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# Racial/Ethnic Differences in Possible Selves of Diverse Adolescents: Implications for Higher Education and Mental Health

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Racial/Ethnic Differences in Possible Selves of Diverse Adolescents:  
Implications for Higher Education and Mental Health

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B.A., Dartmouth College, 2005

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Racial/Ethnic Differences in Possible Selves of Diverse Adolescents:  
Implications for Higher Education and Mental Health

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### Racial/Ethnic Differences in Possible Selves of Diverse Adolescents:

#### Implications for Higher Education and Mental Health

There are striking disparities in the academic achievement of American youth. In 2008, approximately 81% of White students graduated from high school within four years, or on time, compared to only 62% of Black students, and 64% of Latino students. Of students who graduated, 72% of White, 56% of Black, and 64% of Latino students immediately enrolled in some form of higher education (NCES, 2010a; NCES, 2010b). Perhaps what is most devastating, particularly for Latino communities, is the number of adolescents who drop out of high school. Although rates have been declining over the years, the figures continue to be alarming. In the 2007-2008 academic year, 4.8% of White students and 9.9% of Black students dropped out of high school (NCES, 2009). In that same year, 18.3% of Latino students left high school before attaining a diploma (NCES, 2009). These figures have been debated, though, with some believing that rates are even grimmer. Through their recalculations and more inclusive methods, Heckman and LaFontaine (2007) estimated that the dropout rate for Black and Latino students is closer to 35%. This means that almost 1 in 5 to 1 in 3 Latino adolescents do not even achieve the most basic educational milestone for today's job market.

Educational disparities are evident at an early age and remain constant throughout the academic years. Black and Latino children enter kindergarten with fewer literacy and numeracy basic skills than their White or Asian-American peers (Denton & West, 2002). In a national study of fourth graders, 26-point and 25-point differences (out of a possible 500 points) were found between White and Black students and White and Latino

students, respectively, in reading achievement in 2009 (NCES, 2009). The 2008-2009 SAT mean scores of college bound students, taken in the final years of high school, also showed divergence, with Whites at 528 points, Blacks at 430 points, and Latinos at 453 points in the reading section (NCES, 2010b). The math and writing sections follow the same patterns of discrepancy.

Such disparities have significant consequences in the U.S., where academic achievement is strongly linked to lifelong income. In 2008, 25 to 34-year-olds with a bachelor's degree earned, on average, 53% more income than high school graduates of the same age. Furthermore, college graduates earned an astounding 96% more than did high school non-completers (NCES, 2010a). These negative financial outcomes put many youth at risk for further problems and more difficult life circumstances throughout their adult years.

Understanding and addressing educational disparities require research on the interplay of structural (e.g., poverty, language barriers), cultural (e.g., values), and individual psychological (e.g., motivation) factors that can inform intervention efforts. Historically, most research on disparities focused on Black-White comparisons. In the past decade, however, most national studies on educational outcomes have provided statistics on White, Black, and Latino youth to better reflect the American demographic composition. In addition, several studies have documented structural reasons for lower educational achievement among Latino youth (Flores-Gonzalez, 1999; Nieto, 2005). In contrast, less empirical attention has been given to cultural and psychological factors that may contribute to lower educational achievement among Latinos. Instead, most research on cultural and psychological factors has focused on African American youth. Given that



Latinos are the fastest growing minority group in the U.S. and that there may be important cultural differences between Latinos and Blacks, more research in this area is needed. The goal of this paper is to better understand one potential psychological factor, adolescents' future goals or "possible selves," that may relate to higher education achievement among Latino youth.

### *Structural Reasons for Educational Disparities*

Educational disparities are the result of structural, cultural, and individual factors. Structural factors influencing Latino youth are largely the result of poverty, and include attendance of schools that have higher student-to teacher ratios and fewer resources (e.g., textbooks, extracurricular activities). In addition, Latinos also face challenges associated with bilingual education. In a time when Latinos are the fastest growing minority group in the United States, bilingual education is being eradicated from public schools at a feverish pace (Nieto, 2005). As a result, many Spanish-speaking students do not receive the adequate support necessary from their public educational system.

School structure also attenuates the number of students that can be academically successful. Because of the larger populations in cities, most urban public schools have hundreds and sometimes thousands of students in one school. These schools are comprised mostly of Black and Latino youth with economically disadvantaged backgrounds. Overcrowding reduces the amount and quality of resources available to these already underprivileged students (Ready, Lee, & Welner, 2004; Rivera-Batiz & Marti, 1995). In her ethnographic study of a large Chicago high school, Flores-Gonzalez (1999) notes the existence of a Scholars' Program and a variety of extracurricular

programs. However, only about 100 out of 2,600 students were selected for the Scholars' Program leaving most adolescents out and labeling a very small and elite few as "intelligent scholars". Furthermore, only about 25% of students participated in extracurricular programs, with much overlap from those in the Scholars' Program. With such a large number of students, it is unreasonable to think that urban schools should and could cater to all. Moreover, although conclusions are mixed, there is some evidence that smaller class sizes may be academically beneficial to students of color (Krueger & Whitmore, 2001). Yet, large, overcrowded, educational institutions are still the norm in many urban districts.

Additionally, inequalities in educational funding perpetuate the lack of resources for the neediest children, further contributing to their academic underachievement (Carey, 2004). Because the American educational system is funded through local property taxes, certain towns can provide more money to their schools than other towns can. An uneven tax base therefore leads to the underfunding and under-resourcing of urban districts. In their 2010 study on science achievement, Beese and Liang did indeed find that high school students with lower family incomes were also more likely to report having less lab equipment in their science classrooms and students with less equipment were also more likely to have lower science achievement. These findings demonstrate a very clear link between a lack of resources and the detrimental effects to academic achievement, particularly for low-income students. Through his visits to schools across the nation, Jonathon Kozol (1992, 2006) has also described numerous cases of urban schools lacking resources such as updated technology, functioning computers, up-to-date books, well-maintained facilities, and in extreme instances heat and security. With such demoralizing

conditions present, attaining academic success quickly becomes a challenge for Black and Latino students.

*Cultural Reasons for Educational Disparities*

In addition, the pedagogy, or method of teaching, used in most school systems may not be culturally relevant to all students, which may impact student engagement and academic achievement (Nieto, 2000). Nationwide, the American educational curriculum often acknowledges the histories and prominence of Caucasian individuals throughout the school year. Yet, historic individuals of color are reserved for Hispanic Heritage Month and Black History Month. Furthermore, curriculum and literature often lack background information that students of color in urban settings might relate to and instead highlight topics such as farming and living in suburbia. These seemingly foreign topics make students feel disconnected and disengaged from school leading to failing grades and eventually dropouts (Nieto, 2000).

Beyond curriculum content, pedagogical styles and classroom atmosphere may be culturally influenced, particularly through factors of individualism and collectivism, which may also play a role in educational disparities found in the United States. Much research has shown that differences in value and belief systems of people from different countries exist along the concepts of individualism-collectivism (Cohen, 2009; Greenfield, 2005; Triandis, 1989). People from the U.S. tend to have more individualistic characteristics believing in being inherently independent from others (Cohen, 2009; Triandis, 1989). The majority of people from Latin American countries, though, tend to hold more collectivistic socially interdependent views (Cohen, 2009;

Triandis, 1989). Although these traits fall on a continuum, emphasis on individualism-collectivism differs depending on the culture.

Because of differing emphases, and thus somewhat differing interpretations of events in the world, American teachers in American schools and families from Latin American backgrounds attending these schools may experience culture clash. For example, a typical public school has students sitting individually at their own desk, doing their own work independently and quietly. This traditional, more individualistic format of school is in stark contrast to more collectivistic home settings where children might learn from others through discussion and cooperative work. A student may wish to collaborate in the school setting but might be unable to do so, even perhaps being reprimanded for doing so. This again has the ability of turning off a child or adolescent's engagement with an interest in education.

Indeed, there is evidence that Latino children tend to engage in more intergroup instruction than White children. In a study comparing White and Latino children, Rogoff et al. (2007) found that Latino children engaged in more dyadic and triadic processes in attempts to learn about different activities and roles. Through the tradition of "intent community participation," many children from Latin American backgrounds tend to learn about the world through observation, listening to conversations of older family members, and fully participating in family activities, such as chores, when ready (Rogoff et al., 2007). Children become active community members, learning and contributing to the family through each event. This differs from "assembly line instruction" and "guided repetition" which are more often witnessed in middle class, and particularly White households and American schools. The latter traditions of learning require experts to

impart knowledge onto the children and recitation and practice from the children. In these cases, what one learns is typically taken out of context and does not occur through a productive or applicable activity (Rogoff et al., 2007).

There are also cultural aspects such as *familismo* and *ser buen educado* that come from individualism-collectivism that might impact educational attainment. In many Latin American communities, *familismo* is a firm belief in strong family ties, with the family as the primary source of support (Halgunseth, Ispa, & Rudy, 2006; Negy & Woods, 1992). One's loyalty and commitment to the family comes first, above one's own wishes and desires. This belief has many implications for children leaving the home as adults, especially when it is time to attend college. Family members may see college attendance away from home as disloyal and turning one's back on the family. Students may also have difficulty adjusting to life away from family, whom they have depended on as their primary source of support.

A survey conducted by the Pew Hispanic Center (2009) found that of the 1,240 Hispanic participants between 16 and 25 years old, 89% felt that a college education is important and 77% reported that their parents also believe a college education is important for a successful future. Nevertheless, of those students no longer enrolled in school, a staggering 74% reported the need to support their family as the reason for not continuing with their education. Although a college education is valued, these youth, as many other Latino youth, put their families' needs ahead of their own. This commitment results in cutting their individual educational journey short for what may be seen as the greater good of the collective family.

Although *ser buen educado* can be literally translated to “be well educated,” the Spanish phrase carries much greater meaning than that. *Ser buen educado* not only means to have a good formal education, but also means to be respectful, well mannered, and have high morals (Valdes, 1996; Halgunseth et al., 2006). This understanding of education implicates a much more social definition than thought of in English. This may lead to Latino children and adolescents formulating much more social goals rather than academic goals, especially goals around family, whether it be assisting in their current family or starting a family of their own.

#### *Individual Reasons for Educational Disparities*

As mentioned above, there are also individual reasons for the differences seen in academic achievement independent of differences in actual ability. Indeed, many of the structural and cultural factors previously discussed likely contribute to achievement disparities through their impact on individual psychological factors. Motivation has also long been found to be a factor of importance in educational attainment (Mau & Lynn, 1999). Although cultural norms of levels of scholastic motivation can be averaged, each student’s personal amount of motivation impacts their academic attainment differently. Several researchers have examined psychological factors that may influence academic motivation and achievement in students of color, including stereotype threat (Steele & Aronson, 1995; Sackett et al., 2004), fear of “acting White” (Fordham & Ogbu, 1986), and possible selves (Oyerserman, Bybee, & Terry, 2006). Stereotype threat refers to the theory that one’s underperformance may stem from the worry of being judged or treated negatively due to the stereotypes of one’s group or fulfilling those stereotypes (Steele & Aronson, 1995). When “acting White” one is perceived as denying their minority

identity by behaving in ways that are congruent with the majority culture, which often includes studying in the library and getting good grades (Fordham & Ogbu, 1986).

Unlike stereotype threat and “acting White,” which are theories directly related to race, possible selves refers to one’s belief of who one will become in the future. In general, stereotype threat and fear of “acting White” have been viewed as potential barriers to achievement among Black youth. In contrast, possible selves has been applied more widely, although research on possible selves as related to educational achievement among Latinos is still in the early stages.

More specifically, possible selves are the future oriented aspect of one’s self-concept, and are believed to serve as a motivational source and guide to behavior (Markus & Nurius, 1986). Through one’s possible selves, people are able to project who they would like to be in the future (hoped-for), who they think they will actually become (expected), and who they would like to avoid becoming (feared). This creates a goal for which one might work towards; however, without proper planning and the appropriate strategies, one may not achieve the desired outcome that was once envisioned (Oyserman, Bybee, Terry, & Hart-Johnson, 2004).

With regards to academic achievement, studies have found a relationship between possible selves and level of achievement. In a sample of mostly white seventh graders, students with positive academic possible selves experienced an increase in grade point average from their sixth grade year (Anderman, Anderman, & Griesinger, 1999). When used as a self-regulation tool with a specific action plan, having low-income eighth grade students generate academic possible selves helped improve their grades, increase time spent on homework, increase class participation, and decrease referrals to summer school

(Oyserman et al., 2004). Furthermore, interventions using possible selves as the mechanism to increase academic success have proved fruitful resulting in several positive outcomes like improvement in grades, fewer absences, greater concern about doing well in school, and fewer depressive symptoms (Oyserman, Terry, & Bybee, 2002; Oyserman et al., 2006). Therefore, it is reasonable to believe that having positive possible selves about one's academic future is an important factor for higher educational attainment.

Much of the possible selves literature has also focused on the content of future expectations, reporting the types of possible selves adolescents might have (for reviews, see Hoyle & Sherrill, 2006; Oyserman & Fryberg, 2006). Overall, researchers have found that possible selves of adolescents tend to be centered on education and career goals, regardless of minority status or low-income backgrounds (Oyserman et al., 2004; Shepard & Marshall, 1999). More recently, results attained by Perry and Vance (2010) showed urban high school students of color reported similar levels of education and occupational prestige between hoped-for and expected selves. Similar to previous findings though, boys' occupational possible selves were typically of lower prestige than those of girls. However, because of a lack of diversity within samples, direct comparisons between racial/ethnic groups have not been possible. Consequently, few studies on possible selves have examined how academic possible selves may have different meaning and implications in different racial/ethnic groups.

When considering Latino adolescents, studies investigating academic possible selves have been mostly descriptive. In 2000, using a small sample of Puerto-Rican and Mexican eighth-graders, Yowell found that boys stated more occupational possible selves than girls but the occupational possible selves girls listed more often required greater



educational achievement than the ones listed by boys. Students also reported academic possible selves more frequently than for any of the five coded domains (education, occupation, family, personal well-being, friendship). In a much larger sample of Latino ninth graders, academic feared selves was found to be a predictor of students at risk for dropout, ironically demonstrating that students with the greatest fears of low educational attainment were more likely to drop out (Yowell, 2002). A consistent finding in these two studies is that Latino students identified higher levels of educational and occupational attainment for their hoped-for selves than for their expected selves.

Although these studies are informative, one shortcoming has been the focus specifically on educational and occupational goals. Given the collectivistic tendency believed to exist among Latino families, it is important to also consider differences in other types of future goals, such as starting a family, having a romantic partner, or helping out one's parents. These goals may be more common among Latino youth, and may indirectly impact educational achievement (e.g., starting a family may inhibit educational achievement). Thus, it is important to examine the extent to which Latino youth hold educational goals, but also how much they hold other types of goals (e.g., starting a family, getting a job to help out family members) that may indirectly influence motivation towards educational achievement. Relatedly, youth may have the same goals for the future, but have different reasons for that goal. For example, one student may want to go to college in order to help out his family whereas another student may want to go college in order to be out on her own and have independence. Research on possible selves has typically not examined themes or reasoning that may also be part of responses (e.g., individuation, materialism, family assistance). These are important themes during

the adolescent years, and may impact the content or reasons for certain types of future goals. Although generally not studied, the reasons why a student wants to be in higher education or in a certain job in the future may impact their likelihood of reaching this goal.

Another important consideration of the content of adolescent's possible selves is how realistic the envisioned self is in the projected timeline. For example, a high school student may picture himself in medical school working to be a doctor in a year's time. But, if that student is only in high school, this possible self may not be realistic. Students who live in families and communities where few adults have gone to college may have a less realistic sense of what college involves, even if they envision themselves as attending higher education (Abraham, Lujan, López, & Walker, 2002; Destin & Oyserman, 2009). These types of inaccuracies may impact the likelihood that they will actually achieve a stated future goal. A recent study of the possible selves of urban adolescents showed that youth of different racial/ethnic groups were equally likely to endorse occupational or higher education goals (Perry & Vance, 2010). Most studies, however, have not examined whether the type of educational or occupational possible self described was—in fact—attainable or realistic.

In addition, studies of possible selves have not looked at potential differences within the Latino population and how acculturation might play a role in Latino students' academic possible selves. There is a large body of health and education research indicating that Latinos should not be treated as a monolithic group since important differences exist based on acculturation and region of origin (Bohon, Johnson, & Gorman, 2006; Buscemi, Beech, & Relyea, 2011; Smokowski & Bacallao, 2007). To

date, however, the possible selves literature has not considered how differences in acculturation or ethnic identity may account for within group differences among Latino adolescents.

Finally, the underlying assumption with much of the possible selves literature as applied to educational achievement is that having an academic future self is desirable and positive. However, this may not always be the case for students of color. Much has been written about the potential negative consequences of academic achievement among Black youth (i.e., “acting White”— Fordham & Ogbu, 1986; Fryer & Torelli, 2006; Neal-Barnett, 2001). The basis for this assumption is that Black youth who are high achievers in school face negative peer consequences, including being accused of trying to be better than others or “acting White”. There has been much debate about the extent to which this process actually occurs in schools, and it may only be in integrated schools in which there are negative consequences of achievement for students of color (Fryer & Torelli, 2006). Nonetheless, this line of inquiry highlights how there may be negative consequences for youth of color when they act in ways that seem inconsistent among family or peers. Relatedly, there is evidence among Latino youth that having more individualistic goals than parents may be a source of acculturative stress and family conflict (Hwang & Wood, 2009; Lau, McCabe, & Yeh, 2005). If this is the case, then having academic future goals may be a source of stress for Latino youth if it creates conflict with parents or family members, who may have different goals for their children. Thus, we also examine whether having academic future goals is differentially associated with stress or mental health among Latino adolescents compared to their Black and White peers.

In sum, the goal of this study is to provide a richer contextual picture of possible selves as they may relate to educational achievement among Latinos. Specifically, this study will build on existing findings by examining: a) racial/ethnic differences in the content and themes of expected possible selves held by young adolescents, particularly in regards to higher education possible selves; b) within group differences among Latino students and their expected possible selves; c) racial/ethnic differences in the relation between higher education possible selves and current mental health adjustment. We address these topics by asking four research questions:

1. Do expected possible selves differ by race/ethnicity? In particular, do Latino students differ from White and Black youth in holding higher education possible selves or in types of possible selves (e.g. social, starting family) that may influence academic achievement?
2. Do the themes (e.g., family assistance, materialism, individuation) or tones (e.g., unrealistic, uncertain, negativistic) of adolescents' possible selves responses differ by race/ethnicity, particularly in regards to higher education possible selves?
3. Within the Latino sub-sample, how do acculturation and ethnic identity factors relate to higher education possible selves?
4. How do higher education possible selves relate to emotional adjustment, and does this differ by race/ethnicity?

## Method

### Participants

Participants for this study were drawn from a larger study (n=537) of ninth grade students attending a large, diverse urban high school in a low income, central Connecticut city. The larger sample reflected about 79% of all eligible 9<sup>th</sup> grade students. In the school population, the majority of the student body comes from low-income households and qualifies for free/reduced-price lunch. About 40% of the students from this high school have a non-English speaking home and 10% participate in bilingual education and ESL services. A large group of students are from immigrant families, with the majority of these newcomers being from Latin America and Poland. The current sample was comprised of the 375 ninth graders who answered the possible self question, the item of interest for this study. Students with and without the possible-self question survey item did not differ on any demographic factors. The subset of youth without the question were from a set of classes who did not complete the survey due to an unplanned half day on the second day of survey administration.

Participants were 14 to 17 years old with a mean age of 14.92 (SD = 0.65) and represented each gender almost equally (185 males, 190 females). The sample was also ethnically/racially diverse and was 49% Latino (primarily Puerto Rican), 23% White, 22% Black, and 6% other. The “other” category included adolescents who identified as Arabic, Asian, and multiracial. Genders were represented equally by race as well, with 86 male and 96 female Latino adolescents, 43 male and 38 female Black adolescents, and 46 male and 51 female White adolescents. Students included in the current sample broadly

matched their high school population which, according to school demographic data, includes 45% Latino, 30% White, and 20% Black students.

About 84% of students reported living with their biological mother and 48% reported living with their biological father. Based on student report, 18% of students had mothers without a high school degree, 31% with a high school degree, and 16% with a bachelor's degree; 12.8% reported not knowing. For fathers, 21% of students had fathers without a high school degree, 29% with a high school degree, and 10% with a bachelor's degree; 23.5% reported not knowing.

### **Procedure**

This study was conducted in conjunction with the school-based health center (SBHC) at the high school, which serves as primary care provider to 70% of the student population. The SBHC offers an array of services including primary care, dental health, and mental health services. Surveys were conducted to obtain health information about students in order to develop more targeted prevention services. Data were collected across two school days by the SBHC staff and study researchers through in-class surveys. Surveys were administered during all of the regularly scheduled health classes, a required course for ninth grade students and one in which students in ESL and special education participate.

After receiving a verbal and written description of the purpose of the study, as well as the voluntary and anonymous nature of the study, students were given time to ask questions. Students then signed a written consent form. In order for the survey to be anonymous, students were given a non-meaningful code to identify their survey packet across the two-day period. After the survey, their codes were destroyed. Students who

did not wish to participate were provided with alternative Health curriculum materials to work on during the class period. The survey included various questions on physical and mental health, body image, future goals, and demographic information. Consent forms were collected without identifiers and surveys were collected without any identifying information separately from consent forms. Responses from five measures and demographic characteristics were used for this present study. The University of Connecticut's Institutional Review Board approved the study design and procedures.

### **Measures**

**Possible Self Question.** Students responded to the open-ended possible self question, "Picture what you would like to be doing 5 YEARS FROM NOW. Please write a few sentences about what you think your life will be like at that time." Responses were coded into area categories, which were not mutually exclusive: Academic (with a higher education subset), Work, Specific Career, Romantic, Own Family, and Social. Students' responses could receive more than one content code (e.g., "I will be going to college and working part time"). They were also coded for themes and tone including: Family Assistance, Materialistic, Individuation, Negativistic, and Uncertain. Theme/tone codes were given only when the participant explicitly responded in a way that expressed that theme (e.g., "I will be making lots of money and driving a Mercedes"). The operational definitions used to code for each area content category and theme can be found in Table 1. In addition, all responses were also coded on a 0-2 scale for how realistic they were for the given amount of time of "5 years from now" with 0 being realistic (e.g. freshman in college), 1 being unlikely but not impossible (e.g. starting point guard for Duke University), and 2 being unrealistic/impossible (e.g., being a pediatrician). Responses of

1 and 2 were collapsed into one unrealistic category for analyses. Coding was completed by two independent undergraduate research assistants blind to other data and yielded acceptable to high Kappas values (see Table 2). For analyses purposes, disagreements were resolved by a consensus meeting between two doctoral students and a Ph.D. faculty. Several studies conducting research on possible selves of adolescents have used open-ended questions, coded responses in a similar fashion, and yielded significant results (see Oyserman & Fryberg, 2006 for a review).

**Adolescent Psychopathology Scale.** Using criteria from the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV; APA, 1994), the Adolescent Psychopathology Scale (APS; Reynolds, 1998) is a self-report measure that evaluates a broad array of psychological disorders and distress in adolescents 12-19 years old. For this study, only symptoms of depression were assessed using the APS Major Depression subscale. Questions measuring suicidality were excluded at the request of the school. Twelve items were used, with a response format that included three options for evaluating their frequency of occurrence over the past two weeks. Answer choices were 1 = almost never, 2 = sometimes, and 3 = nearly every day. Sample items included, “I have felt very depressed” and, “I felt like I had no energy”. Mean scores were calculated for each participant with higher scores indicating a greater amount of depressive symptoms. Initial standardization of the APS included a nonclinical school sample of 1,827 adolescents and a clinical sample of 506 adolescents from inpatient and outpatient settings (Reynolds, 1998). Both the nonclinical and clinical samples achieved internal consistencies of  $r_{\alpha} = .95$  for the major depression subscale. Using Cronbach’s alpha, the internal consistency of the APS major depression subscale for this sample was  $\alpha = .92$ .



Extensive evidence supporting the measure's validity has also been reported (Reynolds, 1998).

**Brief Symptom Inventory.** A widely used self-report measure, the Brief Symptom Inventory (BSI; Derogatis, 1993) screens psychological symptom patterns of mental health difficulties such as somatization, obsessive compulsive behaviors, and interpersonal sensitivity in 13-year-olds and older. It is derived from the Symptom Checklist-90-R (SCL-90-R; Derogatis, 1994), a much lengthier measure of mental health difficulties. For this study, only 3 subscales were used: Anxiety, Depression, and Hostility. Eighteen items from these scales are aggregated to reflect emotional distress (and reflect the BSI-S scale). The items were rated on a scale from 1 = not at all to 5 = extremely, indicating how much the adolescent felt bothered by the problem in the past 7 days including that day. Sample items for Anxiety, Depression, and Hostility, respectively, included, "Suddenly scared for no reason," "Feeling blue," and "Temper outbursts that you could not control." Mean scores were calculated for each participant with higher scores indicating a greater amount of emotional distress. The BSI has demonstrated good internal consistency with subscales ranging from a low of  $\alpha = .71$  for the Psychotic subscale to a high of  $\alpha = .85$  for the Depression subscale (Derogatis, 1993). Derogatis (1993) also reported a Cronbach's  $\alpha$  of .81 for the Anxiety subscale and .78 for the Hostility subscale. Other studies with differing populations have also reported acceptable levels of internal consistency ranging from .74 to .84 across all of the subscales (Kellett, Beail, Newman, & Frankish, 2003; Pereda, Forns, & Pero, 2007). The internal consistency score for the aggregated subscale of emotional distress using this sample was  $\alpha = .93$ . Furthermore, convergent and discriminant validity seem adequate,

as demonstrated by medium to large correlations to the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1943; Derogatis, 1993).

**Multigroup Ethnic Identity Measure.** The Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992), a self-report questionnaire, was used to measure ethnic identity and to assess how strongly each adolescent identified with his/her own ethnic group. Twelve items were rated on a 4-point scale from 1 = strongly disagree to 4 = strongly agree. Sample items included, "I have a clear sense of my ethnic background and what it means for me," and "I have a lot of pride in my ethnic group." Mean scores were calculated for each participant with higher scores indicating stronger ethnic identity. The MEIM has demonstrated high internal consistency numerous times. In the original sample of ethnically diverse high school students with an age range of 14 to 19 years old, Phinney (1992) found a Cronbach's alpha of .81. In their review paper, Ponterotto, Gretchen, Utsey, Stracuzzi, and Saya, Jr. (2003) cited 12 published studies, which included 4 high school samples, with internal consistency coefficients ranging from a low of .81 to a high of .92. This study found a reliability coefficient of  $\alpha = .82$ .

**Acculturation Proxies.** Students specified whether they were born within or outside of the United States, as well as where each of their parents were born. Individuals born in Puerto Rico were considered to be born outside of the United States. We then used this information to determine the generational level of each student. Those who were born outside of the United States, regardless of their parents' birthplace, were considered 1<sup>st</sup> generation. Those born within the U.S. but with parents born outside of the U.S. were classified as 2<sup>nd</sup> generation. Lastly, those students who were born within the U.S. who also had parents born within the U.S. were considered 3<sup>rd</sup> generation.

Students also identified their four closest friends and reported on their race/ethnicity.

Using this data, we calculated a Latino-friend ratio for each participant. Generational level and Latino-friend ratio were used separately as proxies for level of acculturation of each student. Students who were 3<sup>rd</sup> generation Latinos were determined to be more acculturated than 1<sup>st</sup> generation Latino students because of the greater number of years their families had been living within the U.S. Moreover, students with a smaller ratio of Latino friends were considered more acculturated than those students with a greater ratio of Latino friends.

**Demographic Characteristics.** Students self reported on race/ethnicity and country-of-origin for themselves and their parents. They also reported on languages spoken in the household, family structure, and parental education level.

### **Data Analysis**

To address RQ1 and RQ2 about racial/ethnic differences in the content and themes of possible selves responses, several analyses were completed. Using racial/ethnic and gender groups as categorical independent variables and possible selves as a categorical dependent value, chi-square tests were conducted to examine overall racial/ethnic and gender group differences in the 7 categories of possible selves and the 6 categories of themes/tones. In categories that differed in chi-square analysis, logistic regression was used to explore specific racial/ethnic group differences controlling for parental education as a proxy for SES and gender where relevant. Further, to examine whether gender moderated effects, logistic regression was used to test for race/ethnicity and gender interactions in the likelihood of each type of possible self. For RQ3, how acculturation and ethnic identity factors relate to higher education possible selves, only the Latino sub-

sample (N=182) was investigated for within group variability. Logistic regression was used to examine whether the independent variables of ethnic identity, generational level, and ratio of Latino friends predicted the dependent variable higher education possible self. To address RQ4, how higher education possible selves relate to emotional adjustment by race/ethnicity, a Multivariate ANOVA was used to examine the 3 categories of race/ethnicity (Latino, Black, White) at the 2 levels of higher education possible self (yes, no). Dependent variables included APS Major Depression Subscale mean scores and average BSI emotional distress scores. The MANOVA tested for main effects and interactions between the independent variables race/ethnicity and higher education possible self on the dependent variables reflecting emotional adjustment.

### **Power**

In order to test for the probability of data from this sample correctly rejecting the null hypothesis, a power analysis was run. The field's conventional alpha level of  $p < .05$  was used in order to protect against Type I errors and maintain them at a low probability. Furthermore, the conventional medium effect size of .5 was used to determine the amount of power provided by a sample size. To detect a medium size effect with a power of .80, 3x2 chi square analyses testing the associations between race/ethnicity and endorsements of possible selves require a sample size of 107 participants (Cohen, 1992). Power was also tested for the 3x2 Factorial ANOVAs. Using a power analysis table for a balanced 3x2 Factorial ANOVA design as calculated by Friendly (2010), a sample of 40 participants in each of the 3 levels (ethnicity/race or generational level) would yield a power of .81. Therefore, 20 participants in each of the 6 cells created by a 3x2 Factorial ANOVA would reach sufficient power to detect a medium effect size. However,

although this power analysis expects equal cell sizes of at least 20 participants, that may not be the case with this sample. The majority of students in each race/ethnic group did mention a higher education possible self leaving fewer students in each group with a response that did not include a higher education possible self. Also, Latino students may not be equally distributed among the 3 generational levels and would have even fewer students that fall into the “no” level of academic future goal because of the smaller sub-sample size. Therefore, some cells may only have 10-15 participants, reducing power to detect medium size effects to 0.492-0.679; thus, some analyses may be underpowered.

### **Results**

Preliminary analyses examined the frequency of responses for each category of coded possible selves. Table 3 presents these frequencies for the sample overall and by gender. Across the sample, the most commonly cited selves were academic, further education, career, and work possible selves. For analyses purposes, only results for further education selves, and not academic possible selves, were analyzed as further education was a subset of the academic category and was of greatest interest for this study. Only romantic and own family possible selves and mentioning individuation as a theme showed significant gender differences. Specifically, girls were more likely than boys to endorse having their own children and family (13% vs. 5%) and being in a romantic relationship (16% vs. 9%). In terms of individuation themes, girls were much more likely to specifically express a desire to move away from their current family as part of their possible self response, regardless of whether they indicated this happening through education, occupation, or starting their own family (22% vs. 13%).

*Racial/Ethnic Differences in Possible Selves Content*

The next set of analyses aimed to examine racial/ethnic differences in possible selves. Table 4 presents the frequencies of endorsement of each category by race/ethnicity and results from chi-square analyses of overall group difference. Logistic regression was then used to explore specific group differences controlling for parent educational level and gender. Within logistic regression analyses, race/ethnicity was coded so that the White and Black subsamples were compared to the Latino group. In terms of specific types of goals, racial/ethnic differences were found for higher education and own family possible selves. Specifically, Latinos were less likely to hold higher education possible selves than Black students (57.2% vs. 72.8%, AOR=1.80 [1.00-3.23]). Latinos were also less likely than Whites to endorse higher education possible selves with 57.2% and 80.4%, respectively, (AOR=2.94 [1.61-5.36]). For own family possible selves, a greater percentage of Latino students mentioned having children and their own family in five years than did White students at 13.3% and 4.1% (AOR=0.29 [.10-.87]), respectively. However, Latinos did not differ significantly than Blacks in this category (13.3% vs.4.9%, AOR=0.40 [0.13-1.23]), although their rate of endorsement was over twice as high.

Follow-up analyses were conducted to examine if students gave a possible self of having their own family as an alternative to higher education or in addition to higher education. Among Latino students who did not endorse higher education, 21% stated having an own family possible self, whereas only 8% of those Latino students who did endorse a higher education self also endorsed having their own family in 5 years. This finding indicates that a future expectation of having your own children is more often an

alternative, rather than a competing or co-occurring, goal for educational attainment for some Latino youth.

*Racial/Ethnic Differences in Possible Selves Themes*

In addition to differences in content of possible goals, we also examined differences in themes (i.e., family assistance, materialism, individuation) and tones (uncertain, negativistic, unrealistic). Thirty-four percent of participants had a response that met some theme. Differences were seen in individuation and materialistic themes. Latino adolescents endorsed individuation goals more often than did White adolescents (20.4% vs. 9.3%, AOR=0.39 [0.18-0.86]), but not more than did Black adolescents (20.4% vs. 21.0%, AOR=1.07 [0.55-2.07]). This same pattern was exhibited with the materialistic theme. More Latino students stated materialistic goals than White students at 10.5% and 1.1% (AOR=0.09 [0.01-0.72]), respectively; however, Latino and Black adolescents did not differ significantly (10.5% vs. 7.8%, AOR=0.73 [0.27-1.94]). These results suggest similarities between Latino and Black students in materialistic possible selves, with both these two groups differing from White students.

No differences were found in negativistic or uncertainty tones in responses. In general, these tones in responses were uncommon. In contrast, unrealistic responses were fairly common with unrealistic themes present in 31.3% of responses from Latino students, 32.5% of responses from Black students and 16.5% of responses from White students. This difference was statistically significant,  $\chi^2(2, n = 360) = 8.08, p < .05$ . Of all responses given for all categories of possible selves, the majority of unrealistic responses occurred in the career possible self category (e.g. "I'll be working as a

pediatrician”), suggesting Latino and Black youth may have career goals in mind but have a less clear idea of the process for achieving these careers.

As a post-hoc exploratory analyses, the association between endorsement of higher education possible self and each of the three themes by race/ethnicity was examined. Specifically, we examined whether higher education was more closely associated with family assistance, materialism, or individuation themes within each race to explore the possibility that higher education goals means something different to youth from different racial/ethnic backgrounds. The differing sample sizes limit power to detect differences within the three racial/ethnic subsamples; however, patterns of results (not just p values) were considered in interpretation. Results are presented in Table 5. Across all racial/ethnic groups, higher education was not associated with family assistance, although the low base rate of family assistance limits interpretation. Across all groups, youth who endorsed higher education possible selves were less likely to express materialistic themes than youth who did not endorse higher education goals, with significant associations between higher education and materialism for Latino and Black youth. Among those who did not report higher education goals, 20.8% of Latino and 20% of Black youth had materialistic themes in their responses. In contrast, among those who did report higher education goals, 3.1% of Latino and 3.0% of Black youth had materialism themes. In other words, among students of color, youth who did not have higher education goals were more likely to explicitly state materialistic future goals.

In contrast, the association between higher education and individuation did differ by race. Although Black and Latino youth were equally likely to express individuation desires, they showed a different pattern when breaking apart students with and without



higher education selves. Specifically, Latino students who held a higher education self were more likely than Latinos who did not have higher education goals to explicitly express individuation goals,  $\chi^2(1, n = 180) = 4.72, p < .05$ . In contrast, among Latinos, youth with higher education selves were twice as likely to express individuation desires than youth without higher education goals (26% vs. 13%). Black youth with and without higher education selves were equally likely to express individuation themes (23% vs. 20%). Across all youth, Latinos who imagined higher education in their future were also the most likely to explicitly express individuation desires within their response, suggesting that the desire to attend college may mean something different to Latino youth compared to other adolescents.

#### *Within Latino Group Differences*

The next set of analyses examined characteristics that might account for differences within Latino youth. The relationships between the independent variables of generational level, ethnic identity, and ratio of Latino friends and the category of higher education possible selves were tested to address RQ2. Preliminary results indicated that of all Latino students, 22.7% were 1<sup>st</sup> generation, 51.9% were 2<sup>nd</sup> generation, and 24.9% were 3<sup>rd</sup> generation youth. Ethnic identity, as measured by the Multigroup Ethnic Identity Measure (MEIM) had a mean score of 2.73 ( $SD=.58$ ) out of a scale of 4 points, demonstrating a moderate level of ethnic identity overall. Among their 4 closest friends, Latino adolescents indicated a mean ratio of .75 ( $SD=0.31$ ) of their friends also being Latino, showing that Latino youths tend to highly associate within their racial/ethnic group.

Logistic regression was used to determine within group differences of Latino youth by examining if generational level, ethnic identity, and Latino friends ratio predicted having or not having a higher education possible self. The overall logistic regression model was not significant ( $\chi^2(df=3) = 1.73, p=.58$ ). Individual odds ratios are listed in Table 6. These results indicate that acculturation and ethnic identity as measured in this study were not related to the likelihood of a higher education possible self among Latino students.

#### *Racial/Ethnic Differences in Academic Possible Selves & Emotional Adjustment*

The final set of analyses examined whether the relationship between higher education possible selves and emotional adjustment differed by race/ethnicity. Although having higher academic goals is generally thought to be associated with better adjustment, this may not be the case for different racial/ethnic groups if educational goals have different meanings (e.g., separation from families). MANOVA was used to address RQ4, again controlling for parent educational level and gender. There were no significant main effects of race [ $F=.91 (4, 654) p=.456$ ] or higher education possible selves [ $F=1.42 (2, 327) p=.243$ ]; however, there was a significant interaction [ $F=3.67 (4, 654) p=.006$ ]. The nature of this interaction is presented in Table 7. The interaction was evident for both the BSI emotional distress [ $F=7.32 (2, 328) p=.001$ ] and APS depression [ $F=4.09 (2, 328) p=.018$ ]. Mean scores are presented in Table 7. Specifically, having a higher education possible self was related to having a more positive emotional adjustment for Black and White youth. In contrast, Latino youth who endorsed a higher education possible self demonstrated worse emotional adjustment, thus greater distress and depression, than those Latino youth that did not endorse such a possible self.

### Discussion

This study examined racial/ethnic differences in the types of expected possible selves held by high school freshmen projecting 5 years into the future. Previous studies have shown that students of color are less likely than White students to endorse higher education goals, and this may be one factor that contributes to lower educational achievement among students of color. This study extends existing research on possible selves in youth of color by focusing more specifically on Latinos and providing a more complete picture of aspects of possible selves that may interfere with or promote educational attainment. More specifically, this study extends existing findings in four ways.

First, instead of looking only at education and employment related possible selves, we also examined another domain of possible selves: social oriented possible selves (e.g., getting married or living with romantic partner, having children, being with friends, etc.). Given evidence of an increased interdependent focus among Latinos, this additional type of possible self may be especially relevant among Latino youth. Second, we examined various themes evident within possible selves responses. In particular, we examined whether adolescents' responses included themes like autonomy strivings, family assistance, uncertainty, materialism, or negativity based on the assumption that adolescents of different racial and ethnic groups may endorse the same type of possible self (e.g., "I will be in college") but for different reasons (e.g., "I will be in college so I can be on my own" vs. "I will be in college so I can get a job to help my family out"). To date, however, the notion of different themes associated with possible selves has not been examined. Third, this study included within-group examination among Latinos to

determine if acculturation factors may be associated with different possible selves. Although often put under the same label, there is considerable heterogeneity among Latinos that should be considered in any study of racial/ethnic differences. Finally, we examined whether having an education related possible self is differentially related to emotional adjustment for Latino, African American, and White students. While focusing on higher education is generally assumed to be a positive indicator of adjustment, this may not be true for youth of all racial and ethnic groups; however, this possibility has not been explored in the possible selves literature.

#### *Racial/Ethnic Differences in Possible Selves Content*

Consistent with previous research (Oyserman et al., 2004; Shepard & Marshall, 1999), the content of the adolescents' possible selves centered on educational and work-orientated aspirations, regardless of race. The majority of students in each racial/ethnic category did identify an academic possible self and a higher education possible self. However, significant differences by race/ethnicity were found in that Latinos held such selves at lower rates than did Black and White students. In contrast, no racial/ethnic differences were found in the work or specific career possible selves. In other words, students were equally likely to endorse work or specific career possible selves but did differ in education. This may mean that students equally picture a future that involves work or some kind of career, but that Latinos may be less likely to see themselves in an educational setting in pursuit of these work goals. Alternatively, these findings suggest that Latino students may hold other types of future selves. Consistent with this latter idea, Latinos were more likely to endorse possible selves that were socially oriented.

These socially-oriented selves may be more significant or more desired than educational selves or may compete with the ability to continue their education.

Latino youth endorsed having their own family in 5 years significantly more often than White and Black youth. Although only a small portion of Latino youth in general described having their own children and family as a possible self, it was at far greater rates than did other youth (13.3% Latino vs. 4.9% Black and 4.1% White). Further, this pattern was found regardless of gender showing that Latino boys also held own family possible selves at greater rates than did Black and White boys. This difference could be due to specific cultural factors of Latinos such as *familismo*, which emphasizes strong family ties and the importance of family. Having a family could then be seen as a significant and highly regarded goal for the future of Latino youth, creating a competing factor for attaining higher education.

This is congruent with national statistics demonstrating that while overall teen birth rates decreased from 1981 to 2006, birth rates for Latina teens aged 18 and 19 increased (Wingo, Smith, Tevendale, & Ferré, 2011). Moreover, results from a vast Pew Hispanic Center study (2009) show that although the majority of Latino youth believe teen pregnancy is not desirable their belief of the ideal age to have a child is younger than that of the general population. Latino youth reported that ideally women should have their first child at age 24 and men at age 25, compared to 26 for women and 28 for men as reported by all youth surveyed (Pew Hispanic Center, 2009). Therefore, it seems it is more acceptable and preferable to Latino youth than to other groups to start a family in one's early 20s, the time during which higher education usually occurs.

*Racial/Ethnic Differences in Possible Selves Themes*

In this study, different “themes” deemed relevant to the adolescent period were also coded with the idea that students could give possible selves with similar content (e.g., working) but associate different meaning to it (e.g., feeling negative or positive, doing it to be away from family or for materialistic goals, etc.). Three developmentally relevant themes were coded: family assistance, materialism (ie. Wanting nice things), and individuation (i.e., autonomy strivings), as well as three tones: negativity, uncertainty, and unrealistic. Again, racial and ethnic differences emerged. Three of these six, individuation, materialism, and unrealistic differed significantly by race/ethnicity, with Latino and Black adolescents more likely to describe possible selves that explicitly included these themes.

Latino and Black adolescents endorsed the individuation possible self more often than did White adolescents. This finding was counterintuitive given the more collectivistic attitudes of Black and Latino families (Triandis, 1989). However, this very collectivistic and interdependent nature may be why Black and Latino students stated an expectation or a hope of living on their own and being independent of their family. Individuation may be a more salient construct for Black and Latino youth, especially if they have regularly received direct and indirect messages of the importance of staying with the family. This may cause youth of color to strive for independence if they worry that they are being restrained from attaining that independence. This behavior is developmentally appropriate given that seeking autonomy and individuality from parents is the hallmark of American adolescence and the transition to adulthood. Conversely, White youth may not feel as constrained and living independently during young

adulthood may be the expressed expectation and seen as the norm by White adolescents and their parents.

Additionally, Latino youth who endorsed higher education were also more likely than any other youth, with or without a higher education possible self, to include individuation in their response. In other words, Latino students that hoped to continue their education beyond high school also expected to be living independently of their family. Yet, Latino youth that did not mention higher education endorsed autonomy strivings at much lower rates (13% vs. 26%). This finding implies that pursuing an education after high school may mean something different to Latino adolescents: going to college might also mean needing to leave home. The belief that higher education inevitably causes one to leave home may create conflict and distress for Latino families, especially when considering their more interdependent values.

There were also racial/ethnic differences in materialistic themes, with Latino and Black youth more likely to have responses with materialistic themes. This code was given when students specifically said something like “I’ll be rich and have a nice car” or “I’ll be living in a mansion”, or another response that specifically described a desire for material wealth and possessions. Although we controlled for some markers of socioeconomic differences (e.g., parental education) we did not have comprehensive information on family SES. In the larger community, families of color do have lower incomes than White families. Consequently, the desire for material wealth may be the result of a lack of material resources now.

Latino and Black students were also more likely than White students to have unrealistic responses in content areas, particularly career possible selves. Students often responded that they would have an established career in a field that required years of study beyond college, such as lawyer or doctor. However, these outcomes would be impossible in 5 years given that participants were freshmen in high school. This finding is consistent with other research demonstrating that youth of color often lack the knowledge and understanding of applying to and attending college (Abraham et al., 2002; Destin & Oyserman, 2009). In an experimental study involving 96 seventh graders of color, Destin & Oyserman (2009) framed college as “open” (affordable with need based financial aid) or “closed” (expensive). Students presented with the “open” mind-set were more likely to believe attending college was possible than students in the “closed” group (Destin & Oyserman, 2009) showing that the concept of financial aid is not typically known by children or families of color. Further, in a study of mostly first-generation Latino college students attending a primarily Latino university, participants reported interactions with faculty members and other students outside of the classroom as two of the most influential factors in their academic development (Abraham et al., 2002). The authors postulated that these relationships were important for the success of Latino students in helping with adjustment issues as well as guiding students through the process of attaining an undergraduate degree (Abraham et al., 2002).

#### *Within Latino Group Differences*

When specifically looking at the Latino youth, no significant differences were found in factors of acculturation or ethnic identity and the endorsement of higher education possible selves. Generational levels, the ratio of Latino friends, and the level



of ethnic identity did not differentially predict higher education possible selves. This finding is contrary to research that shows differential educational attainment by generational level, but indicative of the mixed results in this research area. In some instances, studies have found improvement in educational attainment across generations of Latinos (Hirschman, 1994; Zsembik & Llanes, 1996). Yet, others have indicated that although academic achievement increases from 1<sup>st</sup> to 2<sup>nd</sup> generation Latinos, it decreases from 2<sup>nd</sup> to 3<sup>rd</sup> generation Latinos (Grogger & Trejo, 2002; Landale, Oropesa, & Llanes, 1998; Portes & Rumbaut, 2001). However, in her study using a nationally representative sample of 2,059 Latino high school sophomores, Kalogrides (2009) found no significant differences in standardized test scores by generational level. Also, it is important to note that Latinos in this sample were overwhelmingly Puerto Rican, whereas most studies of possible selves have focused on Mexican-Americans. Generational level may hold less meaning among Puerto Ricans since Puerto Rico is part of the United States and individuals can freely travel back and forth, and live intermittently on the island or mainland. Thus, generational level may have fewer implications in terms of acculturation for Puerto Ricans than it does for Latinos from Mexico, Cuba, the Dominican Republic, Central America, and South America.

When examining the role of friends' ethnicities and the impact on Latinos' educational attainment, mixed results are also common. Research has shown that having non-Latino friends is greatly beneficial to Latino adolescents as having stronger ties to the dominant culture gives these students greater access to information and beliefs about pursuing higher education (Ream, 2005; Stanton-Salazar & Dornbusch, 1995). Yet, other studies demonstrate the importance of Latino friendships for the academic success of

Latino youth as these connections offer increased psychological and social support, as well as stronger ethnic identities (Riegle-Crumb & Callahan, 2009; Rumbaut & Portes, 2001). Nevertheless, the results in this study do not provide implications for the role of Latino friendships in the academic attainment of Latino youth. The school in which this data was collected has a majority of Latino students. Thus, all students, regardless of race, were likely to endorse at least one Latino friend. While friendship groups were clearly segregated, it was the norm in this school to have at least one, if not more, Latino friend regardless of race. Thus, the potential impact of the number of Latino friends in an adolescent's immediate friend network may be less pronounced.

Further, strong ethnic identity has also produced mixed results, being predictive of greater educational achievement in some cases, but not in others (Altschul, Oyserman, & Bybee, 2008; Worrell, 2007). Across the whole sample, ethnic identity was high, and therefore less able to demonstrate any strong relationship with academic aspirations. In general, ethnic identity tends to be related to constructs like depression, self-esteem, and emotional adjustment, but less related to other types of outcomes like health and education. Perhaps ethnic identity is more indirectly related to education through emotional aspects of development.

The lack of significant differences in the Latino subset may be due to the small and unequal subsamples of Latinos per generation with the first generation comprised of 41 students, the second generation of 94 students, and the third generation of 46 students. Also, the Latinos in this sample were mostly of Puerto Rican background. Previous studies looking at the effects of ethnic identity and acculturation on academic achievement have often involved participants primarily of Mexican background (Altschul

et al., 2008; Cháves-Reyes, 2010; Portes & Rumbaut, 2001; Zsembik & Llanes, 1996). Experiences of acculturation and ethnic identity may be different between youth of Puerto Rican descent and those of Mexican descent as Puerto Ricans are recognized as legal citizens, whereas Mexicans are labeled as illegal immigrants in the United States. Considering these differences, further research between the youth of various Latino backgrounds would prove beneficial.

*Racial/Ethnic Differences in Academic Possible Selves & Emotional Adjustment*

The final analyses demonstrated that there were racial/ethnic differences in emotional adjustment related to higher education possible selves. While Black and White students showed similar patterns in their results, Latino students displayed a very different pattern. Specifically, Black and White students reported more depression and distress when they did not endorse a higher education possible self. Yet, Latino youth who *did* endorse a higher education possible self had greater levels of depression and distress. This finding implies that having future educational aspirations, such as attending college, might be a source of stress and emotional difficulty for Latino adolescents in contrast to students of other racial/ethnic backgrounds.

Why might educational future goals be associated with more depression among Latino students? As described above, Latino students with higher education possible selves were also significantly more likely to have individuation themes as part of their response when compared to Black and White students. This may mean that Latino students, moreso than other students, associate pursuing higher education as leaving your home and family or being on your own. If Latino youth desire to leave home and exert

their independence, this interpretation of what it means to go to college may be in direct conflict with desires expressed by parents for the adolescent to stay home. The same conflict arises if the adolescent desires to stay home and to also pursue higher education, but understands college as a time to leave home. These seemingly opposing goals may create cognitive dissonance and the emotional distress seen in this study for these Latino youth.

There may also be socio-economic reasons for the association between emotional distress and higher education goals for Latino youth. Latino youth are more likely to live in poverty than any other group (Lopez & Velasco, 2011). Although analyses controlled for broad markers of SES, it is possible that Latino youth actually had fewer economic means or felt more impoverished than youth from other backgrounds in this sample. If so, then Latino students who want to go to college may be more likely to feel that it is not economically feasible, and thus become emotionally distressed. Alternatively, some Latino youth may have limits on the ability to go to college because of other external factors, such as their immigration status (i.e., being from an undocumented family). Although the majority of Latino youth in this study were Puerto Rican, the influence of immigration policies on the educational aspirations and achievement of Latino youth is an important area for future study.

Although studies often discuss emotional difficulties as a hindrance to educational attainment (Frojd et al., 2008; Langley, Bergman, McCracken, & Piacentini, 2004), little research has been done to look at the impact of academic achievement on psychological adjustment. Previous possible self research has not looked at links between how holding particular possible selves may affect mental health. However, in their study of 338

Mexican-origin female adolescents, Bámaca-Colbert, Gayles, and Lara (2011) found that a small percentage of the participants were functioning well academically, but were also psychologically distressed. Though neither our study nor their study can deduce what might be causing the distress that is related to academic achievement, it is supporting evidence of the importance in considering mental health outcomes and future goals. In particular, focusing on educational goals in the future may be viewed by society as a positive goal; however, for some groups of youth it may come at an emotional cost if this goal is in conflict with other personal, familial, or cultural goals.

### *Clinical Implications*

Results from this study lead to several implications for educators and clinicians alike. When working with Latino students, educators need to involve families in discussions about future educational goals, particularly in considering cultural values such as *familismo*. Often times, messages about attending college are conveyed to students but not necessarily their families. Both children and their families need to be informed of the potential benefits of attaining higher education and the possible consequences of not doing so. Families and their children should also express their fears, concerns, and overall beliefs about what it would mean to them if the adolescent pursues higher education. Through explicit, open conversations between families and educators, parents and adolescents could feel validated and misconceptions could be addressed.

Moreover, students and their families should be informed about a variety of possibilities for higher education, not just going away to college. For example, adolescents and their parents can learn about local colleges and universities. This would

allow students to commute to school while still living at home or to live on campus and frequently visit family if desired. Further, some students may not want traditional college/university experiences and would prefer vocational training in a specific field. Again, adolescents and their families should be informed of available programs.

Mental health workers, especially those serving high school and college students, should consider these factors as potential reasons for signs of depression, anxiety, and/or distress exhibited by Latino youth seeking mental health services. Closeness to parents and family members should not be perceived as maladaptive or “enmeshment,” but should be recognized as a cultural norm in these instances. Feelings of betraying the family and conflict between the youth and family members are possible difficulties that could be addressed through individual or perhaps family therapy.

Moreover, interventions getting adolescents to focus on educational goals and using possible selves as the mechanism to increase academic success have shown positive outcomes. In-school interventions have resulted in improvement in grades, fewer absences, greater concern about doing well in school, and fewer depressive symptoms (Oyserman et al., 2002; Oyserman et al., 2006). When used as a self-regulation tool with a specific action plan, academic possible selves helped low-income eighth graders improve their grades, increase time spent on homework, increase class participation, and decrease referrals to summer school (Oyserman et al., 2004). Encouraging students to see higher education as a possibility may in turn impact their behaviors and aspirations. In addition, other types of interventions such as college student mentors for high school students may also serve a similar function by expanding adolescents’ possible selves and increasing saliency of academic possible selves.

*Limitations and Future Directions*

Although this study has many strengths, several limitations should be noted. Like most previous research examining possible-selves, this study was cross-sectional. A longitudinal study could assess the relationships between possible-selves and actual outcomes, and further test the importance of possible-selves. This study is also not highly generalizable because of the convenience sampling as all participants came from health classes in one high school in one city of Connecticut. However, it is a first step towards directly comparing students of various racial/ethnic backgrounds and better understanding racial/ethnic differences in possible-selves. Another problem with sampling was the small, uneven sample sizes of each generation for within group explorations of Latinos. This may have attributed to the lack of findings within the Latino subsample. Although this study was the first to look at acculturative factors in possible-selves, within-group explorations were restricted to Latinos. Examining relationships of acculturative factors and possible-selves within other immigrant populations of other races (e.g., West Indian, Polish) might produce different results. Relatedly, there has been some evidence that educational aspirations may be associated with more distress in Asian-American youth, although this has been conceptualized as being the result of achievement pressure from family rather than individuation stress (Qin, 2008). Consequently, a study that looked at interactions between race/ethnicity and educational goals on emotional distress in an even more diverse sample of youth may provide a different picture. Moreover, an in-depth qualitative perspective on possible-selves would be helpful in better understanding the cultural context of why different racial/ethnic groups endorse particular possible-selves more frequently than others.

As another limitation, the question posed asked adolescents to “picture what you think your life will be like at that time [in 5 years].” In this study we took responses to portray expected selves but did not emphasize an expected self well because the measure was not initially included to measure “possible selves”. Some students may have answered with hoped-for possible selves, which are theoretically different in that an expected self is what you think you will realistically become and a hoped-for self is what you would perhaps ideally like your life to be like (Oyserman & Fryberg, 2006). In addition, students were not asked about their “feared” selves—or what they hoped their life would not be like. This question is also often included in possible selves measures. These distinctions can make a substantial difference in responses given by individuals. Therefore, clearer, more explicit instructions would be beneficial.

Lastly, studies focused on ethnic minorities have been criticized as being too descriptive and simplistic (Sue, 1999). Although this study was mostly descriptive in nature, such direct comparisons between an array of racial/ethnic groups and possible selves, to our knowledge, have not been done before. Moreover, this study extends previous research reporting differences in racial/ethnic groups’ endorsement of educational possible selves to better understand alternative types of goals (e.g., socially oriented), themes or reasons for goals (e.g., as a path to individuation or family support), and potential consequences of holding educational goals (e.g., emotional distress). While still preliminary, results from this study provide directions for further research that can better elucidate the cultural and contextual factors of possible selves.

Possible selves research should expand on this study by making clearer distinctions between expected selves and hoped-for selves, and should also include feared



selves. Likewise, studies should continue analyzing direct comparisons by race with diverse populations including Asian/Asian-American adolescents and samples from varying levels of socioeconomic status and geography (i.e., urban, suburban, rural). More studies investigating within group differences and how acculturation moderates possible selves would be beneficial to better understanding how to tailor conversations about education. In order to investigate the various cultural aspects related to why possible selves are held by different groups at discrepant rates, more qualitative research should be done, including exploring ethnotheories. In addition, more longitudinal research should be conducted to see if and how adolescent possible selves are linked to actual adult outcomes and if that differs by race/ethnicity. Such information might be useful in investigating barriers to expected or hoped-for selves within different groups.

### *Conclusions*

This study aimed to extend possible selves research in several ways by investigating three new areas of possible selves that are important areas for future inquiry. First, we coded for selves beyond academic and career oriented, including more social selves such as having your own family. Related, we included themes in addition to content, which may help illustrate how types of possible selves (e.g., education, work) may have different meaning (e.g., as a means for family assistance, material gain or individuation). Directly related to the idea that the same type of possible self may have different meaning or implications based on racial/ethnic group membership, we also examined how educational possible selves may differentially relate to mental health adjustment. Moreover, we took a first step towards exploring the impact of acculturation on possible selves. In these three ways, this study provides a more contextualized

understanding of possible selves and how these may impact subsequent educational achievement, particularly for Latinos. Educational disparities have a considerable cost to individuals, communities, and families. Understanding psychological factors that may contribute to these disparities is an important step in developing interventions that are developmentally and culturally tailored to adolescents of diverse backgrounds.

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Table 1

*Operational Definitions of Coded Content and Themes*


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Category	Definition
Content	
Academic	Mentioned graduating or finishing school in general
Higher Education Subset	Specifically stated attendance in education beyond high school
Work	Mentioned any idea of having a job
Specific Career	Specifically stated working in a particular field or career or going to school for a specific career
Romantic	Mentioned having a boyfriend, girlfriend, being married
Own Family	Stated having own children
Social	Mentioned relationships with friends
Theme	
Family Assistance	Specifically stated helping family, working to provide for parents
Materialistic	Specifically stated material success (e.g., being rich, having a nice car, etc.)
Individuation	Specifically stated being away from family, being on own
Tone	
Negativistic	Specifically stated expectations of something bad (e.g., "I'll probably be dead")
Uncertainty	Specifically stated uncertainty (e.g., "I don't know where I'll be")
Unrealistic	Content of response not realistic in the allotted time period (e.g., "In 5 years, I'll be working as a pediatrician helping children with disabilities").

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Table 2

*Interrater Reliability of Coded Possible Selves*

Category	% Agreement	Kappa value
Content		
Academic	95%	.89
Work	89%	.74
Career	81%	.63
Romantic	99%	.92
Own Family	98%	.89
Social	94%	.68
Theme and Tone		
Family Assistance	92%	.51
Materialistic	95%	.75
Individuation	91%	.72
Negativistic	97%	.67
Uncertainty	90%	.33
Unrealistic	82%	.43

Table 3

*Frequency of Responses for Each Category of Coded Possible Selves by Gender*

Category	Total (%)	Male (%)	Female (%)	$\chi^2$ (df=1)
<b>Content</b>				
Academic	70.7	69.6	71.4	0.16
Further Education	66.9	64.3	68.6	0.78
Work	34.5	31.5	36.3	0.96
Specific Career	44.7	48.9	40.2	2.84
Romantic	12.5	9.2	15.8	3.73*
Own Family	8.9	4.9	12.6	6.96*
Social	9.2	8.2	10.0	3.7
<b>Theme and Tone</b>				
Family Assistance	5.0	4.3	5.3	0.17
Materialistic	7.4	7.0	7.7	0.06
Individuation	17.5	13.0	22.1	5.28*
Negativistic	2.5	1.6	3.2	0.94
Uncertainty	4.5	4.3	4.8	0.04
Unrealistic	27.7	27.6	27.9	0.01

\* p&lt;.05

Table 4

*Frequency of Responses for Each Category of Coded Possible Selves by Race/Ethnicity*

Category	Latino (%)	Black (%)	White (%)	$\chi^2$ (df=2)
<b>Content</b>				
Academic	60.2	75.3	86.5	21.92*
Higher Education	57.2	72.8	80.4	16.50*
Work	36.9	30.9	33.0	1.02
Specific Career	48.3	47.5	35.4	4.56
Romantic	13.7	9.9	12.4	.765
Own Family	13.3	4.9	4.1	8.53*
Social	9.4	7.4	10.3	0.47
<b>Theme and Tone</b>				
Family Assistance	4.4	2.5	8.2	6.30*
Materialistic	10.5	7.8	1.1	7.85*
Individuation	20.4	21.0	9.3	3.37
Negativistic	2.7	3.7	1.0	1.39
Uncertainty	3.9	2.5	7.2	2.60
Unrealistic	31.3	32.1	16.5	8.08*

\* p&lt;.05

Table 5

*Theme Results With and Without Higher Education Possible Selves by Race*

Race/ Ethnicity	Family Assistance (Yes)			Materialistic (Yes)			Individuation (Yes)		
	Yes Higher Education	No Higher Education	$\chi^2$ (df=1)	Yes Higher Education	No Higher Education	$\chi^2$ (df=1)	Yes Higher Education	No Higher Education	$\chi^2$ (df=1)
Latino	6.9%	1.3%	3.18	3.1%	20.8%	13.85**	26.2%	13.0%	4.72*
Black	1.7%	4.5%	0.54	3.5%	20.0%	5.60*	20.3%	22.7%	0.06
White	6.8%	11.1%	0.39	1.4%	0.0%	0.21	9.5%	5.6%	0.28

\* p<.05    \*\*p<.01



Table 6

*Within Latino Group Differences Predicting Higher Education Possible Selves*

Acculturation Variables	Adjusted Odds Ratio	95% Confidence Interval	P-value
Generational Level	1.04	0.66-1.62	0.87
Ethnic Identity	1.12	0.67-1.90	0.66
Ratio of Latino Friends	1.19	0.43-3.29	0.73

Note: The overall model was non-significant [ $\chi^2$  (df=3) = 1.73, p=.58].

Table 7

*Emotional Adjustment Differences by Race With and Without Higher Education Possible Selves*

Race/ Ethnicity	APS Depression					BSI Distress				
	Yes Higher Education		No Higher Education		Cohen's <i>d</i>	Yes Higher Education		No Higher Education		Cohen's <i>D</i>
	<i>n</i>	M (SD)	<i>n</i>	M (SD)		<i>n</i>	M (SD)	<i>n</i>	M (SD)	
Latino	98	7.65 (5.38)	75	5.89 (4.12)	0.36	98	5.88 (2.33)	75	5.08 (2.20)	0.35
Black	55	6.01 (4.22)	19	8.10 (4.49)	-0.49	55	5.02 (1.66)	19	6.61 (2.79)	-0.79
White	71	6.01 (0.53)	18	6.24 (4.85)	-0.07	71	5.21 (2.03)	18	5.73 (2.39)	-0.25

