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Gail M. Ferguson, Jacqueline Nguyen, and Maria I. Iturbide

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Playing Up and Playing Down Cultural Identity: Introducing Cultural Influence and Cultural Variability

Gail M. Ferguson
University of Illinois at Urbana-Champaign

Jacqueline Nguyen
University of Wisconsin-Milwaukee

Maria I. Iturbide
University of Illinois at Urbana-Champaign and Humboldt State University

Objectives: Cultural variability (CV) is introduced as an overlooked dimension of cultural identity development pertaining to emphasizing and de-emphasizing the influence of a single cultural identity (i.e., cultural influence [CI]) on daily interactions and behaviors. The Cultural Identify Influence Meaure (CIDIM) is introduced as a novel measure of CI and CV, and hypothesis-driven validation is conducted in two samples along with exploration of associations between CV and well-being. **Method:** A multicultural sample of 242 emerging adults participated in a daily diary study ($M_{\text{age}} = 19.95$ years, $SD_{\text{age}} = 1.40$) by completing up to eight daily online surveys containing the CIDIM, criterion measures (ethnic identity, other group orientation, ethnic identity salience and daily variability in salience, social desirability), and measures of personal and interpersonal well-being. A second validation sample ($n = 245$) completed a 1-time survey with the CIDIM and a subset of criterion measures. **Results:** Results using both samples show evidence of CI and CV and demonstrate the validity, reliability, and domain-sensitivity of the CIDIM. Further, CV made unique and positive contributions to predicting interaction quality after accounting for ethnic salience and variability in ethnic salience. An analytic approach utilizing standard deviations produced near-identical results to multilevel modeling and is recommended for parsimony. **Conclusions:** Ethnic minority and majority individuals make daily adjustments to play up and play down the influence of cultural identity on their social interactions and behaviors, and these adjustments predict interpersonal well-being. Cultural influence and cultural variability contribute to our emerging understanding of cultural identity as dynamic and agentic.

Keywords: cultural identity, ethnic identity salience, cultural frame-switching, social interactions, emerging adulthood

Cultural diversity encourages, and sometimes requires, individuals to “adjust and calibrate” the cultural self-concept (Markus & Kunda, 1986, p. 865) to adequately adapt to the demands of the modern sociocultural environment. This may be especially true for emerging adults in the U.S., who are more ethnically and culturally diverse today than ever before due to migration and globalization (U.S. Census Bureau, 2011). A body of foundational research has examined the emergence of ethnic identity over prolonged developmental time. However, ethnic and cultural identity scholars are increasingly interested in daily adjustments of the cultural self to

better understand its dynamic nature. That is, whereas identification as a member of an ethnic group may be relatively stable, other aspects of cultural identity may be more variable, such as ethnic identity salience (Yip & Fuligni, 2002). We argue that a potentially important dynamic component of cultural identity has been overlooked: the *influence* of one’s cultural identity on conscious interactions and behaviors (cultural influence [CI]), and the daily *variability* in said cultural influence (cultural variability [CV]). This article introduces, measures, and explores the utility of these new constructs in two samples of U.S. emerging adults.

Gail M. Ferguson, Department of Human Development and Family Studies, University of Illinois at Urbana-Champaign; Jacqueline Nguyen, Department of Educational Psychology, University of Wisconsin-Milwaukee; Maria I. Iturbide, Department of Human Development and Family Studies, University of Illinois at Urbana-Champaign, and Department of Psychology, Humboldt State University.

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Correspondence concerning this article should be addressed to Gail M. Ferguson, Department of Human Development and Family Studies, University of Illinois at Urbana-Champaign, Doris Kelley Christopher Hall, MC-081, 904 West Nevada Street, Room 2015, Urbana, Illinois 61801. E-mail: gmfergus@illinois.edu

The notion that individuals “play up” and “play down”¹ various aspects of their cultural selves has some, albeit limited, scholarly roots (i.e., Mok & Morris, 2009) that hearken to symbolic interactionist theories in which individuals calibrate social identity based on responses from others (Saperstein & Penner, 2014). These ideas resonate in contemporary U.S. society: The TV comedy show *Key & Peele* is based on the premise that “on a daily basis we have to adjust our Blackness” (Key & Peele, 2012). And recently, the U.S. was captivated by Seattle NAACP chapter president Rachel Dolezal who made daily changes to accentuate/de-emphasize her Black cultural identity (Moyer, 2015): “I’ve experimented with my hair . . . some days (I might) spray up you know like bronzer, whatever, to get a glow, but other days I don’t . . . it kind of just happened as I had more choices.” We acknowledge that “playing up/playing down” identity can have negative connotations of stereotype conformity, linked to poor psychological well-being (Ojeda, Navarro, Meza, & Arbona, 2012). However, our use of these terms instead reflects growing scholarly praise for individuals who calibrate cultural identities to successfully negotiate diverse and complex cultural contexts (Augustinos & De Garis, 2012).

Such current experiences of daily identity adjustments reveal an overlooked, yet potentially important, dimension of cultural identity and beg the questions: How much influence does cultural identity have on people’s interactions and behaviors (i.e., CI)? And how much does this vary from day to day (i.e., CV)? Further, given that identity adjustment in a multicultural society contributes to positive development (Chen, Benet-Martínez, & Harris Bond, 2008) even for members of the majority group (Hartmann, Gerteis, & Croll, 2009), is CV normative and adaptive? In investigating these questions we give particular attention to social interactions (with family and peers) and personal behaviors because individuals are likely to be highly motivated to adapt to daily demands in these domains.

Cultural Identity

Cultural identity is considered a special case of social identity pertaining to “the ideals and values of the cultural in-group with which the person identifies” (Schwartz, Montgomery, & Briones, 2006, p. 10). More than a label of identification, it encompasses ethnic identity—feelings toward, and behaviors exploring, the ethnic group to which one claims heritage (Umaña-Taylor, 2015)—and other social identities such as gender, class, nationality, race, and sexual orientation. These combined elements of cultural identity contribute to one’s overall sense of self and belongingness. Our use of the term “cultural identity” in this article refers specifically to ethnic-cultural identity rather than to other social identities. Cultural identity formation intensifies in emerging adulthood, a developmental period characterized by elongated identity exploration (Arnett, 2000). Although typically examined in ethnic minority and immigrant populations, cultural identity is also important for White, nonimmigrant emerging adults in an increasingly global and culturally plural society (Berry & Sabatier, 2011).

Cultural Identity as a Dynamic System

The processes by which individuals explore, internalize, and express the norms, behaviors, and beliefs of their ethnic and

cultural group(s) are dynamic in and of themselves (Ferdman & Horenczyk, 2000; Jensen, 2003). Two psychological processes have been identified as key components of cultural identity dynamism: identity alternation especially in behaviors, and ethnic identity salience especially in social interactions.

Alternation theory (LaFromboise, Coleman, & Gerton, 1993; Ogbu & Matute-Bianchi, 1986) posits that bicultural individuals accentuate or de-emphasize different aspects of their group membership through changes in various *personal behaviors* such as language (e.g., code-switching) or dress/appearance (Nguyen & Brown, 2010). Whereas alternation theory explains how bicultural individuals switch between different cultural identities, ethnic identity salience is the “awareness” or “importance” of a single ethnic identity (Ting-Toomey et al., 2000; Yip, 2014). Using experience sampling methods, Yip (2005; Yip & Fuligni, 2002) found that *social context* directly affects daily changes in ethnic identity salience. Together, these studies support cultural identity dynamism and the methodological potential in using participant reports to measure conscious changes in cultural identity (vs. implicit/physiological responses to cultural and ethnic cues; see Benet-Martínez, Leu, Lee, & Morris, 2002). Yet, a gap remains in our understanding of the extent to which a single cultural identity *influences* social interactions and behaviors and how that influence may vary from day to day. Studies routinely assess whether an individual is aware of and/or committed to a cultural identity, but we have yet to measure how much that cultural identity is perceived to impact interactions and behavior.

Cultural Influence and Cultural Variability: Useful New Dimensions of Cultural Identity?

CI and CV add to current conceptualizations of cultural identity dynamism by proposing that cultural identity influence can be calibrated. We propose that not only can individuals determine how much a cultural identity will influence them in daily actions and interactions (CI), but they also vary the level of this CI from day to day (CV)—most often reactively in response to momentary ecological conditions, global cultural cues, or in anticipation of events and interactions (i.e., My family is coming to visit so I’m going to be “more Latino” today for my parents; Mok & Morris, 2009). Thus, our conceptualization complements yet goes beyond ethnic identity salience and changes in salience. CI and CV are instrumental to our understanding of cultural identity as a dynamic system; individuals more attuned to the changing daily demands of the multicultural social environment are likely to respond in kind with dynamic cultural identity adjustments.

CV is likely to be most evident in the domains of *social interactions* and *personal behaviors*. Social interactions and cultural identity are reciprocal processes in which interactions with peers and family contribute to one’s sense of self but are also shaped by culture. Individuals may alter CI in social interactions to

¹ The choice of the title “Playing Up and Playing Down Cultural Identity” was related to the statement of a participant (ID#161) on Day 2 highlighting how she consciously played her Mexican cultural identity for self-motivation:

I am experiencing a severe case of senioritis, and I think the only thing that keeps me going and doing my work is my Mexican Heritage. I do not want to let my mom down or become some statistic, so I keep moving forward. Pa’ Lante!

fit in, decrease conflict, or fulfill relational roles (Bauer, Loomis, & Akkari, 2013; Triandis, 1989). For example, an individual may call upon her Chinese cultural identity to show restraint when disagreeing with her parents in order to maintain a veneer of filial piety. Behavioral changes are central to identity alternation theories as it is relatively easy to change dress, language, and other ethnically-based personal behaviors from day to day, particularly to convey desired messages about self and group identity (Bernal, Saenz, & Knight, 1991).

CI and CV are complementary to, yet distinct from, existing conceptualizations of cultural identity changes. First, whereas existing constructs generally capture implicit changes due to culturally cued responses (e.g., cultural frame-switching, Benet-Martínez et al., 2002), CV captures the degree to which individuals explicitly enact “gatekeeping” over one cultural identity such that it has more or less influence on them. Second, we propose that CI and CV are distinct from ethnic identity salience (i.e., awareness/importance) and changes in salience because CI and CV are more agentic/active phenomena. For example, an Iraqi student can be more aware of his Iraqiness in a room full of non-Middle Eastern peers and decide to *de-emphasize* this identity in interactions and behaviors. Third, unlike existing measures of identity alternation that focus on switching between two cultural identities (e.g., alternation theory), CV focuses on daily changes within a single cultural identity. As such, we propose CV to be a phenomenon that is not restricted to bicultural individuals.

Implications of Cultural Variability for Personal and Interpersonal Well-Being

In an increasingly diverse society, the ability to adapt one’s cultural style in interactions with others is an asset valued from the classroom to the workplace (Deal & Prince, 2007). Adroitness in employing cultural adaptation strategies (e.g., identity alternation and cultural frame-switching) is positively associated with psychological benefits, including self-esteem (LaFromboise et al., 1993; Navarrete & Jenkins, 2011). Ethnic identity salience and its daily changes also promote psychological well-being (Yip, 2005) because ethnically aware individuals feel more positively about identity choices and experience self-efficacy in adapting to multicultural contexts (Briones, Tabernero, Tramontano, Caprara, & Arenas, 2009). Similarly, individuals who adjust identity expression, depending on their “audience,” forge better relationships (Barreto, Spears, Ellemers, & Shahinper, 2003). As a result, emerging adults with higher CV—those who adjust levels of CI—are likely to have more positive self-evaluations and higher quality social interactions with family and peers (compared with younger adolescents, emerging adults are particularly adept at altering social identity in the context of family and peers; Bauer et al., 2013).

Hypotheses

This article introduces CI and CV and examines these novel phenomena in two samples using a new measure, the Cultural Identify Influence Meaure (CIDIM), which operationalizes CI as the CIDIM scores and CV as the variability or stability of those CI scores over time. The structural, convergent, and discriminant validity of the CIDIM are assessed in the first sample using

criterion measures, and associations between CV and personal and interpersonal well-being are examined. A second validation sample is used to confirm the structural, convergent, and face validity of the CIDIM in addition to the agentic nature of CI.

Our hypotheses were threefold and driven by literature previously presented. First, we expected that social interactions and personal behaviors would be separate factors on the CIDIM. The former are inherently interpersonal and transactional whereas the latter are choices/activities made at the individual level (Turner, 1982); the different nature of these domains likely require distinct adjustments to cultural identity. Relatedly, we expected there to be evidence of CI and CV in both samples using the CIDIM.

Second, we expected that CIDIM scores would be associated with criterion measures. CI should be positively associated with ethnic salience (because both are dynamic aspects of cultural identity), ethnic identity commitment (because a cultural identity to which one is more strongly committed is likely to exert more daily influence), and socially desirable responding (if individuals are vulnerable to socially desirable responding, they would seek to make a positive impression in a cultural identity study by reporting higher, CI). CI should be negatively correlated with orientation to other ethnocultural groups (because greater openness to other cultures may suggest lower influence of one’s own cultural identity on one’s daily interactions; Ponterotto, Gretchen, Utsey, Stracuzzi, & Saya, 2003). Additionally, CV should be positively correlated with ethnic identity search because playing up/playing down one’s cultural identity may be part of experimenting with and learning about one’s ethnic identity (Phinney, 1993). On the other hand, we expected there to be no associations with certain criterion measures: CI was expected to be uncorrelated with age in years (because it should be equally relevant throughout the entire period of emerging adulthood), and CV was expected to be uncorrelated with social desirability (because unlike CI, CV was calculated rather than directly reported and so participants were unaware of researcher interest in CV; thus, participants should have negligible motivation or ability to “fake” CV for social desirability) reasons.

Third, CV was expected to be uniquely and positively associated with self-esteem and interpersonal interaction quality after accounting for other aspects of cultural identity dynamism (i.e., ethnic salience and daily changes in salience). CV may make a unique contribution to well-being because consciously choosing to adjust one’s cultural identity in interactions or behaviors may represent a level of cultural adaptability that is distinct from fluctuations in identity awareness.

Method

Participants and Procedure

The validity of the CIDIM was assessed using two samples: The first sample participated in a daily diary study design (Iida, Shrout, Laurenceau, & Bolger, 2012), and the second validation sample completed a one-time survey.

Sample 1 (initial sample). Altogether, 250 diverse undergraduate students ($M_{\text{age}} = 19.95$, $\text{range}_{\text{age}} = 18\text{--}23$, $SD_{\text{age}} = 1.40$) from three Midwestern U.S. Universities were recruited from classes across departments to complete one online survey per day for eight consecutive days ($M_{\text{\#surveys}} = 6.69$, $SD = 1.83$). Eight

participants were excluded because their Day 1 surveys were missing >75% data on the CIDIM, reducing the total sample to 242 (35.5% European American/White, 28.9% Asian, 12.4% Black, 6.6%, Hispanic/Latino, 16.6% Mixed/Other; 71% female; 43% foreign-born or had at least one foreign-born parent—classified as “immigrants”). Approximately 63% of the sample had a 4-year college-educated parent. Participants completed an initial 20–30 min survey on Day 1 containing all measures described below. At 5 p.m. on Days 2–8, participants were emailed a link to a shorter 5–10-min survey and asked to complete a subset of these measures based on their experiences for that day. Participants received a \$25 gift card and those who completed all eight surveys were entered into a drawing for a \$100 gift card.

Sample 2 (validation sample). A new sample of 415 undergraduate students ($M_{\text{age}} = 20.11$, $\text{Range}_{\text{age}} = 18\text{--}41$, $SD_{\text{age}} = 2.14$) were recruited from classes across departments at two of the original universities to complete a one-time online survey. Four participants were excluded because their surveys were missing large amounts of data ($n = 2$) or they were drastically older than the rest of the sample ($n = 2$), reducing the total sample to 411 (61.1% European American/White, 12.7% Asian, 8.3% Black, 5.4%, Hispanic/Latino, 10.7% Mixed/Other; 76% female; 26% classified as “immigrants”). This validation sample had significantly fewer cultural minority-identified participants than did Sample 1 therefore, a portion of the European American subsample was randomly excluded to match the Sample 1 proportion of European Americans (35.5%) for validation procedures. To ensure reliable results, an SPSS algorithm was computed six times, producing six datasets, which produced similar results in analyses. The new Analytic Sample 2 comprised 245 participants ($M_{\text{age}} = 20.01$, $\text{Range}_{\text{age}} = 18\text{--}27$, $SD_{\text{age}} = 1.60$; 35.5% European American/White, 21.2% Asian, 13.9% Black, 9.0%, Hispanic/Latino, 18% Mixed/Other; 74% female; 41% “immigrants”).

Instrument construction. The CIDIM was designed to measure both CI and CV. In regard to the former, there are arguably multiple competing influences on one’s social interactions and behaviors each day, and we desired to isolate the relative influence of cultural identity. Thus, the CIDIM was designed as an ipsative measure based on similar existing measures of identity construction: On the Pie (Cowan & Cowan, 2001) and the Identity Pie (Ferguson, Hafen, & Laursen, 2010). Respondents to those prior measures assign a percentage of a figurative pie to relational roles or life domains, respectively, to reflect their prominence within their identity. Similarly, on a sliding scale ranging from 0% to 100%, CIDIM respondents rate the relative influence of their cultural identity on their interactions and behaviors compared with any other self-reported influences including other cultural identities with which they are less identified, other nonethnic identities (e.g., gender, college-educated), or “N/A” meaning random influences (e.g., weather). All self-reported influences on the CIDIM must add to 100%. To capture the day-to-day variability in cultural influence (i.e., CV), the CIDIM was designed for administration across multiple days. Accordingly, the CIDIM provides a CI score—a percentage representing the relative influence of one’s cultural identity on interactions and behaviors for that day—as well as two possibilities for computing CV: (a) statistically, via multilevel modeling; or (b) computationally, via a standard deviation score of the CI scores across multiple days (see Plan of Analyses section).

CIDIM instructions are as follows: “Please indicate how much [insert item] was influenced by each of the below ethnic/cultural identities today. (Percentages must sum to 100%).” Twelve CIDIM items were crafted to assess CI in two domains: social interactions (six items—the way one interacts with parents, siblings, friends, romantic partners/crushes, and coworkers, as well one’s choice of recreational companions), and behaviors (six items—choices regarding media, music, language, hobbies, eating, and appearance) See Figure 1 for samples of two CIDIM items. Item content was inspired by the friends, family, and dating domains of the Identity Pie (Ferguson et al., 2010), and by several domains from Harter’s Self-Perception Profile for Adolescents (Harter, 2012) including close friendship, romantic appeal, social competence, and physical appearance. CIDIM items regarding CI on media, music, language, and eating choices were added because these are salient daily activities of youth (Coyne, Padilla-Walker, & Howard, 2013) and behaviors in which individuals have the opportunity to engage/disengage when exploring ethnically related aspects of their cultural identities (Phinney, Romero, Nava, & Huang, 2001).

Measures

Sample 1, Day 1 only.

Cultural identification. Using a prompt adapted from Umaña-Taylor, Yazedjian, and Bámaca-Gómez (2004), participants were asked to select all ethnic/cultural groups with which they identified (see Appendix for full instructions). Overall, 80.6% selected one cultural identifier (77% of immigrants, 83% of nonimmigrants) and 19.4% selected more than one.

Ethnic identity and other group orientation. Participants completed the 12-item Multigroup Ethnic Identity Measure (MEIM; Roberts et al., 1999) for each cultural identification selected. The survey consisted of seven items for the Commitment scale ($\alpha = .90$; e.g., *I have a strong sense of belonging to my own ethnic group*) and five items for the Search scale ($\alpha = .73$; e.g., *In order to learn more about my ethnic background, I have often talked to other people about my ethnic group*). Participants also completed the six-item Other Group Orientation Scale (OGO; $\alpha = .78$; e.g., *I like meeting and getting to know people from ethnic groups other than my own*) from the same authors. Items were rated from 1 (*strongly disagree*) to 4 (*strongly agree*). After reverse scoring some items, mean scale scores were calculated. The highest MEIM commitment score was used to designate the target cultural identity of participants reporting more than one. There were no order effects of presentation of the MEIMs for participants endorsing multiple cultural identities; equal numbers of participants (40.4% each) were first presented with the MEIM corresponding to their target cultural identity as compared with those first presented with a MEIM referencing a different cultural identity.

Self-esteem. The 10-item Rosenberg Self-Esteem measure (Rosenberg, 1965) was administered ($\alpha = .86$; e.g., *On the whole, I am satisfied with myself*). Items are rated from 0 (*strongly disagree*) to 3 (*strongly agree*) and a mean score was calculated.

Socially desirable responding. Short Form A of the 11-item True/False Marlowe Crowne Social Desirability Scale (Reynolds, 1982) was administered and a sum score was calculated after

(a)

Instructions: Please indicate how much THE WAY YOU INTERACTED WITH YOUR FRIENDS was influenced by each of the below ethnic/cultural identities today. (Responses must add up to 100%).

Self-Reported Identities	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
Primary Cultural Identity: <u>French</u>	<div>X (50%)</div>									
Optional: Other Identity Please specify: <u>Education Level</u>	<div>M (across 8 days) = Cultural Influence (CI) ← X → SD (across 8 days) = Cultural Variability (CV) (50%)</div>									
Not Applicable (random unspecified influences, e.g., weather.)	<div>X (0%)</div>									
ID#122										

Instructions: Please indicate how much THE WAY YOU INTERACTED WITH YOUR PARENTS was influenced by each of the below ethnic/cultural identities today. (Responses must add up to 100%).

Self-Reported Identities	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
Primary Cultural Identity: <u>French</u>	<div>X</div> <div>(60%)</div>									
Optional: Other Identity Please specify: <u>Social Class</u>	<div>X</div> <div>(40%)</div>									
Not Applicable (random unspecified influences, e.g., weather.)	<div>X</div> <div>(0%)</div>									
ID#122										

(b)

Instructions: Please indicate how much THE WAY YOU INTERACTED WITH YOUR FRIENDS was influenced by each of the below ethnic/cultural identities today. (Responses must add up to 100%).

Self-Reported Identities	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
Primary Cultural Identity: <u>Korean</u>	X (100%)									
Optional: Other Identity Please specify: _____	X (0%)									
Not Applicable (random unspecified influences, e.g., weather.)	X (0%)									
ID#109										

Instructions: Please indicate how much THE WAY YOU INTERACTED WITH YOUR PARENTS was influenced by each of the below ethnic/cultural identities today. (Responses must add up to 100%).

Self-Reported Identities	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
Primary Cultural Identity: <u>Korean</u>	X (100%)									
Optional: Other Identity Please specify: _____	X (0%)									
Not Applicable (random unspecified influences, e.g., weather.)	X (0%)									
ID#109										

Figure 1. Sample Cultural Identity Influence Measure (CIDIM) item completed on Day 1 by (a) French-Identified Participant ID#122 and (b) Korean-Identified Participant ID# 109. See the online article for the color version of this figure.

reverse scoring some items (e.g., *I'm always courteous or kind even to people who are hard to get along with*).

Sample 1, Days 1–8.

Cultural influence and Cultural variability. Participants completed the Cultural Identity Influence Measure (CIDIM) which assesses CI—the extent to which cultural identity influences

participants' social interactions and behaviors (see Table 1 for items and the Results section for a detailed explanation). CI and CV scores (i.e., $CV = SD$ of CI scores) were computed for each domain for each participant. A CV_{Family} score was not calculated for participants who did not report that their cultural identity influenced their family interactions on >1 day of the study ($n =$

Table 1

Item Properties of the Cultural Identity Influence Measure (CIDIM) Factor Analyses

Item	<i>M</i> (i.e., % score)	<i>SD</i>	Corrected item- total correlation	Sample 1 EFA factor loadings		Sample 1 CFA standardized regression weights	Sample 2 CFA standardized regression weights
				Factor 1	Factor 2		
Factor 1 (Behavior and peer sociability; eigenvalue = 7.03)							
1. The way you interacted with your friends	23.93	26.87	.65	.86	.67	.95	.84
2. The way you interacted with your boyfriend/girlfriend/crush	16.79	25.47	.57	.70	.47	.76	.92
3. The friends you spent your free time with	22.61	26.21	.68	.81	.60	.83	.79
4. Your appearance	20.63	24.28	.61	.83	.47	.85	.64
5. Language (the way you talk)	29.82	28.06	.60	.78	.56	.82	.51
6. The music you listened to	25.01	28.64	.71	.79	.47	.82	.74
7. What you did in your free time	18.20	23.56	.64	.79	.48	.86	.68
8. The media you watched/used (e.g., TV, movies, videos, YouTube)	19.12	25.28	.55	.80	.51	.83	.79
9. The way you interacted with your parents	29.63	31.32	.61	.53	.98	.84	.74
10. The way you interacted with your siblings	17.99	26.41	.61	.59	.71	.86	.87

Note. Each item in the left column were inserted into the following instruction given to participants each day: "Please indicate how much [insert item] was influenced by each of the below ethnic/cultural identities today. (Percentages must sum to 100%)." All calculations presented in this table for Sample 1 use the mean percentage of each item across all days of the study.

22). Multilevel modeling (using HLM) was used to ensure validity of *SD* scores as measures of CV. Absolutized individual time slopes extracted from unconditional growth models within each domain were positively correlated with CV scores in the family domain, $r(220) = .61, p \leq .001$, and also in the peer domain, $r(242) = .47, p \leq .001$, and produced similar intercorrelations with study variables.

Ethnic identity salience and salience variability. A single item to assess ethnic identity salience was used (Yip & Fuligni, 2002). Each day, participants were asked "How [cultural identity] did you feel today?" Participants responded using a 7-point scale (0 = *not at all* to 6 = *extremely*; $M = 4.27$; $SD = 1.50$, respectively). Ethnic identity salience variability was computed as the standard deviation of the daily ethnic salience scores using the *SD* approach, and was operationalized using residual scores using the MLM approach. However, a score was not calculated for a small number of participants ($n = 24$) who did not report ethnic salience on >1 day of the study.

Interpersonal interaction quality. Each day, participants rated the quality of their interactions with family (one item) and peers (one item) on a 5-point scale (1 = *extremely positive* to 5 = *extremely negative*) and mean scores were calculated across the week. However, 27 participants indicated "N/A" for family interactions (many participants resided on the college campus away from family), and four students indicated "N/A" for peer interactions (some participants completed the study over Winter break when away from peers). These participants did not have scores.

Sample 2, Day 1 only.

Cultural influence and cultural variability. Participants completed the CIDIM with one modification: The single catch-all category of "other" influences on daily experiences was split into two categories, namely "other identities" (e.g., sexual orientation, social class) and "other factors" (e.g., weather, random events). There was no separate "N/A" category. Because this was a one-time administration of the CIDIM, CI was computed, but CV was not. In addition, two questions assessed the face validity of the

CIDIM and perceived agency involved in CI: (a) "How much did you intentionally control the amount of influence your cultural identity (the one you feel most strongly identified with) had on your life today?" (5-point scale: 1 = *not at all, I didn't think about my cultural identity* to 5 = *fully, I made deliberate decisions based on my cultural identity*); and (b) "Compared with yesterday, did you choose to emphasize or de-emphasize your cultural identity today?" (0 = *no*, 1 = *yes*). Respondents selecting "yes" to (b) were also asked to provide a qualitative response to this follow-up question: "Please explain what happened or why you chose to emphasize or de-emphasize your cultural identity today."

Ethnic identity. Participants completed the seven-item MEIM Commitment Scale (Roberts et al., 1999) for each cultural identification they selected ($\alpha = .887$). As with Sample 1, the highest MEIM commitment score was used to designate the target cultural identity of participants reporting more than one cultural identity. To cross-validate this method, Sample 2 participants also responded directly to the question "If you checked more than one cultural identity please tell us which identity you identify with MOST STRONGLY." Agreement between participants' self-reported primary cultural identification and the MEIM-computed target identity was excellent (Cohen's $kappa = .95, p < .001$); therefore MEIM-computed target identities were retained in both samples.

Plan of Analysis

Missing data analysis. There were legitimate and expected missing data on the Sample 1 CIDIM (because participants were allowed to indicate that their cultural identity did not influence social interactions or behaviors on any given day) and also on the interpersonal interactions measure (because participants were allowed to indicate that they had no interactions with family or peers on any given day). Thus, the Analytic Sample 1 varies from 188–242 across analyses. A missing values analysis using the remaining study variables collected on Day 1 of Sample 1 (i.e., besides CIDIM) showed

that 0.22% of values were missing and no variables were missing >2% values. For these reasons, data imputation was not performed.

Main analyses. Hypothesis 1 ([a] 2-factor CIDIM structure, [b] evidence of CI and CV) was assessed by computing exploratory factor analyses (Sample 1) and confirmatory factor analyses (Samples 1 and 2), and by observing whether CI and CV means were appreciably higher than zero. The remaining hypotheses were tested in Sample 1, only using two different analytic methods to operationalize the variability in CI across days. First, multilevel modeling (MLM) was used by modeling the residual variances of CI to fully utilize the daily reports nested within individuals (Hoffman, 2007). The second, more parsimonious, analytic method captured trait-level, intraindividual variability in CI by computing the standard deviation (SD) of CI scores across days for each individual (i.e., high scores indicate a general tendency to experience more day-to-day variability in one's CI; Bolger, Davis, & Rafaeli, 2003).

MLM approach. Between-person and within-person variation in self-reported CI was examined using multilevel models estimated in SAS PROC MIXED (Hoffman, 2007). Time was the only variable allowed a random effect. All between-person predictors were grand-mean centered and all within-person predictors were person-centered. For Hypothesis 2 (associations with criterion measures), MLM examined CI level (fixed linear effects of predictors on CI) and stability (operationalized by the residual variance in CI) in each domain, and individual differences in that level/stability based on MEIM Commitment, MEIM Search, OGO, Social Desirability, and Age. Based on hypotheses, MEIM Commitment was used in models predicting level of CI and MEIM Search was used in models predicting stability of CI. We built this model from the simplest, random intercept null model to the final model, which included the criterion variable, time, and time squared as fixed effects, and a random intercept, and random effects of time. The null model showed that 52.2% of the total variance in CI_{family} was between-person whereas 47.8% was within-person; and 77.9% of the total variance in CI_{peers} is between-person and 22.1% was within-person, verifying the need for MLM. Criterion measures were mean-centered and used as predictors in analyses.

In order to examine Hypothesis 3—covariation of CI with self-esteem and interpersonal interaction quality across days after accounting for ethnic salience—the effect of CI was separated into two variables. First, the between-person effect was represented by the individual's mean across the 8 days (for both self-esteem and interpersonal interaction quality) and second, the within-person effect was represented by the individual's deviation from his or her observed mean across the 8 days (only for interpersonal interaction quality because self-esteem was only measured on Day 1). Models differing in fixed effects were compared using maximum likelihood (ML), and models differing in error structure or random effects only were compared using restricted maximum likelihood (REML). Nested models were compared by their model deviances ($-2 \log$ likelihood values) as a function of the difference in the number of parameters estimated in each, and non-nested models were compared by information criteria. Fit statistics used included $-2 \text{ Res Log Likelihood}$, AIC, and BIC, smaller values on each indicating better fit.

SD approach. For Hypothesis 2 (associations with criterion measures), bivariate correlations assessed the association among

CIDIM scores and MEIM commitment and search, OGO, ethnic identity salience and salience variability, social desirability, and age. Bivariate correlations among CV in both domains, self-esteem, and interpersonal interaction quality with family and peers, respectively, were examined as a preliminary strategy to determine the most relevant variables to include in the subsequent regression analyses testing Hypothesis 3. Then, three regression analyses were computed to assess associations between CV (predictor) and the three well-being outcomes, separately. Because individuals with an immigrant, ethnic minority, or bi-/multicultural identity are likely to have greater cultural exposure/awareness, which has known associations with well-being, these variables (i.e., dichotomous dummy coding) were entered as covariates into Step 1 of the regression. Those covariates with significant effects were retained in analyses. The remaining predictor variables (ethnic salience, ethnic salience variability, and CV—family or peer domain) were entered together in Step 2 to assess the unique predictive ability of CV scores. Ethnic salience and ethnic salience variability shared negligible variance ($R^2 = .02$); therefore, there were no concerns regarding multicollinearity. For brevity, only statistically significant effects of $p \leq .05$ are reported below.

Qualitative responses. Content coding was conducted on the qualitative responses from Sample 2 (Saldana, 2009). A coding scheme to categorize participant reasons for CV was created after examination of themes within all participant responses ($n = 411$); the full sample was used to develop a coding scheme that best captured the range of responses. Response patterns appeared to fit some of the subscales on the collective self-esteem measure (Luhtanen & Crocker, 1992), which is in turn informed by social identity theory (Turner, 1982). These conceptual frameworks were then used to further develop the scheme. Each response in the Analytic Sample 2 ($n = 245$) was then assigned a category code used to analyze frequency of responses and ethnic group differences (i.e., White vs. non-White).

Results

Hypothesis 1a: Structural Validity of the CIDIM

Sample 1. A CFA was first used to assess the expected bifactor structure of the CIDIM, using the mean score of each item across the 8 days: (a) social interactions, six items; and (b) behaviors, six items. Item means were used to increase the reliability of scores across the week. CIDIM items had low variance due to numerous (expected) responses of 0%, causing a non-normal distribution. To account for this, principal axis factoring was selected for EFAs (Fabrigar, Wegener, MacCallum, & Strahan, 1999) and asymptotically distribution-free estimation² (ADF; Byrne, 2010) was selected for CFAs. The hypothesized model had unacceptable fit; therefore, an EFA was performed with a promax rotation. Scree plot and eigen values >1 revealed two factors: a two-item *family interaction* factor (Cronbach's alpha and Spearman-Brown's $\rho = .74$) an eight-item *behavior and peer sociability* factor (Cronbach's alpha = .91; see Table 1 for the 10 retained items, descriptive

² With 24 estimated parameters, our sample of 242 met the recommended ADF requirement of 10 cases per parameter (see Byrne, 2010, p. 105).

statistics, item-total correlations; .55 and above are acceptable per Nunnally, 1978), and factor loadings (.67 and above in structure and pattern matrices are excellent per Zwick & Velicer, 1982). The items regarding eating and coworker interactions were dropped due to notable cross-loadings across factors (.63 and .63, .59 and .42, respectively), and having the lowest loadings across items. Apparently, cultural identity does not influence eating decisions in the same way as it does other peer-focused behaviors, possibly due to limited options in the college setting; nor does it influence interactions with coworkers in the same way as it influences other social interactions, possibly because 47% of the participants were not employed. This two-factor EFA-derived structure was then tested in a second CFA, revealing excellent fit across four indicators: CMIN/DF = 1.162, GFI = .922, CFI = .972, RMSEA = .026.³ Bivariate correlations between CI_{Family} on Day 1 and Day 8 were significant ($r(242) = .37, p < .001$), and the same was true for $CI_{\text{Behavior/Peers}}$ ($r(242) = .38, p < .001$).⁴

Sample 2. A CFA was then used to confirm the fit of this two-factor EFA-derived structure in Sample 2, revealing adequate fit across the four indicators: CMIN/DF = 1.650, GFI = .937, CFI = .912, RMSEA = .051 (see Table 1). For CI_{Family} , Cronbach's alpha and Spearman-Brown's $p = .74$, and for $CI_{\text{Behavior/Peers}}$, Cronbach's alpha = .88.

Hypothesis 1b: Evidence of Cultural Influence and Cultural Variability

Sample 1. Descriptive statistics and intercorrelations for study measures are displayed in Table 2. Hypothesis 1 was partially supported: CI ($M_s = 22.66$ and 23.66) and CV ($M_s = 9.36$ and 17.95 using the SD approach) in the two domains were notably higher than zero although different CIDIM domains emerged than expected (i.e., family and peers instead of social and behavioral). As reported earlier, within-person variation in MLM null models was 22% & 48% across the two domains, providing additional evidence of CV. Descriptive analyses showed that CI_{Family} and $CI_{\text{Behavior/Peer}}$ were modest and equivalent in size (n_s , Cohen's $d = .04$); however, CV_{Family} exceeded $CV_{\text{Behavior/Peer}}$, $t(219) = 9.37, p < .001, d = .75$. In addition, ethnic minority participants had higher CI_{Family} scores than did White participants ($M_s = 26.85, SD = 25.66$ vs. $M = 15.59, SD = 22.72$), $F(1, 218) = 11.12, p < .001, d = .48$, and also higher CV_{Family} scores than did White participants ($M_s = 19.52, SD = 13.72$ vs. $M = 15.22, SD = 14.88$), $F(1, 218) = 4.70, p < .05, d = .30$. This finding is consistent with prior research showing that ethnic identity is more prominent and important to U.S. youth of color (Roberts et al., 1999).

Sample 2. Hypothesis 1 was supported. CI in both domains were notably higher than zero. CI across domains also differed in size: CI_{Family} exceeded $CI_{\text{Behavior/Peer}}$ ($M_s = 34.40$ and $27.71, SD_s = 27.87$ and 20.31 , respectively; $t(244) = 5.29, p < .001, d = .34$). Ethnic minority participants had higher scores in CI_{Family} and $CI_{\text{Behavior/Peers}}$ ($M_s = 45.36$ and $32.92, SD_s = 27.45$ and 20.92) than did White participants ($M_s = 22.36$ and $22.26, SD_s = 23.48$ and 18.26 ; $F_s(1, 239) = 48.35$ and $17.59, p_s < .001, d_s = .90$ and $.54$), respectively.

Summary. Overall, the results from both samples are largely consistent and support Hypothesis 1.

Hypothesis 2: CI and CV Are Associated With Criterion Measures

For brevity, only final MLM models are presented in the tables; the fit statistics of all final models are better than previous models.

Sample 1.

MLM approach.

Convergent/concurrent validity. All hypothesized associations between the level and stability of CI and multiple criterion variables were supported for one or both CI domains. Table 3 displays parameter estimates for MLM models for each independent variable (i.e., MEIM Commitment, Socially Desirable Responding, OGO). Time and Time-squared were first added to each model as fixed effects to test for linear and nonlinear effects of day on CI_{Family} and $CI_{\text{Behavior/Peers}}$. Time and Time-squared were significant for CI_{Family} only (neither was significant for $CI_{\text{Behavior/Peers}}$), indicating that the change in CI_{Family} over time is not linear, but U-shaped. Time was, therefore, treated as a random variable in CI_{Family} analyses (along with intercept), allowing the effects of time on CI_{Family} to vary from person to person; but it was excluded from $CI_{\text{Behavior/Peers}}$ analyses.

In regard to the level of CI, the fixed linear effects of MEIM commit on CI_{Family} and CI_{Peers} were positive and significant, as was the fixed effect of socially desirable responding on CI_{Family} . The fixed effect of OGO on $CI_{\text{Behavior/Peer}}$ was significant and negative as expected (see Table 3). In regard to the stability of CI, the variances of the intercept and slope were positive and significant for CI_{Family} and $CI_{\text{Behavior/Peer}}$, indicating that the level of both variables at Day 1 and the effect of time on both variables differed between participants (see Table 4). Moreover, MEIM search had a positive, significant effect on the residuals for CI_{Family} , indicating that higher levels of MEIM search led to more within-person variance in CI_{Family} (although the same was not true for CI_{Peers} ; see Table 4). Finally, the between and within-person effects of CI_{Family} and $CI_{\text{Behavior/Peer}}$ on ethnic salience were significant; the Between \times Within interaction terms were nonsignificant and removing them from the models improved model fit (see Table 5).

Discriminant validity. As hypothesized, the fixed effects of age and socially desirable responding on mean levels of CI_{Family} and CI_{Peers} were not significant.

SD approach.

Convergent/concurrent validity. All hypothesized associations between the CIDIM and the MEIM were supported in one or both domains (see Table 2). CI_{Family} and $CI_{\text{Behavior/Peer}}$ were positively correlated with MEIM commitment, and CV in one or both domains

³ The following cut-offs are recommended for good or excellent fitting SEM models: CMIN/DF < 2, GFI > .90, CFI > .95 (> .90 marginally adequate), RMSEA < .05 (< .08 reasonable fit; see Bollen, 1989 and Byrne, 2010 for details). To ensure validity of the model fit across ethnic/cultural groups in Sample 1, CFAs were computed to confirm the factor structure among the Asian, Black, and White participants, separately (N was too small in the other groups). The CIDIM factor structure replicated adequately to excellently in all groups.

⁴ We considered a second-order model, but it did not seem to be theoretically appropriate. Moreover, when attempted, this model would not converge. To explore discriminant validity of the two factors ($r = .60$ Sample 1 and $.71$ sample 2), we tested a one factor model in Sample 1 and found that the fit statistics for the two-factor model were better. This supports the uniqueness of the two factors despite being correlated.

Table 2
Descriptive Statistics and Intercorrelations Among Study Variables (Sample 1)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	M (SD)
1. Ethnicity ^a	1															n/a
2. Immigrant status ^b	.59***	1														n/a
3. Multiple cultural identities ^a	.37***	.08	1													n/a
4. CI-family interaction	.24***	.07	-.04	1												23.66 (26.19)
5. CI-behavior and peer sociability	-.01	-.13 ⁺	-.09	.60***	1											22.66 (23.22)
6. CV-family interaction	.15*	.07	.01	.48***	.45***	1										17.95 (14.26)
7. CV-behavior and peer sociability	-.07	-.05	-.06	.25***	.46***	.44***	1									9.36 (7.59)
8. Ethnic identity commitment	.22***	.15*	.07	.24***	.25***	.14*	.15*	1								3.16 (.56)
9. Ethnic identity search	.41***	.27***	.14*	.24***	.17*	.14*	.07	.67***	1							2.81 (.59)
10. Other group orientation	.05	-.06	.15*	-.05	-.17**	-.00	-.09	-.09	.13*	1						3.27 (.48)
11. Ethnic identity salience	.07	-.07	-.06	.34***	.44***	.16*	.31***	.47***	.32***	-.13*	1					3.61 (1.44)
12. Ethnic identity salience variability	.02	.06	.06	-.06	-.13 ⁺	.03	.05	-.28***	-.15*	.03	-.16*	1				.82 (.56)
13. Self-esteem	-.06	-.15*	-.16*	.18**	.22***	.10	.16*	.26***	.03	.10	.24***	-.04	1			2.01 (.560)
14. Family interpersonal interaction quality	.07	.02	-.03	.19**	.13 ⁺	.19**	.08	.08	.19**	.11	.14*	.14 ⁺	.14*	1		3.82 (.73)
15. Peer interpersonal interaction quality	.04	-.01	-.04	-.06	-.01	-.06	-.11 ⁺	.07	.06	.06	-.00	.09	.15*	.20**	1	3.73 (.53)
16. Socially desirable responding	.10	.04	.01	.13*	.10	.03	.03	.09	.08	-.03	.12 ⁺	-.18**	.03	.05	.15*	5.00 (2.36)

^a 0 = Non-Hispanic White; 1 = Ethnic Minority; ^b 0 = Nonimmigrant; 1 = Immigrant/Child of Immigrant; ^c 1 = selected only one cultural identity category; 2 = selected 2 or more cultural identity categories. CI = cultural identity influence; CV = cultural variability; Means reported represent the average of the variable across all available days of the study. + $p \leq .05$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

was positively correlated with MEIM search. Also supporting expectations, CI_{Family} and $CI_{Behavior/Peer}$ were positively correlated with ethnic salience, CI_{Family} was positively correlated with social desirability, and $CI_{Behavior/Peer}$ was significantly and negatively correlated with OGO.

Discriminant validity. As hypothesized, CI scores were not correlated with age and CV scores were not correlated with social desirability in either domain.

Sample 2.

Descriptive and qualitative approach.

Convergent/concurrent and face validity, and cross-validation of CI and CV. As hypothesized, both CI domains were correlated with MEIM commitment, MEIM search, and ethnic salience, replicating the findings from Sample 1 (see Table 6). Responses to the 5-point single item assessing intentional control was used to cross-validate the agentic nature of CI (i.e., "How much did you intentionally control the amount of influence your cultural identity had on your life today?") indicated some intentionality ($M = 3.12$, $SD = 1.03$) with stronger effects for ethnic minority than White participants ($M = 3.36$ vs. 2.83 , $SD = .87$ vs. 1.12 ; $t(239) = -.560$, $p < .001$). Intentionality was correlated with both CI_{Family} and $CI_{Behavior/Peer}$ ($r_s = .209$ and $.240$, $p_s \leq .001$).

Forty-one participants (16.7%) indicated emphasizing/deemphasizing cultural identity the day of the survey (i.e., cross-validating CV); White and non-White participants were equally likely to endorse this agentic CV: $\chi^2(1, N = 241) = 3.43$, $p = .064$. Frequency of response by category and examples of reasons given for CV are displayed in Table 7. Participants most frequently adjusted CI for collective self-esteem reasons (e.g., feeling pride), followed by feeling like an outgroup member. Only ethnic minority respondents cited the latter reason and most (62.5%) decreased CI rather than increasing it. Reasons related to social relationships/interactions were least often cited.

Summary. Overall, two analytic methods and two samples provided near identical results, supporting the hypotheses regarding convergent and discriminant validity of the CIDIM, and providing evidence of face validity. Additionally, Sample 2 participants reported agentic control over CI and endorsed CV for multiple reasons.

Hypothesis 3: Cultural Variability Uniquely Predicts Self-Esteem and Interaction Quality

MLM approach.

Self-esteem. Between-person CI_{Family} , $CI_{Behavior/Peer}$ and between-person ethnic salience were entered into a MLM model to simultaneously predict self-esteem. $CI_{Behavior/Peer}$ and ethnic salience had significant, positive effects and the best fitting model was achieved after excluding CI_{Family} (see Table 8). Given that self-esteem was a between-person variable, only between-person covariation analyses were possible.

Interpersonal interaction quality. As hypothesized, between-person and within-person CI_{Family} had significant, positive effects on family interaction quality after accounting for the (nonsignificant) within-person effects of ethnic salience in each model. However, the effects of $CI_{Behavior/Peer}$ on interaction quality were non-

Table 3

Parameter Estimates for Multilevel Models for Level of Cultural Influence (CI) as a Function of Ethnic Identity Commitment, Socially Desirable Responding, and Other Group Orientation (Sample 1)

	Random intercept and slope, no predictor		Random intercept and slope, MEIM commitment		Random intercept and slope, socially desirable responding		Random intercept and slope, other group orientation	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Predicting CI_{Family}								
Intercept	37.06***	2.53	37.02***	2.49	37.05***	4.24	36.78***	11.43
Time	-6.62***	1.12	-6.56***	1.12	-6.64***	1.12	-6.47***	1.12
Time-squared	.58***	.12	.57***	.12	.58***	.12	.57***	.12
MEIM commitment/socially desirable responding/other group orientation (fixed linear effect)			10.28***	2.85	1.50*	.68	-2.26	3.40
Residual variance	445.18***	19.77	445.06***	19.76	445.45***	19.79	444.75***	19.79
Random intercept variance	566.62***	83.50	519.19***	79.16	559.69***	83.00	571.00***	84.08
Random slope variance (time)	7.36***	2.04	7.27***	2.03	7.32***	2.04	7.25***	2.03
Random intercept, random slope covariance	-17.76	10.70	-14.51	10.35	-18.29	10.67	-17.52	10.71
-2 Res Log Likelihood, AIC, BIC	13599.2, 13607.2, 13621.1		13582.6, 13590.6, 13604.6		13593.3, 13601.3, 13615.2		13537.3, 13545.4, 13559.3	
Predicting $CI_{Behavior/Peers}$								
Intercept	22.65***	1.49	23.38***	1.34	20.32***	3.27	51.55**	9.44
MEIM commitment/socially desirable responding/other group orientation (fixed linear effect)			10.62***	2.39	.60	.59	-8.62*	2.86
Residual variance	146.59***	5.19	129.53***	4.97	129.52***	4.97	129.67***	4.99
Random intercept variance	517.89***	49.04	361.36***	41.45	397.56***	44.79	381.55**	43.39
-2 Res Log Likelihood, AIC, BIC	15191.5, 15195.5, 15202.4		15092.3, 15100.3, 15114.3		15113.1, 15121.1, 15135.1		15039.4, 15047.4, 15061.3	

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

significant although the between-and within-person effects of ethnic salience were significant (see Table 8).

SD approach.

Self-esteem. There was no effect of ethnic identity salience variability on self-esteem, and although there was a significant and

positive correlation between $CV_{Behavior/Peer}$ and self-esteem, it had no unique predictive effect. CV_{Family} was not included in this analysis due to nonsignificant relations with self-esteem.

Interpersonal interaction quality. Ethnic identity salience variability and CV_{Family} both had unique and positive effects on

Table 4

Parameter Estimates for Final Multilevel Model for Stability of Cultural Influence (CI) as a Function Of Ethnic Identity Search (Sample 1)

	Estimate	SE
Predicting CI_{Family}		
Intercept	24.37***	1.59
Ethnic identity search (fixed linear effect)	8.81**	2.70
Residual variance	453.76***	20.13
Random intercept variance	538.65***	82.40
Random slope variance (time)	9.12***	2.20
Random intercept, random slope covariance	-21.12	11.11
Ethnic identity search linear effect on residual	.24***	.07
-2 Res Log Likelihood, AIC, BIC	13614.5, 13624.5, 13614.5	
Predicting $CI_{Behavior/Peers}$		
Intercept	23.37***	1.37
Ethnic identity search (fixed linear effect)	6.86**	2.32
Residual variance	129.24***	4.96
Random intercept variance	381.31**	43.20
Random slope variance (time)	2.89***	.57
Random intercept, random slope covariance	6.68	3.54
Ethnic identity search linear effect on residual	-.07	.07
-2 Res Log Likelihood, AIC, BIC	15101.7, 15111.7, 15101.7	

** $p \leq .01$. *** $p \leq .001$.

Table 5

Parameter Estimates for Final Multilevel Model for Covariation of Cultural Influence (CI) With Salience (Sample 1)

	Estimate	SE
Intercept	3.19***	.12
Between-person CI_{Family}	.02***	.01
Within-person CI_{Family}	.01*	.01
–2 Res Log Likelihood, AIC, BIC	4605.0, 4609.0, 4616.0	
Intercept	2.99***	.12
Between-person $CI_{Behavior/Peers}$.03***	.01
Within-person $CI_{Behavior/Peers}$.01***	.01
–2 Res Log Likelihood, AIC, BIC	4572.7, 4576.7, 4583.6	

* $p \leq .05$. *** $p \leq .001$.

family interaction quality. In addition, $CV_{Behavior/Peers}$ had a unique and negative effect on peer interaction quality whereas ethnic identity salience and ethnic identity salience variability were not significant predictors. CV_{Family} was not included in these analyses due to nonsignificant relationships with both family and peer interaction quality (see Table 9 for full regression results and effect sizes).

Summary. Results using the two analytic methods supported the significant effect of CV on personal and interpersonal well-being after accounting for other aspects of cultural identity dynamism, although results across methods were more consistent for CI_{Family} than for $CI_{Behavior/Peer}$. Both analytic methods found a positive effect of CV/CI stability on family interaction quality, but the MLM method found a nonsignificant effect on peer interaction quality whereas the *SD* approach found a significant, negative effect.

Discussion

Emerging adults must consider how they view themselves culturally and how they should present themselves in increasingly culturally complex societies (Triandis, 1989). We drew on theories of identity alternation and ethnic identity salience to argue that individuals play up/down the influence of their cultural identity (CI) on daily interactions and behaviors, and the resulting cultural variability (CV) is an overlooked adaptive strategy. The CIDIM was presented as a valid, reliable, and useful tool to assess CI and CV, and both constructs are evident in two diverse samples of

emerging adults, especially among ethnic minority youth. Additionally, CI and CV are domain-differentiated and CV has different effects on interpersonal interaction quality with family versus peers across two different analytic methods of capturing CV.

Cultural Influence: Domain-Differentiated, Dynamic, and Distinct

Using two samples and two methods of analysis, namely multilevel modeling (MLM) and standard deviation (*SD*) scores in hierarchical regression analyses, the CIDIM demonstrated strong construct, convergent, and discriminant validity, as well as domain sensitivity, and reliability. Although demonstrating a modest degree of face validity, the CIDIM showed minimal vulnerability to socially desirable responding (CV was completely unassociated with socially desirable responding, $r = .03$). CV was effectively derived from CI scores on the CIDIM using a sophisticated MLM approach and a simple *SD* approach, with near-identical results across the two approaches. The sole difference between findings will be discussed in greater detail in the next section. Given that the parsimonious *SD* method of operationalizing CV performed with equal accuracy, greatly superior efficiency, and does not require specialized statistical expertise, we recommend this approach to other researchers.

CI and CV are domain-differentiated into family interactions (my cultural identity influences how I am with my parents and siblings) and behavior/peer sociability (my cultural identity influences what I do on my own or with friends and how I am with friends). Cultural identity exerted equal or more influence on family than on peer interactions, overall; and, there was more day-to-day variability in CI for family interactions. This is consistent with Yip's (2005) findings that family cues an increase in the salience of ethnic identity for emerging adults. Family scripts and role expectations often demand conformity to cultural identity norms with family (Ting-Toomey, 2005). Therefore, to maintain proper familial roles in interactions with parents/elders, more intense/frequent CI displays are needed compared with college peer interactions, resulting in higher CV_{Family} (see Kiang & Fuligni, 2009; Orbe, 2008). Although emerging adults spend more time with peers versus family (Zarrett & Eccles, 2006), which allows more frequent opportunities for CV with peers, peer group members are similar in age and tend to be more similar in cultural orientation (Hamm, 2000), which diminishes the need for CV with peers.

Table 6

Descriptive Statistics and Intercorrelations Among Study Variables (Sample 2)

Variables	1	2	3	4	5	6	7	8	<i>M (SD)</i>
1. Ethnicity ^a	1								n/a
2. Immigrant status ^b	.497***	1							n/a
3. Multiple cultural identities ^c	–.155*	–.042	1						n/a
4. CI-behavior and peer sociability	.262***	.092	–.215***	1					27.71 (20.31)
5. CI-family interaction	.410***	.251***	–.222***	.705***	1				34.40 (27.89)
6. Ethnic identity commitment	.345***	.154*	–.100	.225***	.316***	1			3.09 (.55)
7. Ethnic identity search	.2409**	.175**	–.054	.302***	.321***	.663***	1		2.81 (.60)
8. Ethnic Identity Salience	.038	–.022	–.084	.377***	.357***	.354***	.279***	1	4.82 (1.61)

^a 0 = Non-Hispanic White; 1 = Ethnic Minority; ^b 0 = Nonimmigrant; 1 = Immigrant/Child of Immigrant; ^c 1 = selected only one cultural identity category; 2 = selected 2 or more cultural identity categories; CI = cultural identity influence.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Table 7

Why did You Emphasize/De-Emphasize Your Cultural Identity? Frequency of Coded Open-Ended Responses and Examples (Sample 2)

Category	Frequency (% of <i>n</i> = 245)			Example
	Ethnic minority	White	Total	
Collective self-esteem: pride in group membership, shame, personal identity ^a	7 (14.0%)	4 (15.8%)	11 (29.7%)	I chose to emphasize my cultural identity because I think it is important to acknowledge that your culture affects how you live your life and that it is not a bad thing to be positively influenced by my own culture. (#323, White Jewish)
Out-group membership: minority/marginalized status or assimilation	8 (14.0%)	0 (0%)	8 (21.6%)	I have to suppress my blackness. It is not socially acceptable, especially given recent events in the news and the white opinion on them. (#514, biracial) There were times where I wanted to get adapt to this American environment to make friends and get to know more culture so I tend to de-emphasize more of my Asian identity by wearing American clothes or watching American stuffs. (#238, South Korean)
Primed by classroom experience the current research survey, or other (e.g., activity participation)	4 (7.0%)	7 (12.3%)	7 (18.9%)	I chose to emphasize my cultural identity today by thinking about my past experiences that connected to my background in order to write a paper on my experiences in the schooling system. (#515, Native American)
Miscellaneous/other, personal reasons	9 (15.8%)	5 (8.8%)	6 (16.2%)	I chose to emphasize my cultural identity today because I don't do it much. Today I had a chance and took it to emphasize my cultural identity. (#558, Mexican American)
Social relationships: facilitation or context-driven	3 (5.2%)	4 (7.0%)	5 (13.5%)	My mom is visiting me. Whenever family visits I play up my cultural identity. (#252, Mexican American) I chose to de-emphasize my appearance to avoid seeming unapproachable. (#115, Black)

^a Collective self-esteem and personal identity are considered two distinct components of self-concept by Turner (1982) whereas identity is a subscale on the Collective Self-Esteem Scale by Luhtanen & Crocker (1992).

These domain distinctions illuminate the agency that individuals have over CI. Rather than holding CI high or low across all facets of daily life, emerging adults demonstrate some intentionality and cognitive efficiency by focusing CI adjustments within the specific relational domains that call for changes. As expected, our findings also confirm that CI and CV are somewhat positively related to stable (ethnic identity commitment and search) and dynamic (ethnic identity salience) dimensions of cultural identity, but they are largely distinct constructs: CI ($R^2 = .03-.19$) and CV ($R^2 = .00-.10$) shared small amounts of variance with the MEIM subscales and ethnic salience.

Participants' open-ended responses regarding why they chose to emphasize/de-emphasize their cultural identity further support our interpretations that emerging adults consciously adjust CI for a number of reasons. Some of these reasons pertained to facilitating positive interaction quality with peers and family. However, the majority of reasons for adjusting CI revealed a desire to control the influence of culture on cultural identification (how much I feel like/identify as X) and expression of cultural self (how much I show I am X) in response to the contextual and ecological environment. CI adjustment was done when contextual factors were uncontrollable (e.g., racism), imposed (e.g., a course assignment on one's academic history), or self-selected (e.g., attending a rap concert). While only a handful of participants articulated reasons for emphasizing/de-emphasizing their identities, intentionality was reported, and indeed desired, by participants. Thus, CV appears to serve an important purpose in the cultural identity development of emerging adults.

Cultural Variability: Good With Families, Bad With Peers?

Prior research suggests that individuals rely to different degrees on influences from their cultural identity to understand and interpret interactions with others (i.e., we use cultural frames to understand our environment; Fitzsimmons, 2009), and to adjust cultural and ethnic identity accordingly (e.g., Howarth, Wagner, Magnusson, & Sammut, 2014; Yip, 2005). The current study finds that the ability to adjust cultural identity informs the quality of our interpersonal interactions, but this varies by domain: CV is positively associated with high quality family interactions but either unassociated (per MLM approach) or negatively associated (per *SD* approach) with high quality peer interactions. This finding can be interpreted in light of the evidence that CV is greater in the family domain than the behavior/peer domain. Given that the family context merits more adjustment to CI in order to meet family role demands, a better ability to do so (high CV) would yield higher quality interactions. Higher CV likely results in more satisfying and less conflictual family interactions overall as emerging adults play up/down CI in interactions across different family members such as parents and siblings—including adjusting their display of filial piety (Chao & Tseng, 2002), physical closeness, expressed affection, and use of formality in language.

On the other hand, CV has neutral (MLM results) or negative associations (*SD* results) with quality of peer interactions. Conforming more closely to group norms from day to day may foster smoother peer interactions because more integrated identities are

Table 8

Parameter Estimates for Final Multilevel Model for Covariation of Cultural Influence (CI) With Self-Esteem and Interpersonal Interaction Quality After Accounting for Ethnic Salience (Sample 1)

	Estimate	SE
Predicting self-esteem		
Intercept	1.75***	.03
Between-person CI _{Behavior/Peers}	.01***	.01
Between-person ethnic salience	.06***	.01
–2 Res Log Likelihood, AIC, BIC	2322.8, 2324.8, 2330.4	
Predicting family interaction quality		
Intercept	3.67***	.07
Within-person/Between-person CI _{Family} ^a	.01***	.01
Within-person ethnic salience	.04	.02
–2 Res Log Likelihood, AIC, BIC	1793.3, 1797.3, 1804.2	
Predicting peer interaction quality		
Intercept	3.74***	.03
Within-person/Between-person CI _{Family} ^a	.01	.01
Within-person ethnic salience	.05	.02
–2 Res Log Likelihood, AIC, BIC	1777.4, 1781.4, 1788.3	

^a Separate analyses were computed for between-person and within-person variables but results were practically identical. Thus, results depicted here pertain to the variable listed first before the “/” in each row.

** $p \leq .01$. *** $p \leq .001$.

associated with greater peer acceptance (Rutland et al., 2012). CV may be viewed as attempts to alternate identity, which may be detrimental in the peer context given that peers tend to police the boundaries of social identities, so that they can retain a strong sense of their collective identity and peer group culture (Nguyen &

Brown, 2010). Moreover, CI may be de-emphasized in response to negative perceptions of one’s cultural identity from peers, such as downplaying one’s minority identity when it is viewed as threatening or undesirable. Additionally, whereas CV may be adaptive when interacting with different family members of varying statuses to have positive interactions (e.g., adjusting Spanish language formality by using “usted” vs. “tú” with parents), there is less need for CV with peers to smooth interactions. In addition to domain differences, these findings also point to the distinctiveness of CV from ethnic identity salience variability: Salience variability increases in the peer context (Yip, 2005), whereas CV may require dampening in order to maintain positive peer relationships.

Limitations and Future Research

This study contributes to our understanding of the dynamics of cultural identity, but there are some limitations. First, self-report can be limiting as participants may not be fully conscious of the extent to which their daily interactions and behaviors were impacted by cultural identities and racialized perceptions of their ethnic identities. However, Fitzsimmons (2009) found that cultural primes did not explain cultural identity orientations, but that instead, participant *report* of experiencing cultural frame-switching was a better predictor. Further, our examination of participant reports revealed that some individual agency underlies shifts in CI and that it is somewhat of a conscious process. Asking participants was a good way to begin exploring the new construct of CI and the reasons for CV reveal potential for further examination of context and motivating factors for CV.

Given inconsistent findings in this study regarding the adaptiveness of CV with peers across analytic approaches, future research can further explore this issue (i.e., is it neutral or positive?). In addition, the reasons underlying CV merits further research focus-

Table 9

Cultural Variability Predicting Self-Esteem and Interaction Quality Across Family and Peer Domains (Sample 1)

Predictors	Outcomes	
	β	SE_b
Self-esteem		
Step 1: $R^2 = .03$, $F(1, 216) = 6.50^*$		
Immigrant status ^a	–.17*	.06
Step 2: $R^2 = .09$, $R^2\Delta = .06$, $F(3, 213) = 5.13^{**}$		
Immigrant status ^a	–.15*	.06
Ethnic identity salience	.20**	.02
Ethnic identity salience variability	–.01	.05
Cultural variability, behavior and peer sociability	.09	.01
$R^2 = .07$, $F(3, 184) = 4.69^{**}$		
Ethnic identity salience	.13	.04
Ethnic identity salience variability	.16*	.09
Cultural variability, family interactions	.17*	.00
$R^2 = .03$, $F(3, 213) = 1.98$, $p = .118$		
Ethnic identity salience	.08	.03
Ethnic identity salience variability	.10	.06
Cultural variability, behavior and peer sociability	–.15*	.01

^a Nonimmigrant = 0; Immigrant/Child of immigrant = 1. Only significant covariates are included in Step 1. Immigrant Status was the only significant covariate, and only for predicting self-esteem. The only major predictors included (besides covariates) were those with significant/marginally significant associations with outcomes in bivariate correlations (see Table 2).

* $p \leq .05$. ** $p \leq .01$.

ing on the peer domain. There is also opportunity for creative experimental/observational research to explore the correspondence between self-reported and observed CV, as well as, more broadly speaking, the contexts and situations in which individuals enact CV.

Ethnicity and immigration status overlapped unavoidably in the sample because ethnic minority group members are far more likely to be from an immigrant background than ethnic majority group members, with the exception of African American and Native American populations. Future studies focusing on a single ethnic group may be beneficial, and will also allow the exploration of intragroup variation. Future research can also examine CI and CV in other national and international samples of emerging adults living in diverse(-ifying) contexts, and in other developmental periods (adolescence and adulthood, specifically). Mixed methods would be especially useful to better understand the nature of CV: How do individuals make decisions to alter the influence of a cultural identity? How do they learn when to do so? Do they experience any *psychological distress* related to CV? Current results provide some insight into characteristics of individuals adept at CV (e.g., greater ethnic identity search, better quality family interactions), but future studies can explore other predictors and outcomes of CV.

In this study we controlled for having multiple cultural identities because we wanted to focus on the cultural identity with which individuals were most strongly identified, and also because a minority of the sample reported multiple cultural identities (<20%). Therefore, future research can oversample bicultural/multiculturally identified individuals to examine the CI and CV of each cultural identity in relation to others (i.e., is the CI of both identities played up/played down simultaneously or do they change in opposition?). Future work with such a sample can also assess the association between CV (within each cultural identity) and cultural frame-switching (across cultural identities).

Conclusion

As interest in the dynamic nature of cultural identity has risen, a potentially important dimension has been overlooked until now—the influence that one's cultural identity has over social interactions and behaviors (CI), and the day-to-day variation in that cultural influence (CV). Our findings suggest that individuals, including White majority group members, may alter cultural influence on a daily basis, and this cultural variability may be an adaptation strategy, especially in the family context. These new constructs of CI and CV, the new and validated measurement tool (the Cultural Identify Influence Meaure: CIDIM), and the flexibility in effective analytic approaches to examine CV present new ways to conceptualize and measure the direct effects of culture on social interactions and behaviors. What we do, with whom we interact, and the quality of those interactions are impacted by the cultural milieu and it is important to view emerging adults as agents who can regulate the impact of culture on their lives toward positive adaptation in their globalizing environment.

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Appendix

Cultural Identity Prompt Adapted From Umaña-Taylor, Yazedjian, and Bámaca-Gómez (2004)

The U.S. is made up of people of various ethnicities and cultural groups. Culture refers to both one's biological race, national ethnicity, AND the traditions, beliefs, and behaviors associated with groups that one chooses to integrate into one's sense of self. Some examples of the ethnic cultures people may identify with are Mexican, Cuban, Nicaraguan, Chinese, Taiwanese, Filipino, Jamaican, African American. In addition, some people may identify with more than one ethnic culture. Please use the following list of categories to select the ethnic and cultural identities that best describe you—even those that aren't part of your biological or national origins. Please select ALL that apply.

- ☐ African (specify, if desired): _____
- ☐ African Caribbean (specify, if desired): _____
- ☐ African American, Black
- ☐ Latino/Hispanic—Central or South American (specify, if desired): _____
- ☐ Other Hispanic or Latino origin (specify): _____
- ☐ European American, White (specify, if desired): _____
- ☐ East Asian (specify, if desired): _____
- ☐ Southeast Asian (specify, if desired): _____
- ☐ Pacific Islander (specify, if desired): _____
- ☐ Asian Indian
- ☐ Middle Eastern (specify, if desired): _____
- ☐ American Indian (specify, if desired): _____
- ☐ An ethnic identity not on this list (specify): _____
- ☐ Another ethnic identity not on this list (specify): _____