Issues in the Conceptualization and Assessment of Acculturation

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ABSTRACT
The chapter discusses conceptual and assessment issues in acculturation research in an attempt to integrate the growing literature in this field. We start with an overview of its historical roots and present a framework of acculturation variables, distinguishing acculturation conditions, orientations, and outcomes. Frequently observed sources of problems in the assessment of acculturation are outlined, such as mixing different variables into an overall score and using proxy and single-index measures. It is argued that the main unresolved issues in the conceptualization and assessment of acculturation are domain specificity, identifying common and group-specific aspects, a further delineation of the meaning of integration, and testing attitude-behavior relations. An application domain of acculturation assessment, the immigrant family, is then discussed. Examining acculturation in the family domain can give more insight into the dynamic and multifaceted nature of acculturation. We conclude that an essential step, in order to advance acculturation research, is the development of a standardized acculturation instrument or at least a widely endorsed view on what should be included in such a measure. The use of the independent measurement of acculturation orientations (two-statement method) in a range of different domains and situations is a useful tool to achieve this goal.
INTRODUCTION

The assessment of acculturation has not yet become an integral part of assessment procedures in multicultural groups despite its relevance for plural societies. A possible reason may be the absence of widely accepted conceptualizations and measurement methods. The main aim of this chapter is to discuss conceptual and assessment issues in acculturation research in an attempt to integrate the growing literature in this field. The chapter is divided into four parts. The first part focuses on conceptual issues in acculturation research; it starts with the definition and the presentation of historical roots of acculturation and ends with a framework of acculturation variables. The second part addresses frequently observed sources of problems in the assessment of acculturation. The third part focuses on an application domain of acculturation assessment: the immigrant family. Conclusions are drawn in the final part.

CONCEPTUALIZING ACCULTURATION: DEFINITION AND HISTORICAL ROOTS

When culturally disparate people come into continuous contact with each other, the differences between them tend to become salient, and can result in changes in the original cultural patterns of both groups. Although immigration has consequences for both immigrants and members of the receiving society, the former group is usually more affected. Because of its increasing importance in the everyday world as well as in theories and measurement in the social sciences, acculturation experiences of immigrants have frequently been researched in the last three decades, although the field’s origin is much older.

From a historical perspective, most research on acculturation has been anthropological in nature and has focused on the acculturation of developing nations to industrial, Western societies (Olmedo, 1979). The term acculturation was introduced by American anthropologists, as early as the 1880s, to describe the process of culture change occurring when two different cultural groups come into contact with each other. Numerous definitions of acculturation have been presented in the literature, most of them adaptations of the definition proposed by Redfield, Linton, and Herskovits (1936, p. 149):

Acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups.

This definition treats acculturation mainly as a group-level phenomenon; in more recent times interest has grown in the study of individual-level phenomena, referred to as psychological acculturation (Graves, 1967). At the individual level, acculturation refers to changes that an individual experiences as a result of contact with one or more other cultures and of the participation in the ensuing process of change that one’s cultural or ethnic group is undergoing.

Early theories and research on acculturation were strongly influenced by medicine and psychiatry and examined the pathological symptoms accompanying culture shock. More recent approaches have paid more attention to establishing links of acculturation models with current theories and models in psychology, mainly clinical and social psychology. For example, acculturation has been studied from a social-psychological perspective by examining its cognitive, affective, and behavioral components. Theoretical frameworks of acculturation have been borrowed from
mainstream psychology. Major influences have been drawn from work in stress and coping, social learning and skills, social cognition and intergroup perceptions (Ward, 1996, 1999). For example, adapting a stress-and-coping approach, researchers have focused on the influence of life changes, coping mechanisms, cognitive appraisal of the change, personality characteristics, and social support on physical and mental health (e.g., Berry, 1997). The social-learning approach is derived from social and experimental psychology. This approach emphasizes the role of learning in the acquisition of culturally appropriate new skills. Variables that promote learning new social skills and that facilitate adaptation to the new culture are frequently studied, including general knowledge about the new culture, cultural distance, length of residence in the new country, and amount of contact with host nationals (e.g., Ward, 1996, 1999; Ward & Kennedy, 1994). In the social-cognition approach to acculturation, which draws on the work of Kunda (1999), cognitive elements such as expectations, attitudes toward members of the new culture, cultural identity, perception, attributions, and changes in values as part of the acculturation process have been investigated (e.g., Wong-Rieger, 1984).

Although social and behavioral scientists agree on the definition of acculturation, there is confusion about its conceptualization and measurement. Various assessment procedures have been developed and applied, sometimes based on conflicting underlying theoretical models. In order to set the stage for their description, we first present a taxonomy of acculturation variables which have been frequently reported in the literature.

**ACCULTURATION VARIABLES**

Variables addressed in psychological acculturation research can be broadly divided into three groups: acculturation conditions, acculturation orientations, and acculturation outcomes (see Figure 1).

Insert Figure 1 About Here.

Acculturation Conditions

Acculturation conditions refer to the contextual limits and demands of the acculturation process. The context in which acculturation occurs often has a major impact on the acculturation process. Relevant aspects at the population or group level involve the type of migration (e.g., temporary versus permanent, voluntary versus involuntary), characteristics of the society of origin (e.g., cultural homogeneity), characteristics of the immigrant group (e.g., ethnic vitality and social attachment), characteristics of the host society (e.g., cultural openness, discrimination, and views on immigrants in general), and intergroup relations (e.g., social inequality and social distance). At the individual level, conditions can refer to changes over time (e.g., age, length of settlement, and generational differences), position in the society, personality characteristics (e.g., social norms and coping strategies), and situational or social context (e.g., social support and stressful situations).

To understand acculturation conditions is essential to establishing the context within which the acculturation process takes place. Although there is no generally accepted theoretical model of which background factors affect acculturation in which
way, the most elaborated and widely quoted model of acculturation conditions has been proposed by Bourhis, Moïse, Perreault, and Senécal (1997). According to this interactive acculturation model, state immigration and integration policies influence acculturation orientations of both the host majority and immigrant groups. The vitality of immigrant groups was also emphasized in the acculturation process: The more vital the group, the more likely that it would act as a distinctive and collective entity within the larger society, and adopt acculturation orientations reflecting its own priorities rather than those determined by majority group members. The degree to which acculturation orientations of the host community and immigrant group match or mismatch defines their relational outcome. Consensual relational outcomes emerge when the two groups share the same acculturation orientations. Problematic relational outcomes emerge when the majority and the immigrant groups experience only partial agreement in their acculturation orientations. Conflictual relational outcomes occur when there is no overlap in their acculturation orientations. In addition, the integration policy of local, regional, or national authorities may attenuate or accentuate patterns of relational outcomes.

In a study among 155 young Moroccan adults in the Netherlands, Ait Ouarasse and Van de Vijver (2004) found that the acculturation context as perceived by these immigrants was multidimensional. The perceived mainstream context consisted of a tolerance factor (i.e., how tolerant mainstreamers are toward immigrants) and an integration factor (whether mainstreamers want immigrants to integrate). The perceived minority context also consisted of two factors, called permissiveness to adjust (indicating the perceived extent to which the Moroccan community allows its members to adjust to the Dutch culture) and ethnic vitality. The mainstream context factors exerted an influence on work success, whereas the minority context was important for school success and good mental health.

Acculturation Outcomes

Various indices have been examined as outcomes of the acculturation process, such as psychological distress, mood states, feelings of acceptance and satisfaction, the nature and extent of interaction with hosts, the acquisition of culturally appropriate behaviors and skills, academic performance, and job performance. Ward and Kennedy (1994) argued that adaptive outcomes of the acculturative process can be divided into psychological (emotional/affective) well-being and sociocultural (behavioral) competence in the mainstream culture. They found that psychological and sociocultural adjustment were interrelated (their correlation is usually around .30), but that they were predicted by different variables and showed different patterns of fluctuation over time (i.e., sociocultural problems steadily decrease, whereas psychological distress is more variable over time). From a theoretical point of view it is important to address the level of sociocultural competence in the ethnic culture (e.g., interaction with co-nationals, maintenance of culturally appropriate skills and behaviors) and changes in this competence as an additional outcome variable. Thus, it is important to study both proficiency in the mainstream culture and maintenance (or loss) of the ethnic culture. Both are relevant outcomes of the acculturation process.

Acculturation Orientations
Many studies of how immigrants cope with intercultural contact focus on acculturation orientations. These orientations are critical to understanding the acculturation process of immigrants and are seen as constituting the most characteristic part of the whole process (e.g., Berry, 1997; Ward, Bochner, & Furnham, 2001), because they link antecedent conditions to outcomes.

Despite the vast number of empirical studies on acculturation orientations, only a few theoretical models have been developed to explain this complex process (Negy & Woods, 1992). Theoretical models of acculturation orientations can be grouped along two lines (see Table 1): dimensionality and domain specificity.

Dimensionality. Acculturation orientations refer to how an immigrant combines (or does not combine) the culture of origin and the culture of the country of settlement. The former aspect involves the importance attached by the immigrant to maintaining key aspects of the heritage culture. The latter aspect, according to Berry (1997), refers to the extent to which the immigrant wishes to have contacts with and to participate in the society of settlement. Bourhis and his associates (1997) proposed a refinement by changing the nature of the second aspect, making it cultural instead of social. Their dimension of cultural adaptation refers to the perceived importance of adopting key aspects of the majority culture.

The relations between cultural maintenance and cultural adaptation have been described in three ways, resulting in three theoretical models of acculturation. The first, the unidimensional model, conceptualizes cultural maintenance and cultural adaptation as opposites (see Figure 2). In this model acculturation is a process of culture change along a single dimension, a shift from maintenance of the immigrant culture to full adaptation to the host culture (Gordon, 1964). Immigrants lose their original culture as they acquire a new culture. For example, the ability to speak the heritage language might be expected to decrease as immigrants become more proficient in the mainstream language.

The second model is called bidimensional. Maintenance and adaptation are treated here as two separate dimensions (Figure 3). Various authors view the two dimensions as independent; an increase in adaptation does not require a decrease in cultural maintenance (e.g., Berry, 1997; Hutnik, 1986; Sanchez & Fernandez, 1993). For example, the ability to speak the heritage language does not need to influence the ability to speak the language of the mainstream society. The most popular bidimensional model has been developed by Berry (this volume). In this model, the two main aspects of acculturation are combined, constituting four acculturation orientations, namely integration, assimilation, separation, and marginalization. Integration reflects an orientation in which key features of the immigrant’s culture are maintained, with a simultaneous adoption of elements of the majority culture. Assimilation refers to the loss of the original culture and complete absorption in the majority culture. The separation strategy amounts to the maintenance of the minority culture while rejecting the majority culture. Finally, marginalization amounts to the rejection of both cultures (see Figure 3).
In a third kind of dimensionality model a fusion model, an acculturating individual mixes both cultures in a new "integrated culture". This integrated culture contains either a mix of the two cultures (combining "the best of both worlds") or unique and novel aspects that are atypical of either culture (Coleman, 1995; Padilla, 1995). This model sees acculturation as a mixture of cultural characteristics (see Figure 4). No studies are available in which the validity of the model has been investigated empirically.

Domain specificity. Domain-specific models are offshoots of the trait model (which assumes cross-situational consistency). Whereas the contexts in which acculturation occurs were often left out of consideration in the trait model, domain-specific models are based on the assumption that an individual’s preference for adaptation and cultural maintenance can (and often will) vary across life domains or situations. For example, one may seek assimilation at work (economic assimilation), speak the languages of the country of heritage and settlement (linguistic integration), and maintain traditional relationships in family and marriage (separation in private relationships).

The models of domain specificity that have been proposed differ in their levels of abstraction (i.e., the breadth of the domain). We find in our own work that acculturation can be seen as a hierarchical concept with unidimensionality at the top (a global preference for either adaptation or cultural maintenance). The second level is constituted by two broad, positively related domains: public (functional, utilitarian) and private (social-emotional, value-related) domain (Arends-Tóth & Van de Vijver, 2003). The public domain involves all activities aimed at participation (broadly defined) in social life of both majority and minority groups (e.g., education and job). The private domain involves more personal, value-related matters (e.g., childrearing and marriage). Turkish Dutch indicated to prefer adaptation to the Dutch culture more in the public domain than in the private domain, whereas cultural maintenance was deemed important in both domains; in terms of Berry’s acculturation orientation, this preference amounts to integration in the public domain and separation in the private domain. The third level is formed by specific life domains (e.g., education and language in the public domain, and childrearing and marriage in the private domain). Finally, at the fourth level an individual’s preference for adaptation and maintenance may vary across specific situations (e.g., Clement & Noels, 1992; Nagata, 1994; Taylor & Lambert, 1996). Sodowsky and Carey (1988) described certain dual characteristics of first-generation Asian Indians in the United States, who preferred Indian food and dress at home and American food and dress elsewhere. Similarly, Phalet, Lotringen, and Entzinger (2000) found that Dutch immigrant youth preferred cultural maintenance at home and Dutch culture outside of the home.
It is still uncommon to take into account an immigrant’s acculturation orientation and adjustment in psychological assessment in plural societies (e.g., Cuéllar & Paniagua, 2000; Suzuki, Ponterotto, & Meller, 2001). However, information about an immigrant’s acculturation can be highly valuable. For example, it has been found that acculturation orientations are related to mental health, self-esteem, political and social attitudes, social deviancy, alcoholism, recreational drug use, risk of coronary heart disease, suicide, and academic performance (e.g., Berry, 1997; Berry & Kim, 1988; Cuéllar & Paniagua, 2000; Lasry & Sayegh, 1992; Negy & Woods, 1992; Nguyen, Messe, & Stollak, 1999; Padilla, 1995; Pham & Harris, 2001; Ward et al., 2001). In addition, acculturation orientations can be an important moderator affecting the validity of assessment procedures in multicultural groups (e.g., Olmedo & Padilla, 1978). An acculturation measure can serve to establish the extent to which test characteristics obtained among majority group members (e.g., reliability and norms) apply to a specific immigrant, thereby enhancing the quality of the assessment process (e.g., Dana, 2000; Van de Vijver & Phalet, 2004).

A vast number of instruments and measurement designs to measure acculturation have been reported in the literature, which preempts a comprehensive presentation within the framework of the current chapter. Therefore, we have adopted another approach. The first part of the section provides guidelines in the assessment of acculturation. The guidelines are not meant to be comprehensive but are based on our view of which problems are commonly met in assessment procedures. The second part focuses on the assessment of acculturation orientations, because these are the most frequently studied aspect of acculturation. Three common ways of assessment are presented. In the final part of this section, two assessment-related acculturation studies are reported; the first compares the three assessment methods, and the second addresses the question of the exchangeability of acculturation attitudes and behaviors.

Some Guidelines for Assessing Acculturation

1. Acculturation conditions, orientations, and outcomes usually cannot be combined in a single measure. An important choice in the assessment of acculturation refers to the question of whether acculturation conditions, orientations, or outcomes are to be measured (Figure 1). These three are often mixed in an instrument and aggregated into a single overall score. It is difficult to see how acculturation could “explain” other psychological variables (such as cognitive developmental outcomes) if all aspects of acculturation (background variables, orientations, and outcomes) are seen as predictors. For example, length of stay in a country and language proficiency of the country may well be correlated; however, the two variables are conceptually quite distinct and their causal order is clear. Moreover, if both are used to explain some developmental skill, it could be helpful to use length of stay as predictor, language proficiency as a mediating, moderating, or even outcome variable, and the developmental skill as outcome variable.

Various mixtures of antecedent conditions, orientations and outcomes can be found in the literature. For example, the attitudinal and (self-reported) behavioral items are often mixed in questionnaires and analyzed in combination, thereby implicitly assuming their interchangeability. However, attitudes and behaviors can refer to quite distinct aspects of the acculturation process. Attitudes belong to acculturation orientations and can be considered as mediating or moderator variables, acculturation behaviors can be viewed as either referring to orientations or
to outcomes. An example of an often undesirable mixing of outcomes and orientations could be the use and knowledge of the mainstream language. Language proficiency and use (behaviors) are often used to measure acculturation orientations, but they can also be seen as outcomes of the acculturation process. In the latter case mixing attitudes and behaviors amounts to combining mediating or moderating variables with outcome variables. A final mixture refers to marginalization. In Berry’s framework, marginalization is an acculturation orientation, but in practice it is often seen as a problematic (undesirable) outcome of the acculturation process.

Unless evidence is reported that all aspects measured constitute a single underlying dimension, we recommend not combining separate indices into a single overall acculturation score.

(2) A measure of acculturation can only be comprehensive if it contains aspects of both the mainstream and heritage cultures. Both the heritage and the mainstream cultures are relevant in finding a comprehensive picture of acculturation conditions (i.e., characteristics of the receiving society and characteristics of the society of origin and of the immigrant group) and in acculturation orientations (i.e., cultural adaptation and cultural maintenance). Attention to both cultures is conspicuously absent in the assessment of acculturation outcomes. Commonly employed indices of sociocultural competence of acculturation outcomes refer to the degree of the success of adaptation to the receiving society (e.g., interaction with hosts, acquisition of culturally appropriate skills and behaviors, academic and job performance) and do not consider the maintenance of the heritage culture at all (e.g., proficiency in the ethnic language). Outcome measures almost never strike a balance between the cultures involved. For example, many studies focus on gains in mainstream language proficiency but few address maintenance of the ethnic language.

An additional problem of not striking a balance between mainstream and heritage culture is that different acculturation aspects (e.g., knowledge, attitudes, behaviors, values, and ethnic identity) are used to assess them. For example, the heritage culture is often assessed by acculturation attitudes only, whereas the mainstream culture is often addressed by self-reported acculturation behaviors. If items are not generated in pairs with regard to aspects, with one item in one aspect referring to heritage culture and the other item in the same aspect referring to the mainstream culture, the obtained differences may be partly due to the differences in measured aspects instead of the two cultures.

(3) Proxy measures (e.g., generation level, number of years living in the country) can provide valuable complementary information to other measures of acculturation, but are usually poor stand alone measures of acculturation. Many acculturation studies use demographic background information to measure acculturation; examples are generation status and number of years of residence in the country of settlement. Although these proxies can provide valuable information about the construct validity of direct measures of acculturation, their value as stand alone measures is often limited. By operationalizing acculturation as a set of background conditions and leaving out all psychological aspects, a poor rendering of the acculturation process is obtained. For example, Jain and Belsky (1997) found that demographics (e.g., number of years of settlement in the United States) did not predict the father’s involvement in children’s lives, whereas direct measurements of acculturation orientations (e.g., attitudes) were significant predictors. Measures of acculturation based on demographic variables, such as generational level, age, years living in the receiving society, and socioeconomic status, are good predictors of
group trends. They are not, however, sensitive to differences among individuals who have similar demographic characteristics (Mendoza, 1989). McQueen, Getz, and Bray (2003) reported that even when parents and adolescents share the same language and birth country, their views regarding family relationships may differ and these differences may indeed induce conflicts. Therefore, they advise that in order to identify elements of the acculturation process that influence individual and family changes more direct and diverse measures of acculturation should be used. In general, more direct measures of acculturation with a firmer psychological basis are preferable (Negy & Woods, 1992).

4. The use of single-index measures should be avoided. Single indices usually are suspect measures of acculturation because of their low content validity (construct coverage); it is difficult to see how the multifaceted complexities of acculturation can be captured in a one-item measure. An additional problem of these measures is their unknown and possibly low reliability. Language preference is an example of such a single-index measure. Some researchers have found language preference to be a very important index of acculturation status (e.g., Padilla, 1980), whereas others have not (e.g., Garcia, 1982; Weinstock, 1964). Weinstock found that the number of friends from the majority group and mass media preference were more adequate indicators of acculturation of Hungarian immigrants than their knowledge of English. It could well be that, as immigrants adapt more to the society of settlement, language preference discriminates less among immigrants and other acculturative aspects may become more important. In general, the literature has not supported any single-item index of acculturation that is reliable, valid across ethnic groups, generations, and countries of settlement, and predicts outcomes.

5. Psychometric properties of instruments (validity and reliability) should be reported. Various measures of acculturation orientations, often based on self-reports, have been developed and used. Reports of studies in which these have been administered often do not describe the psychometric qualities of items and scales. Marin (1992) argued that in many empirical studies acculturation items are summed or averaged, as if they form a single scale, without providing any analysis to support this claim.

Assessment of Acculturation Orientations: One-, Two-, and Four-Statement Methods

There is a need to compare and integrate different acculturation measurement methods that have been proposed in the literature. In this section, we discuss the pros and cons of three widely used measurement methods of acculturation orientations.

One-statement acculturation measurement method. There tends to be a close link between theoretical models and measurement methods of acculturation orientations. Unidimensional measures following the one-statement measurement method employ a bipolar scale, ranging from cultural maintenance at one pole, with biculturalism at the midpoint of the scale, to adaptation at the other pole. A cumulative scale score is used as an overall index of acculturation status (e.g., Celano & Tyler, 1991; Suinn, Ahuna, & Khoo, 1992). Domain-specific unidimensional measures have been also proposed. In these models and measures, cultural aspects may differ in their level of adjustment (e.g., Triandis, Kashima, Shimada, & Villareal, 1988).

The one-statement method has the advantage of yielding an efficient, short instrument. However, the method cannot distinguish a bicultural individual who
strongly identifies with both groups from a marginalized individual who does not identify with either group if individuals score on the midpoint of the scale, referring to equal preference (or equal rejection) of both cultures (e.g., Mavreas, Bebbington, & Der, 1989; Ryder, Alden, & Paulhus, 2000). Adding an answer alternative (no adaptation, no cultural maintenance) to the answer categories solves this problem.

Two-statement acculturation measurement method. In the two-statement measurement method of the bidimensional model, acculturation is assessed by using two separate scales: one representing attitudes toward the mainstream culture and the other representing attitudes toward the heritage culture (e.g., Donà & Berry, 1994; Padilla, 1995; Sanchez & Fernandez, 1993). A study of the association between the heritage and mainstream dimensions of acculturation is theoretically interesting. A strong, negative correlation between the two aspects would support the unidimensional model, whereas a low or zero correlation would support the existence of two orthogonal dimensions, as often assumed in the literature on this model. Empirical studies of the association between cultural maintenance and adaptation have shown considerable disagreement. Correlations have been found to vary from negative (e.g., Birman, 1998; Birman & Trickett, 2001; Laroche, Kim, & Hui, 1997; Nguyen, Messe, & Stollak, 1999; Verkuyten & Thijs, 2002), low and non-significant (e.g., Hutnik, 1986; Sanchez & Fernandez, 1993; Sayegh & Lasry, 1993), to positive (e.g., Ward & Kennedy, 1994). Too few studies have addressed the issue to warrant a meta-analysis in which results could be synthesized and the effects of possible moderators on the relationship could be studied.

Different procedures have been proposed to transform the two dimension scores into Berry’s four acculturation strategies. In the median and mean split procedures responses are categorized as being lower or higher than a cut-off value (the median or mean of the sample). This procedure employs the characteristics of the sample of the cultural group under study, and categorizes participants into one of the four strategies irrespective of their position on the adaptation and maintenance scale (Ward & Kennedy, 1994). This procedure may give a distorted image in a homogeneous sample, which is the case when many participants have either a high or low score on either or both dimensions (Donà & Berry, 1994). If all immigrants want to combine both cultures (integration is the acculturation orientation that is preferred by most acculturating groups), it is inadequate to artificially split the sample so as to have all four acculturation orientations represented in the sample.

In the midpoint split procedure, scale scores above the midpoint on the Likert scales are taken to indicate agreement to the scale construct and are classified “high” on the scale, and scores below the midpoint refer to disagreement and are classified “low” on the scale. The midpoint split procedure has a firmer theoretical basis than the median and mean split procedures; it avoids the problem of artificially introducing subgroups in a group that has identical acculturation orientations. However, a problem with this procedure is that the midpoint is often an answer option (e.g., a score of 3 on a scale ranging from 1 to 5) and there is no agreement in the literature as to how these midpoint scores should be treated in computing acculturation orientations. In some studies these scores have been interpreted as disagreement with the item (e.g., Donà & Berry, 1994), in others as agreement (e.g., Lasry & Sayegh, 1992), and in still others as unclassifiable (e.g., Rudmin & Ahmadzadeh, 2001).

According to the proximity procedure, the two dimensions can be seen as defining a two-dimensional space (an adaptation and a maintenance dimension). Each of Berry’s four strategies can be represented by an “ideal point” in the space.
For example, on a 7-point Likert scale (ranging from 1 to 7) the prototypical score of assimilation is 1 on the maintenance scale and 7 on the adaptation scale. The Euclidean distances between the ideal score of each of the four acculturation strategies and the score obtained for an individual can be computed. This procedure has the advantage that it does not classify participants into one of the four categories, but yields a score for all participants on all strategies. A disadvantage of this scoring method is the lack of independence of the scores on the acculturation orientations (i.e., the same problem that holds for the other scoring procedures based on the two-item measures). Scores for integration and marginalization show a negative correlation, and the same is true for assimilation and separation.

Four-statement acculturation measurement method. In the four-statement method of the bidimensional model, the attitude toward each of the four acculturation orientations distinguished by Berry is asked in separate items. The four-statement method is the only one in which the four acculturation strategies are independently assessed. In spite of this advantage, the four-statement method has some limitations. Because acculturation strategies are defined as arising from two attitudes toward two cultures, the Likert items tend to be ‘double-barreled’ (e.g., “do you like Russian food and do you like American food?”). Participants can interpret such items in different ways or may answer to only a part of the item (the participant may like Russian food and dislike American food; see also Nunnally & Bernstein, 1994). Also, the use of negations (marginalization items tend to have double negations) makes this method cognitively complex (Rudmin & Ahmadzadeh, 2001; Ryder et al., 2000). To overcome the problem of double-barreled items, Van Oudenhoven and his associates (1996) wrote a separate vignette for each of the four orientations and respondents had to indicate the level of agreement with each. The problem with this method is that a vignette should comprehend several domains and situations, which makes a vignette long and complex. It may not be clear then to which features of the vignette the immigrant responded.

Studies on the Assessment of Acculturation in the Netherlands

The Dutch context. The Netherlands, like all Western-European countries, has become culturally diverse. A heterogeneous group of immigrants has taken up permanent residence in the Netherlands, as a result of Dutch colonial history in the Caribbean area (from Surinam and the Dutch Antilles), as a result of the recruitment of cheap labor from the Mediterranean region in the 1960s (from Turkey, Morocco, and Southern Europe), and recently as a result of the influx of refugees mainly from Africa, Eastern Europe, and the Middle East. At present, 18% of the population in the Netherlands is of foreign origin¹, and by 2010 in the three largest Dutch cities this figure will rise to 50% (CBS, 2004). These numbers are unprecedented in Dutch history. Not surprisingly, the acculturation of these groups has become a prominent feature in public discourse.

Turkish immigrants in the Netherlands. Turkish immigrants form one of the largest groups of immigrants in the Netherlands and are often seen by native Dutch as the prototypical immigrant group (Pettigrew, 1998) with a large cultural distance to the Dutch mainstream culture (in terms of religion, values, gender relationships, and language).

The first Turkish migrants arrived in the Netherlands in the beginning of the 1960s when the Dutch economy had a shortage of unskilled workers. Most of the Turkish immigrants did not intend to stay long in the Netherlands. The aim of their
emigration was to earn enough money as “guest workers” (the common term in those days) to build a better life in Turkey. In order to save as much money as possible, they did not invest in their life in the Netherlands and their life circumstances and working conditions in the Netherlands were generally mediocre or poor. Although labor recruitment was brought to an end in 1974, Turkish immigration to the Netherlands continued through family reunification, asylum request, and informal channels. Nowadays, marriages with second generation Turkish Dutch form the main reason of immigration from Turkey.

The orientation and background of Turkish immigrants was not conducive for acquiring a good social position in the Netherlands. The educational level, income and job position of the first generation Turkish migrants are, on average, weak in comparison with the Dutch population. The second generation, representing more than a third of the Turkish-Dutch population, is better educated and has better jobs than their parents. However, the average educational level of the second generation is still much lower than the national average and unemployment is still much higher among Turkish immigrants than among Dutch mainstreamers (Dagevos, Gijsberts, & Van Praag, 2003).

Comparing acculturation orientations across measurement methods. Our study examined to what extent the one-, two-, and four-statement methods yield convergent or even identical information about acculturation orientations (Arends-Tóth & Van de Vijver, 2005a). All three methods to assess acculturation orientations were studied in seven public (e.g., social contacts, education) and seven private (e.g., childrearing practices, cultural habits) domains in a group of 293 Turkish Dutch youth. Results revealed two-factorial solutions (private items loaded on the first and public items on the second factor) in the two-item method for both the adaptation and the cultural maintenance scales, in the one-item method, and in the four-item method for the integration and the separation scales (subscales of assimilation and marginalization were not included in the model because these acculturation orientations were preferred by very few participants).

To investigate the role of life domains and measurement methods of acculturation simultaneously, a confirmatory factor analysis was performed. A hierarchical model of acculturation with two second-order latent variables showed a good fit (see Figure 5). The two second-order latent variables were labeled acculturation attitude, a latent variable with two indicators (public and private life domains) and measurement method, a latent variable with three indicators (one-statement, two-statement, and four-statement method). The two first-order latent variables of the acculturation factor, the public and the private life domains, showed positive loadings, which means that at a global level the immigrants were more inclined either to maintain their Turkish culture (in both public and private domains) or adjust to the Dutch culture. Within both life domains a similar pattern emerged: Items dealing with Dutch and Turkish culture had opposite signs, indicating that within the domains individuals tend to prefer either culture. The loadings of the three methods on the method factor showed an interesting pattern. The four-item method was apparently most obtrusive and had more impact on the measurement outcomes than the usage of the one- or two-item methods. The four-item method had the highest loading on the second-order method factor, and the loadings of the scales on the first-order factors showed more variability for the four-item method than for the other factors.

Insert Figure 5 About Here.
An inspection of mean scores in the two domains in Table 2 adds an important element to an analysis of the correlations between domains: The mean score (overall preference) of cultural maintenance was higher in the private than in the public domain (in which both cultures were about equally preferred).

In summary, in order to get a full picture of the acculturation attitudes of the Turkish Dutch, both the correlations of the measures and the patterning of the mean scores in different life domains provide valuable, complementary information. These results have implications for acculturation theory and assessment. No clear support was found for either the unidimensional or the bidimensional acculturation models if these models conceptualize acculturation as a domain-independent trait. According to our model, acculturation can best be considered as a hierarchical concept with a unidimensional factor at the top (general adaptation versus cultural maintenance); this general factor constitutes two positively related domain factors, one for the public and one for the private domain. Both domain factors can be seen as made up of a single dimension, ranging from cultural maintenance to cultural adaptation. The four-item method showed the largest method effect (which in general is undesirable as it shows that this method is more obtrusive than the other methods). The two-item measurement method showed results similar to the one-item method. In addition, the two-item method gives more detailed information about preferred acculturation attitudes than the one-item method. We found that the difference between the public and private domains was larger for adaptation items than for cultural maintenance items, which suggests a stronger distinction between life domains for adaptation than for cultural maintenance (this information cannot be obtained with the one-item method). Taken together, both the one- and two-item methods are appropriate measures of acculturation in unidimensional and bidimensional models, respectively. However, unlike the one-item method, the two-item method allows for a measure of each of Berry’s acculturation strategies using the same metric (e.g., the distance of the participants to the four strategies). Finally, it is important to include items dealing with both public and private life domains, whichever method is used. Examples of public-domain items would be social contacts, following the news, language use and examples of private-domain items would be celebrations and childrearing.

Comparing acculturative attitudes and behaviors. It is common in acculturation research to employ questionnaires with items referring to acculturation attitudes and self-reported behaviors, without systematically addressing their relations. It is often tacitly assumed that the two aspects are interchangeable. Our data, however, suggest that attitudes and behaviors in the acculturation process cannot be reduced to each other (Arends-Tóth & Van de Vijver, 2005b). In studies involving Turkish Dutch immigrants we addressed the relations between acculturation attitudes and self-reported behaviors from an equivalence perspective. Three levels of equivalence were studied: structural equivalence (identity of the internal structure of attitude and behavior), metric equivalence (identity of measurement unit), and scalar equivalence (identity of measurement unit and scale origin). Support for structural equivalence was found, which implies that acculturation attitudes and behaviors can be
conceptualized using a single underlying construct. Acculturation can be seen as a higher-order construct, with acculturation attitudes and behaviors as lower-order indicators. Metric equivalence and scalar equivalence (i.e., direct exchangeability of scores) were higher in the private domain than in the public domain, and higher for identical response formats than for different response formats.

Our study indicated that attitudinal and behavioral aspects refer to the same underlying concept of acculturation; yet, scores of attitudes and behaviors can usually not be interchanged. The mean scores and in some cases even the preferred acculturation strategy may not be the same for attitudes as for behaviors. Our findings suggest that consistency of findings across instruments can only be expected if a clear distinction is made between attitudes and behaviors, if a distinction is made between relevant life domains, and if similarity of stimuli and response categories across attitudes and behaviors is maintained.

UNRESOLVED ISSUES IN THE CONCEPTUALIZATION AND ASSESSMENT OF ACCULTURATION

Although in recent years some excellent studies of immigration and acculturation have been published, many areas of the field remain poorly explored and understood. There is a gap between the huge number of empirical studies on acculturation and the modest developments in acculturation theory and methodology. In the area of conceptualization and measurement important work remains to be done. There are several directions for future research in this field.

Domain Specificity

Current models of acculturation focus on the dimensionality of acculturation. In our view, acculturation is often more domain and situation specific than implied by current models. A necessary further distinction refers to domain specificity. Among Dutch immigrants adaptation (integration) is more preferred in the public domain and cultural maintenance (separation) in the private domain. Further research is needed to refine the distinction. For example, social contacts can belong to both the private and the public domain: Informal contacts during leisure time are part of the private domain, whereas formal contacts at the work place or at school belong to the public domain. The validity of the public—private distinction in domains that contain aspects of both still has to be established. Moreover, the applicability of the distinction has to be studied in other countries and ethnic groups. For example, it is not yet clear to what extent ethnic groups differ in how they define both domains. More research dealing with the specification of life domains and situations is required.

On the Delineation of Universal and Group-Specific Aspects of Acculturation

An important question in cross-cultural psychology involves the delineation of widely shared and culture-specific aspects of studied phenomena (Berry, Poortinga, Segall, & Dasen, 2002). The question is also relevant for acculturation. What are the universal and group-specific aspects of acculturation? What processes are common or different across voluntary and involuntary immigrant groups? Some researchers indicate that all individuals, regardless of ethnic group affiliation, undergo similar processes of change with differences in rate in order to adapt to the society of settlement. Immigrants have common experiences of being an immigrant, and there
are common cultural demands to adapt to the mainstream society to a certain degree in order to survive economically (e.g., language, social contacts, and education). The process of adaptation is common across many cultural groups, and it is likely that there are common experiences across acculturating individuals. Others suggest that each cultural group is unique and undergoes specific cultural changes. Language loss provides an interesting example (De Bot, 1998). Dutch immigrants in Canada and Australia often show considerable language loss. It is not uncommon to find that the third generation has a poor proficiency in the Dutch language (if any at all). However, Chinese immigrants are often able to maintain knowledge of their first language across several generations.

The Meaning of Integration

Integration, the combination of adaptation and cultural maintenance, is the acculturation strategy most preferred and practiced by immigrants (e.g., Berry & Sam, 1997; Van Oudenhoven, Willemsma, & Prins, 1996). However, there may be large variations in what is meant by integration in view of the variety of different possible combinations of cultures. Therefore, the term integration needs to be more precisely defined, and more knowledge is needed about how integration is managed and negotiated in the interactions between immigrants and mainstream society. It could even be argued that, given the massive preference for integration, most variation occurs within integration and not between acculturation strategies.

Integration is an umbrella concept covering a variety of meanings. First, integration can have a connotation of assimilation rather than a preference for both adaptation and cultural maintenance, especially for majority group members. In public discourse in Western European countries, the terms integration and assimilation were often used interchangeably. Second, integration can refer to any combination of adaptation and cultural maintenance. Does it mean that both cultures contribute to some degree (e.g., 10% ethnic and 90% mainstream) or that both cultures contribute equally? The latter case seems to be the implicit definition in most research. However, even this definition is ambiguous. Does integration refer to “100% adaptation and 100% cultural maintenance” or to “50% adaptation and 50% cultural maintenance”? Does it mean that immigrants combine both cultures in all their behavior or that they switch between cultures? Third, immigrants can have access to both cultural systems and alternate between them depending on the context; for example, “dual monocultural” individuals may switch between cultural maintenance at home and adaptation outside. Finally, integration can refer to merging cultures, creating a “new culture” from the old ones.

It appears, in summary, that integration is an ambiguous term with a high face validity, because almost all immigrants have some aspects of both cultures in their attitudes and behaviors. Research is needed to determine which definition is most valid. Without research and discussion on the topic, the meaning of integration may become too broad to be useful for communication.

Testing Attitude—Behavior Relations in Acculturation

In social psychology the relation between attitudes and behaviors have received considerable attention, both theoretically and empirically (e.g., Eagly & Chaiken, 1993). The original findings indicating that attitudes and behaviors showed weak relations (if any at all) have not remained unchallenged. The best known model
is the theory of planned behavior (Ajzen & Fishbein, 1980), which holds that the relations between attitudes and behaviors is moderated by external factors such as norms about both aspects and the intention to carry out the behavior (e.g., “I know that my smoking is a threat for my health; yet, I do not intend to quit smoking.”). The theory of planned behavior has been applied successfully in many life domains and may also be useful to account for attitude—behavior relations in acculturation. It is regrettable that the focus in acculturation research on the mediating and moderating role of acculturation orientations and sociocultural and psychological adaptation as outcomes has led to a lack of studies of the relations between attitudes and behaviors. The often incorrectly assumed interchangeability of attitudes and behaviors in assessment questionnaires also suggests that acculturation research should be informed by models about their relation developed in mainstream social psychology.

Assessment

The development of a standardized acculturation instrument or at least a widely accepted procedure to design and evaluate such an instrument is an essential next step in acculturation assessment. Our findings suggest that the two-item method (involving separate items to measure adaptation and cultural maintenance) with items addressing both public and private life domains appears to be useful and can significantly contribute to the development of a reliable acculturation instrument. Agreement on how acculturation should be measured will probably help to solve the problem of often conflicting results concerning the relation between acculturation aspects and various psychological processes (e.g., Negy & Woods, 1992; Rogler, Cortes, & Malgady, 1991).

Future research on acculturation should focus more on the questions of how we can incorporate acculturation in assessment in multicultural groups. In this kind of assessment acculturation is often not the focus of study, but can have an influence on the assessment outcomes. Various ways in which acculturation can be taken into account in assessment have been discussed by Van de Vijver and Phalet (2004). An example would be the use of cutoff scores on an instrument that measures adaptation to the mainstream culture. Scores below a minimum value are seen as an indication that the instrument cannot be used in a meaningful way for a particular immigrant. Adaptation then plays the same role as social desirability in personality measurement. In the Eysenck tradition of personality assessment, it is common not to interpret scores on the target dimensions like extraversion if the respondent’s level of social desirability is above a minimum value.

AN APPLICATION: FAMILY AND ACCULTURATION

In this section we address the role of acculturation in family relationships. Examining acculturation in the family domain gives more insight into the dynamic and multifaceted nature of acculturation. Again, our focus is on a combination of conceptualization and assessment. We also distinguish between the role of the family in acculturation conditions, orientations, and outcomes.

Family as Condition
The most important function of the family as primary socialization agency has often been stressed in the social and behavioral sciences. For a member of the majority group in the society the family is an integral part of the whole network of social relationships that constitutes his or her society, and its culture is mainly continuous with that of the main society. For immigrants the situation is different. The family is usually part of another social system and culture. The immigrant family as socialization agency has a major influence on the acculturation orientations of its members (e.g., Nauck, 2001).

**Family as Moderating or Mediating Factor**

Among the many factors that can contribute to well-being in acculturating individuals, the family is particularly important. Good family relationships (especially perceived support) can reduce stress experienced during the acculturation process (e.g., Castillo, Conoley, & Brossart, 2004). On the other hand, intergenerational discrepancies between immigrant parents and their children may lead to conflicts within the family, thereby threatening the well-being of its members (e.g., Kaplan & Marks, 1990; Szapocznik & Kurtines, 1993).

An important topic in acculturation research involves intergenerational changes in acculturation orientations between immigrant parents and their children. The overall picture points to acculturation across generations as a development toward the dominant culture, accompanied by either maintenance or loss of the original culture (e.g., Cuéllar, Nyberg, Maldonado, & Roberts, 1997; Mendoza, 1989). However, acculturation does not affect all aspects of the psyche in an identical way. Nagata’s (1994) review of acculturation studies pointed to a decrease in ethnic knowledge and behaviors from the first to the second generations, although attitudes did not significantly change.

**Acculturation Outcome: Changes in Family Relationships**

When immigrants from collectivist cultures come to a more individualist culture (like most of the Western cultures), they are confronted with a culture in which family relationships differ from their culture of origin (Greenfield & Cocking, 1994). The acculturation process can modify the perceived importance of the family. Numerous American studies on the role of acculturation on family relationships do not show convergent results (Chun & Akutsu, 2003). In some studies more adaptation to the dominant culture was related with less family cohesion, less mutual support, and more family conflict (e.g., Brooks, Stuewig, & Lecroy, 1998). Research with Hispanic families demonstrated that the second-generation and younger immigrants adjust more to the majority culture and display weaker norms of family relationships than first generation and older immigrants (e.g., Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987). Other studies, however, reported that family relationships were strengthened during the process of acculturation. For example, Mexican Americans who adjusted more to the majority culture indicated that contacts and support among family members increased (e.g., Keefe, 1980). Still other studies showed that acculturation influences only some components of family relationships (Cortes, 1995). For example, in one of these studies perceived emotional support from the family was not influenced by acculturation, however, giving support to family members became less important (e.g., Sabogal et al., 1987). Finally, some studies
do not find significant relations between acculturation and family relationships (e.g., Fuligni, 1998).

There is a need for an overarching framework that permits reconciliation of these findings. The incompatibilities may, at least partly, be due to an insufficient distinction between various components (instrumental, social, and emotional) and variables (attitude and behavior) of family relationships; acculturation may not impact on all these aspects in the same way and at the same pace. Marin (1992) suggested that beliefs and feelings of family solidarity (attitudinal aspects) are less likely to be influenced by acculturation than behavioral aspects (such as visiting patterns). In addition, in previous research insufficient distinction is made between various measures of acculturation, such as proxy measures (generation level and age at immigration) and acculturation attitudes and behaviors, which may also contribute to the conflicting findings with family relationships. In order to have a better insight into the role of acculturation and family relationships, a distinction should be made between the various variables and components of family relationships and of acculturation.

Models of family changes. Three models regarding acculturation and family relationships can be envisaged. The first, which is based on modernization theory, holds that acculturation leads to a unidirectional shift in family characteristics toward the Western pattern. Processes of upward educational and occupational mobility expose immigrant family members to the values of the majority group and make immigrants more likely to adopt these values.

The second model holds that some aspects of the family system undergo changes, whereas other aspects remain unaffected. The distinctions among different components of family support (instrumental, social, and emotional) are important because they are differently affected by social change. Emotional dependencies can continue (or even increase) even if material dependencies decrease across generations with increased affluence (Kagitcibasi, 1996).

According to the third model, family relationships are strengthened as a result of acculturative stress. Families provide the “buffer” for immigrants to cope with acculturative stress by social sharing and exchanging information on how to deal with various acculturation-related problems such as discrimination by the majority group. However, a development in which the orientation on the own ethnic group is reinforced is not equally likely to occur in all immigrant groups. The relation between and mutual images of the ethnic group and the majority group in the society could have an influence on the immigrant family. Some cultural groups are evaluated more negatively than others. The evaluation of ethnic groups according to liking and likeness (social distance) is called “ethnic hierarchy” (Schalk-Soekar & Van de Vijver, 2005). In the Netherlands this ethnic hierarchy has been found to be fairly stable across studies. For example, Surinamers and Antilleans are always placed above Turks and Moroccans. Negative images of the majority group influence the rank order of ethnic groups in the hierarchy. Ethnic groups placed lower in the hierarchy are evaluated more negatively to ethnic groups placed higher in the hierarchy. Ethnic groups with a lower position in the hierarchy that experience more prejudice and discrimination will depend more on their family and can be expected to show more family solidarity than ethnic groups with a higher position in the hierarchy.

CONCLUSIONS
The main aim of this chapter was to compare and integrate current theoretical models and measurement methods of acculturation. We show that acculturation involves various processes and components; no single measure or method can capture the complexity of acculturation in a comprehensive manner. An essential step in order to advance acculturation research is the development of a standardized acculturation instrument or at least a widely endorsed view on what should be included in such a measure. The use of independent measurement of acculturation orientations (two-statement method) is a useful tool that can contribute to understanding in this area. In order to understand acculturation in context it is essential to use a range of different contexts and domains.

Contextual features of the acculturation process have received less attention in research. The importance and impact of immigrant cultures depend crucially on acculturation context. Ethnic cultural norms and behaviors are most salient and most easily enforced in private life. Phalet and Swyngedouw (2003) found that Turkish and Moroccan minorities in the Netherlands attributed more importance to cultural maintenance in the home and family context (private domain) whereas the adaptation dimension was more important in school and work situations (public domain).

The family as socialization agency is relevant in all components of the acculturation process; the family provides the cultural background for socializing the child, it influences the acculturation orientation of its members, it moderates relations between background conditions (e.g., acculturative stressors and mental health as an adaptation outcome), and it is influenced by acculturation. In addition, the family plays a role in acculturation outcomes, such as psychological well-being, life satisfaction, and acculturation behavior. The role of the family in acculturation is so vital and involves so many aspects that it is not farfetched to state that if we understand the role of acculturation in the family, we understand the major ins and outs of acculturation. Before we reach that point, however, major advances in the conceptualization and assessment of acculturation are required. We hope that, however modest, the current chapter may help to bring this goal closer within reach.
Various terms have been used to refer to acculturation responses, such as acculturation orientations, strategies, attitudes, modes, and styles. Although all these terms, if properly defined, can be used, we prefer acculturation orientations because this term refers to broad personal preferences, which in our view are crucial in the acculturation process. The term strategy implies more conscious rational choice and consistency than we find in the acculturation process; they refer both to attitudes and behaviors (which is an argument against using attitudes as the generic term); similarly, the term style could be seen more as referring to behaviors than to attitudes (however, when the term would be used as in “cognitive style”, our argument would no longer hold). Finally, the term mode may convey the impression of a link with assessment methods, which is undesirable.

There were 144 (49.1%) female and 149 (50.9%) male participants, and 15 (5.1%) first- and 278 (94.9%) second-generation immigrants in the sample. The age of the participants varied from 11 to 19 years, with a mean of 14.67 (SD = 1.69). Of these students, 18.4% attended vocational training education, 62.1% attended general secondary education, and 19.5% attended professional and academic secondary education.
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Redfield, R., Linton, R., & Herskovits, M. H. (1936). Memorandum on the study of
acculturation. *American Anthropologist, 38*, 149-152.


<table>
<thead>
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<th>Domain specificity</th>
<th>Unidimensional models</th>
<th>Dimensionality</th>
<th>Fusion models</th>
</tr>
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<tr>
<td>Level 1: Trait models (domain-aspecific models)</td>
<td>Migrant adapts to the main culture</td>
<td>Migrant has two attitudes: maintenance of original culture and adaptation to the host culture</td>
<td>A new culture emerges</td>
</tr>
<tr>
<td>Domain-specific models</td>
<td>Speed of adaptation varies across domains/situations</td>
<td>Same as above, but now applied for life domains/situations</td>
<td>A new culture emerges in a domain/situation</td>
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<tr>
<td>- Level 2: Cluster of domains (e.g., public and private domains)</td>
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<td></td>
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<tr>
<td>- Level 3: Specific life domains (e.g., childrearing, news)</td>
<td></td>
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<tr>
<td>- Level 4: Specific situations (e.g., food at home and outside home)</td>
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TABLE 2
Mean Scores and Effect Sizes of the Measurement Methods (One-, Two-, and Four-Statement) in the Two Life Domains

<table>
<thead>
<tr>
<th>Domains</th>
<th>One-statement method</th>
<th>Two-statement method</th>
<th>Four-statement method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dutch adaptation</td>
<td>Turkish maintenance</td>
<td>Effect size (Dutch-Turkish)</td>
</tr>
<tr>
<td>Mean scores</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Public domain</td>
<td>3.06</td>
<td>3.74</td>
<td>3.78</td>
</tr>
<tr>
<td>Private domain</td>
<td>2.03</td>
<td>2.47</td>
<td>4.36</td>
</tr>
<tr>
<td>Effect sizes</td>
<td>2.11***</td>
<td>1.86***</td>
<td>-1.12***</td>
</tr>
</tbody>
</table>


*p < .05. ***p < .001.
Figure Caption

*Figure 1.*
Framework of acculturation variables

*Figure 2.*
The unidimensional acculturation model

*Figure 3.*
The bidimensional acculturation model of Berry

*Figure 4.*
The fusion model of acculturation

*Figure 5.*
Hypothesized Acculturation Model with Two Second-Order Latent Variables
(Standardized Solution)
Figure 1

Acculturation Conditions

- Characteristics of the receiving society (objective, perceived)
- Characteristics of the society of origin (objective, perceived)
- Characteristics of the immigrant group (objective, perceived)
- Personal characteristics

Acculturation Orientations

- Cultural adaptation
- Cultural maintenance

Acculturation Outcomes

- Psychological well-being (psychological distress, mood states, feelings of acceptance, and satisfaction)
- Sociocultural competence in ethnic culture (interaction with co-nationals, maintenance of culturally appropriate skills and behaviors)
- Sociocultural competence in mainstream culture (interaction with hosts, acquisition of culturally appropriate skills and behaviors, academic and job performances)
Figure 2

Cultural maintenance

Cultural adaptation
Conceptualization and Assessment

Figure 3

Cultural maintenance

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separation</td>
<td>Integration</td>
</tr>
<tr>
<td>Marginalization</td>
<td>Assimilation</td>
</tr>
</tbody>
</table>

Figure 4

Cultural adaptation

New culture

Cultural maintenance
A higher score refers to more adaptation.  
$^a$Fixed at 1 in nonstandardized solution.  
$^b$Not significant.  
$p < .05$.  
$***p < .001$. 

Figure 5
BIOGRAPHICAL NOTES

Judit Arends-Tóth is a Post-doctoral research fellow for the Faculty of Social and Behavioural Sciences at Tilburg University, the Netherlands. She received her psychology education (MA and PhD) at Tilburg University. Currently, she works on a large project on family relationships and acculturation granted by the Netherlands Organization for Scientific Research. Her research interests include psychological assessment of acculturation, cultural differences in behavior, and childrearing practices in multicultural context.
BIOGRAPHICAL NOTES

Fons J. R. van de Vijver is Professor of cross-cultural psychology at Tilburg University (the Netherlands) and North-West University (South Africa). His research interests include methodological aspects of cross-cultural comparisons (bias and equivalence), cross-cultural differences and similarities in cognitive processes, acculturation, multiculturalism, test translations/adaptations, and psychological assessment in a multicultural context. He is the current editor-in-chief of the Journal of Cross-Cultural Psychology.
Dear Editors,

Thank you very much for careful reading. All textual corrections were made. We addressed the comments in our text. However, we did not address the following two points in our text. We address them here:

1. How do the constructs of “public” versus “private” map onto Szapocznik et al.’s “behavioural” versus “value” acculturation? We find private-public distinction within the same acculturation aspect (attitude or behavior) whereas Szapocznik et al. refer to different aspects in their instrument (behaviors refer to public whereas values to private).

2. The correlations of the two dimension: Is there any discernable pattern in the results, such as whether measures used with specific ethnicities or host cultures tend to produce described result? There is no such a pattern (it is not cultural specific). We think that the different relations can be explain more by the fact that different aspects (attitude, knowledge, behavior, values) were used for the two dimensions (cultural maintenance was measured with values or attitudes whereas adaptation with behaviors) and that items were not generated in pairs with regard to domains, with one item in each pair referring to heritage culture and the other item referring to the mainstream culture.

An additional issue:
The very last figure is hard to read.
We decided not to present the last figure.