/ccis reveals that

this focus on contexts has major consequences for the item contents.

## Theoretical issues

### Multiculturalism attitudes

Multiculturalism attitudes refer to the preferences (likes and dislikes) of the immigrant group or the mainstreamers toward the process. Statements such as "I think that Dutch schools should think more about the cultural background of their pupils" (Multicultural Attitude Scale; Breugelmans & Van de Vijver, 2004) and "Ethnic minorities should be helped to preserve their cultural heritages in Canada" (Multicultural Ideology Scale; Berry & Kalin, 1995) are aimed to identify multicultural attitudes of the individuals. Almost half the scales (41.2 %) have various statements to measure multiculturalism preferences.

### Multiculturalism behaviors

Multiculturalism behaviors refer to explicit acts of individuals regarding diversity. Statements such as "I do not act to stop racism" (Munroe Multicultural Attitude Scale Questionnaire; Munroe & Pearson, 2006) and "As a child, I played with people different from me" (Multicultural Efficacy Scale; Guyton & Wesche, 2005) are examples of behavioral items. Almost all subscales (88.2%) include items that measure behaviors. Additionally, we were interested to what extent both multiculturalism attitudes and behaviors are assessed in the instruments. We found that a small number of measures combine both attitudes and behaviors (29.4%), whereas 65.0% of the subscales either measure attitudes (11.8%) or behaviors (58.8%). It can be concluded that, as in the case of acculturation, there is a dominance of behavioral items, and that the combination of behavioral and attitudinal items is less common.

### Conceptual model

All the instruments assume that multiculturalism has a (conceptually) unidimensional structure that is (statistically) unifactorial. The few studies that have tested this assumption report support for it.

## Formal item/instrument characteristics

### Target group

Our overview of the publicly available measures pointed out that none of the measures are directed to a specific cultural group, unlike the acculturation measures. However, 62.5% of the measures are directed to a specific professional group, notably teachers and counselors (e.g., Multicultural Efficacy Scale; Guyton & Wesche, 2005; Multicultural Awareness, Knowledge, Skills Survey; D'Andrea, Daniels, & Heck, 1991).

The choice of target groups is particularly relevant in items of support for multiculturalism in society; those items are to be administered in both the dominant and immigrant groups. It is our experience that if a multiculturalism instrument is to be administered in both groups, care is needed to ensure that either the same formulation applies to both groups or slight item adaptations are implemented.

### Age group

None of the multiculturalism measures are specifically designed for a certain age group. They all target, usually tacitly, adolescent and adult subjects.

### Reliabilities

Internal consistencies are available for almost all measures (87.5%). Reliability is not reported for the Multicultural Competency Scale (Holcomb-McCoy & Day Vines, 2004). Similar to the acculturation measures, reliabilities are reported for each subscale separately (unless the questionnaire does not include any subscales), and only one of the scales had internal consistencies lower than 0.70 for either one or more subscales (e.g., reliability was reported as 0.58 for the act domain subscale of the Munroe Multicultural Attitude Scale Questionnaire; Munroe & Pearson, 2006). Despite the limited number of publicly available multiculturalism measures, the ones that are available are found to be highly internally consistent (indeed, higher than the available acculturation instruments in our data set).

### Proxy measures of multiculturalism

A minority of 25% of the measures include items to measure background information of the participants (e.g., ethnic/cultural background in the Multicultural Awareness, Knowledge, Skills Survey; D'Andrea et al., 1991). Yet, this proportion is higher than in acculturation instruments. Country of birth and ethnicity are known to be related to multiculturalism; immigrants are, on average, more supportive of multiculturalism (e.g., Van de Vijver et al., 2008; Verkuyten, 2005). However, concerns about the use of short proxies in acculturation measures also apply here. Such proxies are insufficient as stand-alone measures because they cannot capture multiculturalism in any comprehensive way.

### Subscales

Our classification of instruments as having a single scale or different subscales was again based on the authors' way of presenting the scale. A total of 37.5% of the multiculturalism measures consist of a single scale (e.g., Multicultural Ideology Scale; Berry & Kalin, 1995), whereas 62.5% have different subscales (e.g., experience with diversity, attitude, and efficacy subscales of The Multicultural Efficacy Scale; Guyton & Wesche, 2005). Some examples of the subscales were multicultural awareness, skills, act domain, care domain, and knowledge domain.

### Life domains

Life domains that are covered in multiculturalism measures include school, work, food, social activities, friends, music, family, and religion; 37.5%

include statements dealing with counseling and 25% with education.

### Number of items

Multiculturalism measures tend to be short. The minimum number of items in the measures is 5 and the maximum number is 51 ($M$ = 15.4, $SD$ = 11.4), with 58.8% of the measures including fewer than the mean of 15.4 items (e.g., Act Domain, The Munroe Multicultural Attitude Scale Questionnaire; Munroe & Pearson, 2006).

### Question format

No scales use open-end questions, only instruments with forced-choice questions have been used. All scales employ questions in the form of statements. An example is "I think non-natives and Dutch should cooperate more to solve problems in the Netherlands" (Multicultural Attitude Scale; Breugelmans & Van de Vijver, 2004).

### Response format

The same classification criteria were used as for the acculturation measures. The most popular response format includes graded options for endorsement such as "Strongly Disagree-Strongly Agree," "Very limited-Very good" (58.8%), followed by forced choice response options such as "Yes-No," and "Competence met-Competence unmet" (23.5%), and frequency format such as "Never-Rarely-Occasionally-Frequently" (5.9%); a mixed format is used in 11.8% of the scales.

## Conclusion

One of the main conclusions of the present multiculturalism overview is that the majority of the available measures target a specific context. These measures either aim at assessing multiculturalism in school settings (among students and teachers) or in counseling. Only few measures target the society at large.

We mentioned strengths and weaknesses of each multiculturalism instrument, which can be seen in Table 2. It is clear that both positive and negative sides of each measure are related to instrument characteristics; more specifically to either psychometric properties (good psychometric properties as strength and low internal consistencies or absence of reporting them as weakness) or covering multiple domains to ensure the generalizability of the findings. Again, it is difficult to suggest a particular scale as better than the others. The first reason is that measures often relate to different domains (education, counseling, and society at large). The second is that conceptually, the field of multiculturalism is not very advanced; we do not have theories on how psychological multiculturalism relates to other aspects of functioning in multicultural societies such as ethnic identity (for an exception, see Verkuyten, 2007). There are no well-tried-and-tested models of multiculturalism that can guide the search for instruments. Clearly, more conceptual work is needed in this area.

# General Conclusions

We have compiled an overview of public-domain measures of psychological acculturation and multiculturalism. A content analysis of these measures revealed that several measures have a well-specified theoretical background and show adequate psychometric properties. Still, there is no single measure that has been tried and tested in multiple groups and contexts. We do not yet have well-established measures of acculturation and multiculturalism; in other words, we do not have measures that have emerged as widely accepted procedures for assessing psychological acculturation and multiculturalism. Given the paucity of measures that have shown good reliability and validity in multiple contexts, the desire to adapt instruments or design new ones is easy to justify. An inspection of the existing scales reveals that designing new scales or adapting existing scales is relatively simple. Researchers working in contexts involving new cultural groups may want to argue that existing measures are not optimally suited for their purposes.

## Recommendations for choosing or developing instruments

Our review leads us to five recommendations for choosing or designing new measures:

**1**. The measure should have a clear conceptual basis (bidimensional in the case of acculturation assessment and unidimensional in the case of multiculturalism assessment).
**2**. The measure should refer to multiple domains. The choice of domains should start with an analysis of the cultural context of the study.
**3**. A deliberate decision has to be made about whether attitudes and/or behaviors are to be assessed. In the case of assessment of acculturation, there is an additional decision needed, involving which aspect(s) of the acculturation process is (are) to be measured: conditions, orientations, and/or outcomes. In addition, if proxies like generation status are going to be used, it should be specified how proxies are to be integrated in the final measure, both conceptually and statistically.
**4**. Multiple items and response formats have been employed. All have shown, or at least have the potential to show, adequate psychometric properties. No superior item or response format emerges from our overview.
**5**. The acculturation and multiculturalism literature is replete with studies in which internal consistencies are the only statistics used to evaluate the psychometric properties of an instrument. It is important in our view to provide further support for the validity of measures by describing nomological networks or conducting multivariate analyses (e.g., factor analysis) of the items or subscales.

## Challenges

# Assessment of Psychological Acculturation and Multiculturalism

In our view, the field of acculturation and multiculturalism faces three assessment challenges:

**1**. Many measures of acculturation and some measures of multiculturalism give an impoverished rendering of the underlying construct. For example, some acculturation measures only deal with language mastery, incorrectly assuming that this variable gives a complete picture of the acculturation process. Acculturation is a complex process in which immigrants interact with their environment in a number of different ways. A good mastery of the target language is important for functioning in the host society; yet, a measure of mastery of the target language does not address the skill in the ethnic language, psychological outcomes (perceived stress and satisfaction with life), or the context in which acculturation takes place. So, when choosing or designing an acculturation measure, it is important to start from an analysis of the purpose of the information to be collected. It may well be that, after ample considerations, it is decided that host-language proficiency is sufficient for the purpose of the study. However, such information will often be insufficient. More generally, the field of acculturation and multiculturalism is not well served by "quick and dirty," under inclusive measures.

**2**. Comparative acculturation studies will become increasingly important. In addition, in the future we expect that more existing measures will be "exported" to new groups and countries. In these cases, structural equivalence (i.e., does the instrument measure the same in the groups studied?) will be addressed because it will help to gain insight into what makes a measure a good instrument in comparative studies.

**3**. We need to work toward a more unified form of assessment of acculturation and multiculturalism. Currently, the field is still small and fractionated. More studies are needed to build up a database of instruments and their properties. Such a database should be so rich and detailed that we can employ meta-analytic techniques to decide which forms of assessment are better for which groups.

Although our chapter has noted both strengths and in some cases considerable weaknesses of extant measures of acculturation and multiculturalism, we would like to conclude that these considerations are not meant to discourage the use of these measures. Quite to the contrary, we hope that our chapter will help to disseminate knowledge about the instruments, will increase the quality of decisions when adopting or adapting measures, and will increase the perceived need to use these instruments.

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## Notes:

([1]) It is important to note that the original formulation by Berry is about preferences for maintaining the original and for establishing contacts with the host culture.

([2]) We refer to *online resources* in which *items of the instruments are available.* It is important to acknowledge 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.

([3]) In our overview, we adopt the decision of the authors of the scales. In other words, if authors refer to the entire measure as a single scale, even though it measures multiple components of acculturation, we referred to it as a single scale. For instance, Acculturative Stress Scale (Salgado de Snyder, 1987) is identified as a single scale despite the fact that it measures various components of acculturation.

([4]) References beginning with a single asterisk involve *acculturation* measures; references with a double asterisk involve *multiculturalism* measures.

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