

## ARTICLE

## New temporal concepts of acculturation in immigrant youth

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## Abstract

Acculturation unfolds over time, but research on acculturation often does not account for developmental processes. Recent studies introduced several novel temporal concepts of acculturation processes to understand more fully how immigrant youth adapt to new cultural contexts. In this review, we describe these new temporal concepts of acculturation: Acculturative timing refers to youth's age at time of migration (chronological timing), the actual start of acculturative changes (which may occur before or after physical migration, also called transition timing), and the deviation in acculturative change from peers and relevant others from the same cohort and context (relative timing). Acculturation tempo is the duration of acculturation processes from start to a defined end. Acculturation pace is the speed at which acculturation occurs. Acculturation synchrony describes whether adaptation unfolds at the same or different times across different spheres of life. We also present empirical evidence for the predictive utility of the new temporal concepts and provide methodological guidelines on how to measure and assess these concepts.

## KEYWORDS

acculturation, acculturation timing, acculturative change, immigrant youth

Acculturation happens “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” (Redfield et al., 1936, p. 149). It encompasses cultural change in the new culture and the heritage culture. Acculturation has been studied and measured primarily as a static individual difference (e.g., acculturation attitudes, cultural competence levels, ethnic identification), but from a developmental perspective, acculturation is change over time (Umaña-Taylor et al., 2014). Hence, acculturation is a temporal process of change in an individual's orientation to different cultural contexts and milieus; however, it may also describe adaptation to new, unprecedented cultural patterns (e.g., third cultures, cultural spaces in between heritage and

receiving cultures) that may arise from contact with a new culture.

Acculturation can start at different points in time, proceed at different rates, last different amounts of time, and manifest differently across domains (e.g., cultural practices, values, identifications). Consequently, acculturation outcomes of two immigrant youth with similar levels of sociocultural adaptation may differ substantially: One may be on an accelerated learning trajectory, negotiating multiple acculturation domains in a short time, whereas the other is on a similar trajectory in one domain but on a slower one in another domain. Ignoring these dynamics in research on acculturation limits our understanding of how immigrants adapt, an area of research that, by definition, deals with change processes.

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In this article, we describe new temporal concepts of acculturative change: acculturative timing, acculturative tempo, acculturative pace, and acculturative synchrony (see Table 1). Inspired by the developmental literature on motion and growth, including pubertal development (Mendle, 2014; Stumper et al., 2020), these concepts provide a dynamic understanding of how acculturation unfolds over time (Lee et al., 2020; Titzmann & Lee, 2018). Although research on acculturation and puberty shares an interest in studying dynamic temporal changes, it also differs conceptually in key areas, including questions such as what is the end point and how uniform are change processes across individuals.

A temporal perspective of acculturation allows researchers to integrate a more developmental understanding into studies of migration and acculturation, which has been advocated by developmental (e.g., Juang & Syed, 2019; Motti-Stefanidi et al., 2021) and acculturation scholars (Ward & Szabó, 2019). This integration provides new perspectives on the outcomes studied. Scientists who study acculturation refer primarily to sociocultural (sociocultural skills) and psychological adaptation and adjustment (Berry, 1997), whereas developmental scientists often focus on developmental and acculturative tasks that need to be resolved (Motti-Stefanidi, 2018;

Suárez-Orozco et al., 2018). Our conceptual framework of acculturative timing, tempo, pace, and synchrony is not linked to particular outcomes and is not meant to be reserved for assessing acculturation into majority cultures. Instead, these temporal components allow researchers to describe and assess adaptation and adjustment across multiple contexts, including receiving, heritage, and third cultures. Some temporal components may be more relevant for outcomes related to sociocultural adaptation and learning, whereas others may capture changes associated with the social environment. Which temporal component is useful for which adaptation outcome is determined by the characteristics of setting conditions, persons, time, processes, or domains (see Bornstein, 2017, for the specificity principle in acculturation research).

Our approach to acculturative change is an extension of Suárez-Orozco et al. (2018) integrative risk and resilience model, which acknowledges that all outcomes related to development, psychological adjustment, and acculturation result from the interplay of developmental and acculturative processes. This interplay is particularly evident in immigrant youth who face developmental and acculturative changes simultaneously, but it can be applied to all age groups.

**TABLE 1** Concepts of acculturative change

Timing component	Definition	Measurement	Examples of research areas with potentially high impact
<i>Acculturation timing</i>			
Chronological timing	Time since or developmental stage at the day of immigration to a new country	Age at time of migration, length of residence	Assessment of broad acculturation or socialization changes in a new country without interest in specific adaptation mechanisms
Transition timing	The start of acculturative changes; may precede or succeed the actual physical migration	Pre- and postmigration assessments of the start of acquisition of cultural knowledge and skills; retrospective measures	Research on immigrant groups that are more likely to prepare (e.g., expatriates) or less likely to adapt due to little contact (e.g., youth in refugee camps or ethnic enclaves)
Relative timing	The deviation in acculturative change from peers from the same cohort and context	Deviation from predicted values based on peer reports or from standardized acculturation scores, self-reported deviation	Assessment of group-based processes, such as deviations from coethnic peers' cultural identification
<i>Acculturation tempo</i>	The duration of progressing through relevant acculturative tasks or stages	Measurement of time from start to achieving a particular competence (e.g., language certificates) or milestone (e.g., job); change rates in a specific process become very small in longitudinal studies; self-reported end-of-adaptation processes	Time to reach competences and achievements (e.g., fall below a predefined stress level, move out of a refugee shelter, pass a language test)
<i>Acculturation pace</i>	The speed at which acculturation occurs, which may vary inter- and intrapersonally	Rate of change between assessments in longitudinal research: difference scores, slopes in latent growth modeling, true-change scores	Research in adaptation domains with varying adaptation paces (e.g., pace differs between parents' and adolescents' acculturation)
<i>Acculturation synchrony</i>	The adaptation across different spheres of life	Measuring acculturation in multiple dimensions	Studying the interplay of heritage-cultural and receiving-cultural aspects across practices, values, and identifications

## ACCULTURATION TIMING

### Conceptual considerations

*Acculturation timing* is the starting point of acculturation processes. Cultural adjustment processes are described in various ways (Ward & Szabó, 2019) and all require time to unfold. More time is associated with more opportunities for learning, the application of coping strategies, and identity change. *Chronological timing*—the time since arrival in terms of years in the new country—is a common proxy for all underlying acculturation processes, without differentiating specific processes. Accordingly, youth who have had more time to adjust to a new country tend to have an advantage in learning the new language (Güven & Islam, 2015) or in their educational and job outcomes (Hermansen, 2017).

Although chronological timing is a common proxy, it provides limited information. Some immigrants start their adjustment to the receiving society even before they physically move to the new country. For example, most international students and self-initiated foreign employees and their families prepare for their stay abroad, which helps them adjust after arriving (Yijälä et al., 2012). In contrast, refugees may not foresee the need to flee and may arrive less prepared; time spent in refugee camps may further delay acculturation processes. In both instances, chronological timing may not adequately measure the starting point of acculturation.

*Transition timing* captures acculturative change when the actual starting point of acculturation does not correspond with the date of immigration. In some ways, it is akin to remote acculturation when cultural changes begin in the homeland before migration due to exposure to another culture (Ferguson et al., 2017). Unlike remote acculturation, transition timing refers only to situations in which migration or movement inevitably occurs and also can occur after migration. People (e.g., international adoptees) may not begin acculturating to the heritage language until years after immigrating as a result of specific contextual circumstances and demands. For example, youth adopted from South Korea may not begin to learn Korean until adolescence, when they explore their heritage culture during a homeland visit to Korea.

*Relative timing* acknowledges that acculturation and adaptation are also part of group processes (Berry, 1997). Relative timing compares the acculturation of immigrants and relevant coethnic interacting partners. The acculturation gap (a difference in acculturation between parents and children; Telzer, 2010) is a commonly studied form of relative timing. Deviations between immigrant youth and their coethnic peers with similar lengths of postmigration residence are less often the focus of research. Immigrant youth's acculturation may start earlier or later than that of immigrant peers. Because peers play a major role in the socialization of youth during adolescence (Bukowski et al., 2018), deviations from group

norms can benefit or harm psychosocial functioning in immigrant youth (Celeste et al., 2016). Empirical evidence on relative timing with regard to peers is scarce, but in one study, adolescent immigrants in Germany reported more acculturative problems when their acculturation orientations deviated from those of their coethnic peers, after adjusting analyses for length of residence (Titzmann & Jugert, 2015).

### Methodological considerations

The assessment of acculturative timing (chronological, transition, and relative) requires a theoretical rationale. Hence, research questions will determine the type of timing component of interest. Chronological timing is a proxy for broad acculturation or socialization changes in a new or unfamiliar cultural context. Transition timing is relevant for immigrant youth who vary in their degree of preparation, interest, and available resources, or who stay in ethnic enclaves after arriving in a new country, so acculturation may start before or after arrival. Relative timing is likely to affect group-based processes. For example, deviations from peers' ethnic or national identification may make social interactions easier or more difficult. *Chronological timing* is measured primarily by years of residence. It is best suited for assessing acculturative timing when immigration or exposure to a new cultural context is a more or less formalized process (e.g., contacting schools) and when specific adaptation mechanisms are less relevant.

Assessing chronological timing has two methodological challenges. First, length of residence is a major predictor, but we do not know what processes drive these changes. Second, the intersection of developmental and acculturation-related change trajectories needs to be considered. The effect of having spent 10 years in a new country can be expected to differ between individuals who came at age 5 or age 15. Some acculturation outcomes, such as identity development, have both acculturative and developmental trajectories, as recognized by scholars of acculturation and developmental science (Umaña-Taylor et al., 2014; Ward & Szabó, 2019). Researchers should aim to disentangle processes driven by length of residence, age at immigration, and current age (Titzmann & Lee, 2018). Methodologically, acculturation and development can be disentangled by jointly investigating developmental and acculturation-related tasks (Suárez-Orozco et al., 2018), by including main and interaction effects of variables pertaining to acculturation and development in multivariate analyses, or by applying comparative designs that follow change trajectories among immigrant and nonimmigrant youth (Fuligni, 2001; Titzmann & Silbereisen, 2012). This disentangling may not always be possible, but scholars need to recognize that immigrant youth are both adolescents and immigrants.

*Transition timing* requires a specific assessment of when contact with the new culture occurs in a manner that contributes to actual acculturative change for the individual or group of people. This assessment may require pre- or postmigration data, depending on the timing of the transition, and may be obtained retrospectively or prospectively. Assessing transition timing allows researchers to define the process that interests them (e.g., the start of language learning, the start of social identity exploration). We know of no quantitative measures of transition timing. At its simplest, transition timing could be measured with questions about when individuals began to experience this acculturative change. Researchers could ask directly whether immigrants were prepared for the new culture, which can predict the adaptation of adolescent immigrants (Stoessel et al., 2014). Similarly, transition timing could be assessed by obtaining the date or year of a significant event, such as when an immigration visa is procured or when a language class is first taken.

Because *relative timing* reflects deviation from the acculturation process of coethnic peers, its assessment ideally requires knowledge of the direct ecological environment of immigrant youth. Based on data on peer adaptation, the average trend or level of adaptation over time can be obtained through regression equations in which time is the predictor. Given this equation, each participant's deviation from the predicted value can be used as a measure of relative timing in longitudinal and cross-sectional studies. Research on pubertal timing offers a more straightforward method (Petersen & Crockett, 1985): Deviations from peers could be measured by standardizing acculturation scores by age of immigration (i.e., chronological timing) as well as age, and then creating cutoff scores based on standard deviations from the mean. Self-reported deviations from coethnic acculturating peers are a third option, which also has been used in research on relative pubertal timing (Dubas et al., 1991). Finally, multilevel modeling may be applied to test the effects of individual adaptation (Level 1) in interaction with peer adaptation (Level 2) to show the dependency of acculturating youth on their peers' adaptation (Titzmann & Jugert, 2015).

## ACCULTURATION TEMPO

### Conceptual considerations

*Acculturation tempo* is the duration of the acculturation process or the time it takes to progress through relevant acculturative tasks or stages. For instance, Gonsalves (1992) proposed progression through four stages of acculturation: arrival, destabilization, experimentation and stabilization, and return to typical life (e.g., development of realistic expectations and a positive identity). Acculturation tempo provides a way to assess the time immigrants need to pass through such

stages. However, we do not know whether everyone goes through these distinct stages, how long the stages last (acculturation tempo), whether acculturation tempo affects immigrants' psychosocial functioning, and whether these stages differ depending on immigrants' stage of development. For example, the arrival stage may differ in length, as well as by the nature of stressors for early and late adolescents with similar lengths of residence.

Knowledge of acculturative tempo can inform the structure and timing of support services offered to immigrants. Untimely interventions may result in unintended or even iatrogenic effects. In one study, engaging in activities with local peers (e.g., sports, parties) resulted in lower levels of well-being among newly arrived immigrant adolescents who likely had not yet completed the early arrival stage, but they resulted in higher levels of well-being among experienced immigrants who were more likely to have overcome the challenges of arrival (Silbereisen & Schmitt-Rodermund, 2000). Understanding the concept of acculturation tempo can improve the timing of interventions because it may shift measures away from static time intervals based on length of residence (which may come too early or too late for some individuals) to the achievement of particular milestones in the adaptation process.

### Methodological considerations

To assess acculturation tempo, researchers need to define the competence or acculturative milestone of interest, and then operationalize the starting and ending points of this competence or milestone. Whereas the starting point may align with acculturation timing, defining the chosen endpoint can be more challenging since acculturation is a lifelong process with endpoints that are sometimes temporary. In addition, perceptions of desired endpoints of acculturation or development can differ by culture (Lee et al., 2020). Furthermore, just because acculturation tempo requires an endpoint for measurement, it should not be mistaken as a measure of assimilation to the majority culture. Acculturation tempo can also describe processes of acquisition of or enculturation with the heritage culture. In contrast to the study of pubertal development, research on acculturation may have many definitions of endpoints. Given its dynamic nature, the endpoint may be defined as a relative halt (when change between time points in longitudinal studies is no longer observed) or the point at which individuals report that they feel their adaptation has stabilized.

Acculturation tempo is best suited for studying specific processes, such as measuring a particular competence (e.g., language), achieving milestones (e.g., moving out of a refugee shelter), attaining psychological outcomes (e.g., developing a dual or bicultural identity), or passing predefined thresholds (e.g., reporting a level of stress below a predefined criterion). For instance, for



language competence, beginning to learn a language may mark the starting point and passing a competency test may signal the endpoint. Similarly, researchers can document the beginning of an acculturation task (e.g., starting a search for a job, housing, or educational track) and its completion (e.g., finding a job or a house, completing a particular type or level of education). In terms of bicultural identity, scholars may, for instance, assess when two cultural identities become compatible and are no longer oppositional (Benet-Martínez & Haritatos, 2005).

## ACCULTURATION PACE

### Conceptual considerations

*Acculturation pace* is the speed at which acculturation occurs in a given dimension or domain, and can vary between and within individuals. It is best described by dynamic systems theory (Granic & Patterson, 2006), which suggests that social interactions stabilize in so-called attractor states, which become the most likely interaction pattern in a developmental system (e.g., the family). Sudden changes in the behavior of one person in the system may unsettle and destabilize this system, leading to a phase transition of reorganization in the system's development (Granic & Patterson, 2006). Applied to the study of acculturative change, a sudden and fast acculturation pace in immigrant youth may trigger a reorganization of the family system and may explain acculturation processes within individuals and families more effectively than the actual level of adjustment. For example, a different acculturation pace (rate of change in acculturation) may widen the acculturation gap between adolescents and their parents and, in response, parents may restrict their offspring's scope of action.

### Methodological considerations

Assessing acculturation pace requires theoretical considerations about the time intervals between longitudinal data assessments. These intervals must be chosen with reference to the context and construct measured. Acculturation pace may need to be assessed in shorter time intervals for surface aspects of culture (e.g., food, language) and in longer time intervals for deep cultural structures (e.g., religion, fundamental values; Hall, 1976). At the simplest level, acculturation pace can be measured by calculating difference scores between assessments (i.e., by subtracting values of different assessment waves or by latent difference scores in structural equation models). However, difference scores have been criticized for low reliability (Thomas & Zumbo, 2012) and challenge the interpretation of effects: Does the change of two points on a Likert scale have the same meaning and consequence when an individual moves from one to three as

when he or she moves from four to six? Assessments of acculturation pace will benefit from more than two assessments to grasp inter- and intra-individual differences and change trajectories.

Besides other methodological approaches, latent growth curve models can be used to create intercepts (starting value) and slopes (change score that can be interpreted as acculturation pace), which may be used in predictions. In structural equation models, true intra-individual change scores are another option (Steyer et al., 1997). Assessing latent true-change scores requires two or more manifest indicators for the construct of interest. For example, a recent study (Aumann et al., 2022) used latent true-change scores to measure acculturation pace: A fast pace in adopting the new language was associated with high levels of and remaining acculturation-related family problems, whereas a slow pace (slower increase in use of the new language) predicted a decrease in acculturation-related family problems over time. These findings may be driven by immigrant adolescents' distancing from parents if they adopt a new language rapidly. Hence, studying acculturation pace may help explain why acculturation gaps have more detrimental effects on some immigrant families (when gaps occur suddenly with accelerated speed) and no effects in other families (when gaps develop slowly with enough time for the family system to adjust to these differences).

## ACCULTURATION SYNCHRONY

### Conceptual considerations

*Acculturation synchrony* is the coordination of acculturation processes—timing, tempo, and pace—across different dimensions and domains of adaptation. Some acculturation models differentiate more generally among cultural practices, values, and identifications (Schwartz et al., 2010), whereas others differentiate more specifically between private or public domains (Vietze et al., 2020). Regardless, immigrant youth can differ in their acculturation timing, tempo, and pace across different domains. For example, in one study, immigrants differed in their linguistic adaptation across domains of friends, family, and media (Nieri et al., 2011), and in their Korean or American orientation across behavioral, linguistic, and identity adaptation (Choi et al., 2016). However, acculturation synchrony not only recognizes such differences across domains, but aims to extend knowledge on the effects of being in synchrony or asynchrony across domains.

### Methodological considerations

Studying combinations of adaptation across domains requires a theoretical rationale about the domains of

interest and measures that can assess these domains. Many multidimensional measures of acculturation already exist. For example, in one, researchers assessed acculturation to Russian and American cultures in separate subscales for language, identity, and behaviors (Birman & Trickett, 2001). Researchers have focused less on how adaptation unfolds across domains over time in immigrant adolescents' lives, despite evidence of domain-specific acculturative changes (Miller et al., 2009).

Patterns of change can be determined theoretically by defining subgroups of adolescents in terms of cutoff scores across various domains of acculturation. However, using this method may exponentially increase the number of potential subgroups (because the number of potential patterns increases with the number of specific acculturation domains assessed) and cutoff scores are often arbitrary. Person-centered analytic methods can overcome such challenges by creating subgroups using cluster analyses (Bergman et al., 2003). For longitudinal research, newer techniques, such as latent class growth analysis and growth mixture models, offer ways to identify subgroups of acculturative change across domains (Berlin et al., 2013). In one such study, three subgroups of immigrant adolescents from the former Soviet Union differed in change rates and levels of identification with the receiving and heritage cultures (Stoessel et al., 2014).

## ACCULTURATION DYNAMICS IN MULTICULTURAL SOCIETIES: WHICH CULTURE, WHICH COMPONENT?

In this article, we described the novel, temporal concepts of acculturative timing, tempo, pace, and synchrony, which were inspired by dynamic, developmental models of how motion and growth (e.g., pubertal development) unfold over time. Researchers have to determine which temporal component of acculturation is relevant for which adaptation process (see Table 1). Relative timing may be more appropriate for outcomes in peer processes, acculturation pace may help explain findings related to the parent–child acculturation gap, acculturation synchrony may be relevant for immigrant youth who occupy spheres (e.g., school, leisure, family) that differ in cultural composition, and acculturation tempo may be best suited to investigating predefined acculturation-related milestones.

Acculturation and developmental researchers can use these concepts to overcome the dichotomy of receiving and heritage orientations as societies become more polycultural and people create third (in-between) cultural spaces (Morris et al., 2015). Acculturation research needs “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)” (Sam & Ward, 2021, p. 32). In addition,

Kunst (2021) suggests more experimental research on acculturation. The different temporal concepts can be helpful in this regard, as researchers can manipulate the temporal concepts of acculturative change (e.g., accelerate the pace of acculturation, prepare immigrants for their journey), allowing for a deeper understanding of how acculturative processes unfold.

Researchers also have to adjust the scientific tools to grasp these components. Multiple waves of assessment with varying time intervals, combined with the powerful statistical tools mentioned earlier, are promising. In this regard, acculturation scholars may benefit from developmental science approaches. Hence, the aim of these temporal concepts is not to define a specific direction of acculturative processes, but to offer novel tools to address and measure the dynamics in these processes. In combination, the concepts offer urgently needed opportunities for understanding the dynamics of acculturation processes.

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### CONFLICT OF INTEREST

We have no conflict of interest to disclose.

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