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Bicultural Ethnic Identity and Grade Point Average for Second-Generation Latinx Immigrants

By

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Abstract

This cross-sectional investigation examined the relationship between bicultural ethnic identity and academic outcomes for second-generation Latinx immigrants. Extant literature suggests that this population faces unique challenges in the American school system. In particular, experiences with discrimination may negatively affect both ethnic identity formation and academic achievement (Suárez-Orozco & Suárez-Orozco, 2001). To further explore this, this investigation utilized data from the Children of Immigrants Longitudinal Survey (CILS) (Portes & Rumbaut, 2007) and hierarchical linear modeling to address the following research question: Does a bicultural ethnic identity correlate with second-generation Latinx students' grade point average? This investigation explored how multiple covariates of interest, including students' nationality and experience with discrimination, predicted second-generation Latinx students' grade point average. This study addressed a gap in the existing bicultural ethnic identity literature with the creation of a Bicultural Ethnic Identity Construct, which utilized a combination of ethnic identity and language survey item responses to measure respondents' biculturalism.

There was no statistically significant relationship between bicultural ethnic identity and grade point average for second-generation Latinx immigrants. However, findings from this study revealed that students who experienced discrimination and had bicultural ethnic identities were more likely to have higher GPAs than those students who experienced discrimination and had less bicultural ethnic identities. In addition, there was a statistically significant and positive relationship between bicultural ethnic identity and GPA for students who identified as "Hispanic." Future research should examine the longitudinal relationship between bicultural ethnic identity and academic outcomes.

Introduction

In 2019 the Latinx population represented nearly 60 million people, or roughly one fifth, of the total population of the United States (Rosa, 2019). In just one year, between 2019 and 2020, the US Latinx population increased to 62.1 million (Krogstad & Noe-Bustamante, 2021). Rapid Latinx population growth is characteristic of the changing demographics of the United States, where immigrants and their descendants represent a large portion of the United States' population (Suárez-Orozco & Suárez-Orozco, 2001). According to a 2021 Pew Research study, Latinx population growth accounted for over half of the United States' population growth between 2010 and 2020, and most of that growth was attributed to US births instead of immigration (Krogstad & Noe-Bustamante, 2021). As a result, the populations of second-generation (and subsequent generations of) Latinx students are growing rapidly in the United States and represent a large portion of students entering American schools.

Research suggests that second-generation Latinx students,[1] as a group, have lower rates of educational attainment (Portes & Rumbaut, 2014) and have less pro-academic attitudes than their first-generation counterparts (Valenzuela, 1999). Some second-generation immigrant students face challenges which include "enrolling in violent and overcrowded inner-city schools where they face overwhelmed teachers, hypersegregation by race and class, limited and outdated resources, and otherwise decaying infrastructure" (Suárez-Orozco & Suárez-Orozco, 2001, p. 2). As such, some students graduate high school unprepared to meet the needs of the globalizing workforce or do not graduate at all and drop out (Lewis & Diamond, 2015; Suárez-Orozco & Suárez-Orozco, 2001).

[1] For the purposes of this study, second-generation Latinx individuals refer to children born in the mainland United States to at least one first-generation immigrant who was born in a Latin American, Central American, or Romance language-speaking Caribbean country (including Puerto Rico) (Encyclopedia Britannica, 2017).

Given the educational context some second-generation Latinx students find themselves in, it is important to consider the identities they carry into the classroom. Ethnic identity formation refers to how individuals develop an identity based on their "feelings and conceptions about being a member of their ethnic group" (Umaña-Taylor et al., 2009, p. 391). Ethnic identity formation is a crucial part of minority adolescent development, but it can be more complicated for second-generation Latinx immigrants (Erickson, 1963; Umaña-Taylor et al., 2009).

According to Huynh and colleagues (2011), second-generation immigrants,[2] must learn to navigate differing expectations, beliefs, and values between the two contrasting cultures at home and school. These students must learn how to negotiate their ethnic identity in those different environments, which can be increasingly difficult when they receive contradictory messages from trusted adult figures (i.e., parents and teachers) (Carter, 2005). While a variety of factors influence second-generation immigrants' ethnic identity formation, a process that is not universal, researchers argue that ethnic identity can impact students' academic outcomes (Duong et al., 2016; Rivas-Drake et al., 2014; Supple et al., 2006).

An individual's involvement in both his or her ethnic culture and the dominant culture, or the culture present in American schools, is known as biculturalism (Berry et al., 2006). Many studies find that biculturalism is associated with positive academic outcomes, while both total assimilation of the dominant culture and rejection of the host country culture are associated with negative academic outcomes (Valenzuela, 1999; Zarate et al., 2005). Additionally, research finds that biculturalism can act as a protective factor against negative academic outcomes associated with ethno-racial discrimination (Mossakowski, 2003).

[2] This study defines second-generation immigrants as those individuals born in the United States to at least one parent not native to the United States.

While some scholars (Chen et al., 2008; Zarate et al., 2005) argue bicultural ethnic identities positively impact academic outcomes, much of the research recognizes that students' experience with discrimination is influential to identity formation, where student ethnic identity development is dependent on and reactive to experiencing discrimination. Tajfel's and Turner's (2001) social identity theory posits that students focus on the positive aspects of their in-group to bolster self-esteem in the face of discrimination (Yip et al., 2008). This investigation applies social identity theory to an academic context, where students may utilize their bicultural ethnic identity as a buffer against discrimination and stereotype threat in academic settings (Mossakowski, 2003).

As such, this study seeks to explore the research question: Does a bicultural ethnic identity (BEI) correlate with second-generation Latinx students' grade point average? This investigation will also explore how multiple covariates of interest, including students' nationality and experience with discrimination, predict second-generation Latinx students' grade point average. I hypothesize that second-generation Latinx students' increased bicultural ethnic identities will positively correlate with their grade point average.

Study Aims

This cross-sectional investigation aims to describe and examine the relationship between second-generation Latinx students' bicultural ethnic identity and grade point average during adolescence. This includes investigating how students' experience with discrimination might influence the relationship between bicultural ethnic identity and grade point average. Ultimately, this study aims to add to the ethnic identity literature, emphasizing the potentially positive academic benefits of embracing one's ethnic identity. Findings from this study can influence the

creation of multicultural curriculum and teacher trainings aimed at engaging students in intentional ethnic identity development intended to serve this unique population.

Literature Review

Second-Generation Latinx students

Research shows that Latinx students have lower academic outcomes, on average, than other groups for a variety of reasons (Carter, 2005; Duong et al., 2016; Lee & Zhou, 2015). Duong and colleagues (2016) completed a large meta-analysis exploring some of the contextual factors influencing Latinx immigrant academic achievement.[3] According to that 2016 analysis, Latinx students were more likely to live in low-income neighborhoods, face negative academic stereotypes, encounter racism and discrimination, and encounter peer pressure for anti-school attitudes. In addition, Latinx immigrant parents, on average, had lower levels of educational attainment and English proficiency than other immigrant groups[4] (Duong et al., 2016; Lee & Zhou, 2015). For these reasons, some researchers (Calarco, 2018; Carter, 2005) explain second-generation Latinx students might be at an academic disadvantage because they do not have access to dominant cultural capital, making these students unaware of how to adjust their identities to fit within the dominant school culture and get ahead academically.

Possessing the "right kind" of cultural capital is important for students' academic achievement (Carter, 2005). Carter (2005) notes the difference between the styles and functions of dominant and nondominant cultural capital: dominant cultural capital is "cultural knowledge and skills of high-status racial, ethnic, and socioeconomic groups" meant to lead to social and economic returns, whereas nondominant cultural capital refers to the "set of tastes, appreciations,

[3] The study included 53 studies with data collected after 1965.
[4] Various studies point to Asian immigrant hyper-selectivity, where Asian immigrants are more highly educated than the American population and other immigrant groups on average (Lee & Zhou, 2015).

and understandings…used by lower status group members to gain "authentic" cultural status positions in their respective communities" (2005, pp. 49–50). Essentially, teachers penalize students for their use of nondominant cultural capital while they reward students who use dominant culture capital (Ochoa, 2013). If second-generation Latinx students try to use nondominant cultural capital to signify in-group alliances and feelings of ethnic group belonging, teachers might misunderstand and penalize students' use of nondominant cultural capital as deviant due to cultural insensitivity and the perpetuation of cultural stereotypes (Bergkamp & Ponsford, 2020, p. 240).

While the majority of literature focuses on disadvantages second-generation immigrant students, Duong et al. (2016) completed a meta-analytic review of 53 studies examining the generational difference in academic outcomes for immigrant youth. The analysis uncovered findings regarding "immigrant advantage," where second-generation immigrants are thought to have better academic outcomes than first- or third-/later generation immigrants. This "immigrant advantage" is due to second-generation immigrants' unique position allowing them to integrate into school more easily than first-generation immigrants with increased bilingualism, while still having "immigrant optimism," or the expectation for upward mobility that third-/later generation immigrants hold with cynicism.

Another theory for second-generation Latinx students' lower academic achievement relates to these students lacking a "dual frame of reference." Research indicates that first-generation immigrants exert more effort in school as they have a "dual frame of reference" which allows them to remain positive about their situation as it compares favorably to those in their home country (Duong et al., 2016, p. 25). As second-generation immigrants are not recent

immigrants and therefore lack a "dual frame of reference," Duong et al. (2016) argues that first-generation immigrant students academically perform better than second-generation students.

Valenzuela (1999) conducted a mixed-methods ethnographic investigation of the academic achievement and schooling orientations of first-generation Mexican immigrant and second-generation Mexican-American immigrant students in a Texas high school. [5] Findings show that the academic orientation and ethnic identities of peer groups greatly impact the academic orientation of individual students. Findings also indicate that Latinx students develop different ethnic identities along generational divides (e.g., first-generation, second-generation), which impacts students' academic orientation. Valenzuela (1999) argues that both immigrant and American-born Mexican students are marginalized in the American educational system, but first-generation and second-generation students handle this marginalization in different ways. First-generation Mexican students are more likely to have positive academic orientations because their predominantly first-generation peer groups are more likely to have more pro-academic orientations than the predominantly second-generation peer groups of second-generation immigrants.

Various theories try to explain why second-generation Latinx individuals have lower academic outcomes (Ochoa, 2013; Portes & Rumbaut, 2001; Steele, 2010; Valenzuela, 1999). Valenzuela (1999, p. 258) argues that second-generation Latinx immigrants are more likely to reject academics as teachers support first-generation immigrants more often because the teachers perceive the first-generation immigrants "care" about academics more than their second-

[5] This study utilized both qualitative and quantitative data analysis to report findings. Qualitative research included ethnographic observations at the high school and informal, open-ended interviews with individual students, groups of students, and teachers. A survey was administered to the entire school (N = 2,281) and provided quantitative data for analysis.

generation counterparts. Other theories argue that Latinx students do not reject academics, but instead reject schooling due to their awareness of the academic hierarchies (Ochoa, 2013), lower teacher expectations (Steele, 2010) and school's devaluing of their culture (Valenzuela, 1999). These theories share a single commonality: there is a systematic reason to explain second-generation Latinx lower academic achievement. This study does not identify the reason why second-generation Latinx students have lower academic outcomes, but instead investigates the connection between second-generation Latinx students' ethnic identity, schooling, and contextual factors related to larger, systematically discriminatory social structures.

Academic Outcomes

The United States' educational system utilizes an academic meritocratic ideology that attributes academic achievement to hard work and discounts other structural, social, or cultural advantages as reasons for the unequal academic achievement gaps between students of different backgrounds (Lewis & Diamond, 2015). In effect, the educational system legitimizes White students' disproportionately higher academic achievements and attributes their success solely to their individual efforts, rather than their structural advantages and the academic systems' institutional racial and ethnic discrimination (Gonzales, 2016; Lewis & Diamond, 2015). This individualistic narrative of hard work damages Latinx students' academic motivation and identity formation because it leads these students to believe they are not as smart or hardworking as White students when they experience less academic success (Dweck, 1986).

Schooling provides not only knowledge; it also provides implicit and explicit messaging related to cultural norms and the existence of gender, racial, socioeconomic, and linguistic hierarchies (Carter, 2005; Khan, 2011; Rosa, 2019). In addition, Hartmann et al. (2018, p. 343) found evidence that immigrant students understand "being ethnic" within the context of

American schools as "synonymous with being a member of a non-dominant or non-White group," so much so that students felt "coded and objected as Others" and like a "different kind of American." Students interpret these messages as indicators of their academic potential and/or personal worth and negotiate a place within the academic hierarchy that is dependent on their intersecting identities (Khan, 2011; Reay, 2010). To overcome this, Carter (2005) argues that some Latinx students operate as "cultural straddlers" within schools, where they are able to negotiate both their ethnic identities and the dominant culture of school, multiple times per day, to meet the needs of a given situation and succeed academically.

Most schools utilize race-neutral, meritocratic, and assimilationist policies; as a result, some teachers attribute minority students' lower academic outcomes to either their cultural or language "insufficiencies," rather than the structural and institutional inequalities that exist (Carter, 2005; Rosa, 2019). In response, students can adjust their identities in a variety of ways. While some students disengage from school to preserve their cultural authenticity, other students adjust their identity to fit within the dominant cultural frame (Carter, 2005).

Reay's (2010) conceptualizes learner identities as the identities students develop of themselves as learners that are built through interactions with peers, teachers, and a schooling environment. Within a Eurocentric school context, acculturation to dominant American culture (middle-class, White values) imposes additional stress and an implicit messages of cultural "worthlessness" to those whose culture conflicts with the dominant culture (Carter, 2005; Valenzuela, 1999). There is a connection between students' ethnic identity and their academic outcomes, but these can depend on a variety of environmental factors including neighborhood income, ethnic affirmation, among others (Rivas-Drake et al., 2014). Chang & Lee (2010) argue

that schools which promoted a compassionate and tolerant environment for diverse ethnic groups also increase Latinx students' academic outcomes.

Other factors that can impact students' academic outcomes include their age (Portes & Rumbaut, 2001), hours spent on homework (Leone & Richards, 1989), socioeconomic status (Sirin, 2005), and academic expectations (Reay, 2010). Portes and Rumbaut (2001) note that older second-generation immigrant students have lower academic outcomes. In addition, students who spend more time on homework are more likely to have better academic achievement (Leone & Richards, 1989). Sirin's (2005) meta-analysis of seventy-four independent studies published between 1990 and 2000 found a strong, positive relationship between students' socioeconomic status and their academic achievement. There are additional relationships between socioeconomic status and academic achievement; for example, students from families with higher socioeconomic statuses are more likely to have higher academic aspirations than those from families with lower socioeconomic statuses (Kao & Tienda, 1998).

Discrimination in an American School Context

Conventional wisdom argues immigrants should assimilate as quickly as possible to overcome their marginal position in society. Historically, White European immigrants could assimilate to life in the United States within a generation or two during the first large waves of immigration to the United States (Portes & Rumbaut, 2001; Suárez-Orozco & Suárez-Orozco, 2001). Yet this kind of adaption to society does not work similarly for all immigrants and their children; Latinx immigrants experience racial and ethnic discrimination in the United States, regardless of their level of assimilation (Hartmann et al., 2018; Rosa, 2019; Suárez-Orozco & Suárez-Orozco, 2001, p. 96). Immigrants of color must contend with enduring racial and ethnic stereotypes which permeate American society (Suárez-Orozco & Suárez-Orozco, 2001).

Makarova and Birman (2015, p. 321) argue that schools do not support "ethnic minority students' heritage, culture maintenance, or their bicultural development." Within a school context, immigrant students feel more secure when surrounded by friends from the same ethnic or racial group, because schools are also sites where students encounter racial and ethnic discrimination from both classmates and teachers (Hartmann et al., 2018). Flores-Gonzalez (2002) explored how teacher and peer interactions within school influenced ethnic identity formation and subsequent academic identity. In *School Kids/Street Kids*, Flores-Gonzalez (2002) notes how school practices influence students' view of their academic abilities, and some Latinx students began to view themselves as either a "school kid" or a "street kid" through role identity development.

Latinx students in the United States experience "cultural violence," where they are unfairly stereotyped as "'innately inferior' and 'lazier,' 'prone to crime,' and therefore less deserving of sharing in the dominant society's dream (Suárez-Orozco & Suárez-Orozco, 2001, p. 95). Enduring this kind of treatment undermines Latinx students' sense of self and causes them to treat institutions, especially school, as "alien terrain reproducing an order of inequality" (Suárez-Orozco & Suárez-Orozco, 2001, p. 95). Identity and stereotype threats, or negative contingencies linked to social identities, can lead to academic underachievement; Steele (2010) conducted various experiments which illustrated how individuals from stereotyped groups performed poorly under the stress of trying to disprove a group-level stereotype. Stereotype threat can be so "erosive," that it can negatively impact both intellectual performance and intellectual identity (Steele, 2010; Suárez-Orozco & Suárez-Orozco, 2001, p. 95).

A lot of research indicates the role that experiencing discrimination plays in ethnic identity formation. Immigrant students understand that they may never be seen as American,

only as second-class citizens, and therefore try to cultivate a sense of "ethnic pride to resist and buffer against the racism and discrimination that they face" in order to "[build] an armor against the racism of America" (Hartmann et al., 2018, p. 342). Portes and Rumbaut (2001, p. 186) describe this process as "reactive ethnicity," whereby second-generation Latinx individuals develop defensive identities and nationality solidary with their parent(s) to counter adverse experiences with mainstream American culture. As such, discrimination acts like a mechanism through which individuals reactively develop their ethnic identities. Yet, Mossakowski (2003) found that, once formed, ethnic identity identification protected against depression and stress associated with discrimination.

Bicultural Ethnic Identity

Psychologist Erik Erikson (1963) argues identity development is the most important task for individuals during adolescence, whereby individuals explore differing aspects of identity and then commit to a personal identity. Specifically, research shows that ethnic identity formation marks an important developmental milestone for minority youth which can bolster self-esteem and positively impact academic outcomes (Rivas-Drake et al., 2014).

Portes and Rumbaut (2001) examined how ethnic identities shifted over time for second-generation immigrants, examining a variety of factors including demographic characteristics, level of acculturation, language abilities, and school context (Portes & Rumbaut, 2001). Their findings, which corroborate other research in this area of study (Rosa, 2019; Suárez-Orozco & Suárez-Orozco, 2001), indicate there is no consensus on what might influence ethnic identity formation for different groups of second-generation immigrants. As such, it is important to explore how the development of a bicultural ethnic identity might positively, or negatively, impact specific groups of individuals and their outcomes.

The most widely-accepted and empirically-supported understanding of biculturalism comes from Berry's (2006) model of acculturation, where individuals can utilize one of four strategies to approach the interaction of two cultures: assimilation, separation, integration, or marginalization. Whereas some individuals might be unable to or not want to maintain heritage culture or engage in dominant culture, individuals who utilize integration strategies, strategies which are often referred to as being bicultural, "wish to or are allowed to maintain their ethnic culture while engaging with the dominant culture" (Huynh et al., 2018, p. 1582). According to Huyen et al. (2018), biculturalism refers to how an individual is "motivated and/or allowed to a) maintain their ethnic culture and b) engage in the dominant culture" (Huynh et al., 2018, p. 1582). While utilizing integration strategies, individuals must learn to navigate differing, and sometimes conflicting, expectations, beliefs, and values between two cultures.

Over prolonged exposure to two or more cultures, individuals can adopt bicultural ethnic identities. Berry (2006, p. 305) explored the relationship between ethnic identity formation and acculturation, or the "process of cultural and psychological change that follows intercultural contact." Acculturation can impact changes in ethnic identity over time, across generations, across contexts, with age, or development (Berry et al., 2006). Researchers (Phinney, 2003; Zarate et al., 2005) conceptualize ethnic identity formation as being fluid and varied for members of the same ethnic group. While ethnic identity formation is complex, negotiating two or more cultures is increasingly complicated (Berry, 1997). First-generation immigrants have stronger ethnic identities, due to their increased proximity and experiences with their culture, than second-generation immigrants who less often identify with their parents' ethnicity than first-generation immigrants (Portes & Rumbaut, 2014).

Suárez Orozco and Suárez Orozco (2001) found evidence that developing a bicultural ethnic identity is positive for second-generation immigrants. Students who develop bicultural ethnic identities can maintain an uncompromised sense of self, where they simultaneously view their parents' culture as legitimate while learning English, doing well in school, and building relationships with students and teachers from different backgrounds. As such, researchers understand biculturalism to be the most practical identity adaptation for second-generation immigrants "in today's transnational and multicultural world" (Suárez-Orozco & Suárez-Orozco, 2001, p. 119)

Possessing a bicultural ethnic identity acts as a protective factor for second-generation Latinx students (Mossakowski, 2003), protecting Latinx students against stereotype threat and discrimination in education. However, Portes and Rumbaut (2001) argue that second-generation immigrant students who are more acculturated lose their drive for academic achievement.[6] Kim et al. (2013) note that highly assimilated Latinx immigrant students have lower academic outcomes, concluding that students who maintain a more bicultural ethnic identity or embrace their natal culture have better academic outcomes.

Yet, forming a bicultural ethnic identity is not always positive. Nair (2021) found that bicultural stressors, or the stressors related to the conflict between Latinx and American cultural norms and values, can reduce Latinx students' educational expectations and academic identity. Acculturation stress can impact academic outcomes, especially for Latinx youth (Fuligni et al., 2005; Zarate et al., 2005). Some research indicates that adopting a bicultural ethnic identity can lead to increased stress and negative self-esteem. For example, Hartmann et al. (2018) found qualitative evidence of co-ethnic members rejecting immigrants who adopt a bicultural ethnic

[6] This finding came from analyses of Wave Two of the Children of Immigrants Longitudinal Survey (CILS).

identity within a school context, even though biculturalism within a school setting might positively impact academic outcomes.

Ports and Rumbaut (2001, 2014, 2007) conducted multiple analyses on the Children of Immigrants Longitudinal data over the last two decades. For example, one such study explores how various factors, including students' gender, length of time in the United States, and fluent bilingualism, relate to students' academic outcomes (2001). In a separate study, Portes and Rumbaut (2014) explore the impact of selective acculturation on respondents' academic outcomes and life experiences. Selective acculturation refers to a process similar to biculturalism, where "second-generation children acculturate to American ways without abandoning their parents' language and key elements of their culture" (Portes & Rumbaut, 2014, p. 282). That investigation utilized respondents' fluent bilingualism and markers of low parent-child conflict as indicators of selective acculturation.

Importance of Language

Many second-generation Latinx students utilize Spanish as a marker of ethnic identity. Enculturation refers to "the process of socialization to, and maintenance of, the norms of one's indigenous culture, including the salient values, ideas, and concepts" of that culture (B. S. K. Kim et al., 2009). Language retention is an important aspect of enculturation that can have direct implications for ethnic identity formation for second-generation Latinx immigrants (Benner & Kim, 2009). According to Carter (2005), students use their Spanish-language skills to develop ethnic in-group solidarity. Kim & Chao (2009) found that heritage language fluency was an important part of ethnic identity for second-generation Mexican adolescents. After conducting qualitative interviews with second-generation Latinx immigrants, researchers argue that "these children achieve bicultural and bilingual competencies that become an integral part of their sense

of self" (Suárez-Orozco & Suárez-Orozco, 2001, p. 113). As such, various studies utilize bilingual language fluency as a proxy for biculturalism (Y. M. Kim et al., 2013; Portes & Rumbaut, 2014).

Portes and Rumbaut (2001) argue that second-generation immigrant students who engaged in "selective acculturation" had more positive academic outcomes than those who engaged in "dissonant acculturation."[7] They hypothesize the better academic outcomes were related to parent support that came from sharing the same cultural values and language: "results indicate the value of selective preservation of linguistic ties to families and coethnic communities" (Portes & Rumbaut, 2001, p. 243). Other researchers point to the possible negative impact of bilingualism for second-generation Latinx students, where highly assimilated children might experience "cultural and linguistic incongruence at home" leading to parental conflict and emotional stress during the acculturation process (Y. M. Kim et al., 2013, p. 49).

Various studies examine the relationship between bilingualism and academic achievement (S. Y. Kim & Chao, 2009; Y. M. Kim et al., 2013; Portes & Rumbaut, 2014). Portes and Rumbaut (2014) found that second-generation immigrant students who maintain their bilingualism have better academic achievement outcomes than English monolinguals (Latinx immigrants who speak only English) or Latinx immigrants with limited English skills. Some attribute fluent bilinguals' higher academic outcomes to the cognitive advantage bilingualism provides students, where they have a better grasp of language than monolingual counterparts (Duong et al., 2016). In addition, higher Spanish reading and writing skills are significant

[7] Dissonant acculturation refers to "children's learning of the English language and American ways and simultaneous loss of the immigrant culture" (Portes & Rumbaut, 2001, pp. 53–54).

predictors of school effort for all generations of Mexican immigrant students (S. Y. Kim & Chao, 2009).

Second-generation Latinx students have an advantage over first-generation immigrants regarding their English language skills. Second-generation Latinx students are born in the United States and therefore have more exposure to English from an early age. Additionally, second-generation Latinx immigrants attend English-dominant schooling their entire lives, as compared to first-generation immigrants who may only attend English-dominant schooling once they immigrate to the United States as adolescents. As second-generation immigrants have better English language skills than first-generation immigrants on average, they have more capacity to use English as a bicultural marker of assimilation in school to negotiate their learner identities than their first-generation counterparts (Portes & Rumbaut, 2001).

Yet, fluent bilingualism may not be enough for second-generation Latinx immigrants to "fully incorporate" into American society. Rosa (2019) argues against the concept of the "language barrier," where there is an assumption that Latinx students who master English will be accepted into American society. Rosa (2019) argues that Latinx students whose first language is English still face marginalization in the US: "millions of US-born and/or raised Latinxs who identify as bilingual, English-dominant, or monolingual English users and yet still experience profound forms of inequality in the realms of education…" (Rosa, 2019, p. 142). Latinx individuals, regardless of Spanish or English skills, are still marginalized in the US educational system through the processes of racialization as an "Other" (Rosa, 2019). For example, even when students learn English, they are then expected to develop unaccented English, and then the "right variety of English" (Rosa, 2019, p. 15). While there is an assumption that language mastery will increase individuals' chances at societal incorporation (Gandara & Contreras,

2009), Rosa argues that the use of English is not enough for Latinx students to be fully included in American society.

Whereas maintaining heritage language fluency is related to a positive ethnic identity in second-generation Latinx immigrants, this is not a universal experience. Hartmann et al. (2018) found evidence that Spanish-speaking immigrants in California felt like they were distrusted by Americans. As such, some students feel like they must speak English to get ahead in school. In Carter's examination of "cultural mainstreamers," students who rejected using their heritage language, emphasized the importance of English language use to succeed academically (Carter, 2005, p. 58).

Contextual Factors and BEI

As a result, some argue that students acknowledge the cultural dissonance between dominant cultural capital in schools and nondominant cultural capital and adjust the presentation of their ethnoracial and cultural identities in different ways dependent on their gender (Carter, 2005) and schools context (Hartmann et al., 2018; Khan, 2011).

Gender

Utilizing the CILS data, Van der Does et al. (2019) found that individuals from Latin America identify as less American over time. However, women have higher levels of ethnic identity by adolescence whereas men continue to adjust their ethnic identity through early adulthood. These findings align with Carter's (2005) conclusions related to the gendered experience of ethnic identity, where men and women develop ethnic identities differently. Carter argues that female Latinx students who attend low-income urban schools are more likely to embrace a pro-academic learner identity than male Latinx students at the same school, due to Latinos' cultural preference to practice masculinity and the association of academic work with

femininity. Carter (2005) also argues that male students are more likely to develop pan-minority identities, possibly related to their affinity for Black masculinity culture. In contrast, girls are more likely to adopt ethnic or panethnic identities to distance themselves from stigmatized "blackness" (Carter, 2005, p. 124).

Bettie (2014, p. 86) explores the way middle class, second-generation Mexican immigrant girls are able to negotiate their "inherited identity from home and their chosen public identity at school." Working-class, first-generation Mexican immigrant girls view high-achieving, middle-class girls as "acting White" due to their level of assimilation, language fluency, and academic achievement. In response, second-generation Mexican girls perform a working-class identity as "a marker of racial/ethnic belonging" in school (Bettie, 2014, p. 89). While these girls in Bettie's (2014) study were from middle-class families and had been admitted to college, they chose to act and present themselves differently to gain co-ethnic group acceptance because they viewed race and ethnicity as essential to their identity formation.

School-level Effects

Students' abilities to negotiate their ethnic and learner identities are contingent on the context of the school they attend. Students in low-income and high-minority neighborhood schools find it harder to negotiate a pro-academic identity than those who attend high-income and low-minority boarding schools (Flores-Gonzalez, 2002; Khan, 2011). Interestingly, Gonzales and Padilla (1997) note that second-generation Latinx students who attend more ethnically diverse schools have higher cultural pride and awareness than students who attend schools with high concentrations of coethnics. Flores-Gonzales (2002) notes how Latinx students are less likely to take on pro-academic identities due to a fear that coethnics living in the same areas would perceive the students as assuming different identities. Conversely, students attending a low-

minority boarding school far away from where their families lived were able to take on different identities in school. Latinx students were able to negotiate their ethnic and learner identities to embody a pro-academic identity when they are in contexts separate from co-ethnic groups who perceive their learner and ethnic identity negotiations as inauthentic.

Yet, a student's level of assimilation within their specific school context can also impact academic outcomes. For example, Kim et al. (2013) found that highly-assimilated students in predominantly Latinx schools who were not accepted by their coethnic peers could experience less academic achievement due to their lowered self-esteem and efficacy. In those instances, highly-assimilated Latinx children might achieve more academic success in predominantly White settings where their identity is not challenged (Y. M. Kim et al., 2013).

GPA

This study examines grade point averages (GPAs) as the primary academic outcome of interest. GPA represents a student's cumulative academic performance and is therefore an arguably better measure of students' effort and academic potential than standardized test scores because it reflects students' "demeanor, effort, and self-discipline" (Portes & Rumbaut, 2001, p. 243). Yet, highly varied teacher ranking systems and school policies can disproportionately impact student grades across all subjects. GPAs should be contextualized because racial and ethnic minorities receive lower grades than White peers (Gandara & Contreras, 2009). Goodman and West-Olatunji (2010) argue that hegemonic educational experiences for culturally diverse populations negatively impact students akin to how experiencing systemic oppression can cause a traumatic stress response. As a result of this, students disengage from school and exhibit behaviors that teachers incorrectly deem as deviant. Teachers misunderstand and penalize students' behavior as deviant due to teachers' "cultural encapsulation," (Goodman and West-

Olatunji 2010, 179) or insensitivity to cultural differences and perpetuation of cultural stereotypes (Bergkamp and Ponsford 2020, 240). In addition, schools with high concentrations of minority students often have less resources and therefore offer fewer Advanced Placement and other advanced courses which can boost student GPAs (Gandara & Contreras, 2009).

Research shows there is a connection between Latinx immigrants' ethnic identity and GPA. Gonzales and Padilla (1997) show that cultural pride and awareness is a significant predictor of GPA in Latinx American students. Latinx adolescents who have positive feelings about their ethnic identity receive higher grades than those who have less positive feelings about their ethnic identity (Supple et al., 2006). Similarly, Sandoval, Gutkin, & Naumann (1997) note that more secure and positive views of ones' racial and ethnic group are associated with higher cumulative grade point averages. Another longitudinal study for first-generation Latinx immigrant students in middle school showed that ethnic identity affirmation is associated with decreases in GPA for male Latinx students (Rivas-Drake et al., 2014). Interestingly, adolescents with higher ethnic pride are predicted to have higher GPAs in low SES neighborhoods, but lower GPA's in higher SES neighborhoods (Rivas-Drake et al., 2014).

Methods

Data

This study utilized survey data from Wave One of the Children of Immigrants Longitudinal Study (CILS) data (Portes & Rumbaut, 2007). The CILS data represented longitudinal survey, interview, and academic data for 5,262 children who were born to at least one foreign-born parent and either born in the United States or brought to the country while very young and had lived in the country for at least five years. The data in Wave One came from students in 8th and 9th grade who attended forty-nine public and private schools in metropolitan

areas Miami/Ft. Lauderdale, Florida and San Diego, California with high immigrant population concentrations in 1992. Respondents represented 77 nationalities. While the CILS represents a longitudinal data with two subsequent waves of data collection, this investigation only utilized data from Wave One.

Sample

For the purposes of this study, second-generation Latinx individuals referred to those children who were born in the mainland United States to at least one first-generation immigrant who was born in a Latin American, Central American, or Romance language-speaking Caribbean country (including Puerto Rico) (Encyclopedia Britannica, 2017). This study used an analytic sample (n = 1,806) from the CILS and included US-born students[8] who had at least one parent who originated from a Central American, South American, or Romance language-speaking Caribbean country (including Puerto Rico).[9] This sample represented 34.3% of the original Wave One sample.

Measures

The primary predictor in this investigation was a students' level of biculturalism. The CILS had no item or validated construct which measured bicultural ethnic identity in a multifaceted way, and thus it was necessary to construct one.[10]

In the 2001 study, Portes and Rumbaut (2001) examined students' ethnic self-identification with an open-ended survey question;[11] responses were then organized into the

[8] There were 10 respondents who indicated they were born in the United States but were not US citizens. These ten observations were removed for the final analysis.
[9] Mexico, Cuba, Dominican Republic, Haiti, Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Peru, Uruguay, and Venezuela.
[10] They had other constructs including family cohesion, parent-child conflict, unsafe school conditions, high teaching quality, among others (Portes & Rumbaut, 2001).
[11] "How do you identify, that is what do you call yourself?" (Portes & Rumbaut, 2007)

categories National origin, Panethnic, Hyphenated American, and American. Both the National and Panethnic ethnic identification categories represented responses which identified with the immigrant experience, whereas the Hyphenated American and American categories represented identities that were "made in the USA" (Portes & Rumbaut, 2001, p. 154). An example of open-ended responses for each of those categories might look like the following based on that categorization: "Mexican," "Hispanic," "Mexican-American," and "American," respectively. Responses to this survey item included ethnic and racial identifications. As this investigation did not analyze race as there was no separate, racial identification variable in the Wave One data.

I utilized a combination of the previous conceptual frameworks to create a measure of bicultural ethnic identity. By doing so, I extended these original investigations with a composite measurement of biculturalism utilizing the existing 1992 CILS data.[12] I combined survey items which measured language usage and the open-ended ethnic identity into a single Bicultural Ethnic Identity Construct. Table 1 represents the original CILS items utilized this investigation and exploratory factor analysis.

Table 1: All Survey Items Utilized in Exploratory Factor Analysis

Conceptual Measurement	Original Survey Item	Type of Response	Response examples
Preferred language	"In what language do you prefer to speak most of the time?"	Open-ended response	English, Spanish, French, Portuguese, etc.
Non-English language usage frequency with friends	"How often do you use this language when talking with your school friends?"	Likert scale response	Seldom, From time to time, Often, Always
Non-English language usage frequency at home	"How often do people in your home use this language when they are talking to each other?" *Respondents were asked if they spoke another language at home in the previous question	Open-ended response	English, Spanish, French, Portuguese, etc.

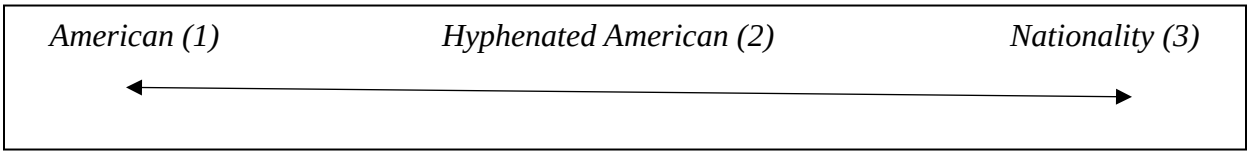
[12] Other measures of biculturalism identity exist, but they are not useful to examine historical data, like the CILS in this investigation. For that reason, a new construct was developed to measure biculturalism.

Perception of racial discrimination in economic opportunities in the U.S.	"Please indicate how much you agree or disagree with the following statements: There is racial discrimination in economic opportunities in the U.S."	Likert scale response	Agrees a lot, Agrees a little, Disagrees a little, Disagrees a lot
Language used with parents	"When you talk to your parents (or guardians), what language do you most often use?"	Open-ended response	English, Spanish, French, Portuguese, etc.
Frequency participant prefers to do things the "American Way"	"How often do you prefer American ways of doing things?"	Likert scale response	All of the time, Most of the time, Sometimes, Never
Number of friends from abroad	"How many of these close friends have parents who came from foreign countries, that is who were not born in the U.S.?"	Likert scale response	None, Some, Many or most
Embarrassment of parents for not knowing "American ways"	"Francois and Luis are both students whose parents are foreign born. Francois says: "I am sometimes embarrassed because my parents don't know American ways." Luis says: "I am never embarrassed by my parents, I like the way they do things." Which one comes closest to how you feel?"	Forced response	Francois, Luis, Neither
America is the best country	"Please indicate how much you agree or disagree with the following statements: There is no better country to live in than the U.S."	Likert scale response	Agrees a lot, Agrees a little, Disagrees a little, Disagrees a lot
The American way of life weakens family	"Please indicate how much you agree or disagree with the following statements: The American way of life weakens the family."	Likert scale response	Agrees a lot, Agrees a little, Disagrees a little, Disagrees a lot
Americans feel superior	"Please indicate how much you agree or disagree with the following statements: Americans generally feel superior to foreigners."	Likert scale response	Agrees a lot, Agrees a little, Disagrees a little, Disagrees a lot
Perceived discrimination regardless of education	"Please answer how true each statement is for you. No matter how much education I get, people will still discriminate against me."	Likert scale response	Very true, Partly true, Not very true, Not at all true
Ethnic identity	"How do you identify, that is what do you call yourself?"	Open ended responses	American, Black American, Hispanic, Mexican, etc.

This study conceptualized biculturalism as a spectrum (see Figure 1), where a respondent who indicated a Hyphenated American ethnic identity had a more bicultural ethnic identity than

respondents who indicated either an American or Nationality ethnic identity.[13] This conceptualization of biculturalism viewed the Hyphenated American ethnic identity as one that represented respondents who had indicated an affiliation with two separate cultures, both a natal culture and American culture. This conceptualization assumed that respondents who are born in the United States to at least one foreign born parent would indicate an affiliation with American culture by the time of survey administration. This construct did not account for other types of multicultural ethnic identities respondents might have, for example, in instances where parents originated from different countries and cultures (ex. Cambodian-Mexican).[14] This conceptualization also assumed that respondents grew up entirely in the United States, as there was no way to test this assumption with the Wave One CILS data. Additionally, this conceptualization of biculturalism also assumed that the difference between a National identity and bicultural identity was the same as the difference between an American identity and bicultural identity, at least in terms of the predictive effects on GPA.

Figure 1: Conceptual Ethnic Identity Spectrum



[13] Responses from this sample clearly fit into the National, Hyphenated American, and American categories, except for 243 respondents who identified as "Hispanic." According to the description of the original coding scheme, these responses would have been coded into the Panethnic category, along with other ethno-racial categories like "Black" or "Asian." As there were no other responses which also fell into the original categorization of the Panethnic category, "Hispanic" responses were coded as part of the National identity category, as the responses indicated no partial or close ethnic affiliation with the United States.

[14] There were no instances of this type of multicultural ethnic identity present in the original survey item. This could also be a weakness of the survey item itself.

This conceptualization of biculturalism was then expanded by combining the identity variable with the other survey items which could inform bicultural ethnic identity. The following survey items were explored: respondents' language usage in different environments, their feelings towards American values and the "American way," their experience with discrimination in an educational setting, among other variables (see Table 1). I utilized exploratory factor analysis (Beavers et al., 2013) to determine which items loaded onto a single factor.

Exploratory Factor Analysis

I utilized exploratory factor analysis to determine how 14 items of interest loaded onto different factors (see Table 1). To run the factor analysis, I coded all the variables onto a conceptual spectrum from American ethnic identity to National ethnic identity, where a bicultural ethnic identity was at the center of the spectrum (see Figure 1). After coding all the variables as numeric variables from 1 (American) to 3 (National), I loaded them into a factor analysis with Promax rotations, which allowed variables to be correlated with one another. I only included items in the factor if they had factor loadings greater than 0.3. Five of the items loaded onto a single factor and did not load onto other factors; these items informed a Bicultural Ethnic Identity factor. This factor only explains 10% of variance across all items in the exploratory factor analysis.

Table 2: Factor Loading of Bicultural Ethnic Identity Items

Survey Item	Factor 1	Factor 2	Factor 3
Preferred language	0.59		
Non-English language usage frequency with friends	0.59		
Non-English language usage frequency at home	0.84		
Perception of racial discrimination in economic opportunities in the U.S.			0.52
Language used with parents	0.45		
Frequency participant prefers to do things the "American Way"		0.31	

Number of friends from abroad			
Embarrassment of parents for not knowing "American ways"		0.34	
America is the best country			
The American way of life weakens family			
Americans feel superior			0.48
Perceived discrimination regardless of education			
Ethnic identity	0.46		

Note: Factor loadings <0.3 are suppressed.

I created the Bicultural Ethnic Identity Construct using the items which loaded onto the same factor: participants' (collapsed) ethnic identity, the frequency participants spoke a non-English language with their friends, participants' language preference, the frequency participants spoke English at home, and the language participants preferred to speak with their parents. Item responses ranged from 1 (*American*) to 3 (*Nationality*), and scores closer to 2 indicating higher levels of biculturalism (Cronbach's alpha = 0.64).[15] Interestingly, all items in the Bicultural Ethnic Identity Construct related to respondents' language usage except for the ethnic identity variable (see Appendix C) the identity variable still contributed to the overall strength of the construct and was related to the other items in the construct.[16]

Predictor Variables

Biculturalism Construct: I coded the survey item responses onto a conceptual spectrum from American ethnic identity to National ethnic identity, where a bicultural ethnic identity was at the center of the spectrum. After coding all the variables as numeric variables from 1 (American) to 3 (National), the absolute value of the centered means was recorded of all the variables. Respondents were assigned a score for the Bicultural Ethnic Identity Construct which

[15] See Appendix C.
[16] One point of issue could be that one item in this construct was missing data for 33% of respondents. Regardless, the alpha value for this construct ranged between 0.63 and 0.64 with multivariate data imputation using the mice package in R Studio.

was the mean value of each respondent's responses to items on the Bicultural Ethnic Identity Scale, ranging from 1 (representing a high American ethnic identity) to 3 (representing a high Nationality identity).[17] I calculated respondents' level of biculturalism as the absolute value distance between respondents' BEIC score and the Bicultural Ethnic Identity Construct average (m = 1.72) (see Table 3). For example, a respondent might have a BEIC score of 2.5, but a biculturalism value of 0.78. The BEIC utilized the calculated mean because the spread of observations was skewed, where the actual mean of the observations was 1.72 and the median was 1.80. As such, utilizing the theoretical mean for the BEIC calculation prevented artificially decreasing the number of bicultural cases.

Biculturalism scores closer to zero indicated higher biculturalism, whereas scores closer to 2 indicated less biculturalism. The BEIC mean represented the conceptual value of biculturalism in the Bicultural Ethnic Identity Construct. This construct intended to illustrate how any deviation from a bicultural ethnic identity was equivalent, where respondents who had more American identities were similar to those who had more natal identities. This version of the construct illustrated how both a totally assimilated identity and a totally natal identity might negatively predict academic outcomes in an American school context. The Bicultural Ethnic Identity Construct illustrated respondents' distance from a bicultural ethnic identity.

Table 3: Descriptive Statistics of Bicultural Ethnic Identity Construct

	N	*Mean*	*Median*	*Min*	*Max*	*Number missing cases*
Bicultural Ethnic Identity	1805	1.72	1.80	0.20	2.80	1
Bicultural Ethnic Identity Construct	1803	0.83	0.62	0.14	2.13	3

[17] See Appendix D for the raw and recoded frequency tables of each item which contributed to the Bicultural Ethnic Identity Construct.

Academic Expectations: This investigation used a single survey item to measure students' academic expectations. Participants were asked to indicate the highest "realistic" level of education they expected to achieve. Responses included five options ranging from "Less than high school" to "Finish a graduate degree." See Table 4 for the descriptive statistics of this standalone items.

SES Index: The CILS data included an item which measured students' parental socioeconomic status index. This numeric variable represented a composite score assigned to parents given their occupation prestige and estimated earnings (Portes & Rumbaut, 2007). For the purpose of this investigation, this predictor variable was centered and standardized for ease of interpretation.

Gender: Respondents were asked to indicate whether they were a Male or Female. All respondents provided answers for this dichotomous variable.

Homework Hours: When asked how many hours they spent studying or doing homework daily, respondents could answer by indicating a category of time between "Less than one" and "Five or more."

Experience with discrimination: Participants indicated whether they had experienced discrimination. The survey provided no definition of discrimination to prompt respondents to answer in a specific way.

Age: Respondents indicated their age at the time of survey administration. Responses ranged between 12 and 18, but the majority of respondents indicated their ages between 13 and 15.

Table 4: Variable Descriptive Statistics

Variable	Number of Observations	Percentage (%)
Gender		
Male	924	51.2
Female	882	48.8
SES Index	-	-
Academic Expectations		
Less than high school	11	0.61
High school degree	148	8.19
Some college	206	11.41
College degree	646	35.76
Graduate degree	786	43.52
Homework Hours		
Less than one	556	30.79
One or two	708	39.20
Two to three	290	16.06
Three to four	118	6.53
Four to five	49	2.71
Five or more	73	4.04
Experience with discrimination		
Yes	886	50.49
No	912	49.01
Age		
12	8	0.44
13	446	24.69
14	837	46.34
15	428	23.70
16	80	4.42
17	6	0.33

Outcomes – GPA

This study examined grade point averages (GPAs) as the primary academic outcome of interest. CILS data for Wave One represented students in eighth and ninth grades.[18] In this sample, many students likely had limited access to advanced courses which would inflate their GPA. There was no data regarding the number of advanced placement courses available by school. As such, the available classes at each school could differ, but the hierarchal linear model

[18] The GPA averages for eighth (n = 1027) and ninth grade (n = 717) students differed slightly, at 2.33 and 2.26, respectively.

accounted for these school level effects. Notably, there were about 30 students who reported GPA's of over 4.0, indicating that at least some students had access to advanced courses which could increase GPA above a 4.0.[19] This study only examines the GPAs of second-generation Latinx students and therefore does not make any comparisons in GPA between racial groups.

Data Analysis Strategy

As school-level effects might influence the relationship between BEI and academic outcomes, this study utilized a hierarchal linear model to account for school-level random effects. Initial investigation into the best model fit utilizing ANOVA tests for this data indicated that hierarchal linear modeling would be better than ordinary least squares regression as the difference between the models was significantly different from zero.[20] This model accounted for random effects attributed to clustering at the school level.[21] I conducted hierarchal linear modeling using the lmer package in RStudio 2022.02.3. Below represents the final model:

$$GPA_{ij} = \beta 0_j + \beta 1_j\, Bicultural\ Ethnic\ Identity_{ij} + \beta 2_j\, Academic\ Expectations_{ij} + \beta 3_j\, SES_{ij} + \beta 4_j\, Gender_{ij} + \beta 5_j\, Homework\ Hours_{ij} + \beta 5_j\, Homework\ Hours_{ij} + \beta 6_j\, Experience\ with\ Discrimination_{ij} + \beta 7_j\, Age_{ij} + \beta 8_j\, Bicultural\ Ethnic\ Identity_{ij}\ X\ Experience\ with\ Discrimination_{ij} + r_j + e_{ij}$$

where β0j is the intercept, β1j through β8j are slopes or effects of respective level-1 predictors, and the term rj is the random effect (or residual) for school *j* and is e_{ij} the residual for student *i* nested in school *j*.

[19] The 30 students who had GPAs over 4.0 were concentrated in 11 of the 42 schools in the sample.
[20] The Intraclass Correlation Coefficient (ICC) for each hierarchal linear model presented in this investigation does not exceed 0.10, indicating a larger portion of the variability in GPA lies between schools (Musca et al., 2011)
[21] The data did not have any smaller level of clustering on which to run analysis (i.e., classroom or teacher data).

Bicultural ethnic identity accounted for 0.2% of the variance in GPA within schools in this model. In comparison, bicultural ethnic identity only accounted for 0.09% of variance in GPA across schools. As such, the effect of the BEIC did not differ by school when accounting for BEI as a random effect.

Table 5: Percentage of GPA Variance due to Bicultural Ethnic Identity

	Percentage of Variance in GPA due to BEI
Level One Predictors (within schools)	0.2%
Level Two Predictors (between schools)	0.09%

Results

Model Testing

According to the extant literature, there were multiple variables which could impact the relationship between bicultural ethic identity and grade point average. As such, I explored those variables of interest which existed in the CILS data to determine which variables to include in the final model. Respondents' gender, the number of hours spent on homework, academic expectations to graduate with a college or graduate degree, and age were significant predictors of GPA regardless of the inclusion of the BEIC in the model (see Appendix A), and therefore were included in the final model.

I also examined the effectiveness of the BEIC as an individual predictor of GPA. When using a linear model, the BEIC was a significant negative predictor of GPA at the 90% confidence interval (see Appendix A). Yet, the BEIC was not a substantial predictor of GPA in a linear model as each standard deviation in BEIC predicted a GPA point increase of 0.06 (See Appendix A). After accounting for school effects in an unconditional hierarchical linear model, the BEIC was no longer a significant predictor of GPA (see Appendix A). Additionally, the

BEIC was a slightly less substantial predictor of GPA in the unconditional hierarchal linear model than the linear model, where each standard deviation increase in BEIC in an unconditional single-level linear model predicted an increased GPA of 0.06 points, whereas it predicted an increase of 0.05 points in an unconditional hierarchal linear model.

In addition, I also explored the utility of the BEIC as a predictor of bicultural ethnic identity by comparing a model with the BEIC as the primary predictor to another model which included all five items embedded in the BEIC as individual predictors (see Appendix A).[22] The language respondents spoke with their parents was the only standalone item from the BEIC which was a significant predictor of GPA.[23]

When comparing different models with and without the BEIC as a predictor, all control estimates, standard errors, and p values were similar between models (see Appendix A). This indicated that the BEIC was a better predictor of GPA when other controls were present in the hierarchal linear model. As such, the BEIC appeared to be related to other factors in the model and controlling for them made the predicted effect of BEIC on GPA more apparent. Yet, these results were only marginally significant.

Model Results

Initial results with the BEIC as a predictor of GPA indicated that second-generation students who had a less bicultural ethnic were predicted to have a higher GPA when controlling for other variables, but these results were not significant at the 95% confidence interval (see

[22] The five individual items included respondents' preferred language, ethnic identity, frequency of speaking a non-English language with friends, frequency of speaking a non-English language at home, language spoken with parents.
[23] Respondents who spoke Spanglish with their parents were predicted to have lower GPAs by 0.20 points ($p < 0.1$), whereas those who spoke a non-English language with their parents were predicted to have lower GPAs by 0.14 points when compared to second-generation Latinx students who spoke English with their parents.

Table 6).[24] According to the prediction line, a one standard deviation move away from a bicultural ethnic identity predicted an increase in GPA by 0.07 points (p = 0.06). These findings were both statistically and substantively marginal.

Interestingly, the BEIC was a more substantive and significant predictor of GPA when the model included control variables for other strong predictors of GPA. For example, respondents' academic expectations, SES index, gender, and hours spent on homework were significant predictors of GPA in models where the BEIC was and was not a predictor (see Appendix A). The addition of the BEIC to the model did not decrease the percentage of the variance in the outcome the model explained; the fixed effects in the model accounted for 17% of the variance in the outcome, whereas the total effects in the model accounted for 21% of the variance in the outcome.

As such, the BEIC gained predictive power when the model controlled for other significant predictors of GPA. This showed that the BEIC was not as strong of a predictor of GPA as other variables included in the model (i.e., academic expectations, SES index, gender, hours spent on homework, and age) as indicated by the model estimates or p values, but it was still a construct worth further analytical exploration.

Table 6: BEIC Model Results

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	2.74	0.46	0.00***	
BEIC	0.07	0.04	0.06+	
Academic Expectations				
High School Degree	0.26	0.27	0.34	
Some College	0.26	0.27	0.33	

[24] It is worth noting that additional analyses which explored the BEIC as a linear construct found increased assimilated identities predicted higher GPA's.

College Degree	0.54	0.26	0.04*	
Graduate Degree	0.74	0.26	0.01**	
SES index	0.12	0.03	0.00***	
Male	-0.18	0.04	0.00***	
Hours on Homework				
One or two	0.22	0.05	0.00***	
Two to three	0.38	0.06	0.00***	
Three to four	0.40	0.08	0.00***	
Four to five	0.40	0.12	0.00***	
Five or more	0.68	0.10	0.00***	
Experience with Discrimination	0.01	0.04	0.74	
Age	-0.08	0.03	0.00**	
Random Effects				
School				0.19
Residuals				0.77

N = 1715
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.06

Gender, number of hours spent on homework per week, education expectations, age, and SES index were significant predictors of GPA. Male second-generation Latinx students were predicted to have lower GPAs than second-generation Latinx girls.[25] In addition, students who had higher academic expectations were predicted to have higher GPAs; students who expected to obtain a college or graduate degree were predicted to have higher GPAs by 0.54 points and 0.74 points than those who did not expect to graduate from high school, respectively. A one standard deviation increase in SES index was associated with a 0.12 higher GPA. Older second-generation Latinx students were predicted to have lower GPAs by 0.08 points than younger students.

[25] These findings corroborate previous findings from Rivas-Drake et al (2014).

Model Variations by Experience with Discrimination

This investigation also explored how respondents' experience with discrimination from either a teacher or classmate impacted their GPAs. Less than half of the sample indicated they had experienced discrimination (49.27%), where only half of the survey respondents answered survey items asking about experience with discrimination from either teachers or classmates. Of those respondents who answered discrimination-related items, nearly twice as many respondents indicated they experienced discrimination from classmates than teachers (see Table 7).

Table 7: Frequency of Experience with Discrimination Responses

	Yes (%)	No (%)	Total responses (Overall response rate)
Experienced discrimination	886 (49.27%)	912 (50.63%)	1806 (99.57%)
Experienced discrimination from a teacher	275 (31.76%)	591 (68.24%)	866 (47.95%)
Experienced discrimination from a classmate	474 (54.73%)	392 (45.27%)	866 (47.95%)

To examine whether the BEIC was a significant predictor of GPA for students who experienced discrimination, I completed three separate analyses for each of the different sample subgroups based on respondents' indication of discrimination experience in general, from a teacher, or from a classmate (see Appendix B). Initial HLM model findings indicated that BEIC was not a significant predictor of GPA for respondents who indicated they experienced discrimination in general, from a teacher, or from a classmate (see Appendix B). In general, second-generation Latinx male students who experienced any kind of discrimination were predicted to have lower GPAs than female students who experienced discrimination. The number of hours spent on homework was not a significant predictor of GPA for all students who experienced discrimination. Interestingly, the number of hours respondents spent on homework

predicted GPA for those who experienced discrimination from classmates, but it did not predict GPA for those who experienced discrimination from teachers.

The last investigation explored how experience with discrimination and bicultural ethnic identity might be related to GPA (see Table 8). These findings indicated that a less bicultural identity alone was a significant positive predictor of GPA, whereas experience with discrimination was not a significant predictor of GPA at the 95% confidence interval. When examining the interaction effect between respondents' experience with discrimination and their BEIC score, students who experienced discrimination and had less bicultural ethnic identities were predicted to have lower GPAs ($p < 0.05$). This finding indicates that biculturalism is related to other factors in the model, but the relationship between a bicultural ethnic identity and GPA is clearer when the model controls for other variables. Additionally, the negative interaction effect and two positive main effects (of BEIC and experience with discrimination) suggests that an increase in either BEIC or experience with discrimination will have limited impact on GPA.

Table 8: Standalone Model with BEIC and Experience with Discrimination Interaction Effect

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	2.69	0.46	0.00***	
BEIC	0.13	0.05	0.01**	
Experience with Discrimination	0.12	0.07	0.07+	
Academic Expectations				
High School Degree	0.25	0.27	0.36	
Some College	0.25	0.27	0.36	
College Degree	0.53	0.26	0.05*	
Graduate Degree	0.73	0.26	0.01**	
SES index	0.12	0.03	0.00***	
Male	-0.18	0.04	0.00***	
Hours on Homework				

One or two	0.22	0.05	0.00***	
Two to three	0.38	0.06	0.00***	
Three to four	0.40	0.08	0.00***	
Four to five	0.40	0.12	0.00***	
Five or more	0.68	0.10	0.00***	
Age	-0.08	0.03	0.00**	
BEIC x Experience with Discrimination	-0.13	0.07	0.05+	
Random Effects				
School				0.19
Residual				0.77

N = 1715
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.06

Model Variations by Ethnic Identity

This investigation also explored how respondents' ethnic identity predicted their GPA. Table 9 indicates model results which utilized the three-category ethnic identity variable[26] to predict GPA and did not include the BEIC as a predictor. Results showed that the three-category ethnic identity variable was neither a significant nor substantive predictor of GPA. While respondents who identified as Hyphenate American or National Origin had lower predicted GPAs than reference group,[27] these estimates were not significant.

Table 9: Segmented Ethnic Identity

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	2.87	0.45	0.00***	

[26] This variable was categorical, where respondents' ethnic identity was categorized as either American, Hyphenated American, or National Origin.
[27] The twelve-year-old female respondent with an American identity, academic expectations to not graduate from high school, and average SES, who never experienced discrimination, and spent one to two hours on homework per day.

Hyphenate American Identity	-0.01	0.05	0.80	
National Origin Identity	-0.03	-0.06	0.55	
Academic Expectations				
High School Degree	0.32	0.26	0.21	
Some College	0.32	0.25	0.21	
College Degree	0.59	0.25	0.02*	
Graduate Degree	0.80	0.25	0.00**	
SES index	0.11	0.03	0.00***	
Male	-0.17	0.03	0.00***	
Hours on Homework				
One or two	0.22	0.05	0.00***	
Two to three	0.38	0.06	0.00***	
Three to four	0.41	0.08	0.00***	
Four to five	0.41	0.12	0.00***	
Five or more	0.68	0.10	0.00***	
Experience with Discrimination	0.03	0.04	0.74	
Age	-0.09	0.03	0.00***	
Random Effects				
School				0.19
Residual				0.78

N = 1691
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.06

This investigation then examined how BEIC might predict GPA differently for different subgroups within the National Origin ethnic identity category. Unfortunately, most of the National Origin ethnic identity subgroups in this sample were too small to conduct HLM analyses (see Appendix E). There were only enough responses in the second-generation Hispanic and Mexican ethnicity subgroup samples to conduct analyses.

Table 10 shows that a higher BEIC was a significant positive predictor of GPA for respondents who identified as Hispanic. For each standard deviation away from a bicultural ethnic identity, respondents were predicted to have 0.21 fewer GPA points. These findings

directly contrast the original model, where increased biculturalism predicted lower GPAs. Additionally, this model predicted a more substantive effect of a bicultural ethnic identity on GPA than the original model (-0.21 and 0.07, respectively). Yet, this model utilized a much smaller sample size (n = 236) than the original model (n = 1715) and findings should be interpreted with caution. It is notable that gender, SES index, and age were not significant predictors of GPA for respondents who identified as Hispanic, whereas those variables were significant predictors in the original model.

Table 10: Hispanic Ethnic Identity

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	1.98	1.07	0.07+	
BEIC	-0.21	0.10	0.04*	
Academic Expectations				
High School Degree	0.96	0.57	0.10+	
Some College	1.01	0.57	0.08+	
College Degree	1.14	0.56	0.04*	
Graduate Degree	1.29	0.56	0.02*	
SES index	0.06	0.08	0.46	
Male	-0.11	0.10	0.30	
Hours on Homework				
One or two	0.38	0.13	0.00**	
Two to three	0.76	0.16	0.00***	
Three to four	0.71	0.21	0.00***	
Four to five	0.78	0.40	0.05+	
Five or more	0.80	0.34	0.02*	
Experience with Discrimination	0.08	0.10	0.43	
Age	-0.07	0.06	0.26	
Random Effects				
School				0.12
Residual				0.76

N = 236
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: ICC was 0.02

The second largest subgroup in the National Origin ethnic identity category was Mexican (n = 140). As seen in Table 11, biculturalism was not a significant predictor of GPA for respondents who indicated their ethnic identity as Mexican. It is worth noting that many of the predictors which were significant in other versions of the model were not significant for this subpopulation. Only gender and hours spent on homework (four to five hours) were significant predictors of GPA for second-generation Mexican students in this investigation. As this subgroup sample size was very small, these analyses have less power to discriminate statistically-significant results. These findings should be interpreted with caution. Ideally, this analysis should be replicated with a larger subgroup sample.

Table 11: Mexican Ethnic Identity

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	0.79	1.23	0.52	
BEIC	0.05	0.12	0.69	
Academic Expectations				
High School Degree	0.23	0.48	0.64	
Some College	0.13	0.49	0.79	
College Degree	0.55	0.49	0.26	
Graduate Degree	0.57	0.50	0.25	
SES index	-0.14	0.13	0.25	
Male	-0.25	0.14	0.08+	
Hours on Homework				
One or two	0.08	0.16	0.61	
Two to three	0.28	0.16	0.30	
Three to four	0.29	0.39	0.45	
Four to five	-1.54	0.81	0.06+	
Five or more	0.15	0.43	0.73	
Experience with Discrimination	-0.21	0.16	0.19	
Age	0.07	0.08	0.36	

Random Effects	
School	0.00
Residual	0.78

N = 140
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.00

Discussion

Utilizing social identity theory as a theoretical framework, I investigated the potentially positive benefits of second-generation Latinx students embracing a bicultural ethnic identity on academic outcomes. This investigation examined the impact of second-generation Latinx students' biculturalism on their GPAs. The Bicultural Ethnic Identity Construct was not a significant predictor of GPA in an unconditional hierarchal linear model, but the addition of control variables to the model increased the BEIC's predictive power. Many controls were significant predictors of GPA in models which both included and excluded the BEIC as a predictor. In addition, the consistency between the estimates, standard errors, and p values of models which included and excluded the BEIC demonstrates the low likelihood of multicollinearity between variables in the model.

Results from this investigation indicate that biculturalism, as measured by the Bicultural Ethnic Identity Construct, can be a useful predictor of second-generation Latinx students' GPA. The BEIC shows potential as an improved measure of biculturalism for the CILS data than standalone survey items (i.e., respondents' English proficiency or ethnic identity). By combining survey items which measured both respondents' ethnic identity and language preferences into a construct, the BEIC represents a richer composite measure of biculturalism which can be used in other investigations of the CILS data. Regardless of the findings of this investigation, the BEIC

needs to be validated to ensure the construct's validity and accuracy when measuring biculturalism.

Initial findings indicated that increased biculturalism predicted a higher GPA for students who identified as Hispanic. This investigation adds preliminary evidence to the ethnic identity and academic literatures, finding support for the positive connection between biculturalism and GPA. There were null effects for biculturalism on GPA in the total population of second-generation Latinx students, indicating that there may not be a statistically significant relationship between students' degree of biculturalism and their grade point average for all second-generation Latinx students.

This investigation did not completely clarify the types of relationships between second-generation Latinx students' ethnic identity, experience with discrimination, and GPA. The existing literature indicated a mediating relationship between students' experience with discrimination, ethnic identity, and academic outcomes, where second-generation Latinx students who experienced discrimination were more likely to take on National Origin or bicultural ethnic identities and experience lower academic outcomes. This investigation provided evidence supporting the existence of a relationship between students' bicultural ethnic identity, experience with discrimination, and GPA when both predictors are included in the same model. Respondents who experienced discrimination and had less bicultural ethnic identities (either more American or more National Origin) were predicted to have lower GPAs than those respondents who experienced discrimination yet had more bicultural ethnic identities. Similar to other studies (Valenzuela, 1999; Zarate et al., 2005), this investigation did not find support for a positive relationship between a National Origin ethnic identity and GPA.

Findings from this investigation also indicated that discrimination alone was not a significant predictor of GPA, and there was no relationship between a bicultural ethnic identity and GPA for subgroups of students who had experienced discrimination from a teacher, classmate, or in general. The significant relationship between students' bicultural ethnic identity, experience with discrimination, and GPA was not apparent for different ethnic groups. Neither respondents who identified as Mexican nor Hispanic and experienced discrimination benefited academically from a bicultural ethnic identity (See Appendix B).

This investigation predicted second-generation Latinx female respondents, respondents with higher socioeconomic statuses, and respondents with higher academic expectations to have higher GPAs. Male second-generation Latinx respondents were consistently predicted to have lower GPAs than female second-generation Latinx respondents. This finding corroborates other literature which indicated that second-generation and Latinx female students on average had higher academic outcomes than male students (Carter, 2005). Similarly, findings from this study also add evidence to the positive significant relationship between socioeconomic status and academic achievement (Sirin, 2005). While older students were consistently predicted to have lower GPAs than younger students, this was possibly due to the older respondents being enrolled in more academically rigorous classes than younger respondents which could decrease older respondents' GPA.

Similar to findings from Leone and Richards (1989), respondents who expected to graduate from college or graduate school consistently had predicted higher GPAs than respondents who expected to graduate with only a high school degree or complete some college classes. As the literature indicated the importance of cultural capital in academic settings (Carter, 2005; Huynh et al., 2018; Yosso, 2005), further research should investigate whether students'

academic expectations were related to a combination of their access to dominant cultural capital (i.e., parents' level of education, parents' career, first-generation college students, etc.), ethnic identity, and positive relationships with trusted adults (i.e., teachers and parents). Further, these findings indicated the statistically significant relationship between academic expectations on academic outcomes and illustrated the importance of encouraging second-generation Latinx students to have high academic expectations for themselves.

Findings from this investigation provide further support for the importance of inclusive schooling environments for second-generation Latinx students. This investigation challenged the assumption that students need to assimilate to dominant cultural capital to succeed in school. Instead, findings from this investigation support the expansion of educational policies which encourage multicultural curriculums and intentional ethnic identity development programs. Umana-Taylor (2009) found that Latinx ethnic identity exploration increased students' self-esteem. As previously mentioned, it is possible for students to develop "reactive ethnicities" in response to perceived ethno-racial discrimination (Portes & Rumbaut, 2001). Educational policies and practices which encourage second-generation Latinx students to embrace their ethnic identity could be beneficial for students' schooling experiences, academic outcomes, and overall wellbeing.

Limitations and Further Research

There are multiple limitations to this investigation so findings should be considered with caution. This investigation was not conclusive of the entire second-generation Latinx group. The variety of assumed nationalities (ethno-specific identities), languages spoken, language abilities, phenotypes, racial identities, and socioeconomic statuses of these individuals are incredibly diverse and could impact the way students both engage in school and form their identities

(Carter, 2005; Portes & Rumbaut, 2001). The available CILS data for this investigation was limited, both due to the relatively small sample size of second-generation Latinx individuals and the lacking specificity of survey responses. While this investigation found that biculturalism was a significant positive predictor for second-generation Latinx students who identified as Hispanic, these findings are not conclusive due to the small sample size. In addition, there are other aspects of identity which differentiate second-generation Latinx students' experiences which should be further investigated. Future research should utilize larger sample sizes to examine specific groups of Latinx individuals, as the differences in experience vary widely both between and within subgroups of this population.

There are other aspects of the BEIC that can be improved. The BEIC utilized language usage and a proxy for BEI, where low bilingualism was equated with low biculturalism. While Spanish is the second most popular language spoken in the US, a smaller percentage of Latinx individuals are speaking Spanish at home (Krogstad & Noe-Bustamante, 2021). The percentage of US-born Latinos who speak Spanish at home has decreased by 10% over the last 30 years, while the percentage of US-born Latinos who fluently speak English has increased by 19% in the same time span (Krogstad & Noe-Bustamante, 2021). As such, the BEIC construct could have conflated identity and language skills, which would have inaccurately predicted GPA. In addition, as fewer second- and later-generation Latinx students gain bilingual fluency, the construct may have calculated some students' BEI score lower than it should be based on their language proficiency.

Additionally, the imperfect definitions for Latinx, second-generation immigrant, ethnic identity, and biculturalism make it difficult to precisely measure the relationship between BEI and academic outcomes. Research indicates an overlap in measurement of acculturation and

ethnic identity, where similar scales are used to measure the two conflicting outcomes (Phinney, 2003). With this work, future studies might be able to better quantify BEI and measure how its changes impact different academic outcomes.

Another limitation relates to the age of the data, where Wave One data was collected nearly thirty years ago in 1992. Political contexts have changed, which could influence the way second-generation Latinx immigrants ethnically identify: while Phinney (2003) argues that ethnic identity will continue to remain important to non-European immigrant groups as long as they and their descendants are marginalized in the United States, changes in immigration policy could further alienate second-generation groups from bicultural ethnic identities. In contrast, harsh rhetoric regarding immigrant programs like DACA and discriminatory immigration policies like the "Muslim Travel Ban" could encourage second generation Latinx immigrants to take on a more natal identity through "reactive ethnicity" in response to perceived discrimination (Portes & Rumbaut, 2001, p. 186; *Timeline*, 2019).

This investigation is by no measure conclusive, as there are multiple other factors to consider in future research. Previous research shows experience with discrimination can increase biculturalism, which indicates findings from this study may not be representative of the full picture of academic achievement and ethnic identity. This investigation could benefit from supplemental qualitative data and additional contextualization of findings. In addition, future iterations of this work should consider the use of longitudinal data analysis, as ethnic identity formation is informed through socialization processes with peers and teachers in school over time (Hartmann et al., 2018). Lastly, future research should also explore the potential benefits of second-generation immigrants forming a natal identity, rather than just a bicultural ethnic identity.

Appendix A: Model Testing

Table A1: BEIC predicting GPA, linear model

	Estimate	Standard Error	P value
Intercept	2.25	0.04	0.00***
BEIC	0.06	0.04	0.10*

N = 1741
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A2: BEIC predicting GPA, HLM

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	2.27	0.06	0.00***	
BEIC	0.05	0.4	0.23	
Random Effects				
School				0.23
Residual				0.84

N = 1741
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.07

Table A3: HLM without BEIC (only controls)

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	2.78	0.45	0.00***	
Academic Expectations				
High School Degree	0.33	0.26	0.20	
Some College	0.33	0.25	0.20	
College Degree	0.60	0.25	0.02*	
Graduate Degree	0.80	0.25	0.00**	
SES index	0.12	0.03	0.00***	
Male	-0.18	0.04	0.00***	
Hours on Homework				
One or two	0.22	0.05	0.00***	
Two to three	0.37	0.06	0.00***	
Three to four	0.41	0.08	0.00***	
Four to five	0.39	0.12	0.00**	
Five or more	0.68	0.10	0.00***	

Experience with Discrimination	0.01	0.04	0.71	
Age	-0.08	0.03	0.00**	
Random Effects				
School				0.19
Residual				0.77

N = 1717
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.06

Table A4: HLM with BEIC items, not construct (only controls)

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	2.78	0.45	0.00***	
Language preference				
Spanglish	-0.02	0.13	0.89	
Non-English language	0.02	0.06	0.76	
Identity				
Hyphenate American	-0.02	0.06	0.77	
National Origin	-0.04	0.07	0.61	
Frequency English is spoken at home				
Often	0.04	0.08	0.60	
Always	0.03	0.08	0.75	
Frequency English is spoken with friends				
Often	-0.01	0.06	0.82	
Always	-0.06	0.16	0.71	
Language spoken with parents				
Spanglish	-0.20	0.11	0.06+	
Non-English language	-0.14	0.06	0.02*	
Academic Expectations				
High School Degree	0.44	0.27	0.11	
Some College	0.44	0.27	0.10	
College Degree	0.63	0.27	0.02*	
Graduate Degree	0.83	0.27	0.00**	
SES index	0.05	0.04	0.20	
Male	-0.20	0.05	0.00***	

Hours on Homework				
One or two	0.29	0.06	0.00***	
Two to three	0.36	0.08	0.00***	
Three to four	0.48	0.11	0.00***	
Four to five	0.47	0.14	0.00**	
Five or more	0.77	0.13	0.00***	
Experience with Discrimination	0.03	0.05	0.59	
Age	-0.08	0.03	0.02*	
Random Effects				
School				0.21
Residual				0.77

N = 1096
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.07

Appendix B: Experience with Discrimination Model Results

Table B1: Respondents who Experienced Discrimination

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	3.11	0.57	0.00***	
BEIC	0.02	0.05	0.64	
Academic Expectations				
High School Degree	0.31	0.31	0.32	
Some College	0.22	0.31	0.49	
College Degree	0.51	0.31	0.09+	
Graduate Degree	0.69	0.31	0.02*	
SES index	0.08	0.04	0.05*	
Male	-0.19	0.06	0.00***	
Hours on Homework				
One or two	0.28	0.07	0.00***	
Two to three	0.46	0.09	0.00***	
Three to four	0.48	0.12	0.00***	
Four to five	0.31	0.19	0.10+	
Five or more	0.42	0.15	0.00***	
Age	-0.11	0.03	0.00***	
Random Effects				
School				0.10

Residual				0.79

N = 854
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.02

Table B2: Respondents who Experienced Discrimination from Teachers

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	3.49	0.96	0.00***	
BEIC	-0.14	0.10	0.17	
Academic Expectations				
High School Degree	-0.09	0.38	0.80	
Some College	-0.02	0.37	0.96	
College Degree	0.24	0.36	0.51	
Graduate Degree	0.38	0.36	0.29	
SES index	0.01	0.08	0.88	
Male	-0.18	0.11	0.10+	
Hours on Homework				
One or two	0.20	0.12	0.11	
Two to three	0.28	0.17	0.10+	
Three to four	0.50	0.25	0.05*	
Four to five	0.02	0.39	0.96	
Five or more	0.29	0.23	0.21	
Age	-0.11	0.23	0.21	
Random Effects				
School				0.00
Residual				0.83

N = 267
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.00

Table B3: Respondents who Experienced Discrimination from Classmates

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	2.55	0.78	0.00***	
BEIC	0.02	0.07	0.79	
Academic Expectations				
High School Degree	0.25	0.42	0.56	

Some College	0.20	0.41	0.62	
College Degree	0.43	0.40	0.29	
Graduate Degree	0.64	0.41	0.12	
SES index	0.15	0.06	0.01**	
Male	-0.21	0.08	0.01**	
Hours on Homework				
One or two	0.23	0.09	0.01**	
Two to three	0.45	0.12	0.00***	
Three to four	0.53	0.15	0.00***	
Four to five	0.54	0.27	0.05*	
Five or more	0.37	0.19	0.05*	
Age	-0.06	0.05	0.23	
Random Effects				
School				0.16
Residual				0.78

N = 463
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.04

Table B4: Mexican Students who Experienced Discrimination, BEIC and Experience with Discrimination Interaction Effect

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	0.91	1023	0.46	
BEIC	-0.22	0.23	0.34	
Experience with Discrimination	-0.62	0.34	0.07+	
Academic Expectations				
High School Degree	0.26	0.48	0.58	
Some College	0.21	0.49	0.67	
College Degree	0.58	0.49	0.23	
Graduate Degree	0.62	0.50	0.21	
SES index	-0.14	0.13	0.25	
Male	-0.26	0.14	0.07+	
Hours on Homework				
One or two	0.06	0.16	0.74	
Two to three	0.29	0.26	0.27	
Three to four	0.22	0.39	0.57	
Four to five	-1.56	0.80	0.05+	

Five or more	0.18	0.43	0.68	
Age	0.08	0.08	0.29	
BEIC x Experience with Discrimination	0.35	0.26	0.18	
Random Effects				
School				0.00
Residual				0.78

N = 140
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.00

Table B5: Hispanic Students who Experienced Discrimination, BEIC and Experience with Discrimination Interaction Effect

	Estimate	Standard Error	P value	Standard Deviation
Fixed Effects				
Intercept	1.89	1.08	0.08+	
BEIC	-0.11	0.16	0.49	
Experience with Discrimination	0.21	0.20	0.30	
Academic Expectations				
High School Degree	0.96	0.57	0.10+	
Some College	1.02	0.57	0.08+	
College Degree	1.14	0.56	0.04*	
Graduate Degree	1.29	0.56	0.02*	
SES index	0.06	0.08	0.49	
Male	-0.10	0.11	0.34	
Hours on Homework				
One or two	0.38	0.13	0.00**	
Two to three	0.75	0.16	0.00***	
Three to four	0.70	0.21	0.00***	
Four to five	0.75	0.40	0.06+	
Five or more	0.82	0.34	0.02*	
Age	-0.07	0.06	0.27	
BEIC x Experience with Discrimination	-0.15	0.06	0.27	
Random Effects				
School				0.12
Residual				0.76

N = 236

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note: ICC was 0.02

Appendix C: Cronbach Alpha

Table C1: Cronbach Alpha of BEIC Scale

	Raw Alpha	Standardized Alpha	Average Interitem Correlation	Mean	Standard Deviation
BEIC	0.64	0.64	0.26	1.9	0.22

Table C2: Cronbach Alpha of Individual BEIC Items

Item in BEIC	Raw Alpha if Item Deleted	Standardized Alpha if Item Deleted	Average Interitem Correlation if Item Deleted
Ethnic Identity	0.63	0.64	0.31
Frequency spoke non-English language with friends	0.60	0.60	0.27
Language preference number	0.56	0.56	0.24
Frequency spoke non-English at home	0.57	0.59	0.26
Language spoken with parents	0.54	0.55	0.23

Appendix D: Raw and Recoded Items in BEIC

Table D1: Raw Responses to Language Preference Item

Language	Number of Responses
English	1367
Spanish	343
French	3
Creole/Haitian	9
Portuguese	1
Chinese	1
Other European languages	2
Other African language	1
Spanglish	59
Other	4
Korean	1

*Note: Only languages which had responses are represented in this table

Table D2: Recoded Language Preference Used in BEIC

Language	Number of Responses
English	1367
Spanglish	59
Other	364

*Note: Only languages which had responses are represented in this table

Table D3: Raw Responses to Ethnic Identity Item

Ethnic Identity	Number of Responses
American	426
Anglo-American	8
Black American	20
Hispanic	243
Cuban	45
Cuban-American	459
Nicaraguan-American	4
Haitian	8
Haitian-American	29
Colombia	9
Colombian-American	29
Other Latin American nationality	21
Canadian or Canadian-American	1
Other Asian/Middle Eastern nationality	1
Other nationality	22
Other hyphenated nationality (natl-American)	99
Hispanic-American	16

Mexican	145
Mexican-American	163
Filipino-American	6
Chinese-American	1
Latin American (not Mexican) nationalities	2
Hyphenated Latin American nationalities	3
Other mixed nationalities/ethnic minorities	16

*Note: Only items which had responses are represented in this table.

Table D4: Recoded Ethnic Identity Used in BEIC

Ethnic Identity	Number of Responses
American	454
Bicultural	810
National Origin	512

*Note: Only items which had responses are represented in this table.

Table D5: Raw Responses to the Frequency Spoke Non-English at Home

Item Response	Number of Responses
Seldom	71
From time to time	227
Often	637
Always	784

*Note: Only items which had responses are represented in this table.

Table D6: Recoded Frequency Spoke Non-English at Home Used in BEIC

Item Coding on (1-3) scale	Number of Responses
American (1)	298
Bicultural (2)	637
National Origin (3)	784

*Note: Only items which had responses are represented in this table.

Table D7: Raw Responses to Language Spoken with Parent Item

Language	Number of Responses
English	754
Spanish	899
French	1
Creole/Haitian	30
Portuguese	3
Chinese	1
Other African language	1

Spanglish	97
Jive or other popular language	1
Multiple languages	7
Other	3
Korean	1

*Note: Only languages which had responses are represented in this table

Table D8: Recoded Language Spoken with Parents Used in BEIC

Language	Number of Responses
English	754
Spanglish	97
Other	947

*Note: Only languages which had responses are represented in this table

Table D9: Raw Responses to the Frequency Spoke Non-English with Friends

Item Response	Number of Responses
Seldom	240
From time to time	521
Often	408
Always	32

*Note: Only items which had responses are represented in this table.

Table D10: Recoded Frequency Spoke Non-English with Friends Used in BEIC

Item Coding on (1-3) scale	Number of Responses
American (1)	761
Bicultural (2)	408
National Origin (3)	32

*Note: Only items which had responses are represented in this table.

Appendix E: Respondent Ethnic Subgroup Frequencies

Table E1: Respondent Ethnic Subgroup Frequencies

Ethnic Identity	Number of Responses
Hispanic	243
Cuban	45
Haitian	8
Colombian	9
Other Latin American nationality	21
Other Asian/Middle Eastern nationality	1
Other nationality	1
Mexican	145
Latin American (not Mexican) nationalities	2
Other mixed nationalities/ethnic minorities	16
Total	491

References

Beavers, A. S., Lounsbury, J. W., Richards, J. K., Huck, S. W., Skolits, G. J., & Esquivel, S. L. (2013). Practical Considerations for Using Exploratory Factor Analysis in Educational Research. *Practical Assessment, Research, and Evaluation*, *18*(18). https://doi.org/10.7275/QV2Q-RK76

Benner, A. D., & Kim, S. Y. (2009). Experiences of discrimination among Chinese American adolescents and the consequences for socioemotional and academic development. *Developmental Psychology*, *45*(6), 1682–1694. https://doi.org/10.1037/a0016119

Berry, J. W. (1997). Immigration, Acculturation, and Adaptation. *Applied Psychology*, *46*(1), 5–34. https://doi.org/10.1111/j.1464-0597.1997.tb01087.x

Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (2006). Immigrant Youth: Acculturation, Identity, and Adaptation. *Applied Psychology*, *55*(3), 303–332. https://doi.org/10.1111/j.1464-0597.2006.00256.x

Bettie, J. (2014). *Women without class: Girls, race, and identity; with a new introduction*. Univ. of California Press.

Calarco, J. M. (2018). *Negotiating Opportunities: How the Middle Class Secures Advantages in School.* Oxford University Press.

Carter, P. (2005). *Keepin' it real: School success beyond black and white*. Oxford University Press.

Chang, J., & Le, T. N. (2010). Multiculturalism as a dimension of school climate: The impact on the academic achievement of Asian American and Hispanic youth. *Cultural Diversity and Ethnic Minority Psychology*, *16*(4), 485–492. https://doi.org/10.1037/a0020654

Chen, S. X., Benet-Martínez, V., & Harris Bond, M. (2008). Bicultural Identity, Bilingualism, and Psychological Adjustment in Multicultural Societies: Immigration-Based and Globalization-Based Acculturation. *Journal of Personality*, *76*(4), 803–838. https://doi.org/10.1111/j.1467-6494.2008.00505.x

Duong, M. T., Badaly, D., Liu, F. F., Schwartz, D., & McCarty, C. A. (2016). Generational Differences in Academic Achievement Among Immigrant Youths: A Meta-Analytic Review. *Review of Educational Research*, *86*(1), 3–41. https://doi.org/10.3102/0034654315577680

Dweck, C. S. (1986). Motivational Processes Affecting Learning. *American Psychologist*, *41*(10), 1040–1048.

Encyclopedia Britannica. (2017). *List of Countries in Latin America*. https://www.britannica.com/topic/list-of-countries-in-Latin-America-2061416

Erickson, E. (1963). *Childhood and Society*. W. W. Norton.

Flores-Gonzalez, N. (2002). *School Kids/Street Kids: Identity Development in Latino Students*. Teachers College Press.

Fuligni, A. J., Witkow, M., & Garcia, C. (2005). Ethnic Identity and the Academic Adjustment of Adolescents From Mexican, Chinese, and European Backgrounds. *Developmental Psychology*, *41*(5), 799–811. https://doi.org/10.1037/0012-1649.41.5.799

Gandara, P. C., & Contreras, F. (2009). *The Latino education crisis: The consequences of failed social policies*. Harvard University Press.

Gonzales, R. G. (2016). *Lives in Limbo: Undocumented and Coming of Age in America*. University of California Press.

Gonzalez, R., & Padilla, A. M. (1997). The Academic Resilience of Mexican American High School Students. *Hispanic Journal of Behavioral Sciences*, *19*(3), 301–317. https://doi.org/10.1177/07399863970193004

Hartmann, D., Baiocchi, A., & Swartz, T. T. (2018). Navigating Americanized Identities: Bicultural Ethnicity, Race, and the Incorporation Experience. *Race and Social Problems*, *10*(4), 332–347. https://doi.org/10.1007/s12552-018-9249-x

Huynh, Q.-L., Benet-Martínez, V., & Nguyen, A.-M. D. (2018). Measuring variations in bicultural identity across U.S. ethnic and generational groups: Development and validation of the Bicultural Identity Integration Scale—Version 2 (BIIS-2). *Psychological Assessment*, *30*(12), 1581–1596. https://doi.org/10.1037/pas0000606

Huynh, Q.-L., Nguyen, A.-M. D., & Benet-Martínez, V. (2011). Bicultural Identity Integration. In S. J. Schwartz, K. Luyckx, & V. L. Vignoles (Eds.), *Handbook of Identity Theory and Research* (pp. 827–842). Springer. https://doi.org/10.1007/978-1-4419-7988-9_35

Kao, G., & Tienda, M. (1998). Educational Aspirations of Minority Youth. *American Journal of Education*, *106*(3), 349–384. https://doi.org/10.1086/444188

Khan, S. R. (2011). *Privilege: The Making of an Adolescent Elite at St. Paul's School*. Princeton University Press.

Kim, B. S. K., Ahn, A. J., & Lam, N. A. (2009). Theories and Research on Acculturation and Enculturation Experiences among Asian American Families. In N.-H. Trinh, Y. C. Rho, F. G. Lu, & K. M. Sanders (Eds.), *Handbook of Mental Health and Acculturation in Asian American Families* (pp. 25–43). Humana Press. https://doi.org/10.1007/978-1-60327-437-1_2

Kim, S. Y., & Chao, R. K. (2009). Heritage language fluency, ethnic identity, and school effort of immigrant Chinese and Mexican adolescents. *Cultural Diversity and Ethnic Minority Psychology*, *15*(1), 27–37. https://doi.org/10.1037/a0013052

Kim, Y. M., Newhill, C., & López, F. (2013). Latino Acculturation and Perceived Educational Achievement: Evidence for a Bidimensional Model of Acculturation among Mexican-American Children. *Journal of Human Behavior in the Social Environment*, *23*(1), 37–52. https://doi.org/10.1080/10911359.2012.739531

Krogstad, J. M., & Noe-Bustamante, L. (2021). Key facts about U.S. Latinos for National Hispanic Heritage Month. *Pew Research Center*. https://www.pewresearch.org/fact-tank/2021/09/09/key-facts-about-u-s-latinos-for-national-hispanic-heritage-month/

Lee, J., & Zhou, M. (2015). *The Asian American Achievement Paradox*. Russell Sage Foundation.

Leone, C. M., & Richards, H. (1989). Classwork and homework in early adolescence: The ecology of achievement. *Journal of Youth and Adolescence*, *18*(6), 531–548. https://doi.org/10.1007/BF02139072

Lewis, A. E., & Diamond, J. B. (2015). *Despite the Best Intentions: How Racial Inequality Thrives in Good Schools*. Oxford University Press.

Makarova, E., & Birman, D. (2015). Cultural Transition and Academic Achievement of Students from Ethnic Minority Backgrounds: A Content Analysis of Empirical Research on Acculturation. *Educational Research*, *57*(3), 305–330.

Mossakowski, K. N. (2003). Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health? *Journal of Health and Social Behavior*, *44*(3), 318–331. https://doi.org/10.2307/1519782

Musca, S. C., Kamiejski, R., Nugier, A., Méot, A., Er-Rafiy, A., & Brauer, M. (2011). Data with Hierarchical Structure: Impact of Intraclass Correlation and Sample Size on Type-I Error. *Frontiers in Psychology*, *2*, 74. https://doi.org/10.3389/fpsyg.2011.00074

Nair, R. L., Delgado, M. Y., Wheeler, L. A., & Thomas, R. (2021). Prospective links between acculturative stress and academic well-being among Latinx adolescents. *Journal of Applied Developmental Psychology*.

Ochoa, G. L. (2013). *Academic profiling: Latinos, Asian Americans, and the achievement gap*. University of Minnesota Press.

Phinney, J. S. (2003). Ethic identity and acculturation. In K. M. Chun, P. Balls Organista, & G. Marín (Eds.), *Acculturation: Advances in theory, measurement, and applied research.* (2002-18425-006; pp. 63–81). American Psychological Association. https://doi.org/10.1037/10472-006

Portes, A., & Rumbaut, R. (2001). *Legacies: The Story of the Immigrant Second Generation*. University of California Press.

Portes, A., & Rumbaut, R. (2014). *Immigrant America: A Portrait* (4th ed.). https://web-p-ebscohost-com.proxy.uchicago.edu/ehost/ebookviewer/ebook?sid=d3c42075-9b97-4fee-ba5a-f2aed02f44ef%40redis&vid=0&format=EB

Portes, A., & Rumbaut, R. G. (2007). *Children of Immigrants Longitudinal Study (CILS), San Diego, California, Ft. Lauderdale and Miami, Florida, 1991-2006: Version 3* [Data set]. Inter-University Consortium for Political and Social Research. https://doi.org/10.3886/ICPSR20520.V3

Reay, D. (2010). Identity Making in Schools and Classrooms. *The Sage Handbook of Identities*, 277–294.

Rivas-Drake, D., Seaton, E. K., Markstrom, C., Quintana, S., Syed, M., Lee, R. M., Schwartz, S. J., Umaña-Taylor, A. J., French, S., Yip, T., & Ethnic and Racial Identity in the 21st Century Study Group. (2014). Ethnic and Racial Identity in Adolescence: Implications for Psychosocial, Academic, and Health Outcomes. *Child Development*, *85*(1), 40–57. https://doi.org/10.1111/cdev.12200

Rosa, J. (2019). *Looking Like a Language, Sounding Like a Race*. Oxford University Press.

Sandoval, S. R., Gutkin, T. B., & Naumann, W. C. (1997). Racial Identity Attitudes and School Performance among African American High School Students: An Exploratory Study. *Research in the Schools*, *4*(2), 1–8.

Sirin, S. R. (2005). Socioeconomic Status and Academic Achievement: A Meta-Analytic Review of Research. *Review of Educational Research*, *75*(3), 417–453. https://doi.org/10.3102/00346543075003417

Steele, C. (2010). *Whistling Vivaldi: And other clues to how stereotypes affect us* (1st ed). W.W. Norton & Company.

Suárez-Orozco, C., & Suárez-Orozco, M. M. (2001). *Children of immigration*. Harvard University Press.

Supple, A. J., Ghazarian, S. R., Frabutt, J. M., Plunkett, S. W., & Sands, T. (2006). Contextual Influences on Latino Adolescent Ethnic Identity and Academic Outcomes. *Child Development*, *77*(5), 1427–1433. https://doi.org/10.1111/j.1467-8624.2006.00945.x

Tajfel, H., & Turner, J. C. (2001). An integrative theory of intergroup conflict. In M. Hogg & D. Abrams (Eds.), *The social psychology of intergroup relations* (pp. 94–109). Psychological Press.

Timeline. (2019). Immigration History. https://immigrationhistory.org/timeline/

Umaña-Taylor, A. J., Gonzales-Backen, M. A., & Guimond, A. B. (2009). Latino Adolescents' Ethnic Identity: Is There a Developmental Progression and Does Growth in Ethnic Identity Predict Growth in Self-Esteem? *Child Development*, *80*(2), 391–405. https://doi.org/10.1111/j.1467-8624.2009.01267.x

Valenzuela, A. (1999). *Subtractive Schooling: U.S.-Mexican Youth and the Politics of Caring*. State University of New York Press.

Yip, T., Gee, G. C., & Takeuchi, D. T. (2008). Racial discrimination and psychological distress: The impact of ethnic identity and age among immigrant and United States-born Asian adults. *Developmental Psychology*, *44*(3), 787–800. https://doi.org/10.1037/0012-1649.44.3.787

Yosso, T. J. (2005). *Critical Race Counterstories along the Chicana/Chicano Educational Pipeline*. Routledge. https://doi.org/10.4324/9780203624821

Zarate, M. E., Bhimji, F., & Reese, L. (2005). Ethnic Identity and Academic Achievement Among Latino/a Adolescents. *Journal of Latinos and Education*, *4*(2), 95–114. https://doi.org/10.1207/s1532771xjle0402_3