Acculturation and Psychopathology
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Abstract
Acculturation and psychopathology are linked in integrated, interactional, intersectional, and dynamic ways that span different types of intercultural contact, levels of analysis, timescales, and contexts. A developmental psychopathology approach can be useful to explain why, how, and what about psychological acculturation results in later adaptation or maladaptation for acculturating youth and adults. This review applies a conceptual model of acculturation and developmental psychopathology to a widely used framework of acculturation variables producing an Integrated Process Framework of Acculturation Variables (IP-FAV). This new comprehensive framework depicts major predisposing acculturation conditions (why) as well as acculturation orientations and processes (how) that result in adaptation and maladaptation across the lifespan (what). The IP-FAV is unique in that it integrates both proximal and remote acculturation variables and explicates key acculturation processes to inform research, practice, and policy.

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INTRODUCTION

Cultures have been meeting and mixing from time immemorial, for reasons both noble and ignoble, requiring people to negotiate and adapt to new cultural streams at societal and individual levels. Although acculturation is not new, twenty-first-century globalization has introduced new modes of intercultural contact that have birthed new forms of acculturation being experienced by people in new places globally. Therefore, earlier conceptualizations of acculturation (Redfield et al. 1936) as requiring long-term in-person intercultural contact have been expanded and acculturation can now be defined as the cultural and psychological process that unfolds "when groups or individuals of different cultures come into contact—whether continuous or intermittent, firsthand or indirect— with subsequent changes in the original culture patterns of one or more parties" (Ferguson 2013, p. 249).

Acculturation is one of several key processes created by (and creating) culture. Culture has been defined as a "dynamic repertoire of meanings, tools, and practices that humans are socialized into by virtue of participation in social life" (Gone 2022, p. 617), as an adaptational response to the environment (Kağıtçıbaşı 2007), and as a system of individual and social dynamics (people), ecological and institutional influences (places), behaviors and symbols (practices), and social inequalities (power) (Causadias 2020). The inclusion of power in the latter definition acknowledges that aspects of culture can, have, and do develop as adaptations to power asymmetries and social inequalities within and across societies. Acculturation is often considered central to understanding the development of Black, Indigenous, and People of Color (BIPOC) youths growing up in White-dominated cultures (García Coll et al. 1996). In countries like the United States, these processes take new meaning when we consider White supremacy as a developmental context (Moffitt & Rogers 2022).

The study of acculturation originated in anthropology focusing on cultural changes in non-Western people group following forced intercultural contact from the West, although many anthropologists abandoned this research focus due to critiques of its colonial paradigm (Guarnaccia & Hausmann-Stabile 2016). Earlier sociological research on acculturation focused on the assimilation of immigrant groups into the mainstream of multicultural societies and later highlighted "segmented assimilation," the stratification of acculturation pathways and outcomes for immigrant groups based on race (Portes & Zhou 1993). Psychological acculturation zooms in further to focus on individual differences in the antecedents, strategies, processes, and outcomes of acculturation (Graves 1967; Arends-Toth & van de Vijver 2006; Sam & Berry 2016). Psychological acculturation can account for societal and group-level contextual variables that shape and constrain an individual's acculturation trajectory toward adaptation/maladaptation. This article uses the psychological acculturation approach (henceforth, simply "acculturation") as the level of analysis best suited to understand individual differences in mental health and psychopathology–that is, the origins and course of individual patterns of adaptation across the lifespan (Sroufe & Rutter, 1984).

Within psychology, cross-cultural psychologists (many of whom are trained as social psychologists) have made major contributions to mapping the contents of acculturation across cultures and mostly cross-sectional associations with adaptation (see, e.g., Berry et al. 2006; Sam & Berry 2016; Ward 1996). In addition, developmental psychologists have made contributions to

elucidating the processes of acculturation over time with attention to the acculturation of ethnic minority youth in the context of societal racism (e.g., Chun et al. 2003), and counseling psychologists have contributed to an understanding of acculturation-related help-seeking attitudes, mental health, and multicultural counseling techniques (see Yoon et al. 2011). An integration of all three literatures within psychology is necessary in a discussion of acculturation and psychopathology. A handful of scholars have begun this integration (e.g., Ferguson et al. 2018; Schwartz et al. 2020; Suarez-Orozco et al. 2018; Ward & Szabo 2019) and this article aims to summarize, deepen, and widen this work further.

Psychological Acculturation

Psychological acculturation specifies cultural dimensions (i.e., each cultural stream in which an individual is immersed) (Sam & Berry 2016), and domains (i.e., each major life domain in which acculturation occurs including behavior, values, and identity) (Navas et al. 2005; Schwartz et al. 2010). Regarding dimensions, there is clear scientific consensus that individuals are capable of acculturating to multiple cultural streams simultaneously – both cultures related to their own heritage or ancestry (called heritage cultures in this article) as well as other cultures not related to their cultural heritage (called non-heritage cultures in this article). That is, bidimensional (2D) acculturation involves navigating one heritage culture and one non-heritage culture (Berry 1997), tridimensional (3D) acculturation involves one heritage culture and two non-heritage cultures or vice versa (Ferguson et al. 2012), quad-dimensional (4D) acculturation involves a total of four heritage and non-heritage cultural streams (Yoon et al. 2022), and scholars have predicted even more multidimensional (nD) acculturation experiences (Ferguson & Bornstein, 2014; van de Vijver, 2015). For example, most acculturation measures for Latinx American samples are 2D in that they measure orientations to Latinx culture and mainstream "Anglo" U.S. culture, whereas researchers studying acculturation among Black Caribbean immigrants in the United States are encouraged according to 3D acculturation theory to measure orientations to African American culture in addition to White U.S. mainstream culture and the heritage culture of their country origin (see Sam & Berry, 2016). Moreover, recent research indicates that acculturation dimensionality is dynamic overtime rather than static. For example, first-generation African refugees in the United States acculturate bidimensionally in the initial phase of their acculturation and later expand to 4D acculturation processes and forms overtime as they add a pan-African identity (i.e., African-born) to demarcate their contemporary versus ancestral connection to Africa.

The idea that individuals have to relinquish a heritage cultural affiliation to acquire a new cultural affiliation during acculturation (unidimensional acculturation) has long been debunked (Berry 1997); therefore, research studying acculturation and psychopathology using this unidimensional framework is not included in this article (see Abraido-Lanza et al 2006 and Yoon et al. 2011 for critical reviews of this issue in public health research and counseling psychology, respectively). Rather, this article endorses the polycultural psychology approach to acculturation whereby cultural affiliations are viewed as plural in that multiple affiliations are possible simultaneously, and as partial in that one can adopt certain cultural elements and not others of a given cultural stream (Morris et al. 2015).

Twenty-First-Century Globalization as a New Context for Acculturation and Psychopathology

Globalization - the multidirectional flow of goods, people, and ideas – is the "starting point for acculturation" (Berry 2008, p. 332) because it brings people into contact with non-native cultures physically/proximally through immigration flows or virtually/remotely through the spread of goods and ideas (Jensen et al. 2011). Globalization has accelerated in the twenty-first century, expanding the modes of acculturation (e.g., technology now facilitates a new type of acculturation across distance), scope (i.e., more people are now able to experience more non-native cultures whether they migrate or not), speed (i.e., instantaneous access to new cultural streams is literally at our fingertips via smart phones), and implications for identity development, health, and well-being (Eales et al., 2020). Modern globalization is, therefore, a new macro context that catalyzes acculturation both proximally and remotely, creating varied risks and protections and promoting new competencies for globalizing settings, all of which are relevant to psychopathology (Ferguson 2013).

Consider, for example, the globalization-induced dual pandemics in the United States and their disproportionate impacts on the adaptation of BIPOC and immigrant communities. The COVID-19 pandemic spread silently and rapidly via global travel in early 2020 with heavier death tolls in BIPOC and immigrant communities (Hayward et al. 2021). COVID-19 was superimposed upon the centuries-old racism/Whiteness pandemic, the enduring result of forced intercultural contact through enslavement and a known driver of Black Americans' morbidity and mortality that flared up when a Black American, Mr. George Floyd, was murdered by a White Minneapolis police officer in mid-2020 (Ferguson et al. 2021). Hence, not only were both pandemics initiated by globalization but their effects on health and well-being were also mediated by globalization: Global scientific communication and collaboration led to the rapid development of COVID-19 vaccines, and a viral video showing Derek Chauvin's heinous 10-minute murder of Mr. Floyd caused significant psychological, behavioral, and legal reactions locally and globally.

TYPES OF ACCULTURATION

Proximal Acculturation

Proximal acculturation (PA) refers to acculturation resulting from direct and continuous exposure to a non-native culture(s) (Ferguson et al., 2020a; Sam & Berry 2016). PA is the long-studied and traditional form of acculturation. PA dates back to the very first contacts between culturally different people and is experienced by both migrants and non-migrants in receiving societies, although non-migrants are underrepresented in acculturation studies.

PA involves different levels of voluntariness ranging from highly voluntary cultural contact – for instance, the experience of immigrants who take the initiative to move from one country to another to avail themselves of certain educational, professional, or economic opportunities (pull factors) (Castañeda et al. 2015; Ferguson & Birman 2016) to involuntary cultural contact including forced colonization of native peoples in the Americas and refugees forced to flee their homes due to war, climate change, severe economic adversity, or persecution based on religion,

gender, or political persuasion (push factors) (Castañeda et al. 2015; Kia-Keating & Juang 2022). Non-migrants in diverse societies also experience acculturation because they are in contact with individuals from other cultures, including immigrants and refugees (Lefringhausen et al. 2021; Sam & Berry 2016).

Theory and research on public health have emphasized the importance of the historical context of departure and arrival in understanding the health correlates of immigration and acculturation. First, consider that 25% of children in the United States in 2020 were foreign-born or had a foreign-born parent (Fed. Interag. Forum Child Fam. Stat. 2021). Second and relatedly, immigration is a major determinant of health, as global trends of illness and mortality are fueled by the way immigrants are treated through policies and institutions (Castañeda et al. 2015). For that reason, the global rise in authoritarianism and xenophobia is a risk factor for the development of psychopathology, especially for BIPOC immigrants from the Majority World (Kia-Keating & Juang 2022). Forced displacement as a special case of involuntary migration has increased over the last several years, and especially as compounded with other recent global events, it has increased the risk of psychopathology among immigrants and refugees. Over 89 million people had been forced from their homes by 2020 (UNHCR, 2023) and forced displacement has now worsened due to the COVID-19 pandemic, growing inequalities, and accelerating climate change (Kia-Keating & Juang 2022).

Proximally acculturating migrants (though not non-migrants) also have varying levels of *permanence*. Temporary migrants or sojourners in the acculturation literature include international students and temporary/seasonal workers who intend to return to their home countries after a determined period, whereas permanent migrants who settle and build lives in the new non-heritage culture include immigrants and refugees (Sam & Berry 2016).

Remote Acculturation

Remote acculturation (RA), as opposed to PA, is acculturation resulting from indirect and/or intermittent exposure to a specific non-native culture(s) via one or more of the "4Ts" of RA vehicles: trade, technology, tourism, and transnationalism (Ferguson 2021; Eales et al. 2020). These 4Ts are the vehicles that bring remote cultures into local neighborhoods and prompt RA. Relative to PA, RA is more voluntary because individuals usually must seek out immersion into a non-native culture in which they are not living (e.g., adults in Turkey purchasing and wearing U.S.-branded apparel and Apple devices, youth outside of Jamaica immersing themselves in Jamaican Reggae music, families in Mexico having daily phone/app communication with relatives in the United States). Because RA does not require physical migration, *permanence* is not an applicable determination. RA is particularly common among youth given the major focus on identity construction during adolescence and emerging adulthood (Eales et al. 2020), and it can be experienced by both non-migrants and migrants, although the bulk of RA research to date has been conducted with non-migrants. Globalization-based acculturation (Chen et al. 2008) is RA-adjacent in that both feature remote cultural exposure, but RA involves acculturation to a specific remote culture, whereas globalization-based acculturation focuses on acculturation to a broad global culture experienced remotely or proximally.

The 4Ts are critical to understanding the link between RA and psychopathology for several reasons. First, youth, and now also adults, are constantly immersed in media and technology, especially after the COVID-19 pandemic forced global societies into online school and work (Eales et al. 2021). Therefore, most people have frequent exposure to cultural ideas, products, and people from outside their locale. Additionally, RA is a demonstrated cultural determinant of health such that a strong orientation toward the mainstream White American culture is associated with risky behaviors including unhealthy eating habits for adolescents and adults (Ferguson et al. 2018) and smoking for teens (Lorenzo-Blanco et al. 2020).

ACCULTURATION AND DEVELOPMENTAL PSYCHOPATHOLOGY

Developmental psychopathology is an integrative life-span framework that approaches adaptation and maladaptation as the result of early developmental experiences, current circumstances, and individual and family resources and characteristics (Cicchetti 1990).

The why, how, and what of developmental psychopathology

Our understanding of the development of psychopathology has been improved by conceptual models that place culture at the center of development (García Coll et al. 1996; Spencer et al. 1997). Informed by these models, recent research on culture and developmental psychopathology has focused on the individual and social-level risk, protective, and promotive factors that initiate, derail, or maintain pathways of adaptation and maladaptation (Causadias & Cicchetti 2018).

Cultural risk factors are those that increase the likelihood of starting or sustaining developmental trajectories of psychopathology (Causadias 2013). For example, racial discrimination in the United States is a cultural risk factor for BIPOC youth, as it is related to the development of internalizing and externalizing behavior problems (Benner et al. 2018). Cultural protective factors are those that decrease the probability of developing psychopathology by buffering the effects of adversity and trauma (Causadias & Cicchetti 2018; Neblett et al. 2012). For instance, evidence suggests that ethnic-racial identity commitment can protect BIPOC youth against the harmful effects of racial discrimination (Yip et al. 2019). Cultural promotive factors increase the likelihood of starting and maintaining trajectories of health, adaptation, and wellbeing (Causadias 2013). For example, familism values among Latinxs in the United States are related to more positive family relationships and higher academic achievement (Cahill et al. 2021).

Two additional concepts from developmental psychopathology apply here: equifinality and multifinality (Schwartz et al. 2020). Equifinality occures when similar developmental results emerge from distinct earlier experiences and processes, whereas multifinality refers to different developmental results that emerge from similar experiences and processes (Cicchetti & Rogosch 1996). In terms of acculturation, equifinality can occur when immigrant youth coming from different home country backgrounds become equally well adjusted psychologically (or equally poorly adjusted) in adolescence [for an apt example, see Berry et al.'s (2006) International Comparative Study of Ethnocultural Youth]. On the other hand, multifinality can take place when similar trajectories of acculturation (e.g., similar levels of remote exposure to US media in another country) lead to dissimilar outcomes (e.g., elevated parent–adolescent conflict for one Americanized teenager in Jamaica versus normative levels for an Americanized/Westernized

teenager in Zambia) (for examples, see, respectively, Ferguson & Iturbide 2013 and Y.L. Ferguson et al. 2017).

A developmental psychopathology approach can be useful to explain when, how, why, and for whom acculturation operates as a cultural risk, protective, and/or promotive factor (see Figure 1). Considering acculturation as a predictor of adaptation and maladaptation is consistent with the developmental psychopathology tradition of considering the why, how, and what—the latter of which is inclusive of both normal and abnormal development in understanding mental health (Sroufe 1990). To illustrate how acculturation can function as risk, protective, and/or promotive factor in the development of health, we employ, adapt, and extend Dr. Margaret Beale Spencer and colleagues' (2006, 2019) systemic approach to culture into three main questions: the why, how, and what of developmental psychopathology (see Figure 1).

The "Why?" of developmental psychopathology refers to individual experiences that initiate, maintain, or derail trajectories of adaptation and/or maladaptation, such as racial discrimination (Benner et al. 2018; Zeiders et al. 2016). The "How?" of developmental psychopathology refers to individual-level processes and mechanisms that protect against adversity and promote wellbeing, accounting for equifinality and multifinality, such as a strong sense of ethnic-racial identity for proximally acculturating and ethnic minority youth (Rivas-Drake et al. 2014) and media literacy skills for remotely acculturating youth (Ferguson et al. 2020b). The "What?" of developmental psychopathology refers to outcomes associated with adaptation and/or maladaptation, such as mental health problems, academic achievement, and relationship quality (García Coll et al. 1996; Spencer et al. 2019; Zeiders et al. 2016).

Acculturation-related risk and resilience: A developmental psychopathology approach. A growing body of theory and research on acculturation and psychopathology has focused on risk, resilience, and adaptation among immigrant-origin youth (Suárez-Orozco et al. 2018) and/or children of immigrants (Kim et al. 2018). A developmental psychopathology approach to acculturation can leverage the behavioral, cultural, and structural levels of analysis (Castañeda et al. 2015) by understanding the unique experiences and strengths of individuals (behavioral), their relationship to their cultural, ethnic, racial, and national communities (cultural), and how they are shaped by current and past institutions and policies (structural).

While the previous distinction regarding unit of analysis is useful to understand a variety of factors operating independently at multiple levels, a developmental psychopathology approach to acculturation highlights the dynamic and interactive nature of individual and environmental relationships (Cicchetti 1990). This approach considers the dynamic link between youth, parents, communities, and larger society (Juang & Syed 2019) and requires attention to the joint interplay of mechanisms that link acculturation and psychopathology, such as language brokering, immigrant generation, parent–child relationship quality, and anti-immigrant rhetoric and policies (Kim et al. 2018). For instance, an interactive perspective elucidates how the PA and RA acculturation gaps between parents and children can be sources of risk or protection in the development of youth mental health (Kim et al. 2018; Lui 2015; Ferguson & Bornstein 2012).

An intersectional perspective on acculturation and psychopathology considers how multiple systems of oppression shape the development of mental health among individuals, such as Syrian

Muslim refugee women in the United States dealing with national, religious, gender, and acculturative pressures (Ugurel Kamisli 2021). Pioneered by Black female scholars such as Kimberlé Crenshaw (Crenshaw 1990), an intersectional approach to acculturation and psychopathology emphasizes how health is shaped simultaneously by racism, sexism, and xenophobia, and helps to address criticisms that health research focuses on individual acculturation while neglecting the role of structural and intersectional racism on immigrant health inequities (Viruell-Fuentes et al. 2012).

The complex link between acculturation and psychopathology can also change over time and across generations. For instance, the immigrant paradox is a phenomenon in which newly arrived first-generation US immigrant youth show better mental health and overall adjustment than US-born second- and later-generation youth despite having lower levels of education and income (García Coll & Marks 2012; Marks et al. 2014). The immigrant paradox suggests that becoming American can be a source of cultural risk because US-born BIPOC youth, relative to first-generation foreign-born BIPOC immigrant youth, are harmed by a racist society that devalues them and their communities and subjects them to racial segregation and discrimination, police violence, and mass incarceration (Cooper et al. 2022; Halgunseth et al. 2022). However, demonstrating the specificity principle in acculturation (Bornstein, 2017), place matters because maladaptation (migrant morbidity) relative to socioeconomic-status-matched native-born peers is more common among first-generation immigrants in Europe than is the immigrant paradox (Dimitrova et al. 2016; Motti-Stafanidi, 2020). Finally, the way in which the link between acculturation and psychopathology may shift over time is also evident in cultural rituals that change their meaning and role in the development of health across generations and places (Causadias et al., 2022).

Integrated Process Framework of Proximal and Remote Acculturation Variables (IP-FAV)

Several theoretical frameworks of acculturation psychology from the subfield of cross-cultural psychology have conceptualized the ways in which acculturation is associated with adaptation and maladaptation. In particular, major PA variables were outlined in Arends-Toth & Van de Vijver 's (2006) Framework of Acculturation Variables (FAV) that connects the antecedents of acculturation (akin to the "why" of developmental psychopathology) to behaviors and processes (how) and to the consequences or outcomes (what). This framework was later applied to RA variables by Ferguson, Tran, Mendez, and van de Vijver (2017b). In this article, we integrate the proximal and remote versions of this acculturation framework into a comprehensive framework we call the Integrated Process Framework of Proximal and Remote Acculturation Variables (IP-FAV; see Figure 2).

The original FAV detailed the content of PA by mapping the variables involved in acculturation but was less detailed in explicating acculturative processes (Arends-Toth & van de Vijver 2006). The same is true for the adapted FAV applied to RA (Ferguson et al. 2017b). Therefore, our IP-FAV is designed to explicitly map both the content and processes of psychological acculturation in greater detail to more comprehensively communicate the scope of current scientific knowledge based on theory and empirical research findings. The "integrated" aspect of our framework refers to the incorporation of acculturation variables pertinent to both PA and RA. That is, based on empirical findings and/or theory, the IP-FAV delineates which variables are

relevant to both PA and RA and which are relevant to just one or the other. The "process" aspect of the IP-FAV refers to the explicit incorporation of documented acculturation processes in this new framework.

In the IP-FAV, acculturation conditions act as antecedents of acculturative changes; they are the objective and perceived contextual limits and demands that initiate an individual's acculturation process. Acculturation conditions precede and predict acculturation orientations an individual's preferences for cultural engagement with their heritage culture and their preferred level of engagement with non-heritage cultures across varied life domains. Preferred acculturation orientation strategies are sometimes different from acculturation strategies used in reality based upon an acculturating individual's actual opportunities to participate in the non-heritage culture: Remotely acculturating individuals have few such opportunities (or distanced/intermittent opportunities at best) and proximally acculturating individuals' actual acculturation strategies are bounded by the inclusionary/exclusionary attitudes and policies of the non-heritage receiving society. Acculturation orientations later predict an individual's acculturation outcomes: their adaptation and maladaptation across psychological, physical, interpersonal, and intercultural domains. Our integrated process framework adds a fourth component – *acculturation processes* – to elucidate processes that connect acculturation conditions to orientations, and orientations to outcomes. Each of these four components of the IP-FAV (acculturation conditions, orientation, processes, and outcomes) is discussed in greater detail with empirical examples in the next section.

The IP-FAV aligns well with models of culture and developmental psychopathology described above. For example, US structural racism is an acculturation condition in the category of intergroup relations that influences how much acculturating BIPOC individuals in the United States prefer to adopt the norms and values of the mainstream White American culture, including engagement with the educational system, which can result in later academic maladaptation (i.e., lower sociocultural competence in the non-heritage culture per Figure 2) (Ferguson & Bornstein 2014). The cultural protective factor of ethnic-racial identity commitment is an acculturation orientation reflecting strong heritage culture maintenance that results in later psychological adaptation including a stronger sense of belonging (Berry et al. 2006). Ethnic-racial identity commitment can also catalyze a positive developmental cascade: meaning a process in which functioning in one area of adaptation is amplified, snowballs, and transacts to shape functioning in another area in an enduring manner (Cicchetti & Tucker 1994; Masten et al. 2005). That is, ethnic-identity commitment promotes belonging, which can then exert a protective effect against the harms of discrimination for immigrant/refugee psychological well-being (Lincoln et al. 2021).

In sum, taking a developmental psychopathology approach to acculturation such as the IP-FAV can be useful to move beyond depictions of migrants as people "at risk" and toward a probabilistic understanding of psychopathology, meaning both adaptation and maladaptation, as an outcome of development (Sroufe 1997). Additionally, true to the developmental psychopathology perspective, the IP-FAV acknowledges the role of individual differences and person characteristics as acculturation conditions, an understanding that is needed to avoid assumptions about immigrant and/or BIPOC youth as carbon copies of each other who subscribe to all the values and practices of their cultural, ethnic, and racial groups (Causadias 2020).

Culture in general, and acculturation in particular, is uniquely experienced, embraced, and/or resisted by each individual (Castañeda et al. 2015; Gone 2022).

The IP-FAV is informed by several psychological acculturation theories and empirical research studies on the content and directional flow of acculturation components from antecedents to outcomes. We describe the most influential theories to our conceptualization in this section, and we detail empirical research examples in the next section.

Ward and Szabo's (2019) recently expanded model provides a comprehensive summary of the "ABCDs" of acculturation, referring to theory and research on acculturation-related affect, behavior, cognition, and development. The affective component of the ABCD model forwards a model of acculturative stress and coping informed by Lazarus and Folkman's (1984) classic transactional model of stress and Berry's (2006) work on acculturative stress and is most relevant to the acculturation outcome of psychological well-being. Essentially, intercultural contact experiences become appraised by acculturating individuals as positive or problematic/threatening/taxing, and unfavorable appraisals evoke immediate short-term acculturative stress, which initiates coping responses that eventually result in long-term psychological adaptation or maladaptation. Therefore, coping style functions as a mediator between acculturative stress and adaptation. This acculturative stress and coping process is influenced by individual (e.g., personality, motivation), situational (e.g., social support), and contextual factors (e.g., cultural distance between heritage and non-heritage cultures) and includes several feedback loops.

The stress and coping perspective on acculturation is more relevant for PA than RA because remote intercultural contact is more agentic and, therefore, less likely to be appraised as a threatening/taxing encounters (Ozer et al., 2021b) that triggers acculturative stress. Longitudinal research in a large sample of about 2,500 proximally acculturating international student sojourners across 50 countries measured perceived stress across six time points ranging from months before to months after students' cross-national transition (Demes & Geeraert 2015). This study found that stress was generally low and stable: The largest two of five longitudinal latent classes detected were the "minor stress" class, who maintained slightly higher than baseline stress across time (41%) and the "minor relief" class, who maintained slightly lower than baseline stress across time (47%). The three other latent classes had a reverse J curve (rapid drop in stress: 3%), an inverted U curve (rise and then fall in stress: 5%), and a "resilience" curve (drop and then stably low stress: 4%). Other analyses revealed that international students who arrived with lower psychological adaptation were more likely to show the J curve, whereas those with higher psychological adaptation were more likely to show the resilience curve. Importantly, stress trajectories were associated with coping styles: Individuals favoring an avoidance coping style were more likely to show a reverse J or inverse U stress trajectory, whereas those favoring acceptance and seeking close support were more likely to show a resilience trajectory (Demes & Greeraert, 2015). Naturally, the level of baseline stress would be expected to be higher for refugees, and these researchers envisioned similar stress trajectories for immigrants with larger J and inverted U curve classes.

The behavioral component of the ABCD model (Ward & Szabo 2019) is most relevant to the acculturation outcomes of sociocultural and intercultural competence because it approaches

acculturation as cultural learning of culturally appropriate behaviors and skills through social learning as well as classical and operant conditioning. This process of cultural learning is influenced by personal antecedents of language proficiency, personality, and cultural intelligence (CQ is the "capability to function effectively in diverse settings"; Ang et al. 2007, p. 335), among others. The cultural learning process, including embedded feedback loops, results in cultural competence in terms of mastery over culturally valued behaviors and communication skills, built on positive intercultural attitudes and knowledge. Unlike the stress and coping perspective, the cultural learning approach to acculturation is highly relevant to RA because the 4Ts of remote intercultural contact readily facilitate learning non-native cultural content even if this learning is partial and the mastery is incomplete without proximal immersion in the non-heritage culture to practice and demonstrate day-to-day behavioral or communicative competence. For example, the multi-year sequential explanatory mixed-methods study that introduced RA – the Culture and Family Life Study – revealed that remotely acculturating adolescents in Jamaica who consumed more US media had higher odds of Americanization in their behaviors and values (based on surveys data; Ferguson & Bornstein, 2015). Jamaican adolescents' construal of US youth as wild and crazy with permissive parents was learned largely from US television sitcoms and reality shows (as indicated by focus groups; Ferguson & Iturbide, 2013) and many mothers in Jamaica reported learning and selectively adopting aspects of parenting from US television shows, such as allowing adolescents to contribute to formulating family rules as seen on the Cosby Show (as indicated by interviews: Ferguson, 2018). Additionally, adolescents in Jamaica can readily describe both assets of remote U.S. cultural learning (e.g., can travel to the United States and fit in more easily) and liabilities (e.g,, committing a cultural faux pas by performing an American accent imperfectly, or fearing that investing too much in remote US culture learning might undermine Jamaicanness (as indicated by interviews; Ferguson et al. 2020a).

The cognitive component of the ABCD model (Ward & Szabo 2019) is represented by the 2D acculturation framework of Berry (1997), which focuses on individuals' cultural orientations in terms of self-perceptions, preferences, and identity during the process of acculturation. According to this framework, acculturation includes both the adoption of a non-heritage culture and heritage culture socialization and maintenance, the latter of which is called enculturation and is studied in its own right. Depending on the number of relevant cultural streams involved in a given person's acculturation contexts, 2D, 3D, 4D, or nD acculturation frameworks may be most appropriate. This cognitive component of acculturation is relevant to both PA and RA as dimensional theories of acculturation are employed in research on both acculturation types.

The 2D framework proposes four possible acculturation strategies based on high versus low cultural orientation toward maintaining one's heritage culture and adopting a non-heritage culture, whereby strong orientation toward both cultures is called integration, strong orientation to the heritage culture only is separation, strong orientation to non-heritage culture only is assimilation, and weak orientation to both cultures is termed marginalization. Integration, separation, and assimilation are readily detected not only in cross-sectional research (e.g., Berry et al. 2006) but also in longitudinal research. Schwartz et al.'s (2015) longitudinal acculturation study among Hispanic American adolescents and their parents across 2+ years found three fairly stable longitudinal trajectory classes for adolescents representing assimilation and high and moderate levels of bicultural integration for adolescents, as well as three classes for parents

reflecting high and moderate levels of separation and moderate levels of integration. On the other hand, marginalization is rarely empirically observed and may reflect societal marginalization of acculturating individuals rather than sole self-marginalization (although see Lincoln et al. 2021 for a recent example of marginalization among Somali American youth).

Cross-cultural research among immigrant youth across 13 receiving societies (Berry et al. 2006) and meta-analytic research including 83 PA studies of youth and adults (Nguyen & Benet-Martinez 2013) revealed that integration (i.e., dual cultural engagement) is more strongly associated with positive psychological and sociocultural adaptation than is single-culture engagement (see Yoon et al.'s 2013 meta-analysis also). However, context and culture moderate this finding such that this positive biculturalism–adjustment association holds for participants with Latinx, Asian, and European heritage and for individuals living in the United States, whereas there was a negative biculturalism–adjustment association for African and Indigenous samples, meaning that biculturalism is a risk factor for their adaptation instead of being promotive. This demonstrates how forced migration, colonization, and enslavement as acculturation conditions affect the acculturation process—in this case, the association between acculturation orientations and outcomes.

Also, some research studies show that proximal assimilation is maladaptive for Latinx American youth (because they often live in large immigrant enclaves, and maintaining rather than shedding Latinx culture fosters family and community cohesion), whereas the opposite is true for Asian Americans (whereby a stronger orientation to US culture is especially beneficial for language competence and academic achievement). Additionally, integration and separation are equally adaptive for Black Caribbean American youth because both involve heritage culture retention (see Ferguson & Birman 2016). Thus, the most adaptive acculturation style should also be viewed contextually: It depends on alignment with heritage culture values (e.g., familism as a core Latinx value) and the cultural skills needed to thrive in the immigrants' particular cultural and community contexts (e.g., a priority on English language skills for Asian Americans, especially when living outside an ethnic enclave). For RA, remote separation has been found to be more adaptive for parent–adolescent communication, academic grades, and nutrition than remote integration of US cultural identities with local cultural identities, although there is variation across countries (Eales et al. 2020). Further, biculturalism by way of RA has both similarities to and differences from PA (Ferguson et al. 2020a): Studies document objective and perceived benefits (e.g., English language competence, parental autonomy support) as well as liabilities (e.g., unhealthy eating, parent–adolescent conflict).

There have been noted theoretical developments in the cognitive approach to acculturation in the twenty-first century. First, bicultural identity integration (BII) (Benet-Martinez & Haritatos 2005) is an influential and well-researched theory established in the last 20 years. BII focuses on the degree to which bicultural individuals integrate their two cultural identities in terms of the harmony (versus conflict) and blendedness (versus compartmentalization) they experience between them. BII has been studied mostly with PA but is starting to be examined with RA and globalization-based acculturation. Second, the global orientation conceptual model was introduced in 2016 (Chen et al. 2016); in this model, individuals exposed to modern globalization remotely or proximally vary in their preference for multicultural acquisition (an open stance toward cultural diversity) and ethnic protection (a closed defensive stance favoring

one's own ethnic in-group). As theorized, multicultural orientation is psychologically adaptive cross-culturally among immigrants and non-immigrants (although it was associated with greater psychological distress among more antiracist adults in the context of racism; Ferguson et al. 2022), whereas ethnic protection is associated with maladaptation.

The developmental component of the ABCD model, its most recent component, was added to highlight the fact that acculturation is a developmental process. This component focuses on longitudinal change and increasing complexity in acculturation domains with a special interest in personal and cultural identity development within broader contexts (Ward & Szabo 2019). The developmental component of acculturation is applicable to both PA and RA. Recent longitudinal PA research among Hispanic adolescents in the United States demonstrated that nearly half (44%) reported steadily increasing cultural orientations in at least two of the three major acculturation domains (behavior, values, identity) across 2 years relative to their peers, who demonstrated stable trajectories over time (i.e., no decreasing trajectories) (Schwartz et al. 2015). Moreover, increasing trajectories of cultural orientation, especially increasing behaviors/practices and values, predicted more positive adaptation in terms of psychological and family functioning. However, acculturative changes measured on a daily timescale by Schwartz and colleagues (2019) predicted maladaptation in terms of increased anxiety and depression, suggesting that gradual cultural orientation increases are stabilizing where rapid ones are destabilizing in PA.

Phinney et al.'s (2001) and Umana-Taylor et al.'s (2014) models of ethnic identity development can be applied to acculturation whereby one's ethnic identity development represents the heritage identity domain in the acculturation process. Taking these models together, ethnic/heritage identity develops from unexamined (no cultural identity exploration or commitment) to moratorium (exploration without commitment) to achieved [exploration and cognitive commitment (resolution) and/or affective commitment (affirmation)]. A review of the US literature found ethnic identity to be especially adaptive psychologically for ethnic minority youth, with slightly weaker positive effects in academic and health domains (for support and exceptions, see Rivas-Drake et al. 2014), and research among immigrant youth in Europe concurs (e.g., Dimitrova et al. 2013), as does cross-cultural research (Berry et al. 2006).

COMMONALITIES AND SPECIFICITES IN PSYCHOPATHOLOGY ACROSS PROXIMAL AND REMOTE ACCULTURATION

The IP-FAV outlines acculturation variables within four components: acculturation conditions, acculturation orientations, acculturation processes, and acculturation outcomes (see Figure 2). In this section we describe each component using exemplars from recent PA and RA empirical research; major terms from Figure 2 are italicized throughout the section. This is not intended to be an exhaustive review of all available empirical literature; rather, select empirical studies are included to explain and illustrate each component in the framework to inform understanding and guide future research.

Acculturation Conditions
In PA, racism and other sometimes intersecting forms of discrimination are prominent features of *intergroup relations* in many non-heritage cultures in which migrants settle. Interviews with

Somali young adults across three US cities reflected the intersectionality of oppressive systems manifested in interpersonal and structural discrimination they face in the US health care system generally, and from health care providers in particular, due to being Black, Muslim, and refugees (*characteristics of the acculturating group*) (Houston et al. 2021). Participants also described how unfavorable work hours and conditions in jobs, which serve as their entry point into employer-provided health insurance, interfered with their health goals such as exercise and healthy diet (Houston et al. 2021). These difficult and/or discriminatory experiences limit the availability of quality health care and lead some refugees to disengage from seeking health care (Houston et al. 2021), ultimately undermining their physical and mental health.

The pervasiveness and accessibility of the 4Ts as vehicles of RA are *features of the non-heritage culture* that represent another acculturation condition. Research in the Caribbean indicates that adolescents' US orientation is positively associated with their indirect and/or intermittent exposure to US media, products, or people, such that many urban adolescents in the Caribbean have high US orientation (Ferguson & Bornstein 2012, 2014), whereas rural Caribbean adolescents have negligible levels due to having minimal U.S. exposure (Ferguson et al. 2014a).

Recently proposed temporal concepts of acculturation represent *personal characteristics* that can function as dynamic acculturation conditions (Titzmann & Lee 2022). Relative timing of acculturation (deviance from heritage peers in one's acculturative changes), transition timing (actual start of acculturative changes whether pre- or post-migration), acculturation tempo (length of acculturation process), acculturation synchrony (temporally synchronized acculturative changes across life domains), and acculturation pace (speed of acculturative changes) potentially all apply to both PA and RA. However, acculturative timing (chronological migration age) applies only to PA and acculturation tempo may not be relevant to PA or RA in the IP-FAV because acculturation has no endpoint when conceptualized as a dynamic lifespan developmental process.

Acculturation Orientations

Most PA and RA acculturation research measuring cultural orientation falls into this middle IP-FAV component, including studies using the 2D, 3D, 4D, or nD models of acculturation (e.g., see Berry et al. 2006; Ferguson et al., 2012; Yoon et al., 2022; van de Vijver, 2015). Associations between 2D acculturation strategies and adaptation are discussed above, and research on 3D acculturation shows nuanced associations with adaptation/maladaptation. In one study among first and second-generation Jamaican immigrant youth in the United States, those who were tricultural had more behavioral strengths (including behavioral flexibility), although tricultural boys also had lower grades than biculturals, who had a strong orientation to their heritage Jamaican culture and White American culture but a weak orientation to African American culture (Ferguson & Bornstein, 2014). These domain-specific and gender-specific effects of triculturalism demonstrate the specificity principle in acculturation (Bornstein, 2017), whereby specific acculturation conditions such as RA in a home country and institutional racism in a receiving country, can interact with specific person characteristics of immigrants including Black race, male gender, individual academic skills, and individual motivation to fulfill a need for belonging in one's new context, to produce specific behavioral and academic outcomes that can appear contradictory if the receiving society's stereotypes portray positive adaptation as

incompatible with one's intersectional identities (e.g., an African American male identity is stereotyped as incompatible with academic excellence). Triculturalism is also a challenge for older immigrants: Triculturally integrated first-generation older adult Jamaican immigrants experience greater psychological distress than do monoculturals (Ferguson et al., 2014b). Recent research has also expanded in new directions assessing 3D acculturation among Indigenous Ladakhi adolescents in northern India and central Delhi as they navigate two proximal cultural streams and one remote cultural stream (Ozer et al. 2019).

Acculturation Processes

Processes connecting acculturation conditions to orientations. In RA, *family and peer processes,* including discrimination experiences, connect acculturation conditions to orientations. For example, ethnic socialization in Latinx families is positively associated with youths' overall ethnic identity, which in turn is associated with their psychological well-being (Nguyen et al. 2015). Among Somali American refugee youth, peer and societal marginalization is associated with a marginalized acculturation strategy among Somali American refugee youth, and internalizing problems in turn (Lincoln et al. 2021).

RA research among adolescents in Jamaica has shown that individual *engagement with the 4Ts of RA vehicles* of mainstream US culture is positively associated with U.S. orientation (Ferguson & Bornstein 2015). Similarly, recent research on Hallyu (Korean wave: K-Pop, K-dramas, etc.) in China found that Hallyu use among Chinese adults was significantly and positively associated with Korean orientation and intentions to purchase Korean products (Sun & Jun 2022). See Tables 1 and 2 provide more empirical examples of mediation, moderation, and other acculturation processes connecting acculturation conditions to orientations.

Processes connecting acculturation orientations to outcomes. Identity-related processes are prominent connectors between both PA and RA orientations and outcomes. Several recent concepts capture daily cultural identity dynamics and indicate that greater daily fluctuations in cultural identities can be distressing psychologically and relationally. Identity styles were introduced as one explanation for how *BII* occurs; they refer to an acculturating person's preference to hybridize identities into a stable fusion identity versus alternating identities based on circumstance (Ward et al. 2018). Schwartz et al.'s (2019) daily diary PA study showed that daily fluctuations in Hispanic American college students' degree of hybridization predicted lower psychological well-being on the final day of the study (day 12) and fluctuations in BII blendedness similarly predicted more symptoms of depression and anxiety on day 12. Identity variability is another new concept focusing on fluctuations in a cultural identity across contexts; and research shows that it is associated with social difficulties among Canadian young adults (Noels & Clement 2015). Relatedly, *cultural variability* captures the degree to which an individual plays up and down a single cultural identity from day to day, and among US immigrant emerging adults it is associated with better family relations (Nguyen & Ferguson, 2019) but poorer-quality interactions with close friends (G.M. Ferguson et al. 2017a). Finally, cultural neuroscience experiments demonstrate the adaptive value of family obligations—that is, the degree to which adolescents respect and desire to assist their parents. Relative to White peers, Latinx American adolescents, who are known to have higher family obligations, experience more

activation in the reward centers of their brains when sacrificing for their families (Telzer et al., 2010).

There are also peer-related processes connecting acculturation orientations to outcomes, with native-born peers in the receiving society exerting a particularly powerful influence in PA. Cross-lagged analyses of a longitudinal study among immigrant adolescents in Greece relative to non-immigrants found that stronger feelings of being accepted by native-born Greek peers (not by other immigrant peers) predicted immigrant youths' increases in self-esteem and decreases in depressive symptoms and perceived discrimination (Motti-Stefanidi et al 2020). Acculturation misfit between immigrant youths' preferred acculturation strategy and their peer group's preference for immigrant acculturation (e.g., integration vs. assimilation, respectively) can also prompt peer rejection (as observed in Turkish and Moroccan immigrant youth in Europe; Celeste et al. 2016). Similarly, acculturation misfit predicts lower psychological well-being for secular non-Jewish Former Soviet Union immigrants to Israel whose strong motivations and means (e.g., Hebrew proficiency) to integrate into Israeli society are thwarted due to societal rejection of religious minorities (Vishkin et al., 2021). Relatedly, remotely acculturating adolescents in Jamaica and proximally acculturating US adolescents both perceive orientation towards a non-native/second language (English) as adaptive because it enhances acculturation fit by preparing a young person to secure a future job in that second culture/country (Ferguson et al.).

Family processes are also relevant here, including parent-adolescent *acculturation gaps* that are often related to family functioning in both PA (Schwartz et al. 2016) and RA (Ferguson & Bornstein 2012). A critical review of the acculturation gap literature suggests that the most maladaptive gaps are the nonnormative ones, especially where the teen's heritage culture orientation exceeds the parent's (Telzer 2010). Recent dyadic family RA research has also demonstrated that youth developmental stage can moderate the associations between US orientation and physical activity levels (Gillespie et al. 2022). Gillespie and colleagues found that Jamaican teens' remote U.S. orientation was associated with lower physical activity for early adolescents but higher physical activity for midadolescents. However, that pattern reversed when modeling the influence of mothers' remote US orientation on these teens' physical activity, likely due to increasing *autonomy-granting* across the adolescent years: Mothers' US-orientation was associated with higher physical activity of their early adolescents compared with their mid-adolescents (mid-adolescents are granted more autonomy to choose activity levels, perhaps especially by U.S.-oriented mothers in Jamaica, who hold less conservative parenting views; Ferguson & Iturbide, 2015).

One concerning mechanism in RA-adjacent research is the finding that high *ethnic protection* and low *multicultural acquisition* explain the association between insecure attachment to one's sociocultural context and extremist attitudes among young adults in Denmark and India (i.e., their vulnerability to *radicalizatio*n) (Ozer 2020). However, on a more hopeful note, Ozer and colleagues (2021b) also found that prior intercultural contact of non-migrant Danish with other youth, both direct contact (e.g., interactions with immigrants) and indirect contact (e.g., media), was linked to stronger global identities and, in turn, higher multicultural acquisition. That study also found that direct intercultural contact was linked to lower cultural threat and, in turn, lower ethnic protection. Tables 1 and 2 provide more empirical exemplars of mediation, moderation, and other acculturation processes connecting acculturation orientations to outcomes.

Acculturation Outcomes

The process of acculturation involves all aspects of one's life and, therefore, results in adaptation and maladaptation across a wide range of outcomes including the heavily studied psychological and sociocultural adaptation areas (Ward 1996), the less-studied area of physical well-being (Gillespie et al. 2022), and the most recently added area of intercultural adaptation (Sam & Berry 2016). PA and RA are both associated with all outcome areas (see Figure 2). However, as a less intensive form of acculturation, RA tends to be associated with well-being and proclivities toward problems rather than clinical-level problems [e.g., life satisfaction (Y.L. Ferguson, et al. 2017), smoking susceptibility (Lorenzo-Blanco et al. 2020)], whereas PA tends to be associated with both well-being and clinical-level problems [e.g., positive youth development (Schwartz et al. 2016), depression (Castillo et al. 2015), binge drinking (Schwartz et al. 2016)].

ACCULTURATION-RELATED PREVENTION AND INTERVENTION

Resilience-Promoting Targets

Interventions for acculturating individuals can promote resilience through several mechanisms including (*a*) activating a powerful adaptive system, such as the family, and (*b*) buffering against risk factors (Masten 2014, p. 267). Therefore, resilience-promoting interventions for acculturating individuals can be effectively aimed at enhancing family relationships (e.g., fostering parent-adolescent communication about acculturation experiences) and/or boosting skills that buffer against risky acculturation conditions (e.g., discrimination is a risk factor for psychological maladaptation, and ethnic-racial identity is a known buffer) and risky acculturation orientations (e.g., enjoyment of US media increases exposure to junk food advertising and erodes healthy eating habits, but food-focused media literacy is a known buffer).

Cultural tailoring is another way to facilitate effective interventions for acculturating individuals. Interventions that are tailored to an individual's unique experiences have been found to be more successful at recruiting the intended population and supporting healthy decision making (Keyes et al. 2012; Zhao et al. 2015). Designing interventions specifically tailored for a given cultural group and cultural adaptation of an intervention for use in another cultural group are effective strategies for harnessing unique protective factors in communities by enhancing ecological validity, retention, and uptake (Parra Cardona et al. 2009). However, culturally tailored interventions do not often take acculturation into account, whether PA or RA. The few programs that do include tailored content representing acculturation experiences have demonstrated effectiveness in promoting resilience through one of the two main mechanisms described above. These programs vary in the type of acculturation addressed (proximal, remote), level of intervention (i.e., prevention, intervention), targeted outcomes (e.g., psychological, sociocultural, intercultural), format (e.g., group, classroom, family, texting), and facilitator training (clinicians, school teachers, remote program staff).

Proximal Acculturation-Based Programs

Interventions designed for remotely acculturating individuals promote resilience by validating, supporting, and strengthening heritage culture maintenance or biculturalism. Such interventions are often designed for immigrant and refugee populations to bolster protective factors and

support well-being, although some interventions for ethnic minority groups provide similar benefits. Four such interventions with culturally tailored content are Entre Dos Mundos (Between Two Worlds; Smokowski & Bacallao 2009), Engaging, Managing, and Bonding Through Race (EMBRace; Anderson et al. 2019), The Identity Project (Umaña-Taylor et al., 2018a, 2018b), and Supporting the Health of Immigrant Families and Adolescents (SHIFA; Ellis et al. 2013).

Entre Dos Mundos. Entre Dos Mundos is a non-clinical prevention program designed for Latinx adolescents and their families in the United States that aims to reduce aggressive behaviors by supporting bicultural coping skills and family cohesiveness (Bacallao & Smokowski 2005). Entre Dos Mundos was created to address delinquency associated with assimilation (Gonzales et al. 2002) and includes eight in-person sessions held in a multifamily group format. The sessions address acculturation stressors through discussion (e.g., about discrimination) while bolstering and fostering adolescent biculturalism and supporting social support among participating families. Using a pretest-posttest design, the intervention demonstrated effectiveness in reducing adolescents' aggression, oppositional defiant behavior, and attention problems for Latinx US immigrant adolescents. Further, participating families significantly increased family adaptability, bicultural support, and BII with moderate to large effect sizes after receiving the intervention (Cohen $d = 0.4 - 0.9$) (Smokowski & Bacallao 2009).

EMBRace. EMBRace is a clinical family intervention for African American adolescents and their families in the United States that aims to reduce racial trauma and stress (RST) by enhancing families' racial socialization practices (i.e., parent-child communications about race), fostering active RST coping, and supporting family bonding as protective factors against the negative impacts of the racism/Whiteness pandemic (Anderson et al. 2019). EMBRace has tailored content for African American families and is, therefore, also relevant for Black immigrant/refugee families who are proximally acculturating in the United States. The intervention was designed to address the short- and long-term negative impacts of RST including sleep disturbance, psychopathology, and ineffective coping (Simons et al. 2002; Stevenson et al. 1997) in five sessions involving both individual discussion and joint activities. For example, the first session focuses on cultural pride (titled "We Gon' Be Alright!" for cultural tailoring) and includes a family tree activity where the adolescent and parent work together to explore and strengthen heritage cultural pride, a known promotive factor for positive developmental outcomes (Anderson et al. 2019; Rivas-Drake et al., 2014). In a small pretest-posttest pilot study design, EMBRace was found to be acceptable by both therapists and families and it significantly improved RST coping strategies for both African American youth and their caregivers (Anderson et al. 2018).

The Identity Project. The Identity Project is a universal intervention designed to support adolescent ethnic-racial identity development, a variable whose promotive and protective effects are well known (Umaña-Taylor et al. 2018a, Yip et al. 2019). The Identity Project aims to support adolescents from all ethnic-racial backgrounds using an 8-week school-based curriculum that guides students through identity- related content about their own ethnic-racial identity, and prepares them for ERI development as a life-long process. In a randomized efficacy trial with a multi-ethnic sample of high school students, relative to the control participants, participants who completed the program showed higher ethnic-racial identity exploration 1 month after the

intervention, which predicted higher eithnic-racial identity resolution 10 weeks after the intervention (Umaña-Taylor et al. 2018a) and, later, also lower depressive symptoms, higher self-esteem, and higher grades (Umaña-Taylor et al. 2018b).

SHIFA. Many clinical prevention and intervention programs designed for refugee and immigrant populations aim to address trauma experienced before, during, and after migration, while also supporting psychological adaptation (Simenec & Reid 2022). One such program is SHIFA (Ellis et al., 2013), a word meaning "health" in Somali, which includes a multi-tiered system that supports community resilience, school-based early intervention delivery for at-risk youth, and individual trauma systems therapy for youth demonstrating significant distress. In a pilot study, SHIFA's multitiered system, which provides more supports for distressed youth, resulted in high engagement rates with 100 percent of referred families consenting to participate and an average of 23 sessions attended by referred youth over the course of a year (Ellis et al. 2013). Outcome data from the three-time-point pilot study showed significant improvements in posttraumatic stress disorder symptoms, depression, and resource hardships over time (Ellis et al. 2013).

Intercultural training interventions. There are intercultural training programs aimed at promoting intercultural communication and behavioral skills among expatriates such as US professionals stationed in other countries as managers of international corporations. These programs vary widely in content and format and a meta-analysis found smaller than expected positive effects on job performance and general adjustment (Morris & Robie 2001). Perhaps more important are prejudice reduction interventions aimed at majority groups in receiving countries, who are also acculturating proximally, as they interact with migrants and ethnic minority groups. Abu-Rayya's (2017) digital intervention, designed to boost integrationist attitudes in Israeli non-migrant students, reduced intergroup bias as mediated by a reduction in intergroup anxiety. A subsequent virtual intercultural contact intervention also reduced intergroup bias among Muslim British youth as mediated by changes in emotions and expanded self-views (Abu-Rayya & Brown 2021).

Remote Acculturation-Based Programs

JUS Media? Despite the relatively recent introduction of RA to the field (Ferguson & Bornstein 2012), there is an evidence-based intervention that includes tailored content designed to promote resilience in the context of RA: *JUS Media?* (Ferguson et al. 2019a, 2021). JUS Media? is a multi-format food-focused media literacy intervention designed to address increased unhealthy eating patterns associated with European American/White American orientation among acculturating youth and families. The original workshop version was designed for remotely acculturating adolescents and mothers in Jamaica (JUS Media? Programme), and there is now a digital animated version designed for use in secondary schools in Jamaica (JUS Media? Global Classroom - Jamaican Islander). JUS Media? Global Classroom has also been culturally adapted for use among Jamaican American students in the United States (JUS Media? Global Classroom - Jamaican American) and Somali American students (JUS Media? Global Classroom - Somali American). Given that the association between White/European American cultural orientation and unhealthy eating is mediated by US media consumption (Ferguson et al. 2018), the intervention builds media literacy as a modifiable protective factor against unhealthy food choices (Ferguson et al. 2020b).

Comprising five modules, all versions of JUS Media? provide education around local nutrition recommendations, RA or 3D acculturation depending on the type of acculturation expected to be more prominent for the target audience, and media literacy. JUS Media? culminates in teaching a specific media literacy skill called subvertising: critical thinking about food advertising that subverts or exposes the deceptive intent of food advertisers. Participants then create subvertisements that spoof unhealthy food advertisements. The group format of this intervention is central to validate experiences around acculturation while providing adolescents and families the language and space to discuss, confront, and agentically resist the ways in which exposure to mainstream White American culture and media negatively influences their lives. In a randomized controlled trial, the JUS Media? Programme increased nutrition knowledge, consumption of vegetables, and readiness to consume more fruits for adolescents and mothers who received the intervention relative to control families (Ferguson et al. 2021). The digital school-based versions of JUS Media? increase the accessibility and scalability of the program to other acculturating youth, both remotely and proximally, and straightforward cultural adaptation to new cultural groups is facilitated by a new blueprint storyboarding technique that differentiates the universal active ingredients that should remain in every version from the culture-specific elements that should be adapted for each new culture (Simenec et al., 2022).

OPPORTUNITIES AND CHALLENGES
The dual pandemics, the steady growth in displaced people, and the rapid expansion of Internet and other technological services provide many opportunities and challenges for research, practice, and policy regarding acculturation and psychopathology. Current global conditions are expected to accelerate RA and complexify PA trajectories and processes as more individuals start to experience both PA and RA (Ferguson, 2021). It is critical that new acculturation research be theoretically grounded and systematic for scientific knowledge at this frontier to accumulate in a useful and interpretable manner. Transdisciplinary and transnational research will be especially well suited to address new acculturation-related challenges, and community-based participatory approaches are paramount (Abdi et al., 2022). For acculturation scholarship with BIPOC immigrant and refugee youth, it will also be important to incorporate concepts of resistance (Jones et al., 2020) versus overreliance on resilience, directing efforts of caring adults and the broader society to reduce and eliminate the race-related adversities that greet these youth as opposed to focusing solely on their positive adaptation to this chronic racial stress. Finally, mutual learning between scholars of acculturation psychology and developmental psychopathology is important, as is providing cross-training in these areas for current students.

CONCLUSIONS

The process of acculturation goes hand in glove with developmental psychopathology. A developmental psychopathology approach can be useful to explain why, how, what, and for whom acculturation experience operates as a cultural risk, protective, and/or promotive factor resulting in adaptation and maladaptation. Uniting a conceptual model of acculturation and developmental psychopathology with a framework of acculturation variables, this review has presented an Integrated Process Framework of Acculturation Variables (IP-FAV) depicting major predisposing acculturation conditions (why) and acculturation orientations and dynamic acculturation processes (how) that lead to lifespan adaptation and maladaptation (what). This

newly integrated framework incorporates both proximal and remote forms of twenty-first century acculturation and adds acculturation processes to acculturation content to direct future research, practice, and policy.

SUMMARY POINTS

- Psychological acculturation in twenty-first century globalization includes both proximal forms (direct and continuous intercultural contact) and remote forms (indirect and/or intermittent), both of which are linked to adaptation.
- Acculturation involves as many cultural dimensions as are relevant for an acculturating individual's background and current cultural context ranging from bidimensional to tridimensional, quad-dimensional, and beyond.
- As a developmental process, the major questions of acculturation are highly compatible with those of developmental psychopathology as both are concerned with multilevel influences on individual adaptation and maladaptation taking into account prior and current experiences.
- A developmental psychopathology approach can be useful to explain when, how, why, and for whom acculturation operates as a cultural risk, protective, and/or promotive factor.
- The Integrated Process Framework of Acculturation Variables is offered as a tool for researchers and practitioners for an at-a-glance conceptualization of the contents and processes of acculturation in relation to psychopathology.
- Most acculturation variables and processes operate in both proximal and remote acculturation in parallel ways, although there are some unique aspects to each.
- As a less immersive and more agentic acculturation type, remote acculturation has weaker relations with psychopathology than does proximal acculturation.
- Proximally acculturating individuals navigate intersecting systems of oppression, including racism and xenophobia, which undermine their adaptation and health.
- There are a few high-quality research-based interventions of varying dosages and intensities to support resilience of proximally and remotely acculturating individuals from minority and majority groups.

FUTURE ISSUES

- In the research realm, increasingly complex measurement and analytic approaches are needed to capture the simultaneous proximal and remote acculturation processes of individuals and families; creative implementation and dissemination research is needed to scale existing acculturation-related interventions.
- In practice, culturally responsive care will involve adding routine assessment of acculturation in addition to static cultural formulations with immigrant and non-immigrant clients (meaning assessing dynamic processes of cultural change and links with client adaptation and concerns)
- In policy, there continues to be a dire need for policy efforts to reduce structural racism and xenophobia impacting immigrants/refugees and minoritized groups.

TERMS AND DEFINITIONS

- *Acculturation:* process of cultural and psychological change after culturally different people come into contact—whether continuous or intermittent, firsthand or indirect.
- *Psychological acculturation*: Focuses on individual differences in the antecedents, strategies, processes, and outcomes of acculturation.
- *Proximal acculturation (PA):* Acculturation resulting from direct and continuous contact with non-native culture(s).
- *Remote acculturation (RA):* Acculturation resulting from indirect and/or intermittent exposure to specific non-native culture(s) via globalization avenues
- *Developmental psychopathology*: A framework approaching adaptation/maladaptation as the result of early developmental experiences, current circumstances, and individual and family resources and characteristics.
- *Equifinality:* When similar developmental results emerge from distinct earlier experiences and processes.
- *Multifinality*: different developmental results that emerge from similar experiences and processes
- *Developmental cascade*: process whereby functioning in one area of adaptation is amplified, snowballs, and transacts to shape functioning in another area.

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Table 1. Select Mechanisms Explaining the Associations between Proximal Acculturation and Adaptation/Maladaptation

QUANTITATIVE MEDIATORS				
Citation	**Sample**	**IV**	**Mediator(s)**	**DV**
Cano et al. (2016)	Hispanic US college students	Ethnic discrimination	Self-esteem (-)	Anxiety and depression
Lincoln et al. (2021)	Somali refugee youth in USA	Experiences of discrimination	Marginalized acculturation style, Somali heritage community belongingness (-)	Depression, anxiety, post-traumatic stress symptoms
Nguyen et al. (2015)	Asian college students in USA	Ethnic socialization	Ethnic identification (women)	Psychological subjective well-being
Castillo et al. (2015)	Latinx college students in USA	Acculturation	Acculturative stress	Depression
Schwartz et al. (2016)	Recently immigrated Hispanic parent-adolescent dyads in USA	Parent-adolescent discrepancies in Hispanic culture retention	Adolescent-reported positive family functioning (-)	Positive youth development, low depressive symptoms, binge drinking
Dimitrova & Aydinli-Karakulak (2016)	Turkish-Bulgarian adolescents in Bulgaria and Turkish-German adolescents in Germany	Religious identity	Turkish heritage orientation	Turkish sociocultural competence and life satisfaction
			Bulgarian/German non-heritage orientation (-)	Bulgarian/German sociocultural competence and Life satisfaction
Yu et al. (2016)	First-generation Chinese immigrant mothers in USA	Non-heritage American orientation	Psychological well-being	Lower authoritarian parenting
				Higher authoritative parenting
Stein et al. (2020)	Latinx mother-adolescent dyads in USA	Heritage familism values	Higher meaning in life	Higher academic motivation
				Lower depressive symptoms
Smith et al. (2020)	Immigrant adolescents in USA	Parent educational values	Friend educational values	Academic engagement
Jamal et al. (2019)	Turkish-Dutch adults in the Netherlands	Enculturation, acculturation	Online political activities	Voting intentions
Abu-Rayyah (2017)	Majority young adults in Israel	Integration attitude intervention	Short-term intergroup anxiety (-)	Long-term reductions in intergroup bias
Lefringhausen et al. (2021)	English Nationals in the United Kingdom	Cultural enrichment, Intergroup contact	Immigrant culture adoption national culture maintenance (-)	Intercultural competence: positive feelings towards immigrants
		Cultural threat	National culture maintenance	Intercultural competence: positive feelings towards immigrants (- but ns)
Abu-Rayyah et al. (2021)	British Muslims in United Kingdom	Vicarious contact intervention	Positive and negative (-) emotions, inclusion of the other in the self	Reduced intergroup bias
QUANTITATIVE MODERATORS				
Citation	**Sample**	**IV**	**Moderators(s)**	**DV**
Vishkin et al. (2021)	Former Soviet Union immigrant adults in Israel	Motivation X means to adopt Israeli culture	Non-Jewish identity (-)	Life satisfaction and lower depression
Vu et al. (2019)	First-generation Chinese immigrant mothers in USA	American acculturation level	Ethnic identity resolution (+)	Multi-faceted psychological well-being
Vedder et al. (2007)	Turkish adolescents living in Northwestern Europe	Ethnic orientation	Societal cultural diversity (+)	Psychological well-being (life satisfaction, self-esteem, low problems)
Motti-Stefanidi et al. (2020)	First- and Second-generation immigrant adolescents in Greece	Peer liking	Non-immigrant peer liking (+) immigrant peer liking (ns)	Higher self-esteem and lower depressive symptoms 1 year later
Celeste et al. (2016)	Turkish and Moroccan immigrant adolescents in the European Union	Preference for integration or assimilation, respectively	Misfit with norms regarding cultural adoption/maintenance (+)	Peer rejection

Anguiano (2018)	Latinx adolescents in USA	Language brokering/translating	High-stakes situations (+)	Stress and lower academic achievement
Telzer et al (2010)	Latinx and White adolescents in USA	Simulated monetary contribution to family (vs. self)	Latinx ethnic-racial group White ethnic-racial group (-)	Mesolimbic reward system activation in brain
Ferguson et al. (2017a)	Multicultural sample of college students in USA	Cultural variability (in identity)	Immigrant status (immigrant -) and ethnic orientation (-)	Close friend interaction quality
Noels & Clément (2015)	Immigrant youth in Canada	Identity variability	Global identity (-)	Sociocultural difficulties
Ferguson & Bornstein (2014)	Jamaican adolescents in USA	Assimilated acculturation status	Immigrant generation (first generation +)	Poor grades
QUALITATIVE PROCESSES				
Citation	**Sample**	**Process**		**Outcome**
Yoon et al. (2022)	South Sudanese refugee adults in USA	Integrated vs. conflicted acculturation perspectives across four cultural streams during quad-dimensional acculturation		Life satisfaction
Qin et al. (2015)	Sudanese unaccompanied refugee emerging adults in USA	Heritage cultural maintenance and conscious integration of positive aspects of the new culture		Sociocultural adaptation: making good choices, staying focused, avoiding risky behaviors
Thelamour (2022)	Black immigrant emerging adults in USA	Identification with Black American culture		African American English use and proficiency
Ferguson et al. (2020a)	Latinx adolescents in USA and adolescents in Jamaica	Perspective-taking, behavioral code-switching, speaking heritage and non-heritage languages/dialects		Biculturalism
Nguyen & Ferguson (2019)	Southeast Asian American emerging adults	Hip hop, a third cultural identity for tricultural immigrant-origin youth, helps harmonize parent-youth relations by providing an outlet and sense of US and global belonging.		Parent-child relations

Note: "Mediators" above refer to full or partial indirect effects in longitudinal or cross-sectional studies. For mediators, all effects/paths are positive unless marked with a minus sign. For moderators, plus and minus signs show direction of effects.

Table 2. Select Mechanisms Explaining the Associations between Remote Acculturation and Adaptation/Maladaptation

QUANTITATIVE MEDIATORS				
Citation	**Community Sample**	**IV**	**Mediator(s)**	**DV**
Ozer et al. (2019)	Indigenous emerging adults in North and Central/urban India	Heritage and urban cultural endorsement	Personal identity exploration, personal identity commitment	Multi-faceted psychological well-being
		Global Western cultural endorsement	Personal identity exploration	
Wu & Liu (2022)	Mainland Chinese undergraduate students in Hong Kong	Heritage language use	Social connectedness to minority cultures, perceived discrimination	Psychological well-being: flourishing
		Non-heritage proximal language use	Mainstream social connectedness	
		Non-heritage remote language use	Mainstream connectedness, perceived discrimination	
Ozer & Schwartz (2022)	Danish emerging adults in Denmark	Multicultural acquisition	Reflective identity exploration in depth	Multi-faceted psychological well-being
Ferguson et al. (2018)	Adolescent-mother dyads in Jamaica	Remote US cultural orientation	US television time daily (own and mother's)	Unhealthy eating
Lorenzo-Blanco et al. (2020)	Adolescents in Mexico	Mexican orientation	Internet use frequency (-)	E-cigarette susceptibility
		U.S. orientation	Internet use frequency	
Ozer (2020)	Emerging adult students in Denmark and India	Insecure attachment	Ethnic protection, multicultural acquisition (-)	Extremist attitudes
		Insecure attachment	Ethnic protection	Accepting violent extremism
Ozer et al. (2021b)	Non-migrant majority youth in Denmark		Global identity	Multicultural acquisition
		Direct intercultural contact	Perceived intercultural threat	Ethnic protection
		Indirect intercultural contact	Global identity	Multicultural acquisition
QUANTITATIVE MODERATORS				
Citation	**Sample**	**IV**	**Moderators(s)**	**DV**
Gillespie et al. (2022)	Adolescents in Jamaica	Adolescent US orientation	Developmental stage (midadolescence +)	Moderate and vigorous physical activity
		Mother US orientation	Developmental stage (early adolescence +)	
Ozer et al. (2021a)	Indigenous emerging adults in Central, urban India	Heritage cultural endorsement	Bicultural identity integration (-)	Multi-faceted psychological well-being
		Western cultural endorsement	Bicultural identity integration (+)	
Ferguson et al. (2020)	Adolescents in Jamaica	Remote US media enjoyment	Media literacy (+)	Dietary fat reductions
QUALITATIVE PROCESSES				
Citation	**Sample**	**Process**		**Outcome**
Ferguson & Iturbide (2015)	Mothers in Jamaica	Parenting styles of resistance vs. selective adoption of mainstream U.S. remote culture; negotiation of adolescent-parent acculturation gaps through discussions and productive conflict		Adolescent-parent relationship quality

McKenzie (2019)	Adolescents in Thailand	Alternate between local and global differentiated selves in social interactions depending on the interactional partner	Adolescent-parent relationship
Ferguson & Iturbide (2013)	Adolescents in Jamaica	Remotely integrated boys perceived as cultural misfits and as effeminate/soft, conflicting with macho local masculinities	Sociocultural adaptation: peer rejection/discrimination
Ferguson et al. (2020a)	Adolescents in Jamaica and Latinx adolescents in USA	Perspective-taking, behavioral code-switching, speaking heritage and non-heritage languages/dialects	Biculturalism

Note: "Mediators" above refer to full or partial indirect effects in longitudinal or cross-sectional studies. For mediators, all effects/paths are positive unless marked with a minus sign. For moderators, plus and and minus signs show direction of effects.

Figure 1. Conceptual Model of Acculturation and Developmental Psychopathology
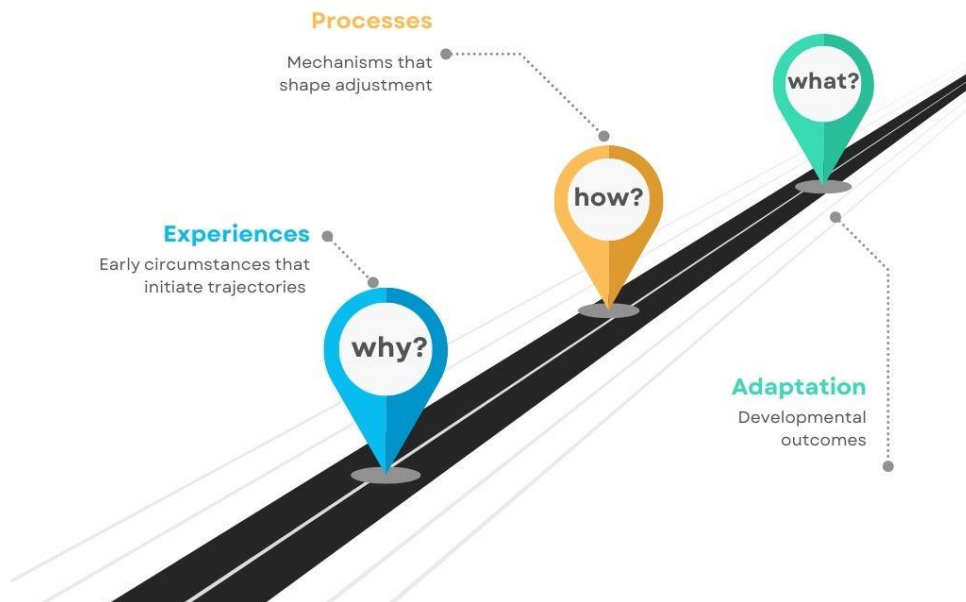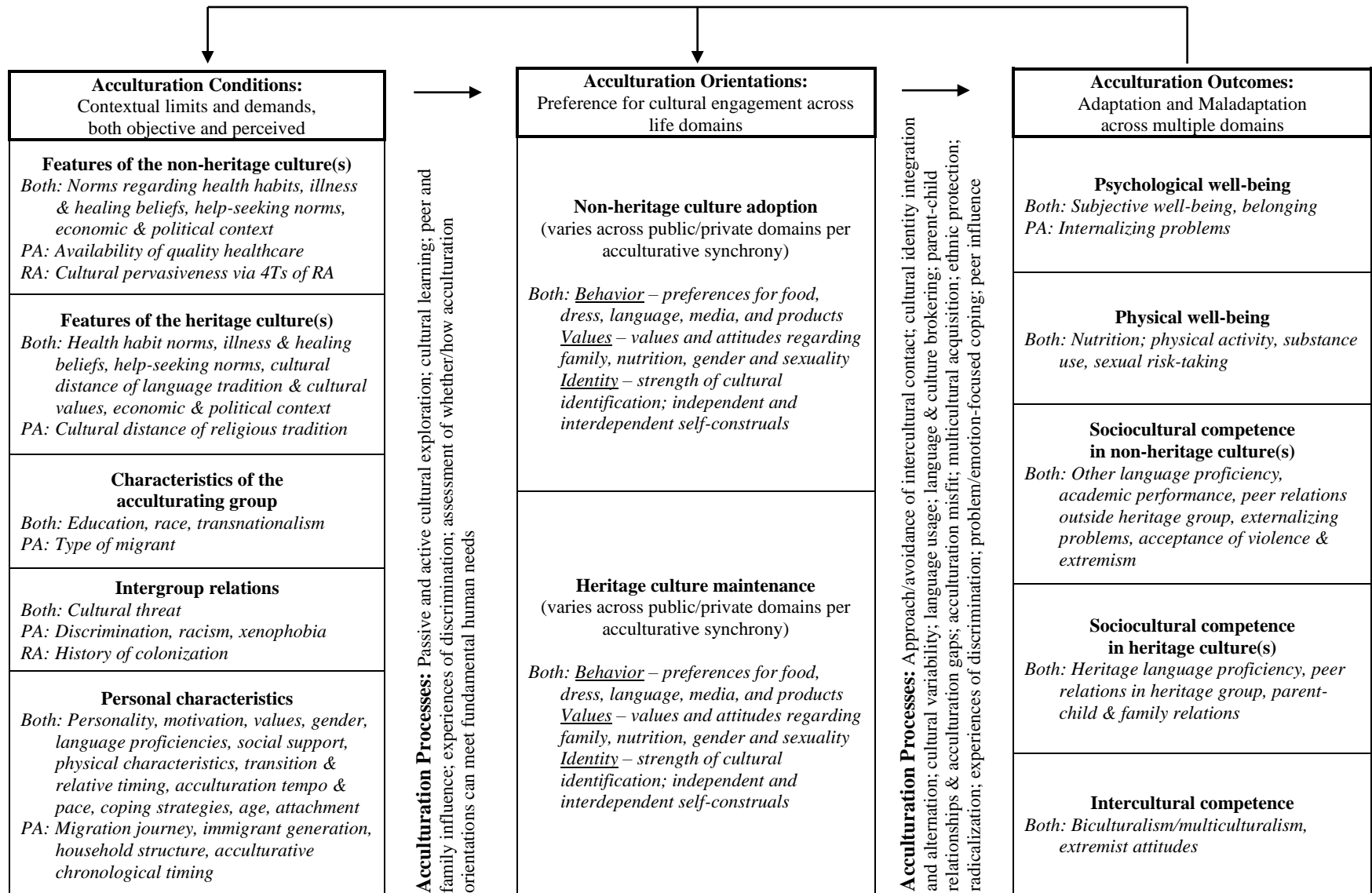
Figure 2. Integrated Process Framework of Proximal and Remote Acculturation Variables

Acculturation Conditions:
Contextual limits and demands, both objective and perceived

Features of the non-heritage culture(s)
Both: Norms regarding health habits, illness & healing beliefs, help-seeking norms, economic & political context
PA: Availability of quality healthcare
RA: Cultural pervasiveness via 4Ts of RA

Features of the heritage culture(s)
Both: Health habit norms, illness & healing beliefs, help-seeking norms, cultural distance of language tradition & cultural values, economic & political context
PA: Cultural distance of religious tradition

Characteristics of the acculturating group
Both: Education, race, transnationalism
PA: Type of migrant

Intergroup relations
Both: Cultural threat
PA: Discrimination, racism, xenophobia
RA: History of colonization

Personal characteristics
Both: Personality, motivation, values, gender, language proficiencies, social support, physical characteristics, transition & relative timing, acculturation tempo & pace, coping strategies, age, attachment
PA: Migration journey, immigrant generation, household structure, acculturative chronological timing

Acculturation Processes: Passive and active cultural exploration; cultural learning; peer and family influence; experiences of discrimination; assessment of whether/how acculturation orientations can meet fundamental human needs

Acculturation Orientations:
Preference for cultural engagement across life domains

Non-heritage culture adoption
(varies across public/private domains per acculturative synchrony)

Both: Behavior – preferences for food, dress, language, media, and products
Values – values and attitudes regarding family, nutrition, gender and sexuality
Identity – strength of cultural identification; independent and interdependent self-construals

Heritage culture maintenance
(varies across public/private domains per acculturative synchrony)

Both: Behavior – preferences for food, dress, language, media, and products
Values – values and attitudes regarding family, nutrition, gender and sexuality
Identity – strength of cultural identification; independent and interdependent self-construals

Acculturation Processes: Approach/avoidance of intercultural contact; cultural identity integration and alternation; cultural variability; language usage; language & culture brokering; parent-child relationships & acculturation gaps; acculturation misfit; multicultural acquisition; ethnic protection; radicalization; experiences of discrimination; problem/emotion-focused coping; peer influence

Acculturation Outcomes:
Adaptation and Maladaptation across multiple domains

Psychological well-being
Both: Subjective well-being, belonging
PA: Internalizing problems

Physical well-being
Both: Nutrition; physical activity, substance use, sexual risk-taking

Sociocultural competence in non-heritage culture(s)
Both: Other language proficiency, academic performance, peer relations outside heritage group, externalizing problems, acceptance of violence & extremism

Sociocultural competence in heritage culture(s)
Both: Heritage language proficiency, peer relations in heritage group, parent-child & family relations

Intercultural competence
Both: Biculturalism/multiculturalism, extremist attitudes

Note. Figure adapted from Ferguson, Tran, Mendez, & van de Vijver (2017). PA = proximal acculturation, RA = remote, Both = PA & RA. Heritage cultures = cultures related to one's own heritage or ancestry. Non-heritage cultures = cultures not related to one's cultural heritage or ancestry