Measurement Equivalence Testing of the American Identity Questionnaire across Black, Latino, and White Adolescents

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Abstract

Objectives: The current study examined the psychometric properties of the American Identity Questionnaire (Phinney & Devich-Navarro, 1997). American identity has been associated with societal and personal benefits for ethno-racially diverse populations, but limited research has assessed whether American identity measures function equivalently across members of different groups. Thus, the current study examined the measurement equivalence and construct validity of the American Identity Questionnaire among Black, Latino, and White adolescents.

Method: Using a cross-sectional design, adolescents completed self-administered surveys during regular school time. The current study included U.S.-born adolescents (N = 1,326; M_{age} = 16.16 years; SD = 1.12; 53% female) who self-identified as either Black (n = 315), Latino (n = 345), or White (n = 666).

Results: Multigroup confirmatory factor analysis was carried out using ethnic-racial group membership as the grouping variable. Findings suggested that the American Identity Questionnaire demonstrated configural (equivalent factor structures) and metric (equivalent factor loadings) invariance across the three groups. Partial scalar invariance was supported after allowing one item intercept to be freely estimated among Latino youth. Regarding construct validity, American identity was positively associated with self-esteem and personal identity, and negatively associated with depressive symptoms across the three groups.

Conclusions: Findings suggest that the American Identity Questionnaire can be used to assess associations between American identity and other constructs with samples of Black, Latino, and White adolescents. Mean-level comparisons across the three groups may also be possible. Construct validity results indicated that American identity was positively associated with adolescents' psychosocial adjustment.

Measurement Equivalence Testing of the American Identity Questionnaire across Black, Latino, and White Adolescents

Studying and understanding what it means to identify as an American[1] has become more prevalent after the terrorist attacks in the U.S. on September 11th, 2001, due to fear that the increasingly ethno-racially diverse population would change typical American ideals (McDaniel, Nooruddin, & Shortle, 2016; Schildkraut, 2011). Interest in studying American identity is expected to continue given that, by the year 2044, no single pan-ethnic or racial group will make up a numerical majority of the U.S. population (Colby & Ortman, 2015). Establishing that American identity measures demonstrate measurement equivalence across different ethnic-racial groups will be necessary to support future research in this area with ethno-racially diverse samples. Failure to do so could lead to erroneous conclusions about how the associations between American identity and other constructs vary by ethnic-racial group membership (Knight, Roosa, & Umaña-Taylor, 2009). To that end, the current study examined (a) whether the American Identity Questionnaire (Phinney & Devich-Navarro, 1997) functioned equivalently across Black, Latino, and White adolescents, and (b) construct validity of the scale among each of the three ethnic-racial groups by examining the associations between American identity and theorized correlates of this construct.

Collective and Personal Benefits of American Identity Endorsement

Developing an American identity, or the sense of belonging that an individual attributes to the national American group (Phinney & Devich-Navarro, 1997), is necessary for individuals to have a greater sense of obligation to their nation (Schildkraut, 2015) and demonstrate a higher

[1] The current study focused on the construct of U.S. American identity, distinct from other North or South American national identities. However, for ease of discussion, we use the term American identity throughout, which is also consistent with how others have referred to U.S. American identity in the literature (e.g., Stepick, Stepick, & Vanderkooy, 2011).

collective self-esteem (Huddy, 2015). This sense of belonging is distinct from other constructs such as patriotism (i.e., love for own's country) and nationalism (i.e., a sense of superiority attributed to one's country; Schildkraut, 2011). Guided by the common ingroup identity model (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993), which posits that intergroup relations can become more cooperative and bias against other groups can be reduced as a result of having a common identity, a strong American identity is theorized to promote positive outcomes. Using this framework, research in political science has suggested that increasing the salience of American identity as a collective identity may contribute to greater feelings of inclusion and greater support for policies that benefit all Americans, including increased support for historically marginalized subgroups (e.g., Schildkraut, 2014; Transue, 2007).

Drawing from psychosocial identity theory (Erikson, 1968), having a strong American identity can lead to personal benefits, such as greater personal identity cohesion, or a clearer understanding of one's overall sense of self. Consistent with an Eriksonian (1968) perspective, identity is an integrative construct and individuals who are able to coalesce their cultural identities with their overall sense of self are expected to demonstrate greater well-being (Schwartz, Zamboanga, & Weisskirch, 2008). Furthermore, adolescence is the developmental period in which identity formation is particularly salient, and youth are increasingly focused on exploring who they are and what defines their values and beliefs (Erikson, 1968). Considering that developing personal identity cohesion during adolescence can have long-term implications for youths' positive adjustment (Luyckx, Klimstra, Duriez, Van Petegem, & Beyers, 2013), one potential avenue for promoting personal identity cohesion may be through developing a positive American identity (Schwartz, Zamboanga, Weisskirch, & Wang, 2009).

One's American identity may also have implications for mental health. Drawing on social identity theory (Tajfel & Turner, 1986), feeling a positive sense of belonging toward a social group enables individuals to maintain a positive self-concept in the face of threats against their group. Furthermore, individuals' positive feelings about their social group membership can serve as a source of resilience over the course of youths' development (Kiang & Witcow, 2018; Tajfel & Turner, 1986). Because self-esteem and depressive symptoms are important correlates of positive self-concept during adolescence (Arens, & Hasselhorn, 2014; Kuzucu, Bontempo, Hofer, Stallings, & Piccinin, 2014), youth with a strong sense of belonging via their American identity may demonstrate relatively higher self-esteem and lower depressive symptoms.

These theoretical perspectives imply that associations between American identity and psychosocial adjustment should exist among all adolescents. However, some studies have found that the promotive benefits of American identity only apply to White youth. For instance, in one study, American identity was positively associated with self-esteem among White adolescents, but not African American or Latino youth (Phinney, Cantu, & Kurtz, 1997). In another study, American identity was positively associated with personal identity among White college students, but not Black or Latino college students (Rodriguez, Schwartz, & Whitbourne, 2010). In contrast, in some studies that have focused exclusively on the experiences of ethnic-racial minority youth, a positive association between American identity and adjustment has emerged (e.g., Kiang, Witcow, & Champagne, 2013; Meca et al., 2017; Tikhonov, Espinosa, Huynh, & Anglin, 2019). Thus, some studies have found support for the association between American identity and adjustment among ethnic-racial minority samples, whereas others have found this association to be significant for White youth but not ethnic-racial minority youth. However, among the various constructs that have been used to assess American Identity, only one measure

to our knowledge has been evaluated for measurement equivalence (i.e., Schwartz et al., 2012). As a result, it is impossible to draw conclusions regarding potential variability in these associations as a function of ethnic-racial group membership without evidence that the existing measures of American identity are assessing this construct in a psychometrically equivalent manner across ethnic-racial groups (Knight et al., 2009).

The Meaning of American Identity: Variation by Ethnic-Racial Group

To understand how identifying as American may be experienced differently based on one's ethnic-racial group membership, it is useful to consider the socio-historical context of the nation. Through colonization and conquest of the native U.S. population, a group of White settlers from Europe established the dominant political, educational, and economic structures in power in the U.S. today (Aguirre & Turner, 2010). Consequently, there has been a tendency to equate being American with being White and of European descent (Devos & Banaji, 2005). Indeed, in various qualitative and mixed-methods studies, college and graduate students from different ethnic-racial groups considered "typical" American traits to include: European ancestry, blue eyes, blonde hair, and speaking English (Park-Taylor et al., 2008; Rodriguez et al., 2010). Furthermore, Black and Latino participants reported feeling less American compared to their White peers (Barlow, Taylor, & Lambert, 2000; Rodriguez et al., 2010). However, there is limited evidence that the perception of who "is perceived to be American" is changing. Specifically, in a study of 4th, 5th, and 6th grade students, findings revealed that ethnic-racial minority youth were more likely to report being American compared to their White peers (Rodriguez et al., 2016). The fact that the discrepancy in American identity endorsement has emerged among young adult, but not early adolescent samples suggests that the messages one receives about who "counts" as American may be more salient among older populations. Indeed,

"self-focus" and identity exploration are key developmental tasks of adolescence and young adulthood (Erikson, 1968), and thus national identity may become more salient as young adults continue to examine their multiple identities, and how their various cultural identities (e.g., national, ethnic-racial) coalesce with one another (Syed & Mitchell, 2013).

American Identity Measurement

There has been a lack of attention to ethnic-racial group variability in existing measures of American identity, with one exception: the American Identity Measure (Schwartz et al., 2012). Psychometric testing of this measure revealed partial scalar invariance for a two-factor structure across White, Black, Hispanic, East Asian, South Asian, and Middle Eastern college students, as well as across four different generational statuses (Schwartz et al., 2012). With some modifications, the American identity exploration and commitment/affirmation scores could be used to draw comparisons across ethnic-racial groups and across generations.

Another measure that has been widely used is the American Identity Questionnaire (Phinney & Devich-Navarro, 1997). To our knowledge, the measure has been used in 56 peer-reviewed studies to date with Latino (e.g., Fuller-Rowell, Ong, & Phinney, 2013; Santos, Menjívar, & Godfrey, 2013), Black (e.g., Coutinho, & Koinis-Mitchell, 2014), and White (e.g., Birman, & Tran, 2008; Hsiao, & Wittig, 2008) youth samples[2]. The measure examines one's sense of belonging to American culture and the positive sense of self that one attributes to being American. Consistent with social identity theory (Tajfel & Turner, 1986), it focuses on the extent to which individuals perceive that they are part of American culture and how positively they feel about this group membership (Tajfel & Turner, 1986). When originally introduced, the authors used it as a unidimensional measure with a sample of White, African American, and Mexican

[2] Available upon request from the first author.

American participants (Phinney & Devich-Navarro, 1997). Since its development, the American Identity Questionnaire has been modified and used with ethno-racially diverse populations within and outside of the U.S. to assess the extent to which individuals identify with their nation. Despite its wide use with ethno-racially diverse populations, no studies to our knowledge have examined the measurement equivalence of this measure across ethnic-racial groups.

The Current Study

We tested whether the American Identity Questionnaire demonstrated equivalent factor structures (i.e., configural invariance), factor loadings (i.e., metric invariance), and intercept-level responses (i.e., scalar invariance) among Black, Latino, and White adolescents. Furthermore, we evaluated construct validity of the American Identity Questionnaire among these three ethnic-racial groups. Based on prior theory (Erikson, 1968; Tajfel & Turner, 1986), we hypothesized that American identity scores would be positively associated with scores for self-esteem and personal identity, and negatively associated with scores for depressive symptoms across all three ethnic-racial groups.

Method

Participants

Participants were drawn from a cross-sectional study of 1,552 adolescents in a high school in Arizona conducted in 2013. Overall, the ethnic-racial composition of the school student body (45% White, 24% Latino, 21% Black, 4% Asian, 3% American Indian, and 3% other) was similar to the ethnic-racial composition of the adolescent population in the broader U.S. context (U.S. Department of Health & Human Services, 2018). However, relative to the adolescent population in Arizona (41% White, 44% Latino, 5% Black, 3% Asian/Pacific Islander, 5% American Indian, and 2% other; Arizona Department of Education, 2019), Latino students were

underrepresented. Furthermore, mothers' and fathers' educational attainment levels mirrored those in the broader U.S. (U.S. Census Bureau, 2012) and Arizona (National Center for Education Statistics, 2017). Due to the limited sample size for other groups, only U.S.-born students who identified as White (n = 666; 50.2%), Black/African American (n = 315; 23.8%), or Latino/Hispanic (n = 345; 26%) were included in analyses (N = 1,326; M_{age} = 16.16 years; SD = 1.12; range = 13-19; see Table 1).

We conducted a multivariate analysis of variance (MANOVA) to test whether ethnic-racial groups differed in terms of demographic characteristics. Results suggested there were statistically significant differences in age, grade, mothers' education, and father's education across the three ethnic-racial groups, $F(8, 2{,}406) = 36.64$, $p < .001$; Wilk's $\Lambda = 0.795$, partial $\eta^2 = .11$. On average, Black adolescents were younger than White adolescents (M_{diff} = -0.27, p = .002, 95% CI [-.46, -.08]). Relatedly, Black students tended to be in a lower grade compared to White students (M_{diff} = -0.24, p = .005, 95% CI [.06, .42]). Furthermore, Black adolescents (M_{diff} = 1.14, $p < .001$, 95% CI [.84, 1.45]) and White adolescents (M_{diff} = 1.33, $p < .001$, 95% CI [1.08, 1.59]) reported higher maternal educational attainment than Latino adolescents. White adolescents reported greater father educational attainment compared to Black adolescents (M_{diff} = .85, $p <$ .001, 95% CI [.57, 1.13]) and Latino adolescents (M_{diff} = 1.75, $p < .001$, 95% CI [1.49, 2.02]). Additionally, Black adolescents reported higher father educational attainment compared to Latino adolescents (M_{diff} = .91, $p < .001$ 95% CI [.59, 1.22]). Chi-square difference tests revealed no differences across ethnic-racial groups in gender composition (χ^2 (2) = 2.28, p = .32).

Procedure

All enrolled students who obtained parental consent and provided youth assent were eligible to participate. Surveys were administered during social studies or a 9th grade physical

education class. Targeting these two subjects allowed for sampling of the entire student body because 9th grade students were not enrolled in social studies but were required to take a 9th grade physical education class. Teachers distributed surveys that students self-administered, which took approximately one hour to complete. The majority of students (78%) returned the required forms and 69% completed the survey. Participants received a pair of sunglasses. All procedures were approved by the institutional review board of the PI's university and the participating school district.

Measures

American identity. The American Identity Questionnaire (Phinney & Devich-Navarro, 1997) was used to assess the extent to which adolescents identified as American. The seven items (e.g., "I think of myself as being American") were rated on a 5-point Likert scale (1 = "strongly disagree" to 5 = "strongly agree"). A mean score was calculated, with higher scores indicating a stronger American identity. Internal consistency estimates for Black, Latino, and White students were .91, .92, and .93, respectively.

Self-esteem. Adolescents' completed the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1979). Although the original scale used a 4-point Likert scale, the current study used a 5-point Likert scale (1 = "strongly disagree" to 5 = "strongly agree"). A mean score was computed across items (e.g., "On the whole I am satisfied with myself"), with higher scores reflecting higher self-esteem. Support for construct validity (Phinney et al., 1997) and internal consistency (Umaña-Taylor, Yazedjian, & Bámaca-Gómez, 2004) has emerged in previous studies with ethno-racially diverse adolescents. Furthermore, previous work has established measurement invariance with White, Black, and Latino adolescents (e.g., Supple, Su, Plunkett,

Peterson, & Bush, 2013). Internal consistency estimates for Black, Latino, and White adolescents were .88, .90, and .94, respectively.

Depressive Symptoms. Adolescents completed the 20-item Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). Items (e.g., "I was bothered by things that don't usually bother me") were rated on a 4-point scale (0 = "rarely or none of the time" to 3 = "most of the time"). A mean score was calculated, and higher scores indicated more depressive symptoms. Support for internal consistency and construct validity has emerged across diverse samples (Roberts & Chen, 1995; Umaña-Taylor & Updegraff, 2007), and measurement invariance for the CES-D has been supported among White, Black, and Latino adolescents (e.g., Kim, DeCoster, Huang, & Chiriboga, 2011). Internal consistency estimates for Black, Latino, and White adolescents were .76, .82, and .79, respectively.

Personal Identity. Adolescents' personal identity was assessed using a modified version of the Erikson Psychosocial Stage Inventory (EPSI: Rosenthal, Gurney, & Moore, 1981). The measure assesses identity synthesis (e.g., "I've got a clear idea of what I want to be") and confusion (e.g., "I don't really know who I am"). Prior work supports the use of a one-factor structure (e.g., Azmitia, Syed, & Radmacher, 2013). The original scale contains 12 items; however, we omitted one item (i.e., "I work hard to keep up a certain image when I'm with people") during data collection due to previous work suggesting that this item did not fit a one-factor solution (Schwartz, Zamboanga, Wang, & Olthuis, 2009). Items were rated using a 5-point Likert scale (1 = "strongly disagree" to 5 = "strongly agree"), negatively worded items were recoded, and a mean score was used in which higher scores indicated a more cohesive sense of self. The scale has demonstrated adequate validity and internal consistency among diverse

samples (Schwartz et al., 2009; Syed, & Azmitia, 2009). Internal consistency estimates for Black, Latino, and White adolescents were .86, .85, and .87, respectively.

Analytic Strategy

Overall, 95.5% of participants had complete data across all study variables; we used full information maximum likelihood to estimate missing data (Arbuckle, 1996). Confirmatory factor analysis (CFA) was used to evaluate the model fit of a one-factor structure using a pooled sample of Black, Latino, and White adolescents. All CFA models were conducted using Mplus 7.3 (Muthén, & Muthén, 2017). Model fit was determined to be adequate by the following: the comparative fit index (CFI) greater than or equal to .90, root mean square error of approximation (RMSEA) less than or equal to .08, and standardized root mean square residual (SRMR) less than or equal to .05 (Little, 2013).

Measurement invariance testing was carried out by estimating a series of sequentially constrained nested factor structures. Multigroup CFA models were conducted using ethnic-racial group membership as the grouping variable. To scale the latent factors, we used the marker variable method, such that one factor loading was fixed to 1 across the three groups (Kline, 2010)[3]. Following procedures outlined by Putnick and Bornstein (2016) as well as Knight and colleagues (2009), we tested the following: configural invariance, metric invariance, and scalar invariance.

Support for configural invariance was established if factor structures were similar across groups and demonstrated adequate model fit. This indicates that the pattern of fixed and freely estimated loadings onto the latent factor is the same across the three groups (Putnick &

[3] We used this approach rather than the reference group method (i.e., factor mean set to 0 and variance is fixed to 1) because the latter assumes that the factor means and variances are equivalent across groups, making it less appropriate for measurement invariance testing (Putnick & Bornstein, 2016).

Bornstein, 2016). If configural invariance was established, metric invariance was tested by constraining factor loadings to be equivalent across groups. Support for metric invariance indicated that the items contributed to the latent factor to a similar degree across the three groups (Putnick & Bornstein, 2016). This would suggest that researchers are able to compare across Black, Latino, and White adolescents how American Identity is associated with other outcomes. Finally, testing scalar invariance consisted of constraining item intercepts to be equal across groups (Putnick & Bornstein, 2016). Support for scalar invariance indicated that item response levels were equal across the three groups and that researchers can confidently make mean level comparisons of American identity scores across the three ethnic-racial groups.

Measurement invariance was evaluated by examining multiple model fit indices rather than relying on the chi-square statistic, as it is overly sensitive to sample size and thus leads to over-rejection of measurement invariance tests (Putnick & Bornstein, 2016). Specifically, we determined adequate model fit by evaluating the combination of CFI, RMSEA, SRMR, and chi-square values. In addition, we calculated the change in CFI, RMSEA, and SRMR from less constrained models to more constrained models (e.g., configural to metric models). Further support for measurement invariance was found if the CFI value did not change more than .01, RMSEA values did not change more than .015, and SRMR values did not change more than .03 between models being compared (Putnick & Bornstein, 2016). If measurement invariance was not supported, we examined modification indices and systemically freed parameter constraints one at a time until the decrease in CFI was less than .01 (Dimitrov, 2010). We refer to models allowing some parameter constraints to be freely estimated across groups as demonstrating partial invariance (Putnick & Bornstein, 2016).

To examine construct validity of the American Identity Questionnaire, a separate

multigroup model was conducted for each indicator of adjustment (i.e., self-esteem, personal identity, and depressive symptoms). Latent factors were used for all measures, and ethnic-racial group membership was the grouping variable for each model. We followed the same procedure for model comparisons described above.

Results

Preliminary Analyses

Item means, standard deviations, and inter-item correlations were examined for each ethnic-racial group (Table 2). Items were all positively correlated and demonstrated similar effect sizes across the three ethnic-racial groups. A preliminary CFA model examined the single-factor structure using all items and a pooled sample (i.e., Black, Latino, and White adolescents). After evaluating a combination of model fit indices, the one-factor model demonstrated adequate fit (see Table 3). Alternative factors structures were examined prior to testing measurement equivalence (see Supplemental Materials).

Measurement Invariance Testing

After evaluating the overall model fit for the configural model, we determined that CFI and SRMR values were adequate, and thus support for configural invariance was established (see Table 3). This suggested that the factor structure of the American Identity Questionnaire was similar across Black, Latino, and White adolescents. Next, the metric invariance model was tested, and demonstrated adequate model fit. When compared to the configural invariance model, the change in CFI was below .01 (ΔCFI = .005; see Table 3). This support for metric invariance suggested that the factor loadings could be constrained to be equal across the three ethnic-racial groups. Thus, the relationship between items and the latent factor structure were similar across Black, Latino, and White adolescents.

However, testing for scalar invariance resulted in poorer model fit and a CFI value that changed by more than .01 compared to the metric invariance model (ΔCFI = .016, see Table 3). We evaluated modification indices to determine which parameter to freely estimate in order to have an acceptable change in CFI value (ΔCFI < .01). As a result, we allowed one item (i.e., "I think of myself as being American") to be freely estimated for Latino youth while retaining the constraint between Black and White youth. After releasing this constraint, model fit improved, and the change in CFI was less than .01 (ΔCFI = .009), supporting partial scalar invariance (Table 3). The change in RMSEA (ΔRMSEA = .01) and SRMR (ΔSRMR = .02; see Table 3) also supported partial invariance as the final model. Final standardized loadings were all positive and significant (Table 4).

Construct Validity Testing

Construct validity analyses were conducted by examining the covariance between the 7-item American identity scale (established through invariance testing above) and each indicator of adjustment. Specifically, a separate multi-group model for each indicator of adjustment was tested with ethnic-racial background as the grouping variable (i.e., Black, Latino, and White). Due to the differences that emerged among ethnic-racial groups for age and parental education, these two constructs were included as control variables in all three models. American identity was positively associated with self-esteem, and this association could be constrained to be equal across White, Black, and Latino adolescents (see Table 5; $\Delta\chi^2(2) = 10.06$, $p = .01$; ΔCFI = .00; ΔRMSEA = .01; ΔSRMR = .00). American identity was also positively associated with personal identity, and this association could be constrained across ethnic-racial groups (see Table 5; $\Delta\chi^2(2) = 4.03$, $p = .13$; ΔCFI = .00; ΔRMSEA = .00; ΔSRMR = .00). Finally, American identity was negatively associated with depressive symptoms, and this association could be constrained

across ethnic-racial groups (see Table 5; $\Delta\chi^2(2) = .27$, $p = .87$; ΔCFI = .00; ΔRMSEA = .00; ΔSRMR = .01). Final model fit (i.e., with associations constrained to be equal across all three groups) was adequate for each of the three models.

Discussion

The current study is the first to our knowledge to test the measurement equivalence of the American Identity Questionnaire (Phinney & Devich-Navarro, 1997) among Black, Latino, and White adolescents. Various measures have been used to study American identity (Schildkraut, 2014), and findings suggest that there are collective (e.g., Transue, 2007) and personal (e.g., Tikhonov et al., 2019) benefits to feeling a sense of belonging with a national group. However, the meaning that individuals attribute to being American may vary by ethnic-racial group, such that "American" is typically synonymous with "being White" (Devos & Banaji, 2005). Thus, it is important for measures of American identity to demonstrate measurement equivalence when used with various ethnic-racial groups. Furthermore, the current study focused on *adolescents'* American identity as this is the developmental period when identity formation is particularly salient (Erikson, 1968). Findings indicated that the American Identity Questionnaire demonstrated a similar unidimensional factor structure (i.e., configural invariance) and equivalent factor loadings (i.e., metric invariance) across Black, Latino, and White adolescents. Scalar invariance was not supported, such that item intercept-level responses were not equivalent between White and Latino and between Black and Latino adolescents. Hypotheses regarding construct validity were supported, such that scores on the American Identity Questionnaire were positively associated with scores for self-esteem and personal identity, and negatively associated with scores on depressive symptoms across all three ethnic-racial groups.

Support for Configural and Metric Equivalence Across Black, Latino, and White Adolescents

Support for configural and metric invariance of the American Identity Questionnaire suggests that researchers can use this measure with adolescent samples to investigate whether and how American identity is correlated with other outcomes differently based on ethnic-racial group membership. For example, research suggests that ethnic-racial minority youths' experiences with discrimination reinforce the notion that they are not perceived to be "real" Americans (Rodriguez et al., 2010). Thus, the American Identity Questionnaire can be used to assess whether ethnic-racial discrimination is associated with weaker American identity among U.S-born ethnic-racial minority youth and how this association compares with that of White youth. Recent work suggests that since the election of Donald Trump in 2016, the administration's anti-immigrant rhetoric, as well as the perpetuation of harmful stereotypes about Latino populations has led to increased feelings of exclusion from U.S. society among Latino youth (e.g., Wray-Lake et al., 2018; Zeiders, Nair, Hoyt, Pace, & Cruze, 2020). These findings suggest that examining differences among Black, Latino, and White youths' perceptions of belonging and how these are associated with their American identity may be worthwhile. If using the American Identity Questionnaire, these ethnic-racial group comparisons in the strength of associations can be made with confidence, given the results of the current study. Nevertheless, these data were collected in 2013 and due to changes in the sociopolitical climate, measurement invariance testing should continue.

Results from scalar invariance tests indicated that six of the seven item intercepts could be constrained to be equal across all three ethnic-racial groups, and thus partial scale invariance was supported. The item intercept that needed to be freely estimated for Latino adolescents was

"I think of myself as being American." Thus, this item was not interpreted in the same way by Latino adolescents compared to their Black and White peers. Perhaps when responding to an item about the extent to which one *thinks of oneself* as American, Latino youth may have a more nuanced and complex understanding of what thinking of oneself as "American" means. Indeed, findings from one prior study noted that U.S.-born Latino young adults expressed feeling part of American culture because of their U.S. citizenship, but had trouble using the term "American" to refer to their identity (Flores-González, 2017). Furthermore, some youth believed terms such as "United Statesian" or "USAnian" were more appropriate given that "American" is a term that geographically can refer to anyone from North, Central, or South America (Castañeda, 2019; Flores-González, 2017). Considering that Latinos comprise the largest ethnic-racial minority group in the U.S., future research should explore barriers that Latino adolescents may face in developing a strong national identity, and further explore the terms that youth use to refer to their U.S. national identity.

The findings of partial scalar invariance for Latinos mirror those obtained with the American Identity Measure (Schwartz et al., 2012). Thus, additional research is needed to examine whether it is possible to develop an American identity measure that demonstrates equivalence at the item intercept level between Latinos and other ethnic-racial groups, especially considering the anti-immigrant sociopolitical climate that has largely targeted Latino populations (Barajas-Gonzalez, Ayón, & Torres, 2018; Vesely, Bravo, & Guzzardo, 2019) and may impact the development of American identity among U.S.-born Latinos as well. It is important to note that scalar invariance was supported between White and Black adolescents, and thus mean level comparisons using all items *are possible* between Black and White adolescents. For instance, researchers could examine whether White adolescents identify as American more strongly than

Black adolescents, as has been reported among adult samples (Barlow et al., 2000, Rodriguez et al., 2010).

In sum, findings indicate that researchers interested in using the American Identity Questionnaire with Black, Latino, and White U.S.-born adolescents can confidently use the measure to evaluate how American identity is correlated with other outcomes and can compare these findings across these ethno-racial groups. Furthermore, research questions concerning mean-level comparisons of American identity scores across these three groups may also be possible, although the interpretation of findings may depend on which groups are being compared. For instance, the use of latent models may enable comparisons that include U.S.-born Latinos. By using latent models, which allow researchers to freely estimate intercepts, the strict assumptions of invariance may be more relaxed (Hancock, 2001). Nevertheless, researchers using this method would need to interpret any observed group differences with caution, as estimates may be biased for the freely estimated intercepts.

Construct Validity of the American Identity Questionnaire

In support of the construct validity of the American Identity Questionnaire among U.S.-born Black, Latino, and White adolescents, American identity scores were positively associated with scores for self-esteem and personal identity, and negatively associated with scores for depressive symptoms – in line with prior theoretical work (Erikson, 1968; Tajfel & Turner, 1986). These findings may illuminate cohort differences in the associations between American identity and psychosocial outcomes. For instance, in one study published in 1997 and consisting of Black, Latino, and White adolescents, American identity was positively associated with self-esteem only for White adolescents and not for Latino or Black youth (Phinney et al., 1997). In another study with Black, Latino, and White adults that collected data between 2004 and 2006

(i.e., approximately 10 years before data collection for the current study), personal identity was positively associated with American identity only among White adults, whereas the association was not significant for Black or Latino adults (Rodriguez et al., 2010). Although there were a few correlations that were stronger for some groups versus others, the overall findings of the current study align with more recent work, which indicates that having a strong American identity is beneficial for youth, regardless of their ethnic-racial background (e.g., Meca et al., 2017; Rodriguez et al., 2016; Tikhonov et al., 2019). Combined with findings from a recent mixed-methods study that suggested early adolescents consider individuals from multiple ethnic-racial groups to be American (Rodriguez et al., 2016), these findings suggest that this more inclusive definition of American may be more pertinent to all youth, and may correlate with their developmental outcomes. As such, there may be continued shifts in the associations between American identity and youth development as the narrative around who "counts" as American continues to change.

Limitations and Future Directions

Future work should consider invariance by nativity for this measure to ensure it functions equivalently across different immigrant and generational groups. For instance, although American identity (assessed with the American Identity Questionnaire) has been associated with better academic adjustment among first and second-generation immigrant youth (Countinho & Koinis-Mitchell, 2014), there is also evidence that feelings of belonging to the U.S. among immigrant youth may depend on their documentation status and the personal and cultural trauma that results if one is undocumented (Aranda, Vaquera, & Sousa-Rodriguez, 2015). Another sociodemographic factor to consider in future invariance testing is gender. For instance, one study found that American identity may have greater implications for self-esteem among Asian

females relative to Asian males (Kiang & Witcow, 2018). Thus, it will be important to test whether American identity measures are functioning equivalently across gender to ensure that implied gender differences are not a result of measurement error (Knight et al., 2009).

Second, because participants were not asked to report their specific ethnic-racial background (e.g., Mexican, Italian), we were unable to evaluate measurement invariance across specific national origin groups. For instance, among Mexican-origin and Central American youth with immigrant families, feelings of belonging to the national American group may have been weakened as a result of recent efforts to deter immigration to the U.S. from these regions (Vesely et al., 2019). On the other hand, youth with family members from Cuba may have benefited from the political and financial support the U.S. has provided to members from this group (Baca Zinn, & Wells, 2000). Ensuring that measures function equivalently across all members of a subgroup is necessary to reduce the likelihood of measurement error (Knight et al., 2009).

Furthermore, findings revealed that the American Identity Questionnaire captures a unidimensional factor, which is in contrast with two more recently developed American identity measures (i.e., Schwartz et al., 2012; Meca, Gonzales-Backen, Davis, Hassell, & Rodil, 2020). The American Identity Questionnaire appears to exclusively capture the *content* of this identity, or the extent to which individuals feel that they belong to the broader national group. Scholars should consider which component of American identity they are interested in assessing to ensure that the most appropriate measure is implemented.

Finally, given our cross-sectional design, we were unable to evaluate potential developmental changes in how adolescents respond to American identity measures as they progress to adulthood. Previous research suggested that ethnic-racial minority adults felt a weaker sense of belonging to the U.S. compared to White adults (e.g., Barlow et al., 2000);

however, another study comprised of early adolescents suggested that ethnic-racial minority youth felt a sense of belonging that was similar to White youth (Rodriguez et al., 2016). As youth progress to early adulthood, they may begin to reevaluate their definition of American and the extent to which they identify with this new definition given their more complex understanding of how their various identities intersect (Erikson, 1968).

Conclusion

Projections indicate that, by 2044 the U.S. will not have a single majority ethnic-racial group (Colby & Ortman, 2015). As a result, researchers are likely to direct more attention to the benefits that having a strong American identity affords, as well as the potential challenges that some youth may face in developing a strong American identity (Schildkraut, 2014). Psychometric equivalence is a crucial foundation for this work. The present study provided insight into how the American Identity Questionnaire (Phinney & Devich-Navarro, 1997) may be used to assess associations between American identity and other outcomes among Black, Latino, and White adolescents. Furthermore, findings expand the research literature by providing empirical support for the notion that a stronger sense of American identity during adolescence is associated with more positive psychosocial adjustment for U.S.-born Black, Latino, and White adolescents.

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Table 1. *Demographic Characteristics for the Overall Sample and by Ethnic-Racial Group*

Demographic Characteristics	Total Sample (N = 1,326)	Black (n = 315)	Latino (n = 345)	White (n = 666)
	N	*n*	*n*	*n*
Gender				
Female	704	175	189	340
Male	622	140	156	326
Grade				
9th	328	95	87	146
10th	353	95	90	168
11th	390	76	115	199
12th	255	49	53	153
Mother Education[a]				
Less than a high school degree	94	9	65	20
High school education or equivalent	270	57	105	108
Beyond high school degree	912	229	164	519
Father Education[b]				
Less than a high school degree	142	21	89	32
High school education or equivalent	290	89	105	96
Beyond high school degree	805	172	127	506

Note. [a]1,276 students reported mothers' education. [b]1,237 students reported fathers' education.

Table 2. *Means, Standard Deviations, and Inter-item Correlations by Ethnic-Racial Group*

	1	2	3.	4.	5.	6.	*M*	*SD*
Black (*n* = 315)								
1. I think of myself as being American.							4.31	.89
2. I feel good about being American	.78						4.11	.98
3. Being American plays an important part in my life.	.63	.72					3.83	1.06
4. I feel that I am part of American culture.	.64[a]	.67	.75				3.93	1.02
5. If someone criticizes America I feel they are criticizing me.	.32	.37	.48	.38			3.10	1.18
6. I have a strong sense of being American.	.61	.67	.73	.68	.57		3.67	1.04
7. I am proud of being American.	.67	.78	.69	.65	.41	.70	4.03	.99
Latino (*n* = 345)								
1. I think of myself as being American.							3.98	.95
2. I feel good about being American	.76						3.91	.98
3. Being American plays an important part in my life.	.64	.75					3.70	1.00
4. I feel that I am part of American culture.	.61	.70	.76				3.75	.96
5. If someone criticizes America I feel they are criticizing me.	.40	.47	.53	.50			2.86	1.21
6. I have a strong sense of being American.	.59	.64	.71	.69	.65		3.47	1.06
7. I am proud of being American.	.66	.82	.70	.68	.50	.70	3.92	.97
White (*n* = 666)								
1. I think of myself as being American.							4.48	.80
2. I feel good about being American	.69						4.18	1.05
3. Being American plays an important part in my life.	.58	.72					3.88	1.13
4. I feel that I am part of American culture.	.66	.70	.80				4.14	.99
5. If someone criticizes America I feel they are criticizing me.	.33	.45	.53	.51			3.24	1.30
6. I have a strong sense of being American.	.62	.70	.76	.76	.65		3.85	1.11
7. I am proud of being American.	.61	.85	.75	.72	.54	.76	4.10	1.10

Note: All correlations were significant, $p < .001$, with the exception of the correlation noted with a superscript. [a]Correlation is $p < .01$.

Table 3. *Multi-Group Confirmatory Factor Analysis of American Identity with Black, Latino, and White Adolescents*

(7 items; *N* = 1,266)	Comparison	CFI	ΔCFI	χ^2	*df*	SRMR	ΔSRMR	RMSEA 90% CI	ΔRMSEA	Pass/Fail
1-factor pooled model		.906		567.864 ***	14	.04		.18 (.17, .19)		
Configural invariance		.917		613.760***	42	.04		.18 (.17, .19)		Pass
Metric invariance	Configural	.912	.005	662.814***	54	.09	.05	.16 (.15, .18)	.02	Pass
Scalar	Metric	.896	.016	782.745***	68	.12	.03	.16 (.15, .17)	.00	Fail
Partial scalar[a]	Metric	.903	.009	737.243***	67	.11	.02	.15 (.14, .16)	.01	Pass

Note. Comparison = Model comparison or invariance tests; CFI = Comparative fit index; ΔCFI = change in CFI; χ^2 = Chi-square test of model fit; *df* = degrees of freedom for invariance tests; SRMR = Standardized Root Mean Square Residual; ΔSRMR = change in SRMR; RMSEA = Root Mean Square Error of Approximation; 90% CI = 90% Confidence Interval for RMSEA; ΔRMSEA = change in RMSEA; Pass/Fail = whether fit indices support invariance (i.e., Pass = support for model equivalence to comparison model). [a]Item intercept freely estimated for Latino youth only: "I think of myself as being American."
*** $p < .001$.

Table 4. *Final Standardized Factor Loadings for Black, Latino, and White Adolescents*

American Identity Questionnaire[a] Items	Black (n = 297)	Latino (n = 324)	White (n = 645)
1. I think of myself as being American.	.74	.70	.77
2. I feel good about being American	.87	.88	.87
3. Being American plays an important part in my life.	.85	.87	.86
4. I feel that I am part of American culture.	.80	.83	.86
5. If someone criticizes America I feel they are criticizing me.	.58	.60	.60
6. I have a strong sense of being American.	.83	.82	.86
7. I am proud of being American.	.85	.87	.88

Note. All loadings were significant, $p < .001$. [a]Phinney & Devich-Navarro, 1997.

Table 5.
Latent Variable Correlation Estimates by Ethnic-racial Group in Support of Construct Validity

Indicator of Validity	Black (n = 315)	Latino (n = 345)	White (n = 666)
	American Identity		
Self-Esteem	.36***	.32**	.30***
Depressive Symptoms	-.25***	-.23***	-.23***
Personal Identity	.33***	.31***	.31***

Note. Model comparison tests indicated that the relations between American identity and each outcome could be constrained to be equal across groups. All analyses controlled for adolescents' age and their parents' education level.
** $p < .01$. *** $p < .001$.