Dimensions in Acculturation: One, Two, or Many?
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Abstract
Psychological acculturation refers to the changes and stabilities in psychological functioning after migration. An overview is presented of models that have been proposed in the literature about the structure of acculturation. Historically, the shift has been from one- to two- to multidimensional models. The models are described and their strengths and weaknesses are discussed. It is argued that the shift to two- and more recently multidimensional models is partly based on scientific data suggesting that simpler models do not reflect the complex reality of psychological acculturation and partly based on the changing nature of migration in the last 100 years. The old idea of migration where migrants settle in a new part of the world and never return to where they came from is now complemented by new types of often temporary migration such as found among expatriates, international seasonal laborers, and exchange students. The most recent models accommodate this changed reality.

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There are jokes, often with a racist slant, about counting systems in which indigenous groups in non-Western cultures are said to count as one—two—many. Anthropological research has discovered that there are groups with very few numerals. Thus, Pica, Lemer, Izard, and Dehaene (2004) studied the Mudurukú, who live in the Amazon. Their counting system does not have numerals beyond five. The authors discovered that Mudurukú have problems in dealing with exact numbers in arithmetic beyond five; however, their number approximation (such as the relative judgment of size in a comparison of larger quantities), based on a nonverbal system, is accurate. There may be some naturalness in the sequence of one—two—many. Remarkable as this may sound, the sequence also describes the history of the structure of acculturation models in a nutshell. My central argument in this paper is that (a) acculturation models have evolved from a single dimension, to two dimensions, and eventually and most recently, multiple dimensions, and (b) this change reflects a natural sequence, reflecting the changing face of migration streams.

The history of psychology has various examples of often heated discussions about the structure of constructs central to our discipline. Personality is a good example. The currently most popular model of personality, the Big Five, goes back to the 1930s and experienced a revival since the 1980s mainly by the work of Costa and McCrae (e.g., Costa & McCrae, 1992; Goldberg, 1990). The model holds that neuroticism, extraversion, openness, agreeableness, and conscientiousness are the basic dimensions of personality. Even if the model is dominant in the literature, it would be a simplification to argue that only five dimensions have been studied. In addition to the five-dimensional model mentioned (Goldberg, 1990), there is research on a one-factorial model (the Big One; Musek, 2007), a two-dimensional circumplex model (De Raad, Hendriks, & Hofste, 1992), a three-dimensional model of psychoticism, extraversion, and neuroticism (Eysenck & Eysenck, 1975), a six-dimensional model adding a social-relational dimension (Cheung, 2004) or an honesty dimension (Lee & Ashton, 2004), and a seven-dimensional model (Almagor, Tellegen, & Waller, 1995). However, models with even more dimensions have also been studied, such as a 16-factor structure (Cattell, Eber, & Tatsuoka, 1970).

This debate has been raging for about 30 years. This may sound like a long period of time; however, the history of models of the structure of intelligence shows that such a discussion may last for up to a century. More than a hundred years ago Spearman (1904) proposed a one-factorial model of intelligence. He argued that tests of components of intelligence, such as reasoning and memory, tend to show positive correlations. He developed a statistical procedure, factor analysis, to model these positive correlations. His argument was that all tests of intellectual skills tap into a general factor, called $g$. This view was disputed by various authors, gradually leading to an enlargement of the number of factors taken to constitute intelligence (e.g., Thurstone, 1947). The largest number, 120, was proposed in the 1960s by Guilford (1967). After this period of diversification, attempts were developed to reconcile the evidence and stop the seemingly endless expansion of factors. This led in the 1990s to the development of the so-called CHC model, called after its main contributors Cattell, Horn, and Carroll (see, e.g., McGrew, 2009). This model combines previous models by suggesting a hierarchical structure in which general intelligence is in the apex and the second layer describes various intellectual skills that are related to intelligence.

The Concept of Acculturation

Migration is part and parcel of the human condition. Even the group that lives the longest in a single place, Australian Aboriginals, arrived there only between 40,000 and 60,000 years ago. Still, the scientific interest in migration is relatively recent. The first, authoritative definition of acculturation
comes from 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 comes from anthropology. In the last 50 years, more disciplines have developed an active interest in migration and its consequences, such as psychology, economics, education, and sociology. This interest is fueled by important societal developments, such as globalization and the large migration streams of the last 50 years.

Psychological acculturation research focuses on individual-level phenomena (Graves, 1967). Psychological acculturation refers to the complex pattern of stability and changes in norms, values, attitudes, behavior, and habits (e.g., food) after migration. Psychological acculturation research typically does not refer to experiences of tourists who tend to stay abroad for periods of no longer than a few weeks. Frequently studied groups are permanent settlers and various groups that move abroad for study or work, such as exchange students, expatriates, and sojourners. A frequently made distinction in immigrant groups is based on their motivation to go abroad. On the one hand, there are refugees and asylum-seekers whose migration is a consequence of a desire to escape from miserable conditions, such as war or famine; in the literature these migrants are called to show a push motive. On the other hand, there are people who migrate to improve their economic life conditions; this is called a pull motive.

Models of Psychological Acculturation

I describe three types of models that have been proposed in the literature. The models are presented in historical order. I begin with a model that views acculturation as a one-dimensional process, followed by the currently popular view that acculturation comprises two dimensions, followed by the most recent view in which acculturation is viewed as comprising multiple dimensions. The dynamics behind these changes comes from two sources. On the one hand, models were proposed and tested; eventually flaws were detected and models for adapted so as to accommodate these flaws. On the other hand, the face of acculturation streams has also changed, notably in the Western world. Whereas in the past migrants were often permanent settlers went to new places never to return unless for brief family visits, nowadays there are many migrants who do not wish to stay in the new context for the rest of their lives, such as expatriates and exchange students. It is quite clear that the way in which these migrants deal with the new culture, is usually more peripheral than the way in which permanent settlers deal with the new culture. So, changes in acculturation models partly reflect scientifically motivated new insights and partly the changing reality of migration.

The one-dimensional model of acculturation. Historically, the first model of acculturation held that the process of acculturation can be viewed as successive adjustment to the new context, thereby gradually losing the ethnic heritage (Gordon, 1964). The model was mainly inspired by European immigration to the US in the 19th and early 20th century. When these immigrants arrived, they did not know the American culture and did not speak the language. With the passing of time, the new immigrants became fully adjusted to the new context. This adjustment often meant that they lost their original language and became Americanized. What typically did not change during the acculturation process was the religion. Even if many immigrants took great pride in their ethnic heritage, ties with this culture were often loose. There was a rather popular view, found both among laypersons and scientists, that the adjustment process took three generations and that the first generation moved, the second generation had both cultures, and a third generation was fully adjusted to do new cultural context (e.g., Crawford, 1996; Portes & Hao, 2002).

In this view of acculturation the mainstream (American) culture and the heritage (European) culture work like communicating vessels where in the beginning the European vessel is full and the American vessel is empty; the longer immigrants stay in the new context, the American vessel gradually fills up and the European one empties. This type of acculturation is strongly motivated by the desire to build up a new existence and to become a full-fledged member of the community of the country of
destination. The same pattern of complete absorption in the host culture also prevailed in many countries in Western Europe. For example, Jewish immigration to the Netherlands from both Southern Europe and Eastern Europe was first accompanied by a strong adherence to the ethnic languages and customs, but the final outcome was complete immersion in the Dutch context (De Ruiter, 2014).

**The two-dimensional model of acculturation.** The development of the two-dimensional started from the observation that there some immigrant groups have been able to maintain their language and culture for many generations. Examples are groups of Chinese in various places such as Singapore. Another example is the maintenance of religion by many Muslim groups in the diaspora. So, complete immersion is not the inevitable or desired outcome for all immigrants.

The most influential two-dimensional model of acculturation has been proposed by Berry (1997, 2001). The model holds that an immigrant has to deal with two cultures: the culture of the country of origin and the culture of the host country. The first question is whether the immigrant finds it important to maintain the ethnic culture. The second question is whether the immigrant finds it important to adopt the mainstream culture. It is a crucial characteristic of the two-dimensional model that answers to the two questions are conceptually independent: an affirmative answer to the question of cultural maintenance does not imply a negative answer to the question of cultural adoption, as would be argued in the one-dimensional model. If for the sake of simplicity it is assumed that the two questions can only be answered with yes or no, four possible combinations of answers can be formulated. The combination of maintenance of the ethnic culture and adoption of the mainstream culture is called integration. So, in psychology integration refers to biculturalism. In much acculturation research, integration is the most popular choice by immigrants (Arends-Tóth & Van de Vijver, 2006). Separation refers to maintenance of the ethnic culture and non-adoption of the mainstream culture. In this option immigrants continue to live their ethnic life in the new place. Good examples of separation in Western Europe are Muslim stay-at-home mothers who hardly participate to public life in their country of settlement. There are examples of Turkish women who after having lived in Western Europe for decades are unable to speak the language of the host country. Their cultural, linguistic, and psychological makeup did not change during these decades. Separation is a viable option if immigrants live in a context of many co-nationals but leads to problems of isolation if immigrants live in an area where they are the only immigrants from that country. The opposite of separation is called assimilation, which refers to complete absorption in the host culture and loss of the ethnic culture. The one-dimensional acculturation model can be taken to exemplify assimilation. The final option, called marginalization, amounts to a rejection of the ethnic and mainstream culture. Marginalization is hardly ever a deliberate choice; it is usually a consequence of unwillingness to relate to the ethnic culture and impossibility to relate to the mainstream group. In the Netherlands marginalization can be seen among some Moroccan-Dutch adolescents and young adults who do not want to belong to the in their view backward rural Moroccan culture of their ancestors and who cannot belong to the Dutch cultures as they are discriminated against in the Dutch society.

The two-dimensional model has been very popular in psychology and many assessment procedures have been developed within this framework (Celenk & Van de Vijver, 2011, 2014). The main advantage of the model is the conceptual independence of maintaining the heritage culture and adopting the culture of the country of settlement. Many immigrants prefer to endorse both cultures. The reasons for this choice are easy to appreciate. An immigrant will often want to build up a new existence in the country of settlement, which implies a positive attitude toward the new culture, but also wants to maintain the social support network of the heritage culture.

Despite its current popularity, the model seems to show the first cracks in the wall. In my view, the main problem is, again, that the model is overtaken by the increasing complexity of migration. There are more and more instances of acculturation that can no longer be captured in a simple interplay of two cultures. I think that the challenges to the two-dimensional acculturation conceptualizations come from three areas. Firstly, the popularity of integration (almost every immigrant shows some combination of
the mainstream and ethnic culture in attitudes and behaviors) has meant that the concept has come to
cover a bewildering variety of acculturation preferences (Boski, 2008). For example, does integration
mean that immigrants combine cultures all the time (usually called blending; LaFromboise, Coleman, &
Gerton, 1993)? If that is the case, does that mean both cultures are equally represented in the attitudes
and behavior of the immigrant or is there also integration if there is only a modicum of one of the
cultures present? Some immigrants can quickly switch between cultures (usually called alternating); this
is the case when a Turkish-German behaves like a Turk among Turks and like a German among Germans.
This kind of conscious switching on and off of cultures has been studied experimentally. There is a small,
yet influential research tradition, called frame switching (Benet-Martínez, Leu, Lee, & Morris, 2002), in
which immigrants’ ethnic or mainstream identity is primed after which the influence on attitudes,
behavior, or cognition is studied. For example, Verkuyten and Pouliasi (2008), working with Greek-Dutch,
activated the cultural identity by showing pictures of either Dutch icons (national flag, a windmill, and a
person in traditional clothing) or Greek icons (national flag, the Acropolis, and a person in traditional
clothing). The authors found that after activating Greek culture, in comparison to activating Dutch
culture, participants showed a less positive evaluation of the personal self, stronger Greek self-
stereotyping, and stronger endorsement of family integrity and friendship. All these descriptions are
examples of integration as in one way or another, they manifest the combination of cultural
backgrounds; yet, these various appearances of integration just described reflect different realities. A
concept that has to cover so many different realities can easily become vague, poorly defined, and
unwieldy.

Secondly, the two-dimensional model seems to be tacitly based on a trait-like framework of
acculturation. The idea is that if an immigrant prefers separation, he or she has this preference in all life
domains. Research has shown that this consistency of acculturation across time and situations (the
cornerstone of the trait approach, but also bone of contention, according to some personality
psychologists; Mischel, 1968) is not always observed. For example, it has been shown in several studies
that Turkish-Dutch prefer to maintain their ethnic culture in the private sphere but are more inclined to
adjust to the Dutch culture in public life (e.g., Arends-Tóth & Van de Vijver, 2003). This domain
dependence of acculturation has also been found in Belgium (Snauwaert, Soenens, Vanbeselaere, &
Boen, 2003). A trait-like conception of acculturation does not do justice to the wide variety of individual
and group differences in how immigrants maintain their ethnic culture and/or adopt the mainstream
culture.

Thirdly, the idea that immigrants always have to deal with two (and only two) cultures loses its
applicability. Let me give five examples. Firstly, cosmopolitanism is known to be strong among
expatriates (Hannerz, 1990). These often highly educated employees typically do not have strong link
with the cultures in which they work (many of them work in multiple countries), but develop a global
citizenship. Secondly, many large cities have neighborhoods that harbor multiple cultures; Vertovec
(2007) calls this super-diversity. We found in a recent study of a super-diverse area in Oud-Berchem,
Antwerp (Belgium) that immigrants living in this neighborhood developed a rather strong
cosmopolitanism (Van de Vijver, Blommaert, Gkoumasi, & Stogianni, in press). Their sense of belonging
was based on the identification with a very multicultural neighborhood (inclusive identity). Thirdly, work
by Ferguson among Jamaican adolescents suggests that they adopt specific features of the American
culture (music and dance play an important role), although very few of these youngsters ever have
visited the US (Ferguson, Bornstein, & Pottinger, 2012); she calls this remote acculturation. It appears
that we may need to entertain the possibility that acculturation may not involve physical contact.
Fourthly, since the abolishment of Apartheid in 1994 in South Africa, the concept of the Rainbow Nation
is promoted by the government to instill a sense of inclusive identity that transcends ethnic boundaries.
The idea behind this concept is that modern South Africa is a multicultural nation and that the
inhabitants should take pride in this diversity (the rainbow as metaphor of how beautiful diversity can
be). Finally, adolescent immigrants from the Maghreb countries in Belgium often strongly identify with their oppressed peers in Palestine (Van Amelsfoort & Van Heelsum, 2007). There are many more examples of transnationalism in the literature. A two-dimensional acculturation falls short to understand any of these five examples.

**Multidimensional Models.** It is clear that the concept of integration gives a poor rendering of the acculturation processes in the examples described. Identification with multiple cultures (“polyculturalism”; Morris, Chiu, & Liu, 2015) is becoming more common. Global, multiple, and inclusive identities are all examples of concepts that cannot be adequately captured in a two-dimensional acculturation framework. In my view, the multicultural view is appealing as it corresponds more to the reality of acculturation than any of the previous models. On the other hand, the multicultural view is nowhere near to a full-fledged model of acculturation. We will need to rethink our conceptual models and assessment procedures to accommodate the transition to multidimensional models. I think that it is quite likely that the new models will take several years to develop. It may seem easy to extend the two-dimensional model to multiple cultures by asking the same questions about each culture and by adding questions about supranational identifications (to accommodate inclusiveness and cosmopolitanism). However, the higher-order dimensions (often psychologically more distant cultures) can play a very specific role in acculturation, such as music, dance, or religion. It may well be that we need more cafeteria-like models where acculturating individuals are more eclectic in what they adopt from other cultures (which items they choose from the menu, so to speak). Internet and social media can play a tremendous role here, as these enable continuous exposure to distant places and cultures. Also, in the last years the fields of identity and acculturation seem to approach each other quickly. Historically, the two fields have long developed independently; however, the notion of multiple identities is well compatible with the notion of multidimensional acculturation. The idea of domain dependence is well developed in the identity field, where multiple identities are distinguished. So, the development of multidimensional acculturation may be more involved than just a straightforward generalization of two-dimensional models.

**Conclusion**

Like in intelligence research, acculturation research has witnessed an increase in the dimensionality of the dominant models in the field. However, there is a salient difference between the traditions. Intelligence models have been developed to describe a structure (our intelligence) that did not change in the last century as far as we know. The basic features of intelligence have remained invariant. However, in acculturation research we study an ever changing reality as we follow the changing migration patterns over time. So, where in intelligence the question was more or less which structure captures intelligence best, acculturation research is more tied to the continually changing historical and cultural context in which it is studied. The “shelf life” or “best before date” of acculturation models may be intrinsically shorter than those of intelligence models. Still, acculturation remains an intriguing phenomenon. Even if no ethics review committee would ever allow for a study in which individuals have to move from one country to the other for the sake of a scientific study, there is no shortage of groups to study who have done exactly that. Moving around has been part and parcel of the human condition although the reasons and conditions have differed greatly in history. There is no reason to assume that the migration patterns that we observe today will be there for a long period of time. However, from what we know of the past, people will always be on the outlook for greener pastures and migration will continue even if we do not know how it will look like in the future.
References


