Ethnic Identity Among Latino College Students: Examining Developmental Trajectories and
Associations with Social Experiences and Psychosocial Outcomes

by

Tissyana C. Camacho

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Psychology)
in the University of Michigan
2017

Doctoral Committee:

       Associate Professor Deborah Rivas-Drake, Chair
       Professor Tabbye M. Chavous
       Professor Patricia M. King
       Professor Stephanie J. Rowley

Tissyana C. Camacho

tcamacho@umich.edu

ORCID iD: 0000-0002-4229-5199

DEDICATION

To my mother, the woman who taught me how to move mountains.

ACKNOWLEDGEMENTS

I am incredibly fortunate to have a community of people who made this accomplishment possible for me. They believed in me when I did not believe in myself and, on any given day, they did whatever was necessary to help me reach this milestone. Below are the people who made writing and completing my dissertation possible:

My advisor, mentor, and dissertation chair, Dr. Deborah Rivas-Drake, provided me with tremendous intellectual support throughout my years at Michigan. I simply cannot thank her enough for her guidance. She offered a space to process my thoughts on the way the world worked, which ultimately shaped my dissertation. I am grateful for our conversations, the time spent together, and the care she demonstrated as an advisor and mentor. Debbie's commitment to the excellence of her students is unparalleled. She works extremely hard to make sure we are successful. I feel incredibly fortunate to have worked with someone whose dedication knows no bounds.

I am thankful for my committee – Dr. Stephanie J. Rowley, Dr. Tabbye M. Chavous, and Dr. Pat M. King – for agreeing to take this intellectual journey with me. All three are scholars whose work I had admired for years prior to my admission to University of Michigan. The conversations with them, and the feedback they've given, has helped make my dissertation the best it could be and one I am proud of. I am particularly grateful for Tabbye, who made this dissertation possible by offering data from her College Academic and Social Identities Study.

The University of Michigan has been wonderful to me. The Developmental Psychology area is filled with exceptional professors, and I'd like to thank them all. I would also like to acknowledge two professors outside of my department, Dr. Matthew Diemer and Dr. Brady West. Matt's teaching helped bring my skillset and confidence to a new level, and he demonstrated a helpful nature that will never be forgotten. Brady was extraordinary in teaching and assisting me with the statistics utilized in this dissertation (and many other research projects). I am also grateful for the Institute for Social Research and the Robert Kahn Fellowship for the Scientific Study of Social Issues for making it possible to dissertate with the time and space I needed.

When I started graduate school, the universe surrounded me with colleagues who became friends and then transformed into family. Thank you to Dr. Maria Arredondo, Dr. Selin Gülgöz, Dr. Meghan Martz, Dr. Francisco Velasquez, and Irene Wu. I also must acknowledge Dr. Chauncey Smith for providing me with unconditional love and support throughout this journey; his presence in my life truly made me a better person and scholar.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

FIGURE

LIST OF APPENDICES

APPENDIX

ABSTRACT

Theory and research suggest that students of color examine and engage in meaning-making regarding their ethnic identity throughout college. The different pathways Latino college students undertake to develop their ethnic identities, however, are less studied. The role of higher education in these processes is also unclear. Thus, the first research question examined in this dissertation concerns the varying ways in which Latino college students search for information regarding their ethnic group (ethnic identity exploration), develop a sense of clarity regarding their ethnicity (ethnic identity resolution), and form emotional affect regarding their ethnic group membership (private regard). The second research question concerned the influence of three kinds of social experiences in college in the nature of ethnic identity trajectories over time: perceived ethnic threat, organizational involvement, and peer racial diversity. The third research question examined the implications of varying trajectories for psychosocial adjustment among Latino college students.

To answer these questions, longitudinal survey data were collected from 378 self-identified Latino/Hispanic college students attending four-year universities in the Midwest. Results revealed that each dimension of ethnic identity evinced unique pathways. Three pathways emerged for exploration: *moderately-high and stable*, *low and stable*, and *moderate and stable*. Two pathways emerged for resolution: *low and increasing* and *high and stable*. Two pathways emerged for private regard: *high and stable* and *moderate and stable*. Analysis of social experiences in college found that all three factors—perceived ethnic threat, organizational

involvement, and peer racial diversity—predicted membership in trajectories for at least one ethnic identity dimension. Specifically, perceived ethnic threat was associated with private regard trajectories. Organizational involvement (i.e., number of organizations and participation in ethnicity-related organizations) was associated with exploration and private regard trajectories. Classmate racial diversity (but not friendship racial diversity) was associated with exploration trajectories. Additionally, differences were found among exploration trajectories in academic adjustment. These findings highlight that: 1) ethnic identity develops in unique ways among Latino college students; 2) experiences within institutions of higher education matter for ethnic identity development during this time; and 3) ethnic identity trajectories have implications for the psychosocial adjustment of Latino college students.

CHAPTER I

Introduction

More young people are enrolling in college in this decade than ever before (National

Center for Education Statistics, 2016). For Latinos, 36.6% of the population between the ages of

18 and 25 were enrolled in college, compared to 24.8% in 2005 and 20.7% in 1995 (NCES,

2016). Latinos certainly benefit from obtaining a four-year degree, in particular, as the payoff of

a college degree is well documented: Individuals with a bachelor's degree report lower

unemployment rates and an income that is almost double of what their non-degree holding peers

earn (Pew Research Center, 2014). Although college enrollment rates for Latinos in the U.S.

have been increasing and are at a national high (NCES, 2016), Latinos still report the lowest

education attainment when compared to their Black, Asian, and White peers. For example, just

15% of Latinos between the ages of 25 and 29 have obtained a Bachelor's degree, compared to

22% of Black adults, 63% of Asian adults, and 41% of White adults (Krogstad, 2016). Thus, it

seems critical to learn more about the processes that promote the success and well-being of

Latinos who are in college. Indeed, such processes are of concern to a broad range of researchers,

practitioners, and institutions of higher education alike.

One factor that has been found to promote positive academic and psychological outcomes

among ethnic minority youth is *ethnic identity* (Meeus, 2011; Quintana, 2007; Rivas-Drake,

Seaton, et al., 2014; Rivas-Drake, Syed, et al., 2014; Smith & Silva, 2011)—the beliefs one has

about the role of their ethnicity in one's life and how one comes to hold such beliefs (Umaña-

Taylor et al., 2014). Although ethnic identity is thought to be fluid throughout the lifespan, we know that late adolescence and young adulthood (from ages 18-29) reflect a time of significant assessment and consolidation of one's identity (Arnett, 2000, 2014). The college years, in particular, are considered an important time and place for young adults to think about and make sense of their identity, which includes their ethnic identity (Arnett, 2000, 2014; Phinney, 2006; Syed, 2010; Syed, & Juang, 2014).

Ethnic Identity as a Developmental Process in College

Prior research demonstrates that ethnic minority students in college continue to renegotiate and redefine their ethnic identity during the college years (e.g., Ethier & Deaux, 1994; Ortiz & Santos, 2009; Syed & Azmitia, 2009). This research, however, often considers group-level change and does not consider the different within-group pathways that ethnic identity might take (i.e., how ethnic identity may develop differently across individuals). This omission is important to address because individual differences in identity processes mean that people may engage in meaning-making around their identities at different points throughout life. Moreover, the rate of developing one's identity will likely vary: for some it can increase rapidly, whereas for others it can be more incremental, and for others it can remain stable. Thus, there is a need for research on how and why ethnic identity unfolds in different ways for different individuals.

Until recently, identifying different types of identity development profiles was limited by analytic emphasis on aggregate- or group-level trajectories of change (e.g., as with hierarchical linear modeling), which does allow for individual variation but does so primarily in relation to a single group mean (or norm). Recent conceptual and statistical advances, such as those employed in this dissertation, allow for the examination of how ethnic identity might evince different

pathways among subgroups within a population. This means that we no longer are limited to considering how variation in identity development emerges in terms of how individuals deviate or conform to a single norm, but rather how qualitatively distinct trajectories might emerge amongst subgroups of individuals. Furthermore, these advances provide researchers with information about what uniquely predicts membership into such subgroups, what factors may influence group membership, and how such subgroups uniquely differ in outcomes – revealing the implications of identity development subgroups for later outcomes.

For college students in particular, it is important to examine how ethnic identity develops in the college setting and how experiences in college affects such ethnic identity development. Theorists such as Arnett (2000, 2014) and Erikson (1968) assert that young adults are likely to be working to develop their sense of self and empirical research supports this assertion (e.g., Gonzales-Backen et al., 2015; Syed & Azmitia, 2009, 2010; Syed, Azmitia, & Phinney, 2007). College-going young adults are also transitioning into new environments, likely their raising awareness of other social groups who may not have been present in their previous environment(s) (Hurtado, 2003; Gurin, Dey, Gurin, & Hurtado, 2004; Gurin, Nagda, & Zúñiga, 2013). In addition to the normative identity development and environmental transitions, ethnic minority students are evaluating messages they receive from their institutions, as well as society, and what these messages might mean for who they are (i.e., their identity). Recent highly publicized events across U.S. college campuses underscore that ethnic minority students are compelled to make meaning of their ethnicity-related experiences on campus. For example, campaigns such as "I, too, am Harvard," "I, too, am Berkeley," and "#BBUM" (i.e., Being Black at the University of Michigan) have highlighted some of the experiences of social exclusion among racial/ethnic minority students at elite institutions. In these campaigns, students have

written about and shared the social interactions they have had with others on campus. Examples that are pertinent to Latino college students include:

'You're Mexican... Why aren't you a Chicano Studies major?'

- A statement said to a Latina undergraduate at UC Berkeley

'You are not like *those* Latinas...'

- A statement said to a Latina undergraduate at UC Berkeley

'Where are you *really* from?'

- A statement said to a Latino undergraduate at UC Berkeley

These incidents illuminate just some of the negative messages Latinos received while in college.

In addition to these campaigns, universities have also been dealing with issues of increasingly overt racism, as white nationalism continues to grow on campuses and in society (Potok, 2017; Southern Poverty Law Center, 2017). At the University of Michigan, several incidents have occurred whereby explicit statements conveying social exclusion of minority groups were posted around campus. In one case, posters with false information regarding racial differences in intelligence were widely posted (Biglin, 2016). In another, a white nationalist group also posted flyers encouraging deportation of undocumented immigrants with the message "Make America Great Again" (Kahn, 2016), which is widely understood as anti-immigrant rhetoric. Universities across the country have reported similar messages being spread throughout their campuses (Dickerson & Saul, 2016).

Thus, students of color are likely to have experiences in college, such as these, that impact their sense of ethnic identity – how they engage with their ethnic group and how they feel about their ethnic group. These events also highlight that the processes by which college students develop their ethnic identity and the role of college campuses in such processes is a significant

and timely area of inquiry. One reason such research is important is because ethnic identity has been consistently related to positive mental health and to academic success among students of color throughout the educational pipeline (Rivas-Drake, Seaton, et al., 2014; Smith & Silva, 2011; Syed, Azmitia, & Cooper, 2011). Thus, it is important that universities consider how they can aid in the development of ethnic identity – especially in the face of social exclusion. However, the role of colleges, particularly four-year institutions, in shaping ethnic identity development in students of color is not well understood. The recent events, however, point out that minority students may be likely to encounter subtle and explicit biases on college campuses that undermine the development of a healthy ethnic identity. To understand how universities can help promote the success among their Latino students, we must understand the role of ethnicity in the lives of Latino students and how their experiences in college shape such feelings.

How Experiences in College Contribute to Ethnic Identity

Social-ecological perspectives suggest that our environments, and how we engage with our environmental contexts, have an influence on the people we become (Bronfenbrenner & Morris, 2006; Garcia Coll et al., 1996), which includes our ethnic identity (Erikson, 1968, Umaña-Taylor, 2004; Williams, Tolan, Durkee, Francois, & Anderson, 2012). Schools, specifically, can directly and indirectly inform individuals about what it means to be a member of one's ethnic group (Aldana & Byrd, 2015). As K-12 public schools in the United States become increasingly segregated by race (United States Government Accountability Office, 2016), the college years are likely to be one of the first times that students meet and interact with individuals from a wide range of backgrounds. The diversity in universities – of people, classes, and experiences – provides opportunities for students of all backgrounds to explore who they are in ways that were likely not afforded prior to attending college (Gurin et al., 2004). Yet,

individual differences in ethnicity-related experiences (and subjective understanding of those experiences) interact with the environment itself to yield different identity pathways in college. A Latina student who attended a predominantly Latino high school may not have thought much about her ethnic identity until she reached college and engaged with people of different backgrounds, influencing her to think more about herself in relation to others. Similarly, a Latino student who attended a predominantly White high school may not have thought much about his ethnic identity until he reached college and found classes, organizations, and people "like him" that assisted in thinking about his ethnic identity. Alternatively, both of these students could have had experiences, despite their different demographic surroundings, that taught them about their ethnic identity earlier in life. These scenarios highlight that ethnic identity develops in different ways, and that there are experiences in college that may or may not inform their ethnic identity.

Empirical research shows that college is a time when students of color further explore, learn, and reflect on what their ethnic group membership means to them (e.g., Ortiz & Santos, 2009; Phinney, 2006; Syed & Azmitia, 2009, 2010; Syed et al., 2007). The college environment offers many experiences that can influence one's ethnic identity, such as classes (Garcia, Patrón, Ramirez, & Hudson, 2016; Jones & Abes, 2004; Ortiz & Santos, 2009; Torres, 2003), mentors (Maramba & Velasquez, 2012), and academic programming (e.g., Case & Hernandez, 2013; Maramba & Velasquez, 2012). In this dissertation, however, I focus on three social experiences in college that can be considered universal for college students at four-year institutions: feelings of belonging at the university (i.e., perceived ethnic threat), organizational involvement, and peer racial diversity. Previous research suggests that belonging (e.g., Ethier & Deaux, 1994; Gummadam, Pittman, & Ioffe, 2016; Pittman & Richmond, 2007; Strayhorn, 2012), organizational involvement (e.g., Harper & Quaye, 2007; Tsai & Fuligni, 2012), and peer racial

6

diversity (e.g., Maramba & Velasquez, 2012; Santos et al., 2007) matter for ethnic identity. However, less is understood about the role of each experience in shaping different kinds of *pathways* of ethnic identity across the college years. That is, previous research has often examined how these experiences influence the group as a whole, ignoring the possibility that some students are unaffected or that others are more affected by any one experience. For example, does the perception that one belongs (or does not belong) at the university hinder one's growth in ethnic identity, leading one to remain stable in their ethnic identity, or does it trigger re-evaluation and lead to increasingly exploring one's ethnic identity? This is one of the questions the current dissertation will address. Thus, the current dissertation specifically examines how these experiences relate to membership in different ethnic identity pathways (i.e., the different ways that ethnic identity unfolds) among Latino college students.

Associations Between Ethnic Identity and Psychosocial Outcomes

Psychologist Erik Erikson (1968) highlighted in his seminal work on the psychosocial stages of development that identity is a key developmental process that one must undergo in order to feel like a meaningful member of society. Erikson posited that the identity cohesion offered by exploring and coming to feel resolved about one's identity helps to bring peace of mind. The process of building an identity will happen by exploring one's various social identities (e.g., gender, occupational, political). Ethnic minority individuals will also spend some time in their lives assessing what their ethnic group membership means to them (Umaña-Taylor et al., 2014).

In theorizing the link between identity and outcomes, specifically, Spencer (1995) proposed the Phenomenological Variant of Ecological Systems Theory (PVEST). Spencer suggested that individuals are active members of their environment and will have to problem-

solve when faced with environmental stressors. For example, a Latina growing up with a poor socioeconomic status may have to deal with stress related to poverty or ethnic discrimination. These risks factors (i.e., poverty and discrimination) can be offset by protective factors, which can eliminate the risk of detrimental factors. When developing her problem-solving strategies, she will assess the behavior(s) and if such behavior (i.e., coping methods) provide desirable results, these coping methods will become a stable part of who she is – also known as an emerging identity. Her emerging identity then lays the foundation for how she will deal with stress in the future, leading to potentially adverse or positive life outcomes. For example, this Latina may work to mitigate the negative effect of poverty on academic outcomes by developing ethnic pride (e.g., "I'm Latina and Latinas are strong and can do anything!"). The behaviors she uses to build her ethnic pride will become a stable part of her identity, which she carries with her, allowing her to use these behaviors and identity successfully navigate environmental stress in the future.

Empirical research demonstrates that the feelings young adults have about their ethnic identity have implications for their psychosocial adjustment (e.g., mental health, identity integration, and academic adjustment) (e.g., Brittian et al., 2013, 2015; Ethier & Deaux, 1994; Gonzales-Backen et al., 2015; Schwartz, Zamboanga, Weisskirch, & Rodriguez, 2009). This research finds that increased levels of ethnic identity (exploration and affirmation, for example) are positively related to self-esteem and negatively related to anxiety and depressive symptoms. However, we know less regarding how a *trajectory* of one's ethnic identity might matter for psychosocial outcomes. That is, do different pathways of ethnic identity relate to meaningful differences among outcomes such as mental health and academic adjustment? For example, do students who actively explore their ethnic identity have better outcomes than those who

moderately explore their ethnic identity? This dissertation examines whether and how individuals in different ethnic identity trajectories vary in terms of their psychological and academic adjustment.

Statement of the Problem

Extant research on ethnic identity among Latino college students has not fully accounted for the qualitatively distinct pathways through which they develop their ethnic identities. Individuals engage in meaning-making around ethnic identity at different times, and such identities are likely to progress at different rates (e.g., slowly or rapidly) or even regress (i.e., decrease). In addition, previous research has often failed to isolate specific dimensions of ethnic identity in research studies, often relying on composites scores of ethnic identity (cf. Rivas-Drake, Seaton, et al. 2014; Schwartz et al., 2014). Not accounting for such differences among participants and distinct dimensions of ethnic identity has made it difficult to disentangle the processes that hinder or promote growth in ethnic identity throughout college. Although research demonstrates associations between ethnic identity and experiences in college (e.g., school belonging, see Gummadam et al., 2016; Pittman & Richmond, 2007; Strayhorn, 2012), not knowing *how* these experiences contribute to differing ethnic identity pathways prevents us from fully understanding these relations.

Significance of the Study

One way to help universities support the academic success and psychological well-being of Latino students is through research that identifies how ethnic identity develops in college and which experiences specifically hinder or promote ethnic identity development, which can be a mechanism for positive psychosocial outcomes among this population. This dissertation examines the different pathways by which ethnic identity unfolds over time at four-year

universities. For example, I shed light on which students report high levels of positive feelings regarding their ethnicity throughout college, and what aspects of the college experience contribute to such a pathway. I also illuminate the pathways reflecting lower levels in positive feelings regarding ethnic group membership, and similarly identify what experiences and relationships contribute to such feelings. Answering these questions will help researchers, practitioners, and universities understand what experiences promote or hinder ethnic identity development—factors that existing studies have not yet fully identified. Additionally, I elucidate the implications of varying ethnic identity trajectories for psychological and academic outcomes, further highlighting the role of ethnic identity in psychosocial outcomes among Latino college students. The findings from this dissertation provide empirical evidence regarding what helps promote ethnic identity in college settings that institutions can use to create and examine practices and policies that help aid the success of their college students (e.g., programming and interventions). The knowledge generated through this dissertation research can thus ultimately help support retention and success of Latino students.

Research Questions

In this dissertation, I first examine the varying ways Latino college students explore their ethnic group membership (i.e., exploration), the varying levels of clarity Latinos report surrounding their ethnic group membership (i.e., resolution), as well as the varying levels of positive affect students report in regard to being Latino (i.e., private regard). I then examine how social experiences on college campuses relate to the different ways ethnic identity unfolds among Latino college students. Specifically, I consider the roles of perceived ethnic threat, organizational involvement, and peer racial diversity in how students come to explore, understand, and make meaning of their ethnic group membership. Finally, I examine the

10

implications of varying ethnic identity trajectories among Latino college students for

psychological outcomes (i.e., self-acceptance, environmental mastery, and psychological

distress) and academic outcomes (i.e., grade point average, college competence, and academic

engagement).

Organization of the Dissertation

This dissertation consists of five chapters. Chapter I provided the background, statement

of problem, significance, and research questions underlying the current dissertation. The

following section of the dissertation (Chapter II) reviews the theoretical and empirical literature

on the nature of ethnic identity development among Latino college students; how experiences in

college relate to ethnic identity; and how ethnic identity relates to both psychological and

academic outcomes among Latino college students. Chapter II closes by outlining the eight

specific hypotheses posed in the current dissertation. In Chapter III, I review the details about the

sample in the current study (i.e., participant demographics) as well as the measurement and

conceptualization of the main variables of interest. Chapter III ends with a review of the analytic

methods employed to answer the three research questions posed in the current dissertation.

Chapter IV presents the results of the research. I describe preliminary findings regarding the

primary variables in the study, discuss primary results pertaining to each research question, and

explain whether or not hypotheses were supported. The dissertation concludes with Chapter V, in

which I interpret the results pertaining to each of the three research questions; this discussion is

organized by individual ethnic identity constructs (exploration, resolution, and private regard).

Finally, I highlight the limitations of the current study and make suggestions for future research

as well as discuss the implications of the findings for practice and policy.

CHAPTER II

Literature Review

In this chapter, I first define ethnic identity and terms relevant to our understanding of ethnic identity. Next, I provide an overview of the major theoretical frameworks and models that have guided research on ethnic identity in the field, including a discussion of the ethnic identity models that frame this dissertation. I then review what is known about whether and how ethnic identity changes across adolescence and young adulthood, primarily among Latino samples. I review the literature on ethnic identity in adolescence because traditionally-aged (i.e., 18-19) college freshmen (such as those in the current sample) may be considered by some as late adolescents and by others as young adults. Given the dearth of research on ethnic identity among Latino college students, I draw on relevant studies with other ethnic minority populations (e.g., African American students) whenever possible to fully elaborate upon the empirical studies upon which this dissertation will build. Then, I discuss the importance of examining ethnic identity development during the college years and how social experiences in college continue to shape ethnic identity for ethnic minority individuals. Finally, I review research on the relationship of ethnic identity to psychological and academic outcomes, broadly among diverse youth and also specifically within Latino college student samples.

Ethnic Identity Defined

Ethnic identity is one of the many facets that make up an individual's overall identity. Ethnic identity is complex and multidimensional; many researchers conceptualize ethnic identity

in terms of *process* and *content* (e.g., Phinney, 1993; Umaña-Taylor, 2015; Umaña-Taylor et al., 2014; Yip, Seaton, & Sellers, 2006). Process refers to how the ethnic identity is formed, maintained, or developed over time (Phinney, 1993; Umaña-Taylor, 2015; Umaña-Taylor et al., 2014; Yip et al., 2006). For example, *exploration* is the extent to which a person has explored what their ethnicity is and what their ethnicity means to them; such engagement in meaning-making regarding their ethnic group membership reflects the process of ethnic identity. A less-studied facet of the process component of ethnic identity is *resolution*, which reflects the extent to which people understand and have clarity about the meaning of their ethnicity in their lives (Umaña-Taylor et al., 2004). Ethnic identity content refers to the different components that capture the substance, or meaning, people ascribe to their ethnicity, such as a sense of ethnic pride and attachment (Phinney, 1993; Umaña-Taylor et al., 2014; Umaña-Taylor, 2015; Yip et al., 2006). In this dissertation, I examine aspects of both ethnic identity process and content. Specifically, I examine exploration and resolution, as defined above, as well as private regard (i.e., how positively one feels about one's group) and centrality (i.e., the extent to which ethnicity is self-defining; Sellers et al., 1998), Each of these constructs, and the corresponding models from which they originate, are defined in greater detail below.

Theoretical Background

In this section, I will discuss the different theoretical frameworks that either undergird or dominate the field of ethnic identity research. I begin with Erik Erikson's theory on identity, followed by a discussion of ethnic identity models with an Eriksonian perspective of identity. After my discussion of models guided by the Eriksonian perspective, I discuss other relevant models presented in the closely related field of racial identity research by Cross (1991) as well as Sellers and colleagues (1998).

Eriksonian Perspectives

In developmental psychology, the study of ethnic identity has been largely rooted in Erik Erikson's stages of psychosocial development. Erikson posited that identity resolution is the primary task of adolescence in the psychosocial stage of *identity* vs. *role confus*ion (Erikson, 1968). Erikson theorized that an individual must and will undergo a subtle and gradual process of examination of his or her sense of identity, and that ultimately, accomplishing a sense of resolution about such an identity would help the individual feel secure and understand his or her role in society at large. That is, throughout the years of adolescence youth are likely to experiment with group memberships (e.g., social clique, political, gender) in the process of ultimately determining which identities align with their beliefs and values. He suggested that individuals who have an unresolved identity are likely to have cognitive dissonance leading to psychological troubles (e.g., depression and anxiety). Though Erikson's theory has largely been applied to adolescent youth, Erikson (1968) discussed the importance of identity resolution throughout the life course, including the years of early adulthood. Erikson's conceptualization of adolescence itself left open the possibility that such identity processes occur in what is now referred to as late adolescence (e.g., 18-19) and emerging adulthood (roughly 18-29; Arnett, 2000).

Scholars have applied Erikson's theory to myriad kinds of identity and identity development. For example, James Marcia used Erikson's theory to shape an understanding of how individuals come to achieve an occupational identity (Marcia, 1966). Marcia's work on identity relied heavily on two constructs: 1) *exploration*, periods of trial and error in regard to one's occupational identity, and 2) *commitment,* the degree to which an individual feels invested in his or her current occupational identity. A primary feature of Erikson's ideas was the notion of

exploration – to reach a resolved and coherent identity one must undergo the process of exploring what his or her identity means. The constructs of exploration and commitment were seen as a continuum, where low exploration and low commitment reflected a diffused identity, while high exploration and high commitment reflected an "achieved" identity (Marcia, 1966).

With regard to ethnic identity, scholars have also relied on the constructs of exploration and commitment introduced by Marcia to understand identity development. Jean Phinney, guided by the work of Erikson and Marcia, advanced the predominant model of ethnic identity development (Phinney, 1989, 1993; Phinney & Ong, 2007). In her original formulation, Phinney (1989, 1993) presented a stage-like model of ethnic identity development, which suggested that a progression through each stage led to an achieved identity (Phinney, 1989, 1993). The first stage was characterized by an unexamined identity, where exploration of one's ethnic identity was relatively low. The next stage, search/moratorium, suggested one was engaging in greater exploration, but had not yet committed to his or her ethnic identity. The final stage was identity achievement, meaning that an individual had engaged in significant exploration and felt positively toward and committed to his or her ethnic identity (Phinney, 1989, 1993).

Later revisions to Phinney's model suggest that ethnic identity can be characterized by *statuses* rather than progressive stages (Phinney & Ong, 2007). Phinney's more recent conceptualization of ethnic identity now posits that individuals can be categorized into one of four statuses based on their levels of exploration and commitment. The first status is *identity diffusion* where an individual has a low level of exploration alongside a low level of commitment. The second status is *identity foreclosure:* a low level of exploration alongside a high level of commitment. The third status is *moratorium* (a high level of exploration with a low level of commitment), and the fourth status is *identity achievement*, a high level of exploration

complemented by a high level of commitment. It should be noted that some researchers have combined the diffusion and foreclosure statuses, both with low levels of exploration, into the status of *unexamined* (e.g., Syed et al., 2007). Thus, ethnic identity may also be examined through three statuses: unexamined (low exploration, regardless of commitment level), moratorium (high exploration, low commitment), and achieved (high exploration, high commitment). The revision to Phinney's model to conceptualize ethnic identity *statuses* rather than *stages* acknowledges the fluidity of ethnic identity and how a person might shift (or cycle) from an "achieved" identity back to "moratorium," where exploration of what one's ethnicity means in life is re-examined.

Another more recent model of ethnic identity development, also guided by Erikson and Marcia, was proposed by Umaña-Taylor, Yazedjian, and Bámaca-Gómez (2004). This model focuses on exploration, similarly to Phinney, but also introduces the constructs of *resolution* and *affirmation.* Resolution refers to the individuals' sense of clarity about their ethnicity, whereas affirmation refers to how negatively or positively one feels about their ethnic group membership. Umaña-Taylor and colleagues (2004) follow Phinney by having four statuses (diffused, foreclosed, moratorium, and achieved), but these statuses are based on the degree of exploration and resolution (as opposed to the commitment construct used by Phinney). Moreover, Umaña-Taylor and colleagues state that there is also an *affective* component to ethnic identity (captured by affirmation) and that each of these four statuses could either be negative or positive (e.g., achieved negative or achieved positive). They noted that although Phinney's model assumes achieved identity must be a positive one, this assumption does not align with social identity theory (Tajfel, 1981), which informed both Phinney and Umaña-Taylor's models. Briefly, social identity theory states that an individual's self-concept is derived from the different social groups

16

to which they belong, alongside the value and emotional significance the individual attaches to memberships in such group(s) (Tajfel, 1981). Social identities serve a cognitive function in helping people navigate their world (i.e., through the groups to which they belong), but social identities are also needed for psychological well-being through emotion because of an individual's innate need to belong to positive groups (and their desire to not be involved in negative groups) (Tajfel, 1981). That is, according to social identity theory, it is possible for individuals to have a "positive" social identity in which they have done little exploration. Thus, Umaña-Taylor and colleagues contributed to the conceptualization of ethnic identity first by positing that resolution could be distinguished from exploration and, second, by demonstrating that having high resolution and exploration does not necessarily imply positive affect (i.e., affirmation) toward their respective ethnic group.

Consideration of Racial Identity Perspectives

As stated, ethnic identity is multidimensional and complex. The study of ethnic identity is informed by several fields (e.g., developmental, social, and clinical psychology) and their respective theories. In understanding ethnic identity, it is important to consider the closely related field of racial identity, which has a longer history in the study of identity development. Cross (1971, 1991) and Sellers and colleagues (1998) presented two predominant models for studying racial identity in African American and/or Black populations, to which I now turn.

The Cross Model. To understand and examine Black racial identity development in the United States, Cross developed *Nigrescence* theory (1971, 1991). In his theory, Cross states that there are five stages in racial identity development throughout the lifespan: Pre-encounter, encounter, immersion/emersion, internalization, and internalization/commitment. Pre-encounter is characterized as the identity before the encounter (stage 2), where race is largely not central to

a Black individual's identity. The encounter stage is characterized by a specific event where race is highlighted and the Black individual becomes racially conscious. After the encounter, the immersion/emersion stage begins. That is, an individual immerses himself or herself in Black culture, which is followed by an experience of emersion where one is freed from the emotional thinking of the immersion sub-stage. In the fourth stage, internalization, the dissonance of one's Black identity is resolved and a Black individual gains Black pride and Black self-acceptance. The last stage, internalization-commitment, is characterized by their positive feelings gained in internalization (e.g., pride and self-acceptance) and a commitment to the betterment of their racial group. Cross (1991) also stated that these stages might be recycled throughout adulthood due to life events that make race salient (e.g., marriage and raising children). The Cross model is a lifespan model that allows for the possibility of developmental equifinality (i.e., reaching the same outcome through different paths), which reflects that individuals will vary in the pathways towards their identity.

Although Cross conceptualized racial identity as a life-long developmental progression, it was not through an Eriksonian theoretical lens. Comparison of the racial identity development model with Erikson's ego identity development theory (via Phinney's model) suggested that there were ultimately differences between the two developmental models (Cross & Fhagen-Smith, 1996). Prior research found evidence that the stages in Phinney's model and Cross' model were correlated (e.g., diffusion similar to pre-encounter, moratorium similar to immersion-emersion, and achieved similar to internalization) (Wiggins, 1989). Research also demonstrated that psychological adjustment (self-esteem and depression) were similar among individuals and their counterparts in each stage of the models. For example, pre-encounter individuals were likely to have low self-esteem and greater depression, similar to diffused individuals (Cross &

Fhagen-Smith, 1996). However, not all pre-encounter Black individuals have negative psychological profiles (e.g., Early, 1993; Johnson, 1981, as cited in Cross & Fhagen-Smith, 1996). An assumption of the Phinney model (and, ultimately, Erikson's) model is that achievement of a positive ethnic identity is a precursor to optimal psychological health. Cross and Fhagen-Smith (1996), like Umaña-Taylor (2004), refuted this assumption. Cross argued that pre-encounter Blacks can have their racial identity be of low salience, but nevertheless have healthy psychological profiles through another achieved social identity (e.g., religious). Thus, it is possible for individuals with less developed racial identities to exhibit positive adjustment.

Cross' model remains a predominant model in understanding African American racial identity and also serves as a foundation to more recent racial identity models, such as Multidimensional Model of Racial Identity (MMRI; Sellers et al., 1998).

The Multidimensional Model of Racial Identity (MMRI). Since the late 1990s, the MMRI has become increasingly prominent in the literature on racial identity. Eriksonian and post-Eriksonian models of identity have tended to emphasize the role of process as age-graded development, and Cross's models are concerned with both process and content – the process of how the content changes over time and with new experiences. In contrast, the MMRI (Sellers et al., 1998) is primarily concerned with content, or the meaning ascribed to group membership, without making predictions about whether or how it should change over time. The MMRI defines racial identity as the "significance and meaning that African Americans place on race in defining themselves" (Sellers et al., 1998, p. 19). This conceptual framework for understanding racial identity in African Americans synthesized two prior historical approaches for studying racial identity, *mainstream* and *underground*. The mainstream approach primarily focused on the development of racial identity as members of a stigmatized group; specifically, how African

19

Americans developed a racial identity reflecting internalized self-hated or negative self-concepts because they were living a predominantly White, Eurocentric, and racist society. Underground approaches to the study of racial identity were more sensitive to the unique, and multifaceted, experience of being African American in the United States. Underground approaches focused on the strengths of unique culture and history to form an understanding of what it means to be African American. The MMRI is thus concerned with examining group identity while also attending to the issues of that make racial identity unique to African Americans in the United States.

Specifically, the MMRI considers four dimensions of racial identity: salience, centrality, regard, and ideology. *Salience* refers to the extent that race is relevant at a given point in time and is seen as a context-dependent characteristic that varies by situation (i.e., in different situations or environments, racial identity may be more or less salient). *Centrality* refers to the extent that membership in one's racial group is an important (or central) part of one's self-concept. This dimension of racial identity is relatively stable, as the degree to which one feels race is a normative and central component of their self-concept should not change by situation and context. The third dimension, regard, is viewed in terms of *private regard* and *public regard*. Private regard refers to the positive or negative feelings one has regarding one's racial group and racial group membership. Public regard refers to the extent one feels that others (i.e., the public or society) view one's racial group positively or negatively. The fourth dimension, *ideology*, refers to the extent to which one feels members in one's racial group should act. The MMRI proposes four different philosophies for ideology: nationalist, oppressed minority, assimilation, and humanist. The dimension of ideology is not appropriate for use with other ethnic/racial

groups given that these beliefs are based on unique experiences of African Americans in the United States.

However, three MMRI dimensions (salience, centrality, and regard) have been examined with non-African American racial/ethnic groups across multiple research programs (e.g., Hughes, Way, & Rivas-Drake**,** 2011; Rivas-Drake, 2011a, 2011b; Yip, Douglass, & Shelton, 2013). The dimensions of centrality and regard, specifically, are rooted in the social identity perspective previously mentioned. Within the social identity theory literature, centrality reflects "importance to identity" while regard reflects "public collective self-esteem" as well as "private collective self-esteem" (analogous to private regard and public regard) (Luhtanen & Crocker, 1992). Thus, many constructs are used to conceptualize ethnic identity and some constructs overlap (e.g., private regard and affirmation). To best understand ethnic identity, Umaña-Taylor and colleagues (2014) posited that research should integrate these perspectives to examine how individuals both develop and define their ethnic identity process and content, respectively.

Current, Integrative Conceptualization of Ethnic Identity

Following recommendations by Umaña-Taylor and colleagues (2014) and Schwartz and colleagues (2014), I draw on multiple models of ethnic identity in the current dissertation. Specifically, I consider the *process* of ethnic identity by examining exploration over time as discussed in Phinney's model (1993, 2007). I also consider the contribution of resolution (i.e., clarity regarding ethnic identity) in ethnic identity process (Umaña-Taylor et al., 2004). In addition, I consider the *content* of ethnic identity by examining the dimensions of private regard and centrality, as discussed in Sellers and colleagues' (1998) model. The combination of these ethnic identity perspectives is consistent with an approach that scholars have argued is necessary to move the field of ethnic identity research forward (Schwartz et al., 2014; Umaña-Taylor,

2015). Moreover, the multidimensional and complex nature of ethnic identity demands elaborate conceptualization of this aspect of individuals' lives – neither process nor content alone tells the whole story. Lastly, I relied on the construct of *centrality* (Sellers et al., 1997, 1998) to assess the importance of ethnic membership in one's life. Since ethnic identity is not an important part of every individual's self-concept, centrality must be used to account for the different ways ethnic identity can function (i.e., very important, not important at all). Together, examination of these four constructs provide information on how individuals engage in a *process* of figuring out their ethnic identities and for the understanding of *content* and the meaning of a given ethnic identity at different points in their development.

Ethnic Identity Across Adolescence and Young Adulthood

Ethnic Identity in Adolescence

Generally, empirical studies have shown that several dimensions of ethnic identity increase across the adolescent years for Latinos (e.g., Huang & Stormshak, 2011; Gonzales-Backen, Bámaca-Colbert, & Allen, 2016; Umaña-Taylor, Gonzales-Backen, & Guimond, 2009). However, there are cases where those findings are not replicated (e.g., Pahl & Way, 2006), or are more mixed (stable for some, but increasing for others) (e.g., Douglass & Umaña-Taylor, 2014). In this section, I will review the literature on ethnic identity development among Latino adolescents. Given the focus on change over time in this dissertation, I exclude cross-sectional studies and instead focus on longitudinal studies.

In one of the earlier studies examining the developmental nature of ethnic identity in a sample that included Latinos, Phinney, and Chavira (1992) conducted in-depth interviews at two time points (16 and 19 years old) and identified patterns of change in adolescents of diverse ethnic/racial backgrounds. Although the majority of the sample self-identified as Hispanic, Asian-American and Black adolescents were also present in the sample. The sample size ($N =$

22

18), however, prohibited examination of ethnic differences, thus the results presented reflect the entire sample. Based on the interviews, the researchers categorized their participants into three ethnic identity stages (unexamined, moratorium, and achieved), which were based on Marcia's (1980) conceptualization of identity development. Three years later (i.e., at 19 years old), those who were in the unexamined stage had largely progressed to moratorium and achieved. The individuals in the moratorium had switched to either unexamined or achieved. All but one participant in the achieved stage remained in that stage at 19 years old. Though the sample was small, this exploratory study provided preliminary evidence for a developmental progression of ethnic identity among ethnically diverse adolescents (Phinney & Chavira, 1992).

One of the most cited studies of ethnic identity development in adolescence was conducted by French, Seidman, Allen, and Aber (2006). They investigated the longitudinal nature of ethnic identity exploration and group esteem (i.e., how positively an individual feels about their ethnic group membership) over the span of three years among adolescents of African American, Latino American, and European American backgrounds. The Latino sample ($n = 121$) in this study was located in the Northeast and comprised Dominicans, Puerto Ricans, and "Other" Latinos. No sub-ethnic group differences were found in the pan-ethnic category of "Latino" among the main variables of interest, so the Latino group was treated as one in the study. Among early adolescents (~11 years old), Latinos showed a significant increase in group esteem but not exploration, whereas middle adolescent Latinos (~14 years old) demonstrated a significant increase in group esteem as well as exploration over the three years. These findings demonstrate the need to examine multiple dimensions of ethnic identity, given that they can function differently at different developmental periods, and this study helped to establish how such dimensions develop over time. Perhaps exploration of one's ethnic identity is more suitable for

older adolescents; as they become more independent and autonomous, they are more aware of the choices they actively make to understand who they are.

In one of the first longitudinal studies to solely focus on Latino ethnic identity development, Umaña-Taylor and colleagues (2009) examined the growth of ethnic identity exploration, resolution, and affirmation throughout the adolescent years (i.e., 15-19) of Latino (primarily Mexican-origin) adolescents ($N = 323$). Their findings, based on four annual self-report surveys, demonstrated that there was significant growth over four years, but the nature of the growth differed by gender. Although the starting points (i.e., mean intercepts) for genders were not significantly different across exploration and resolution, the growth patterns (i.e., slopes) did demonstrate gender differences. Latina adolescent girls reported a significant and linear growth for exploration and resolution, while boys did not have a significant change (i.e., growth) in exploration and resolution from ages 15 to 19. Both genders, however, reported positive linear growth in affirmation over the four years (Umaña-Taylor et al., 2009). Thus, we continue to see that there is a developmental progression of several ethnic identity dimensions, but this progression might vary by gender in adolescence, specifically among Latino adolescents.

More recent research on ethnic identity development among Mexican-origin youth in the Southwest region of the United States also suggests increases in several dimensions of ethnic identity. Gonzales-Backen, Bámaca-Colbert, and Allen (2016) found that ethnic identity exploration, resolution, and affirmation demonstrated linear increases over three and a half years among young adolescents (Wave 1 age = ~12 years old) and middle adolescents (Wave 1 age = ~15 years old). Moreover, these trajectories did not differ by cohort (early versus middle adolescence) or nativity (foreign versus U.S. born), nor did SES (mother's education) predict the ethnic identity trajectory. A notable finding from this study was that exploration and resolution

did not demonstrate significant variation in the growth pattern (slope), while the growth pattern of affirmation did demonstrate significant variance. This suggests that within this sample, there were individual differences in affirmation that were not found in the other ethnic identity dimensions. The researchers suggest that exploration and resolution might have a normative, universal developmental trajectory while affirmation is likely to be more variable in both early and middle adolescence (Gonzales-Backen et al., 2016). This research is important because it helps the field move forward in terms of our understanding of the development of multiple aspects of ethnic identity – something that few studies are able to do given the difficulty of conducting longitudinal research studies. However, Gonzales-Backen and colleagues (2016) focused on Mexican-origin youth living in one city of the United States, and our understanding of these processes would benefit from considering how these trajectories vary in diverse samples (ethnically and geographically).

One such study, conducted by Huang and Stormshak (2011), considered how ethnic identity trajectories might vary among an ethnically diverse sample of 593 adolescents (from 6th grade to 9th grade). The sample in their study consisted of Latinos/Hispanics (28.2%), African Americans (23.7%), Asian/Pacific Islander American (14%), American Indian/Native American (4%), and multiethnic individuals (30.1%). The results of their study demonstrated that the majority of adolescents (48.1%) had a high level of ethnic identity at the beginning, as operationalized by a composite of the subscales in the Multigroup Ethnic Identity Measure subscales (MEIM; Phinney, 1992), and this identity steadily increased over time. The second largest trajectory (30.1%) was those who reported a high level of ethnic identity throughout all four years. When examining ethnic differences, Huang and Stormshak (2011) found that Latino adolescents were most often found in the increasing ethnic identity class (in which 48.1% of all

participants were categorized). While these findings suggest growth in ethnic identity, it is difficult to disentangle what the data truly represent given that specific dimensions of ethnic identity were not examined. However, the researchers highlight that ethnic identity develops differently for different youth, and the developmental course of ethnic identity can vary widely. Thus, this study's analytic approach provides important insights, given that many studies tend to examine average values, such as the mean slope of change, as opposed to discerning qualitatively different subgroups that may exist within a given sample.

A recent study examined the possibility that such qualitatively different subgroups may exist when it comes to ethnic identity development. In a sample of Latino adolescents ($N = 323$), Douglass and Umaña-Taylor (2014) found three distinct trajectories of ethnic identity exploration and resolution over the four years of high school: consistently diffused, increasingly achieved, consistently foreclosed. These trajectories reflect the terminology and statuses introduced by Marcia (1966) and Phinney (1989, 1993). The consistently diffused trajectory was the smallest trajectory ($n = 47$) and reflected participants that were low and stable on exploration and resolution throughout the high school years. The increasingly achieved class was the largest trajectory ($n = 149$) and reflected adolescents who began relatively high and steadily increased over the years of high school. The last trajectory, consistently foreclosed ($n = 120$), reflected youth who consistently felt fairly clear (i.e. resolved) regarding on ERI but who engaged in lower levels of exploration. These findings are important because they provide evidence for the utility of taking a person-centered approach to examining individual differences (i.e., examining types of change). Although the majority of the adolescents are increasing, not *all* adolescents are increasing and that some remain stable.

Thus far, most of the literature reviewed has demonstrated that there is growth in several dimensions of ethnic identity among Latino adolescents. Yet, there are cases where these findings were not replicated. For example, in a mixed sample of Black and Latino (primarily Puerto Rican) adolescents, Pahl and Way (2006) found that exploration demonstrated annual *decreases* from ages 15 to 18 among Black and Latino adolescents. The deceleration in exploration was greater for the Latino adolescents, suggesting that they might come to feel resolved about their ethnicity sooner, leading to less exploration. In this sample, affirmation remained high and stable over time, so no uniform linear growth patterned was seen in that dimension. While these findings might suggest that ethnic identity might be finished developing by age 18 for high schoolers, we know from previous research that ethnic identity continues to grow for ethnic minority youth who attend college (e.g., Ortiz & Santos, 2009; Santos, Ortiz, Morales, Rosales, 2007; Syed & Azmitia, 2009; Syed et al., 2007). Pahl and Way (2006) also examined the role of gender and immigrant status in these trajectories but did not find that these variables affected the results. Given that other research has found gender differences (e.g., Umaña-Taylor et al., 2009), gender must be further explored to gain clarity about its role in ethnic identity development.

Other empirical studies have also found that ethnic identity might be not as dynamic throughout the adolescent years as theorized. When looking at ethnic identity in early adolescence, Matsunaga, Hecht, Elek, and Ndiaye (2010) found that Mexican-heritage youth in the Southwest had a tendency to remain in the same ethnic identity cluster over time. Their analysis included 1,600 first-, second-, and third-generation Mexican-heritage youth (baseline age = 10.4 years) and examined their ethnic identity development trends over 18 months. They found that those with a strong ethnic identity (i.e., higher exploration and affirmation) at the first

time point remained in that latent profile over two years, and similar findings were reported for those with weaker ethnic identities (Mastsunaga et al., 2010). Thus, most youths' ethnic identities remained stable for this sample. However, when change did occur, it was most likely to be an "increasing" change towards the strong ethnic identification latent class. The base mean age for this group was 10 years old, meaning that most participants were either 11 or 12 years old at the end of the study (18 months). French et al. (2006) found greater change in exploration and esteem for older Latino adolescents, thus it might make sense that stability was most common for these younger Latino participants. Their analyses also revealed that those of lower SES (indicated by lunch status) were more likely to have stronger ethnic identifications, and those who had visited friends and family outside of the U.S. were more likely to have moderate to strong ethnic identifications. Those who reported having both U.S.-born mothers and fathers were more likely to report strong affirmation along with weaker exploration – further highlighting the potential role of sociodemographic factors in shaping various dimensions of ethnic identity.

Finally, Kiang and colleagues (2010) also examined trajectories of ethnic identity over the four years of high school in a group of diverse adolescents (Latino, Asian, African-American, and Caucasian) and found no normative (mean-level) change in ethnic identity exploration or belonging/affirmation at the group level (i.e., for the adolescents overall). However, they found great individual (within-person) fluctuation in ethnic identity exploration and affirmation/belonging from year to year over the four years of high school (Kiang et al., 2010). That is, individual participants in the study reported changes in ethnic identity throughout the four years of the study. These findings, consequently, highlight the importance of using methods

that can provide insights into intra-individual differences, as opposed to methods that examine the groups solely in the aggregate, relying on their average values.

Summary. Research regarding the development of ethnic identity during adolescence is mixed – some studies find evidence of change over time, whereas other studies report stability. Matsunaga's (2010) findings suggest stability in early adolescence (~10 year olds), which complements French and colleagues' (2006) work demonstrating no growth in ethnic identity exploration among similarly-aged youth. For high school-aged adolescents, however, linear change does tend to happen in different dimensions of ethnic identity (Gonzales-Backen et al., 2016; Umaña-Taylor et al., 2009). Kiang and colleagues (2010) hint at the fact that, in some samples, there may not be change for the entire sample, but that a great deal of individual fluctuation in exploration and affirmation may happen for ethnic minority youth throughout any given year in high school. Such change in ethnic identity over time, however, might vary by gender (Douglass & Umaña-Taylor, 2014; Matsunaga et al., 2010; Umaña-Taylor et al., 2009) as well as other sociodemographic factors (Douglass & Umaña-Taylor, 2014; Kiang et al., 2010; Matsunaga et al., 2010). There are instances, however, where sociodemographics factors such gender, age, SES and birthplace do not predict ethnic identity (e.g., Gonzales-Backen et al., 2016; Matsunaga et al., 2010).

Another issue in the literature is that the populations of interest across these studies were different, which might help to explain the inconsistent findings. One's social surroundings, such as the ethnic/racial make-up of schools and neighborhoods as well as geographic region, are likely to play a role in how ethnic identity develops. Thus, researchers must consider these aspects when comparing the findings. For example, the participants in the studies by Pahl and Way (2006) and French and colleagues (2006) were recruited from large, urban public schools in

which the majority of the student population received free lunch and where racial/ethnic minorities where in the majority. By contrast, the study by Umaña-Taylor and colleagues (2009) recruited participants in five Midwestern schools where Latinos were less than 20% of the population and White students were the majority. We know that ethnic/racial school make-up is related to ethnic identity for Latino students. For example, Umaña-Taylor (2004) found that for Latino adolescents, ethnic identity was most salient for those who attended a school that was predominantly non-Latino (i.e., less than 20% Latino). When ethnic minority students are in the numerical majority, they are less likely to have to think about their ethnic identity (e.g., Xu, Farver, & Pauker, 2014; Umaña-Taylor, 2004), which may explain the lack of exploration reported by French et al. (2006) and Pahl and Way (2006).

In addition, though the samples reported on by French and colleagues (2006) and Pahl and Way (2006) were similar in terms of urban location, they differed by age group as well as the measures that were used. As mentioned earlier, adolescents may report greater changes in ethnic identity as they age and become more independent and autonomous thinkers. Moreover, the measures used in the previous studies have all varied. Even when they draw on the same conceptual constructs (e.g., from Phinney's model), different studies rely on different measures or versions of the same measure, which may contribute to mixed results (cf. Schwartz et al., 2014). Research further suggests that research with the same construct can often have two qualitative different definitions. For example, exploration in the widely-used MEIM (Phinney, 1992) has been found to reflect *searching* for one's ethnic identity, whereas exploration in the Ethnic Identity Scale (EIS; Umaña-Taylor et al., 2004) has been found to reflect *participating* in learning about one's ethnic group (Syed et al., 2013). Thus, when we consider the age groups (early, middle, late adolescence), measurement, geographical location, and numerical

30

representation in the school contexts, the varied findings regarding normative age-graded changes in ethnic identity are not surprising.

Ethnic Identity in Young Adulthood

Though many identity researchers agree with Erikson's (1968) theoretical assertion that identity is of central importance over the course of adolescence, an increasing number of scholars agree that it is equally important at later points in the life course as well (e.g., Arnett, 2000; Meeus, 2011). A growing literature has thus begun to illuminate how ethnic identity evolves in the post-adolescent years. Specifically, a number of studies examine the development (i.e., age-graded changes) of ethnic identity during emerging adulthood. Emerging adulthood—as termed by Arnett (2000)—is the period between the ages of 18-29 that is neither adolescence nor young adulthood. Rather, it is a new developmental period that is in between our traditional views of adolescence and adulthood, where further exploration of one's self is possible. One of the five pillars of emerging adulthood is identity exploration (Arnett, 2000). For example, when discussing occupational identity among college students, Arnett (2000) writes:

> Their college meanderings are part of their identity explorations. In taking various classes and trying various potential college majors, they are trying to answer the question 'What kind of job would really fit me best, given my abilities and interests?' Many are waiting for something to click, searching for that "aha!" moment when they know they have found their true calling. Some find it, some do not. But college at least gives them the opportunity. (p. 122)

Thus, while many individuals have an understanding of what their major might be going into college, as they progress through postsecondary education, individuals are often trying to match their occupational goals with their developing identity. This process also holds true for ethnic identity, as the period of college provides a space in which minority youth are able to examine and explore their ethnic identity (Phinney, 2006; Syed & Mitchell, 2013, 2015).

Researchers have examined how ethnic identity develops in the college years, often showing that ethnic identity changes throughout this period (e.g., Santos et al., 2007; Ethier & Deaux, 1994; Ortiz & Santos, 2009; Syed & Azmitia, 2009, 2010; Syed, 2010; Torres & Baxter Magolda, 2004). Researchers have found that over the first year of college, ethnic identity can remain stable, progress, or even *regress* (e.g., Phinney & Chavira, 1992; Syed et al., 2007). Thus, there is evidence to suggest that even those who begin college with a presumably "achieved" identity are likely to renegotiate their ethnic identity throughout their time there – highlighting the need to uncover the experiences in college that contribute to such change in ethnic identity. In this section, I review the longitudinal research on ethnic identity among Latino college students and other ethnic/racial groups.

In a longitudinal study of Hispanic[1] students at two Ivy League universities, Ethier and Deaux (1994) found that students evinced two paths by which they negotiated their identity. The first path was one in which those who had strong ethnic identification in the first semester of college became involved in Hispanic activities on campus, which was then associated with higher ethnic identification in January and May of their freshman year. The second path suggested that those with an initially weaker ethnic identification actually perceived more ethnic threat on campus and then showed weaker ethnic identification throughout the first year, as well as lower levels of collective self-esteem (similar to private regard) (Ethier & Deaux, 1994). These findings demonstrate that the starting point of ethnic identity perhaps makes a difference in the nature of its change over time. Ethier and Deaux's (1994) study suggests that it is important to consider not only the ethnic identity beliefs with which students begin college, but

---

[1] Typically, the term "Hispanic" is used to denote those of a Spanish-speaking country and "Latino" is used to denote those from Latin American countries. Throughout my review of the literature, I use the terms that were used by the authors of the studies.

also their previous exposure to experiences that may help them to renegotiate those views. For example, to what extent does ethnic identity development vary among Latino students experiencing a profound shift in their status as a numerical minority? That is, does it matter if they transition to a college setting from one where they were the majority to one where they are no longer in the majority?

To assess how age-graded changes in ethnic identity differed by college settings, Syed, Azmitia, and Phinney (2007) examined the stability and change of Latino first-year students in a university where Latino students were a numerical minority ($n = 91$) and a university where Latino students were the numerical majority ($n = 37$). When examining mean differences in ethnic identity exploration and commitment (MEIM), no significant mean differences were found from the fall semester to spring semester for either group or between the two groups. That is, neither group significantly increased from one semester to the other, and the rates of ethnic identity over time were not significantly different between both groups. Using a cluster analysis of the full sample, three identity statuses of the Phinney model were created based on exploration and commitment (achieved, moratorium, and unexamined) and changes in the clusters were analyzed over the first year of college. Analysis of these clusters demonstrated that almost half of Latino students shifted in ethnic identity status from the first semester of college to the second semester of college. While the majority (37.5%) of the shifts were progressive (e.g., unexamined to moratorium, moratorium to achieved), some of the shifts (10.9%) were also regressive (e.g., achieved to moratorium, moratorium to unexamined). The remaining participants (51.5%) did not experience a status change from fall semester to spring semester. However, progressive shifts did occur significantly more than regressive shifts for the students overall and by university (Syed et al., 2007). Furthermore, membership in these clusters was not dependent on the

university's context. That is, there were no differences by university in the representation of participants in any cluster. Although the two colleges did not have an equal number of participants, the finding that the type of college setting did not predict membership in any of the three statuses suggests these statuses may be signaling a normative trend (i.e., universality in identity statuses). An exploratory analysis of the relationship between gender, social, and immigrant status to changes in ethnic identity status revealed no significant associations for gender and immigrant status. Students of higher SES, however, were in the unexamined group more than the moratorium and achieved groups, further highlighting the need for future research to consider sociodemographic factors when examining ethnic identity development.

Prior studies (Ethier & Deaux, 1994; Syed et al., 2007) only examined change across the first year of college. Although these studies are informative, they do not capture how the cumulative experience of college relates to ethnic identity. One of the few longitudinal studies examining ethnic identity across all four years of college found that White students, Asian American students (of Chinese, Filipino, and Japanese heritage), Latino students of predominantly Mexican heritage, and Black students all increased in ethnic identity exploration (Syed & Azmitia, 2009). Significant linear increases in ethnic identity commitment (i.e., affirmation/belonging) over the course of college were also found. Although Pahl and Way (2006) demonstrated that exploration tends to decline in late adolescence, it appears that college experiences may trigger re-evaluation of ethnic identity (Syed & Azmitia, 2009). Syed and Azmitia (2009) also found that, contrary to what might be expected, ethnic identity exploration seemed to begin increasing after the *second*, not first, year of college. Thus, it may not be the transition to college, but rather the accumulated experiences in college that help individuals to transform their ethnic identity. This finding is important given that Syed and colleagues (2007)

found very subtle changes in mean exploration over time within the first year of college and that half of their sample remained in the same ethnic identity status over the course of their freshman year. Such incremental shifts are likely due to cumulative experiences youth have in college, and there may not be a dramatic change among freshmen based merely on having made the transition to college, highlighting the need for studies that span the college years. Even those who initially show a decline in ethnic identity within the first year, such as the students in Ethier and Deaux's (1994) study, might go on to increase in ethnic identity as they spend more time in college.

One study conducted by Syed and Azmitia (2010) examined ethnic identity beyond the freshman year among ethnically, racially, and socioeconomically diverse emerging adults ($N =$ 70). In this study, Syed and Azmitia (2010) examined change in exploration (process) and how such change relates to narratives (stories that convey content) from sophomore year to senior year of college. Narratives are thought to reflect "how individuals construct their identities through the process of telling their life stories (Syed & Azmitia, 2010, p. 209). In this study, participants reflected five types of narratives: awareness of difference, awareness of underrepresentation, experience of prejudice, connection to culture, or no experience. With regard to exploration, they found three types of change: those who increased at least one standard deviation ($n = 20$), those who decreased at least one standard deviation ($n = 7$), and those who remained within one standard deviation ($n = 43$). Classification into these change groups did not vary by ethnic/racial group, gender, or SES. Their hypothesis that those who increased in exploration would change the type of narrative they reported between sophomore and senior year was supported, reflecting that they had new experiences that informed their ethnic identity (Syed & Azmitia, 2010). Those in the "no change" and "decrease" groups were more likely to tell a story reflecting the same narrative they spoke of during their sophomore year, or even the same

story, reflecting a lack of work in ethnic identity exploration and development.

Syed and Azmitia (2010) further tested the notion that those who increased in exploration would be more likely to tell narratives that reflect a positive connection to culture. Prior research demonstrates that those who report greater levels of exploration tell narratives reflecting a positive connection to culture, defined as "any recognition of the teller's ethnic or cultural heritage that was cast in a positive light" including "learning something about one's heritage, feeling proud, or feeling connected to one's background (Syed & Azmitia, 2008, p. 1018). Their hypothesis was supported, with over 60% of increasers providing a positive connection to culture narrative. Thus, not only do those who increase tell new narratives at the end of their senior year, the majority also tell positive stories. These findings help provide evidence that certain types of experiences in college are associated with ethnic identity development, as the prompt for the narrative specially asked about the participants to reflect on an event that occurred since beginning college.

Aside from the reviewed studies in this section, longitudinal research on ethnic identity among (or including) Latino college students is scant, highlighting the need for greater understanding of ethnic identity development among this population. As we have seen in recent empirical research with adolescents, greater examination of the heterogeneity in ethnic identity during the college years is needed. There is enough empirical research to suggest that there are different pathways for ethnic identity to unfold while among individuals in college. To understand why there are differential pathways, moreover, we must examine the experiences in college that shape ethnic identity. In the next section of my review of the literature, I highlight the potentially informative experiences in college that can help shape our understanding of ethnic identity trajectories specifically throughout the college years.

Ethnic Identity Development: The Role of College Experiences

Why might ethnic identity change in college? For many youth, higher education raises awareness of other social groups that were likely not well represented in their prior social settings (such as schools and neighborhoods) (Gurin et al., 2004; Park, 2014). This might be especially true for college youth who attended public schools, with income segregation creating schools that are socioeconomically and ethnically/racially homogenous (Orfield, 2009). Alongside these growing segregation patterns in the U.S. are concerns regarding diversity within institutions of higher education. Many universities have stated a growing desire to make their campuses more diverse, which they believe benefits their students by creating a learning environment where multiple perspectives are shared and prepares their students to work cooperatively in inclusive settings beyond college (e.g., Chang, 2001; Denson & Bowman, 2013; Gurin, Nagda, & Lopez, 2004; Martin, Tobin, & Spenner, 2014). Universities, therefore, have student bodies that are comprised of different backgrounds (class, race/ethnicity, religion, immigrant status, gender), but for many of the students it is their first time being in such a "diverse" environment. The diversity offered by institutions of higher education ideally give opportunities to individuals of all backgrounds to explore social identities in ways not afforded to them prior to college (Gurin, et al., 2004). For example, a Latino adolescent who attended a predominantly White high school can arrive to college and find themselves—somewhat ironically, given their underrepresentation in such settings—immersed in opportunities to examine their ethnic heritage through organizations, events, and classes.

Thus, opportunities to explore identity in college can happen through multiple avenues such as classes (Garcia et al., 2016; Ortiz & Santos, 2009; Jones & Abes, 2004), student organizations (Harper & Quaye, 2007; Tsai & Fuligni, 2012), Greek life (Nuñez, 2004; Guardia

& Evans, 2008), peer relationships (Ortiz & Santos, 2009; Syed & Juan, 2012), mentors (Maramba & Velasquez, 2012), participating in university research (Syed, Juan, & Juang, 2011) as well as other social and academic experiences (e.g., Taylor & Howard-Hamilton, 1995). Participation in these experiences shape the various kinds identities an individual develops (e.g., occupational, gender), including ethnic identity (e.g., Guardia & Evans, 2008; Harper & Quaye, 2007; Maramba & Velasquez, 2012; Syed et al., 2011; Syed & Juan, 2012; Tsai & Fuligni, 2012). The college experience thus affords emerging adults with a range of opportunities for changing the course of their development.

Given the many avenues to explore one's identity in college, it is not surprising that ethnic identity continues to change throughout the college years as well (e.g., Phinney, 2006; Syed & Azmitia, 2009, 2010). As noted earlier, extant studies have advanced our understanding of the type of changes observed as ethnic identity unfolds (e.g., progressive, regressive). What remains unclear, however, is *how* and *why* ethnic identity changes across young adulthood (Schwartz et al., 2014; Umaña-Taylor, 2015). In particular, little is known about the mechanisms by which youths' ethnic identity evolves over time. For example, if private regard (how positively one feels about their ethnic group) is increasing throughout the college years, what might be leading to the increase? And how are experiences in college contributing (or not contributing) to such change?

As previously highlighted, there are many factors that are associated with ethnic identity in college for students of color. In this dissertation, drawing from social-ecological perspectives (Bronfenbrenner & Morris, 2006; Erikson, 1968; Garcia Coll et al., 1996; Umaña-Taylor, 2004; Williams et al., 2012), I examine three key experiences that could be considered universal for college students at four-year institutions and how these experiences relate to membership in

different types of ethnic identity pathways (or trajectories) over time: 1) belonging and perceived ethnic threat, 2) organizational involvement in the university, and 3) peer racial characteristics.

Belonging and perceived ethnic threat. Sense of belonging, broadly, refers to feelings that one is socially accepted and has positive relationships with others in their social environment(s), which is considered a fundamental human need (Baumeister & Leary, 1995; Deci & Ryan, 2000; Maslow, 1962). When we consider school belonging in particular—the extent which an individual feels the educational institution values them—we see that feelings of belonging matter for the personal and academic success for all students throughout the educational pipeline (e.g., Anderman, 2002, 2003; Faircloth & Hamm, 2005; Freeman, Anderman, & Jensen, 2007; Gummadam et al., 2016; Hausmann, Schofield, & Woods, 2007; Neel & Fuligni, 2013; Pittman & Richmond, 2007; Sánchez, Colón, & Esparza, 2005, Strayhorn, 2012; Walton & Cohen, 2007, 2011; Wilms, 2000; Yeager et al., 2016). Although scholars examine school belonging in different ways, they typically consider such belonging in a general sense (e.g., "other students here like me the way I am") (e.g., Freeman et al., 2007; Pittman & Richmond, 2008; Sánchez et al., 2005). With few exceptions (e.g., Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005), previous studies of school belonging do not consider the specific ways that social marginalization shapes, or constrains, such belonging among racial and ethnic minority students (Hurtado & Carter, 1997). For such students, such belonging entails not only being valued as a person, in a general sense, but *also* as a member of a socially marginalized group. This is an important omission when we consider that, in a national study of first-year college students, ethnic and racial minority groups (i.e., Asian Americans, African Americans, and Latinos) reported feeling less sense of belonging on university campuses compared to their White peers (Johnson et al., 2007). As discussed below, for students of color, particularly for

39

those who deem their ethnic identity important to their self-concept, how they feel they belong in terms of ethnicity on their campus can be an informative and important predictor of psychosocial adjustment, including their ethnic identity. Thus, the field would benefit from considering the sense of belonging of students of color in ways that explicitly attend to issues of ethnicity.

One way to conceptualize the aspect of school belonging that may be influenced by one's ethnic background is to consider students' *perceived ethnic fit* (Chavous, 2000; Chavous, Rivas, Green, & Helaire, 2002) and *perceived ethnic threat* (Ethier & Deaux, 1990, 1994). In the college student literature, perceived ethnic fit and perceived ethnic threat refer to the compatibility (or incompatibility), respectively, between the students' ethnic background and their university. Ethier and Deaux (1990) first examined perceived ethnic threat among a sample of first year Hispanic students ($N = 45$) attending two Ivy League universities. To assess ethnic identity in this sample, they used three measures of collective self-esteem: public acceptance, private acceptance, and importance to identity (analogous to public regard, private regard, and centrality in the MMRI) (Luhtanen & Crocker, 1988). They also assessed the participants' *strength of cultural background* (SCB; an index of parental birthplace, language spoke at home, and demographics of school and neighborhood). Their correlational analyses revealed that SCB was negatively associated with perceived ethnic threat (i.e., a stronger Hispanic cultural background was associated with lower levels of perceived ethnic threat). Although no collective self-esteem variables (i.e., public acceptance, private acceptance, importance to identity) were associated with perceived ethnic threat, this study provided a foundation for examining the interplay between feelings about the campus environment and identity development.

Ethier and Deaux (1994) followed up with these participants two more times throughout the freshman year to assess the cross-sectional relations longitudinally. Their longitudinal results

revealed that students with lower SCB at the beginning of college perceived significantly greater amounts of ethnic threat, which, in turn, had negative effects on private acceptance (analogous to private regard). Perceived ethnic threat at the beginning of college was also predictive of negative changes in private acceptance from Time 1 to Time 2 and Time 2 to Time 3 for those with lower SCB. The researchers then analyzed two groups (high SCB, low SCB) using a mean split on SCB. When comparing the two groups, they found that students in the high SCB category were less likely to report perceived threat compared to those in the low SCB category (i.e., those with a stronger Hispanic cultural background reported less perceived ethnic threat). Moreover, students with low SCB who reported higher perceived ethnic threat were more likely to have decreased in private acceptance over time. Ethier and Deaux (1994) thus provided evidence for an effect of perceived ethnic threat on ethnic identity for self-identified Hispanic college students, an important contribution to the ethnic identity literature that still stands as such. Yet, it is necessary to build on this contribution by examining these processes with larger sample sizes, involving participants from different kinds of universities, extending beyond the freshman year, using more well-developed measures, and examining different dimensions of ethnic identity. For example, how might perceptions of ethnic threat relate to the process of exploring one's ethnic identity? This dissertation attempts to answer this question and address the previous limitations.

Studies with other underrepresented minority college students, such as African Americans, are also informative for understanding the relation between ethnic identity and perceived ethnic threat. Based on Ethier and Deaux's conceptualization of perceived ethnic threat, Chavous (2000) adapted the questions to study perceived ethnic *fit* (i.e., compatibility with the university, as opposed to incompatibility). In her cross-sectional sample of African

41

American college students at a PWI, she found that the four racial identity ideologies did not predict perceptions of threat. However, when racial centrality was added to the model, greater nationalist ideology scores (an ideology reflecting the uniqueness of being African American and a preference for African American social environments) were predictive of less ethnic fit. Centrality also moderated this relation, with lower centrality individuals reporting a significant relationship between higher nationalism and lower perceived fit (which was not significant for higher centrality individuals). Chavous (2000) built upon Ethier and Deaux's (1990, 1994) work and provided evidence to support the role of different components of racial identity and perceived ethnic threat/fit. By including the construct of centrality, she demonstrated that the relation between racial identity and perceived ethnic threat/fit differed by the meaning and importance students accorded to their racial group in their self-definition.

Adding to this work, Chavous and colleagues (2002) examined the role of students' socioeconomic background in understanding identity, perceived ethnic fit, and academic outcomes in a cross-sectional sample of African American college students at a PWI. Pre-college factors, such as familial income, parental education attainment, and racial make-up of their high school and neighbors, were used to create three clusters reflecting their affluence and prior contact with African Americans. Students characterized by lower affluence and greater contact with African Americans reported lower perceived ethnic fit compared to the other more affluent groups. Though the study did not investigate a relationship between identity and perceived ethnic fit directly, evidence for the positive implications of perceived ethnic fit was found with regard to academic outcomes. Perceived ethnic fit was predictive of higher academic satisfaction and GPA in this sample, highlighting the importance of feelings of belonging ethnically on campus for positive academic outcomes for underrepresented minorities.

The cross-sectional nature of the studies by Ethier and Deaux (1990) and Chavous and colleagues (2002), unfortunately, do not allow for insight into how perceptions of ethnic threat on campus influence how students come to understand, explore, and make meaning regarding their ethnic identity and ethnic group membership. When we examine existing research, we see that the relation between perceived ethnic threat and ethnic identity may be bidirectional. In this dissertation, I examine the role of perceived ethnic threat as a predictor of ethnic identity trajectories in order to ascertain the implications of this key environmental cue that underrepresented ethnic minority students receive on campus.

More specifically, in this dissertation, I examine how perceptions of ethnic threat within the university at the beginning of college predicts varying trajectories in exploring one's ethnic identity (i.e., exploration), feeling resolved about one's ethnic identity (i.e., resolution), and feeling positively about one's ethnic group membership (i.e., private regard). Perceived ethnic threat is likely to predict ethnic identity trajectories because the messages one receives about the social inclusion and exclusion of their social group(s) has implications for how one comes to feel about the group. This is echoed in the aforementioned empirical research reviewed (e.g., Ethier & Deaux, 1994) as well as psychological theories. Social identity theory (Tajfel & Turner, 1986) proposes that how we feel about group membership is informed by the social cues regarding our social group. Such cues can strengthen or weaken our identity regarding that social group. However, the relationship between such cues and ethnic identity is likely to be influenced by how strongly one defines his or herself by that identity (in this case, ethnic identity). Thus, I also consider the role of centrality – how important ethnicity is to one's self-conception – in explaining the relationships between perceived ethnic threat and varying ethnic identity trajectories. Considering that not all students of color will normatively define themselves through

43

their ethnic group membership, these relationships are likely to vary. There is research to suggest that those of lower ethnic identification will perceive more threat (e.g., Ethier & Deaux, 1994). There is also research to suggest that Latino college students with greater ethnic identity may perceive a more negative university environment (e.g., Castillo et al., 2006). Thus, it is important to consider centrality to help untangle the complexity in these relations.

Organizational involvement. Involvement in student organizations has long been studied in the development of college students and has been found to positively impact psychological and academic outcomes (e.g., Astin, 1977, 1984, 1993, 1996; Baker, 2008; Foubert & Grainger, 2006; Moore, Lovell, McGann, & Wyrick, 1998; Terenzini, Pascarella, & Blimling, 1996). Thus, involvement in organizations plays an important role in student development as well as student adjustment in college. For ethnicity-related organizations, the same findings hold true – involvement in ethnicity-related organizations predicts positive adjustment for students of color (e.g., Cerezo, McWhirter, Peña, Valdez, & Bustos, 2013; Gonzalez, 2003; Harper & Quaye, 2007; Museus, 2008). A less-studied issue is how organization involvement in college influences ethnic identity development, particularly among Latino college students. For ethnic minority youth in college, organizational involvement may provide a literal and figurative space to explore and affirm their ethnic group membership, resulting in a more committed and positive ethnic identity (e.g., Abrahamowicz, 1988; Cross & Vandiver, 2001; Harper & Quaye, 2007; Taylor & Howard-Hamilton, 1995; Winston & Saunders, 1987).

Research has begun to untangle the ways in which organizational involvement may matter for ethnic identity development with Latino students. For example, a qualitative study of Latino males ($n = 7$) attending a Hispanic Serving Institution (HSI) highlighted how being

involved in a Latino Greek letter organization helped them explore and learn about their ethnic identity (Guardia, & Evans, 2008). The fraternity *hermandad* (brotherhood) helped individuals see themselves as Latino and members of the larger Latino community. Through this space, the Latino fraternity members received education regarding their culture as well as economic, political, and social issues in Latin America; several participants stated that the education they received through the fraternity "enhance[d]" their ethnic identity development. Other research supports this notion in that Greek life members reporting stronger ethnic identity compared to non-Greek like students (Taylor & Howard-Hamilton, 1995). Ultimately, the experiences in the Latino fraternity allowed members to receive positive and "affirming messages regarding their ethnic identities" (Guardia, & Evans, 2008, p. 173) – experiences that have also been reported for Latinas involved Latino Greek letter organizations (Nuñez, 2004).

Organizational involvement in college in not limited to Greek life, however, and involvement in other ethnicity-related organizations should be examined in the development of ethnic identity. Qualitative research has found that participation in an ethnically rooted leadership program provided Latinas the ability to explore and gain pride in their ethnic identity, elevating ethnic consciousness and evaluation of what such information meant for their life (e.g., giving back to communities, living biculturally) (Case & Hernandez, 2013). Longitudinal research examining changes in ethnic identity during the college transition (i.e., from 12th grade to two years post-12th grade) found that greater ethnic identity exploration was attributed to participating in extracurricular activities at 4-year universities for Latino, Asian, and European emerging adults (Tsai & Fuligni, 2012). Moreover, participation in *ethnicity-related* extracurricular activities was also related to greater ethnic identity exploration. Thus, participation in general extracurricular activities as well in *ethnicity-related* extracurricular

activities was associated with greater ethnic identity exploration. The finding regarding general

organizational and ethnic identity exploration is a particularly interesting one. Tsai and Fuligni

(2012) suggest "engagement in extracurricular campus activities, regardless of whether they are

ethnically related, facilitate search about the meanings of one's ethnic group membership during

college" (Tsai & Fuligni, 2012, p. 62). This seems likely considering that organizations that do

not focus on ethnicity are likely to expose one to peers of other ethnicities, which may lead to

reflecting on one's ethnic identity. This dissertation considers both aspects of organizational

involvement in ethnic identity development (i.e., the number of organizations involved in which

students are involved and whether or not they are involved in an ethnicity-related organization).

Peer Racial Diversity. In addition to organizations, students' experiences in college are

also very likely to be informed by their more proximal relationships. Friendships throughout the

lifespan are important in predicting various psychosocial outcomes, such as well-being (Hartup

& Stevens, 1997). In emerging adulthood, friendships are also important in helping address

developmental tasks such as identity development (McNamara Barry, Madsen, DeGrace, 2015;

Morgan & Korobov, 2011). Accordingly, research has found that peers in college, and before

college, play an influential role in shaping ethnic identity for students of color (Douglass,

Mirpuri, Yip, 2016; Santos et al., 2007; Syed & Juan, 2012; Rivas-Drake, Umaña-Taylor,

Medina, in press). The aforementioned literature suggests that there are two ways of interacting

with peers in college: active (engaging directly with peers) and passive (simply being surrounded

by them). The first approach considers the role of *close* friendships, whereas and the second

considers the role of *classmates* (or schoolmates) in developing a sense of ethnic identity.

Close friends help to provide a space to discuss and process experiences in the world. The

attitudes and experiences of others can directly and indirectly shape our own, something that is

seen with ethnic identity. When those friends share one's ethnic or racial identity, their influence can be especially meaningful. For example, ethnic minority college students are likely to report similar levels of ethnic identity exploration and commitment as their ethnic minority friends (Syed & Juan, 2012), and ethnic minority adolescents report greater ethnic identity exploration, belonging, and private regard with same-ethnic peers than different-ethnic peers (Graham, Munniksma, & Juvonen, 2014; Kiang & Fuligni, 2009). These findings suggest that same-ethnic friends help drive ethnic identity development more so than different-ethnic peers.

Yet, in qualitative studies of college students, participants have also reported that having a *diverse* group of friends assisted in their ethnic identity development (e.g., Maramba & Velasquez, 2012; Santos et al., 2007). Friendships with peers of different racial backgrounds allowed students a space to process their developing thoughts about their ethnic background and allowed exploration of what their ethnic group membership means to them (Maramba & Velasquez, 2012; Santos et al., 2007). Thus, different-ethnic peers also help to inform emerging adults on their developing sense of self—something we do not see with adolescents (Graham, Munniksma, & Juvonen, 2014; Kiang & Fuligni, 2009). As college is a time where new worldviews and perspectives are introduced (Arnett, 2000), alongside greater ethnic-racial diversity (Gurin et al., 2004), it is likely that cross-ethnic friendships during this time contribute to how one thinks about the self in terms of ethnicity and race.

Another aspect of peer relationships to consider is the more passive interactions – simply being surrounded by members of various ethnic-racial groups in certain settings. As discussed earlier, college-going young adults are often experiencing a shift in ethnic-racial demographics as they transition between high school and college. Research with Latino adolescents has shown that the ethnic demographics of school settings matter for ethnic identity development. For

47

example, Latinos attending a non-predominantly Latino high school reported greater ethnic identity (MEIM composite score reflecting exploration and affirmation; Phinney, 1992) than Latinos attending predominantly Latino high schools (Umaña-Taylor, 2004). College students have remarked that being in an ethnically diverse college has increased their multicultural competence, shaped their evolving ethnic identity, and provided greater inter-ethnic connectedness (Santos et al., 2007). Thus, specifically examining how racial diversity of classmates changes from high school to college, and how such changes relates to ethnic identity, is worthy endeavor as such changes are likely to provide a meaningful context for assessing one's ethnic identity.

Given the importance of different-ethnic peers in ethnic identity development for college students in qualitative studies (Maramba & Velasquez, 2012; Santos et al., 2007), in this dissertation, I examine whether and how a change in number of different-ethnic *close friends* and *classmates* from high school to the end of the first year in college predicts varying ethnic identity trajectories. Qualitative studies have provided thematic evidence for such relations, but this dissertation will assess these relations quantitatively. Moreover, the research done by Maramba and Velasquez (2012) and Santos et al. (2007) was not longitudinal. Though the retrospective information provided by participants in these studies is important, in this dissertation, I test the role of change in friendships and classmates in predicting later ethnic identity trajectories directly and prospectively.

Summary. To date, the literature in unclear about how ethnic identity unfolds as a developmental process and what promotes changes in ethnic identity content, especially over the course of the college years. There are prior longitudinal studies that have highlighted some of this change in ethnic identity, but these studies are limited to an extent by small sample sizes

(e.g., Syed et al., 2007; Phinney & Chavira, 1992) or limited explication of *why* ethnic identity

changes (e.g., Maramba & Velasquez, 2012; Santos et al., 2007; Tsai & Fuligni, 2012). The

literature suggests that the college years likely serve as a catalyst for change in ethnic identity, in

a general sense, but it offers less specificity in terms of how and why this may be the case.

Although prior empirical research has shed light on some of the concurrent mechanisms, greater

clarity is needed to understand specific mechanisms that inform ethnic identity in college.

Therefore, one of the goals of this dissertation will be to identify the experiences in college that

relate to and account for the change in ethnic identity over time among Latino college students. I

specifically consider three experiences: perceived ethnic threat, organizational involvement (i.e.,

general and ethnic-specific), and peer composition (i.e., friendship and classmate racial diversity).

Ethnic Identity and Psychosocial Adjustment

The importance of ethnic identity development is highlighted within developmental

psychology and social psychology in terms of its linkages with numerous psychosocial

adjustment outcomes. Theory and research indicate that feeling positively and resolved regarding

one's ethnicity is related to psychological outcomes (e.g., depression and self-esteem), and

multiple meta-analyses and narrative reviews of the literature highlight these relations (e.g.,

Meeus, 2011; Quintana, 2007; Rivas-Drake, Seaton, et al., 2014; Rivas-Drake, Syed, et al., 2014;

Smith & Silva, 2011). For example, a recent meta-analysis of ethnic identity affirmation

(including measures of affirmation, pride, and private regard for one's group) during adolescence

provided support for such relations. Specifically, ethnic identity affirmation was positively

related to psychosocial adjustment (self-esteem, well-being) in 27 studies with a combined total

of 6,089 participants, and it was also positively a related to academic adjustment (achievement,

school attitudes) in 25 studies with a combined total of 7,822 participants (Rivas-Drake, Seaton,

et al., 2014). In another meta-analysis that included adolescents, young adults, and adults, Smith

49

and Silva (2011) found a significant association between ethnic identity (composite of affirmation and exploration) and personal well-being; importantly, the relationship was greatest among adolescent and young adult samples (Smith & Silva, 2011). Moreover, the relation between ethnic identity and personal well-being did not differ by race, gender, or socioeconomic status, suggesting that ethnic identity is likely a positive factor for all people of color and their well-being. In addition to psychological outcomes, ethnic identity has been found to have a small but significant and consistent association with academic outcomes, in particular, in a recent meta-analysis of 47 publications across three developmental periods (childhood, adolescence, and young adulthood) (Miller-Cotto & Brynes, 2016). The findings from these meta-analyses broadly highlight the important association of ethnic identity with psychosocial outcomes. In the following sections, I review how ethnic identity theoretically relates to psychosocial outcomes, generally, and how ethnic identity empirically relates to psychosocial outcomes among Latino college students in particular.

Guiding Framework for Associations Between Ethnic Identity and Adjustment

Erikson theorized that developing a coherent sense of self was important for psychological health and that such exploration, clarity, and meaning in regard to one's identity would provide relief from psychological troubles. Although Erikson brought the association between identity and outcomes forth, a description of how that pathway might emerge was less clear. To help remedy this issue, particularly for youth of color, Spencer (1995) proposed Phenomenological Variant of Ecological Systems Theory (PVEST). This theory proposed that one's coping behaviors, whether adaptive or maladaptive, are in response to the environment. These coping behaviors then come to shape one's emerging identities. The coping behaviors mean that youth have to "redefine how they view themselves which also impacts how others

view them" (Spencer et al., 2006, pp. 642-643). Such self-appraisal and appraisal from others means youth negotiate which coping behaviors are effective, ultimately internalizing them into one's emerging identities. These emerging identities, however, can be positive or negative, and in turn shape productive or unproductive "coping outcomes" in life. For example, a Latina encountering ecological stress regarding her ethnic group membership (e.g., perceived ethnic group prejudice and discrimination) may cope by increasing exploration and participation in ethnic group practices. Her evaluation of herself in these (coping) practices and the evaluation from others shape her developing ethnic identity. The opposite pathway may take place as well. A Latina facing ecological stress can decrease exploration and participation in such ethnic practices. If such a decrease proves effective through her self-appraisal and appraisal from others, it shapes her identity. The negotiation of youths' identity then influences how they negotiate with proximal contexts such as school, which may yield productive (e.g., greater engagement in school) or maladaptive (e.g., dropping out of school) outcomes.

An underlying assumption of identity exploration, generally, is that it leads to positive psychological adjustment through the clarity it provides. As I discuss in this chapter, research supports the notion of greater ethnic identity being associated with positive psychological adjustment (e.g., Meeus, 2011; Quintana, 2007; Rivas-Drake, Seaton, et al., 2014; Rivas-Drake, Syed, et al., 2014; Smith & Silva, 2011). However, increased identity exploration can also lead to internal conflict (Arnett, 2000, 2007). Identity issues may arise as individuals consume new information and have their worldview challenged (Arnett, 2006, 2007). Thus, it is possible that individuals who do not change in their identity exploration (i.e., remain stable) may report better psychological adjustment when compared to individuals who have explored their identity, but feel their identity is in turmoil.

51

In the following two sections, I review the empirical research on the associations between ethnic identity and psychological outcomes as well as academic outcomes among Latino college students.

Ethnic Identity and Psychological Outcomes

One of the first studies to examine a relation between ethnic identity and psychological outcomes with Latino college students was conducted by Phinney and Alipuria (1990). Specifically, the researchers examined the relation between ethnic identity and self-esteem in four ethnic groups in college, including Latinos. They found that ethnic identity search (analogous to exploration) and commitment (i.e., affirmation/belonging) were positively correlated for Mexican American college students at a diverse, metropolitan college. The same relationship was found for Black college students, but not for White or Asian American college students. Although ethnic identity was examined with an unpublished measure (which would eventually become the MEIM), the findings added to the notion that, among underrepresented minority students, having explored and thought about their ethnic identity is beneficial for their psychological well-being.

Since Phinney's seminal work over 25 years ago, the positive link between ethnic identity and psychological outcomes has been continually echoed in myriad studies. For example, a study of ethnic identity among diverse American-born individuals, including Latinos ($n = 505$), demonstrated a significant and positive relationship between self-esteem and a composite score of ethnic identity exploration and affirmation (Phinney, DuPont, Espinosa, Revil, & Sanders, 1994). A study of ethnic identity and self-esteem with a large, diverse sample at multiple universities also found that self-esteem was positively related to ethnic identity exploration and resolution among Latino college students (Umaña-Taylor & Shin, 2007). At the bivariate level,

research has demonstrated a significant and positive relationship between ethnic centrality and self-esteem for Latino college students at a highly selective university (Rivas-Drake, 2011a). Additionally, Iturbide, Raffaelli and Carlo (2009) found that ethnic identity achievement (measured by MEIM exploration) was positively related to self-esteem for Mexican American college women.

Iturbide and colleagues' (2009) research with Latino undergraduate students at three southwestern universities examined the relationship between ethnic identity (affirmation and belonging and achievement; Phinney, 1992), psychological adjustment (e.g., self-esteem and depression), and acculturative stress. Acculturative stress refers to the degree to which individuals encounter "stressful experiences associated with adapting to the majority" (Iturbide et al., 2009, p. 541). Their results revealed that ethnic identity moderates the relationship between acculturative stress and psychological adjustment, but the moderation was dependent on the level of acculturative stress and the participant's gender. Mexican American women reported lower levels of depressive symptoms when they reported higher levels of ethnic identity achievement and belonging and affirmation (Iturbide et al., 2009). This finding, however, only held true when the self-reported acculturative stress was low (i.e., did not hold true at high levels of acculturative stress). Thus, the protective effect of ethnic identity only occurred when acculturative stress was low. This suggests that ethnic identity can be protective against negative psychological outcomes, particularly when the acculturative stress that one experiences is low. Importantly, these findings also highlight how these processes may differ by gender.

Other research has also considered how ethnic identity may protect against the negative effects of stress. Specifically, Chavez and Torres (2014) examined how the ethnic identity clusters that Umaña-Taylor and colleagues (2004) found (e.g., achieved positive) may moderate

53

the negative effects of perceived stress on depressive symptoms among Latino adults. Chavez and Torres (2014) found that two kinds of ethnic identity clusters were related to the pathway from perceived stressed to depressive symptoms: the achieved positive cluster and the diffused negative cluster. Students in the diffused negative cluster evinced a greater association between perceived stress and depressive symptoms compared to those in the achieved positive cluster. This finding highlights that those in the diffused negative cluster were more vulnerable to the negative effect of perceived stress on depressive symptoms. Although this research was not done exclusively with college students, and, in fact, participants ranged from 18-88 (average age 37.99, $SD = 14.19$), it suggests that ethnic identity can be protective throughout the lifespan.

Research with diverse college students at multiple universities, in which Latinos represented half of the sample ($n = 452$), found that ethnic identity exploration had no significant relationship with maladaptive behaviors such as depression and anxiety (Schwartz et al., 2009). However, this same study reported a positive correlation was reported between ethnic identity exploration and adaptive psychosocial functioning (e.g., self-esteem). Research with the Multi-Site University Study of Identity and Culture (MUSIC; see Weisskirch et al., 2013), which included over 30 universities and colleges, also found implications of ethnic identity for mental health. For example, Brittian and colleagues (2015) found that ethnic identity affirmation moderated the association between perceived ethnic group discrimination and depression for Latino college students in this sample ($n = 2,315$). That is, feeling positively and proud of their ethnicity reduced the negative effect of ethnic group discrimination on mental health (Brittian et al., 2015). Another study using a subsample of MUSIC found that, among Latino college students ($n = 1,500$), greater ethnic identity affirmation was predictive of fewer depressive symptoms (Brittian et al., 2013). Moreover, this relationship was moderated by ethnic centrality.

That is, the association between affirmation and depressive symptoms was strongest among those who felt that ethnic identity is a central component of their self-concept (Brittian et al., 2013). Gonzales-Backen and colleagues (2015), also using a MUSIC subsample, examined how personal identity and social identities integrate and how such identity integration related to self-esteem. Among the Latino students ($n = 1,115$), they found that those who reported greater levels of social identities (i.e., ethnic identity and U.S. identity) also reported more personal identity coherence, and those with strong personal-social identities reported significantly higher self-esteem than those with weaker personal-social identities (Gonzales-Backen et al., 2015). Thus, ethnic identity has been found to be both protective and promotive of mental health for Latino college students in the MUSIC sample.

Research has also demonstrated that ethnic identity not only matters for self-esteem, depression, and psychological constructs of that nature, but also sense of community. Having a sense of community is important as it provides membership in a community, a sense of mattering to a community, and allows for a shared emotional connection (McMillan & Chavis, 1986). Among Hispanic/Latinos at a highly selective university, Rivas-Drake (2012) found that Latino college students ($n = 171$) who reported feeling positively and proud of their ethnic group membership (i.e., greater private regard) reported a greater sense of community on campus, which was, in turn, significantly associated with more positive adjustment (i.e., higher self-esteem and lower self-reported depressive symptoms). Thus, ethnic identity is not only associated with psychological adjustment, but also with psychological and social outcomes pertinent to the college academic experience. These relations are discussed in greater detail in the next section of this dissertation.

Ethnic Identity and Academic Outcomes

In addition to the links with psychological well-being, ethnic identity is also related to academic adjustment of ethnic minority youth. The empirical research on this link, often reports that students of color who report greater ethnic identity (e.g., more exploration, more positive private regard) also report more positive academic outcomes in adolescence (e.g., Altschul, Oyserman, & Bybee, 2006; Chang & Le, 2010; Fuligni, Witkow, & Garcia, 2005; Rivas-Drake, 2011b; Schwartz et al., 2007; Supple, Ghazarian, Frabutt, Plunkett, & Sands, 2006; Umaña-Taylor, Wong, Gonzales, & Dumka, 2012) and young adulthood (e.g., Cokley & Moore, 2007; Maramba & Velasquez, 2012; Ong, Phinney, Dennis, 2006; Sellers, Chavous, & Cooke; 1998; Syed, Azmitia, & Cooper, 2011). One reason that has been postulated for such a link is that when an individual has explored and feels positively about his or her ethnic group membership, he or she is likely to feel better overall about who they are as person. This is echoed in research that shows associations between ethnic identity and overall identity coherence (e.g., Azmitia, Syed, & Radmacher, 2008; Gonzales-Backen et al., 2015; Syed & Juang, 2014). Those who have a more develop and integrated sense-of-self are likely to experience the positive benefits of such identity integration, such as psychological well-being (Erikson, 1968), ultimately leading to more positive academic outcomes.

The relation between ethnic identity and academic outcomes among Latino college students specifically suggests a more mixed picture of the link between ethnic identity in this aspect of psychosocial adjustment. In a three-year longitudinal study of Latino students at an urban university in Southern California ($N = 123$) assessing the protective effects of cultural resources, including ethnic identity, ethnic identity (a composite of exploration and affirmation) was positively correlated to GPA (Ong et al., 2006). Greater ethnic identity was also predictive of a greater GPA, and ethnic identity weakened the negative impact of between socioeconomic

56

status on GPA. That is, the negative effect of SES on GPA was lessened for those who reported greater ethnic identity (Ong et al., 2006). However, other research has found no correlation or predictive ability of ethnic identity (also a composite) on college GPA. For example, a study of Latino college students attending four PWIs in the Pacific Northwest found no correlation between ethnic identity (a composite of the MEIM-Revised; Roberts et al., 1999) and college GPA (Cerezo & Chang, 2013). In their inferential analyses, they also found that ethnic identity did not predict college GPA. What did predict college GPA was the extent to which students felt they belonged (or did not belong) at their university as well as how connected they felt to other ethnic minority peers (Cerezo & Chang, 2013). Perhaps, for these students, university belonging and social connection with ethnic peers overrode the need for ethnic identity development to succeed in college. It should be noted, however, that this study was cross-sectional while the previous study (Ong et al., 2006) was longitudinal. A longitudinal association typically prevails over a cross-sectional relationship. Another limitation of these studies is their use of a composite score of ethnic identity. A composite score provides us with little understanding of how ethnic identity actually relates to academic adjustment. Researchers must consider how conceptually distinct and separate ethnic identity constructs relate to academic adjustment for us to have a better understanding of ethnic identity's role in such outcomes for Latino college students specifically.

Other research has considered how ethnic identity in connection with college experiences matters for academic adjustment. For example, one study hypothesized that the perceived university environment would mediate the relationship between Latino students' ($N = 180$) ethnic identity (MEIM-Revised, including affirmation and exploration; Roberts et al., 1999) and academic persistence attitudes (Castillo et al., 2006). The results demonstrated that higher ethnic

identity was related to perceiving a more negative university environment. In turn, perceptions of a more negative university environment were associated with less academic persistence. Moreover, the indirect pathway of the perceived university environment mediator explained most of the relationship between ethnic identity and persistence attitudes. When removing perceived university environment, no significant relationship existed between ethnic identity and persistence, suggesting that the association between the ethnic identity and academic outcomes must consider the university setting for Latino students. Other research has also demonstrated the importance of the (perceived) university context for ethnic identity. In the aforementioned research by Rivas-Drake (2012), a direct effect of ethnic private regard and public regard was found for Latino college students' sense of community (which was, in turn, associated with decreased levels of depression and higher levels of self-esteem). Thus, the perceptions of how fits into their college environment are a potentially informative experience for Latino college students, as I have discussed above.

Summary. The results of research examining the links between ethnic identity and psychological outcomes strongly support that ethnic identity helps to mitigate the effects of the negative events that Latinos can face (e.g., social exclusion due to ethnicity/race) and that it also promotes psychological well-being. The same, however, cannot be said for the association between ethnic identity and academic adjustment. The findings for this relation are more mixed, showing that ethnic identity matter for academic outcomes among Latino college students in some studies but not others. Nevertheless, some research suggests that Latino students who have explored, feel more resolved, and feel positively about their ethnicity and ethnic-group membership generally report higher GPAs, academic persistence, and campus perceptions. This extant research, however, is often cross-sectional, and although cross-sectional research is

informative about concurrent associations, the field would benefit from longitudinal research that examine how ethnic identity *trajectories* might be influential for distal psychosocial outcomes. One studying examining such a relation found that, among Latino early and middle adolescents, change in affirmation predicted higher self-esteem and lower depressive symptoms (Gonzales-Backen et al., 2016). Thus, certain trajectories may be more beneficial or harmful to psychosocial adjustment, a hypothesis I further explore in the current study.

The Current Study

The overarching purpose of this dissertation is to shed new light on the role of college, particularly social experiences in college, in shaping the ethnic identity process and content, and how such identities inform psychosocial functioning, among Latino emerging adults (see Figure 1 for a conceptual model). The first research question investigated the different pathways of ethnic identity throughout the four years of college for Latino students by examining ethnic identity *exploration* (hypothesis 1)*, resolution* (hypothesis 2)*, and private regard* (hypothesis 3)*. Research regarding ethnic identity trajectories demonstrates that one continuous distribution is unlikely to represent the various pathways that ethnic identity takes over time (e.g., Douglass & Umaña-Taylor, 2014; Huang & Stormshak, 2011; Syed et al., 2007). Studies have consistently identified three classes of change over time: those who decrease, those who increase, and those who remain stable over time (e.g., Douglass & Umaña-Taylor, 2014; Huang & Stormshak, 2011; Syed et al., 2007). However, as compared to increasers and decreasers, less is understood about those who remain stable over time in terms of whether stability reflects "low" or "high" ethnic identity values. That is, typically, the values (higher or lower) have been less important to defining the stable class than the stability itself. For example, a stable exploration class identified in previous studies can comprise individuals who have consistently explored their ethnic identity

59

at high levels lumped together with those who have consistently not explored their identities. These two groups of individuals, although similar in their quantitative stability, are likely different in qualitatively important ways. Those who remain *low and stable* in ethnic identity might reflect individuals who do not deem their ethnic identity as central to their self-concept and thus may not draw on it to navigate their college environments. Conversely, those who are *high and stable* might reflect individuals that do deem their ethnic identity as a central to their self-concept and thus an important lens for their experiences and adjustment in college.

Understanding the differences between identity classes helps us to further understand how ethnic identity functions among different individuals. I predict that there will be four trajectories for each of the three ethnic identity dimensions: 1) a trajectory characterized by an *increase* (or become stronger or more positive) throughout the college years; 2) a trajectory characterized by a *decrease* (become weaker or less positive) throughout the college years; 3) a trajectory where students begin with high levels and remain high over time (i.e., *high and stable)* throughout the college years; and 4) a trajectory where students remain *low and stable* over time throughout the college years. The first two classes are based on extant studies, and the third and fourth are exploratory; although I expect to find a stable trajectory based on previous research, I will explore whether stability can be parsed into high stability and low stability based on fit to the data.

In addition, I account for several sociodemographic characteristics in the analyses. Given the mixed findings regarding the roles of gender (Pahl & Way, 2006; Syed et al., 2007; Syed & Azmitia, 2010; Umaña-Taylor et al., 2009), socioeconomic status (Gonzales-Backen et al., 2016; Syed et al., 2007; Syed & Azmitia, 2010; Matsunga et al., 2010), and nativity/immigrant status (Gonzales-Backen et al., 2016; Pahl & Way, 2006; Syed et al., 2007; Syed & Azmitia, 2009) in

shaping ethnic identity, I explore how these variables may influence ethnic identity trajectories. I made no specific predictions about how these three variables would influence ethnic identity trajectories, as prior research has found that each variable may or may not be associated with ethnic identity, concurrently or longitudinally.

The second research question of this dissertation investigated how social experiences on college campuses relate to the different ways ethnic identity unfolds among Latino college students. Specifically, I considered the roles of *perceived ethnic threat* (hypothesis 4), *organizational involvement* (hypothesis 5), *friendship and classmate racial diversity* (hypothesis 6) in how students come to explore, understand, and make meaning of their ethnic group membership. The previous research on perceived ethnic fit/threat and university belonging is mixed in relation to ethnic identity (e.g., Castillo et al., 2006; Ethier & Deaux, 1994). I expected that less perceived ethnic threat would predict membership into trajectories characterized by positive ethnic identity development (i.e., increase trajectory and a high and stable trajectory). Conversely, I expected that more perceived ethnic threat would predict trajectories characterized by decreasing and low levels of ethnic identity (decrease trajectory and a low and stable trajectory). Furthermore, I hypothesized that centrality would moderate this association. That is, I expected that if ethnicity is central to students' identity and they perceived greater threat, then they would be more negatively affected (e.g., decrease trajectory). However, if their ethnicity is not central to their identity (i.e., low and stable trajectory), then they would not be affected by the perceived ethnic threat.

Research with underrepresented minority college students demonstrates that participation in organizations is beneficial for them. My dissertation examines more closely how the *amount* of organizational involvement predicts ethnic identity trajectories as well as how involvement in

61

ethnicity-related organizations predicts ethnic identity trajectories. I predicted that the number of organizations in which students were involved, generally, would be predictive or trajectories characterized by growth or higher levels of ethnic identity (i.e., increase trajectory and a high and stable trajectory). Conversely, I expected that less involvement in campus organizations would predict decline or lower levels of ethnic identity (i.e., decrease trajectory and a low and stable trajectory). I predict the same patterns for ethnicity-related student organizations.

College students report that racially and ethnically diverse friendships help them to think about ethnic identity development (e.g., Maramba & Velasquez, 2012; Santos et al., 2007). Thus, I predicted that both greater friendship and classmate diversity (i.e., cross-ethnic friendships and classmates), accounting for their reported friendship and classmate diversity in high school, would predict membership into trajectories characterized by positive ethnic identity development (i.e., increase trajectory and the high and stable trajectory). Conversely, those who report low levels of friendship and classmate diversity are unlikely to report growth in ethnic identity. Thus, I predicted that low diversity friendship and classmate diversity will predict trajectories characterized by decreasing and low levels of ethnic identity (decrease trajectory and a low and stable trajectory).

The third research question of this dissertation investigated the associations between ethnic identity trajectories and psychological outcomes (hypothesis 7) and academic adjustment (hypothesis 8). Cross-sectional research has demonstrated positive associations between ethnic identity and psychological outcomes (e.g., Brittian et al., 2013, 2015; Phinney & Alipuria, 1990; Phinney et al., 1994; Rivas-Drake, 2011a; Umaña-Taylor & Shin, 2007), as well as with academic outcomes (e.g., Maramba & Velasquez, 2012; Ong et al., 2006; Rivas-Drake, 2012;

Sellers et al., 1998). However, few empirical studies have considered how ethnic identity trajectories are related to distal psychosocial outcomes.

Following theory and my review of the empirical evidence, I hypothesized that trajectories that are characterized by positive ethnic identity development (i.e., the *increase* trajectory and the *high and stable* trajectory) would be positively associated with psychosocial outcomes, whereas a trajectory characterized by negative ethnic identity development (i.e., the *decrease* trajectory) would be negatively associated with psychosocial outcomes. I also predicted that there will be no effect of a *low and stable* ethnic identity trajectory on psychological and academic outcomes, as these individuals are likely to reflect those for whom their ethnic group membership is not implicated meaningfully in their psychosocial functioning.

Chapter III

Methodology

Study Overview and Design

Data for this dissertation were drawn from the College Academic and Social Identities Study (CASIS) (PI: Dr. Tabbye Chavous). CASIS examines and documents ethnic/racial minority students' interpersonal, intrapersonal, contextual experiences throughout the college years, and how these experiences relate to various kinds of identities (e.g., ethnic/racial, academic, social class). CASIS employed a cross-sequential research design with three cohorts. Each cohort completed surveys when they began the four-year university (i.e., fall semester). Thus, at the point of entry into the study, students were either undergraduate freshmen or first-year transfer students. In the spring of the same academic year, participants completed a second survey. Participants were contacted to take follow-up surveys every spring semester after the first year in the study. Thus, Cohort 1 includes fives waves of data (fall of first year and four subsequent spring surveys); Cohort 2 includes four waves (fall of first year and three subsequent spring surveys); and Cohort 3 includes three (fall of first year and two subsequent spring surveys). Table 1 provides a visual representation of the CASIS research design.

Participants in CASIS ($N = 2,074$) were from various ethnic and racial backgrounds including African American, Black, Latino, Asian American, and Native American, attending one of five four-year institutions in the Midwest. A quarter of the CASIS sample identified as "Latino" or "Hispanic" at entry to the study ($n = 515$). Given my focus on within-group variation

in the identity experiences of Latino students, this dissertation focuses on the Latino subsample of the CASIS project who participated in at least two waves of data collection on the main variables of interest (ethnic identity exploration, resolution, and private regard).

Participants

Among the original sample of 515, I examined how many participants had at least two waves of data on exploration ($n = 374$), resolution ($n = 375$), and private regard ($n = 376$), which provided me with an analytic sample of 378. Thus, participants were 378 young adults attending one of five Midwestern four-year universities in three sequential cohorts (cohort 1 $n = 140$, cohort 2 $n = 124$, cohort 3 $n = 114$). The majority of the sample (65.3%) identified as female. The average age at entry into the study was 18.39 ($SD = 1.86$). All participants in this study self-identified as "Hispanic" or "Latino" at entry into study. Approximately 16% were first generation immigrants (i.e., foreign-born) and the remainder were born in the United States (83.9%). Participants reported their subjective social class status as poor (3.7%), working class (18.9%), lower middle class (16.8%), middle class (40.2%), upper middle class (17.8%), and upper class (2.7%). Furthermore, participants reported having a mother who completed less than high school (15.1%), graduated from high school (14.6%), attended some college (15.9%), earned a two-year college degree (7.7%), earned a four-year college degree (24.1%), completed a master's degree (16.7%), or a professional degree (5.6%).

Procedures

After obtaining IRB approval from the host institution and research sites, participants were recruited via email during the fall semester. At two institutions, the Office of Registrar sent out an email to all registered undergraduate freshmen and first-year transfer students who self-identified as ethnic minority students (i.e., students who did not identify as Caucasian or non-

Hispanic White). At the remaining three institutions, research collaborators (e.g., a professor or graduate student) sent emails to the populations of interest. After providing informed consent, participants self-administered a 30-45 minute web-based survey. Identifiable information was retained for future contact with participants, and participants were contacted via email at the end of the each spring semester and asked to complete follow-up surveys. Participants were compensated with a $25 Visa e-card for the fall survey (T1), a $30 Visa e-card for the T2, T3, and T4 spring surveys, and a $35 Visa e-card for the T5 spring survey.

Measures

  Ethnic identity. Ethnic identity was examined through a combination of questions from the MEIM (Phinney, 1992; Phinney & Ong, 2007) and a modified version of the Multidimensional Inventory of Black Identity (Sellers, Rowley, Chavous, Shelton, & Smith, 1997), assessing four constructs in total: exploration, resolution, private regard, and centrality.

  Exploration. The adapted exploration subscale of the MEIM included 4 items and assessed the extent to which an individual has explored his or her identity. Sample statements include, "I have spent time trying to find out more about my own racial/ethnic group, such as history, traditions, and customs," and "In order to learn more about my racial/ethnic background, I have often talked to other people about my racial/ethnic group" (see Appendix A for all items). Participants responded by marking the extent to which they agreed or disagreed with the statement, with response options ranging from 1 *(strongly disagree)* to 4 *(strongly agree).* Participants' exploration score is the mean of the 4 items, with higher scores indicating greater ethnic exploration. Cronbach's alphas for this scale across waves ranged from .78-.87 (Table 2 provides the alpha for each time point).

Resolution. Resolution assessed the extent to which an individual feels they have clarity regarding his or her ethnicity using two items from the MEIM (Phinney, 1992; Phinney & Ong, 2007). The two items stated, "I have a clear sense of my racial/ethnic background and what it means to me," and "I am not very clear about the role of race/ethnicity in my life" (reverse-coded). Participants responded by indicating the extent to which they agreed or disagreed with the statement, with response options ranging from 1 *(strongly disagree)* to 4 *(strongly agree)*. Participants' resolution score is the mean of the 2 items, with higher scores indicating greater ethnic resolution. Cronbach's alphas for this scale across waves ranged from .63-.75 (Table 2 provides the alpha for each time point).

Private Regard. Three modified items from the MIBI (Sellers et al., 1997) were used to examine the positive affect related to being a member of an ethnic group. The principal investigator modified the original items by replacing references to Black people with "my racial/ethnic group." Participants were presented with the following prompt, "People may think about their racial or ethnic identity in different ways. Please respond to how much you agree or disagree with the following statements." The three items were, "I am happy that I am a member of my racial/ethnic group," "I have a lot of pride in my racial/ethnic groups and its accomplishments," and "I feel good about my racial/ethnic background." Response options ranged from 1 *(strongly disagree)* to 7 *(strongly agree)*. Participants' private regard score is the mean of the 3 items, with higher scores reflecting more positive regard. Cronbach's alphas for this scale across waves ranged from .87-.90 (Table 2 provides the alpha for each time point).

Centrality. Centrality assessed the extent to which an individual feels one's ethnicity is an important component of his or her self-concept. Three items were used to assess centrality at T1 based on the MIBI (Sellers et al., 1997). As with private regard, the principal investigator

modified three centrality items from the MIBI by replacing references to Black people with "my racial/ethnic group" to assess the extent to which participants felt that ethnicity is an important and normative component of their self-concept. The centrality items stated, "Being a member of my racial/ethnic group is an important reflection of who I am," "I have a strong attachment to other people from my racial/ethnic group" and "I have a strong sense of belonging with other people in my racial/ethnic group." Response options ranged from 1 *(strongly disagree)* to 7 *(strongly agree)*. Participants' centrality score is the mean of the three items, with higher scores indicating greater ethnic centrality. Cronbach's alpha for this scale at T1 was .87.

Perceived ethnic threat. Perceived threat was examined with an adapted version of the Ethier and Deaux's (1990) Perceived Threat Scale. The adapted 6-item scale assesses the extent to which an individual feels his or her ethnicity is compatible with their academic environment (Chavous, 2000, Chavous et al., 2002). The scale begins by stating, "For the following statements, please respond how true the following statements are of how you generally feel in your college academic and social settings, in your experience so far." Example questions include, "I feel that I have to change myself to fit in at school," and "I feel as though I cannot be myself because of my ethnicity" (see Appendix B for all items). Response options range from 1 *(not true of me at all)* to 7 *(very true of me)*. The score of perceived ethnic threat is the average across the six items, with higher scores indicating greater perceived ethnic threat. Cronbach's alpha for this scale at T1 is .81.

Organizational involvement. Participants were presented with a list of nine common activities available their school or community and were asked to identify the extent to which they were involved in such activities (1 = *not at all involved* to 4 = *very involved*). Participants were also given the option to select "other activity" and write in a response. Activities included

student government, religious clubs, Greek fraternities or sororities, and cultural or multicultural organizations or activities (see Appendix C for the full list). The organizational involvement data were examined in two ways. First, a total number was calculated by summing the number of organizations for which participants marked they were at least "a little involved," reflecting overall organizational involvement. For example, if a participant marked "a little involved" in two activities and "somewhat involved" in two activities, his or her score would be 4. Second, a dichotomous code was created for participation in ethnicity-related activities (0 = no involvement, 1 = involvement) for those who marked that they were "a little involved" in "cultural or multicultural organizations or activities." Very few (i.e., fewer than 16) participants wrote in an activity after selecting "other activity." After reviewing responses, no written-in activity suggested it was ethnicity-related, so the open-ended responses were not further analyzed.

Friendship and classmate diversity. Peer diversity was assessed by the Inter- and Intra-group Contact Scales (Wegner & Shelton, 1995). This scale assessed both inter- and intra-group experiences and also examined voluntary active contact (e.g., friends) and involuntary passive contact (e.g., classmates). To measure friendship diversity, participants were asked: "Think about the closest friends that you hang out with socially, how many of them are from a different racial background?" To measure classmate diversity, participants were asked, "Think about the people that you interact with most in your classes or labs, how many of them are from a different racial background than your own?" Response options for both questions were 1, 1-2, 3-4, 5-6, and 7 or more.

Psychological well-being. Participant psychological well-being was assessed with two subscales (self-acceptance and environmental mastery) of the Ryff Psychological Well-Being

Scale (Ryff & Keyes, 1995) and the K10 screening scale for psychological distress (Kessler et al., 2002).

Self-acceptance. One dimension of psychological well-being was measured through the construct of self-acceptance, which assesses the positive (or negative) attitudes one has towards the self. This subscale contains 4 items such as, "In general, I feel confident and positive about myself" (see Appendix D for all items), with response options ranging from 1 *(strongly disagree)* to 6 *(strongly agree)*. Participants' self-acceptance score is the mean of the 4 items, with higher scores indicating positive feelings regarding the self. Cronbach's alpha for this scale was .71 at T1 and .85 at T5.

Environmental mastery. The second dimension of psychological well-being was measured through the construct of environmental mastery, which assesses a sense of mastery and control of one's environment. This subscale contains 4 items such as, "I am quite good at managing the responsibilities of my daily life" (see Appendix D for all items), with response options ranging from 1 *(strongly disagree)* to 6 *(strongly agree)*. Participants' environmental mastery score is the mean of the 4 items, with higher scores indicating greater feelings of mastery. Cronbach's alpha for this scale was .58 at T1 and .74 at T5.

Psychological distress. Psychological distressed was measured by 10 items assessing self-reported anxiety and depression symptoms. The scale prompts participants by stating, "These questions concern how you have been feeling over the past 30 days. For each item, please select the choice that best represents how you have been. During the last 30 days, about how often," which is followed by questions such as, "did you feel depressed?" and "did you feel so sad that nothing could cheer you up?" (see Appendix E for all items). Response options range from 1 *(none of the time)* to 5 *(all of the time)*. Participants' psychological distress score is the

average of the 10 items, with higher scores reflecting greater psychological distress. Cronbach's alpha for this scale was .90 at T1 and .92 at T5.

Academic adjustment. Participants' academic adjustment was assessed through their self-reported college grade point average (GPA), college competence, and academic engagement.

GPA. Participants' GPA was assessed with their response to an open-ended question stating, "What is your current cumulative college grade point average (GPA)?"

College competence. Students' perceptions of their academic and social abilities within the college environment were assessed through the Social Competence Scale (Kuperminc, 1994), which asks students to rank their abilities on 15 tasks compared to their perceptions of the average student at their school from 1 *(much less than the average college student, bottom 10%)* to 5 *(much more than the average college student, top 10%).* The academic subscale contains 6 items and asks about tasks such as writing papers and doing well in coursework (see Appendix F for list of all items). Cronbach's alpha for this scale was .70 at T1 and .63 at T5.

Academic engagement. Academic engagement was assessed with 14 items adapted from the Scale of Academic Engagement (Skinner & Belmont, 1993) and the Motivated Strategies of Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1991). The present measure is comprised of three subscales: cognitive engagement (6 items), academic curiosity (4 items), and academic persistence (4 items). "I participate when we discuss new material" is an example item of the curiosity subscale. "I work hard when we start something new in class" is an item reflecting the cognitive engagement subscale. "If I do badly on a test or assignment, I work harder next time" is an item reflecting the persistence subscale (see Appendix G for list of all items). Cronbach's alpha at T5 for these subscales was .76 (curiosity), .76 (cognitive

engagement), and .79 (persistence), respectively (academic engagement information was not collected at T1).

  Sociodemographic covariates. Four socidemographic factors were used as control variables for the ethnic identity trajectory analyses (i.e., research question 1) and for the psychosocial distal outcomes analyses (i.e., research question 3): gender, nativity status, subjective social class, and mother's educational attainment.

  For gender, participants were asked, "What is your gender identity?" and selected either "Male," "Female," or "Specify the term that best applies to you." In this study, male was coded as "1" and female was coded as "2." Only two participants selected to write in their response; the first response was "cisgender male" which was recoded as male and the second response ("gender fluid") was coded as missing data.

  For nativity status, participants were asked, "In what country were you born?" and were prompted to write in their country of birth. The open-ended responses were then coded as $0 =$ U.S. born or $1 =$ Foreign born for use in this dissertation.

  I included two measures pertaining to socioeconomic status (SES). First, subjective social class served as an indicator of SES in the current study given that subjective social status may be more relevant than objective SES when examining interpersonal experiences in college (Diemer, Mistry, Wadsworth, López, & Reimers, 2013). Subjective social class was attained by asking, "If you had to describe your social class background, you would describe it as" and participants selected one of the following options: poor (1), working class (2), lower middle class (3), middle class (4), upper middle class (5), and upper class (6). The subjective social class variable was treated as continuous with a range of 1-6.

Additionally, I included parent (mother's) educational attainment as an objective indicator of socioeconomic status as parents who have completed college are more likely to have the social and cultural capital needed to help their children persist and succeed in college (Diemer et al, 2013), which must be accounted for. Participants were asked, "What was the highest level of education attained by your parents or primary caregivers?" and selected a close-ended response for their mother (as well as father and another primary caregiver). Response options were: junior high school or less (1), some high school (2), high school diploma (3), some college (4), 2-year college degree (5), 4-year college degree (5), master's degree (7), PhD/MD/JD (8), and don't know (9). Participants who selected "don't know" ($n = 5$) were recoded as missing data, and the variable was treated as continuous with a range of 1-8.

Analysis Strategy

I began by obtaining and examining the means, standard deviation, range, skewness, kurtosis, and bivariate correlations for the primary variables of interest. Additionally, attrition analyses were conducted using independent t-tests and chi-square tests to examine whether those who participated in all five of waves differed from those who did not participate in all five waves in the main variables of interest.

Research Question 1

To assess my first research aim – identifying the different trajectories of ethnic identity – I conducted latent growth mixture modeling (LGMM) in Mplus 7.4 (Muthén & Muthén, 2012) using full information maximum-likelihood to account for missing data. The LGMM technique determines whether the sample contains discrete subgroups that have different starting levels as well as different change trajectories (or growth patterns) for the variable(s) of interest. Previous studies examining the longitudinal nature of ethnic identity with multiple time points have found

different classes or patterns of ethnic identity (e.g., Douglass & Umaña-Taylor, 2015; Huang & Stormshak, 2011; Syed, Azmitia, & Phinney, 2007), which suggests that one continuous distribution for ethnic identity is unlikely. Thus, I conducted the LGMM analyses by requesting the hypothesized number of trajectory classes (four) for each ethnic identity construct, coding the metric of time as 0 (fall - T1), 1 (spring - T2), 3 (spring - T3), 5 (spring - T4), and 7 (spring - T5). Based on a holistic analysis of the fit statistics, I tested additional models with fewer classes (i.e., a two- and three-class model) to see if such models fit the data better. To examine the model fit, I considered the sample-size-adjusted Bayesian Information Critieria (ssBIC; Sclove, 1987), the Lo-Mendell-Rubin adjusted likelihood ratio test (LMR adjusted LRT; Lo, Mendell, & Rubin, 2001), the bootstrapped likelihood ratio test (BLRT), and entropy values, all of which are standard fit indices when conducting LGMM (Frankfurt, Frazier, Syed, & Jung, 2016). The ssBIC is recommended for small sample sizes ($N \leq 500$) with lower values indicating a better fitting model. A difference of 10 or more ssBIC points between classes suggests a meaningful improvement in model fit. The LMR adjusted LRT and BLRT test the fit of the k class model versus the k-1 model (e.g., 4 classes versus 3 classes) to determine if the k class improves upon the k-1 class model. Lower p-values for the LMR adjusted LRT and BLRT suggest a better fitting model. For entropy, which examines the likelihood that individuals were classified into the correct class, higher values (i.e., closer to 1, ideally above .80) reflect a better fitting model.

After the appropriate number of trajectory classes were extracted, I added the sociodemographic covariates (i.e., gender, nativity status, social class status, mother's educational attainment) to assess whether these covariates predicted trajectory class membership. If any of the sociodemographic covariates did not predict membership into a trajectory class, they were removed from trajectory analyses to keep the models parsimonious.

Research Question 2

To assess my second research aim, which examined the role of college social experiences in predicting the probability of membership in different ethnic identity trajectories, I conducted multinomial logistic regression analyses using the R3STEP command in Mplus 7.4 (Muthén & Muthén, 2012). This procedure allows a covariate (or covariates) to predict latent class membership, while simultaneously accounting for uncertainty in the individual's classification (i.e., grouping into a trajectory). The R3STEP command is employed simultaneously with the LGMM, and the fit indices for these models are the same ones reported in research question 1 (i.e., fit indices do not change with the addition of the R3STEP command).

For perceived threat, I used students' self-reported perceived ethnic threat at the beginning of college (fall semester, T1) to predict membership in the ethnic identity trajectories for each ethnic identity construct. To account for the possible moderation effect of centrality, an interaction term was created using the unstandardized values of perceived ethnic threat at T1 and ethnic centrality at T1. This interaction term was added to the model for each identity construct. The interaction term was also analyzed with the R3STEP command.

For organizational involvement, I examined two aspects – overall organizational involvement and ethnicity-related organizational involvement at the end of students' first year college (spring semester of freshman year, T2). For overall organizational involvement, I examined the total number of self-reported organizations (ranging from 0 to 9 organizations) in predicting membership into each of the ethnic identity trajectories. The second analysis for organizational involvement examined the role of involvement in ethnicity-related organizations (0 = not involved, 1 = involved). Thus, the second analysis for organizational involvement examined the involvement in ethnicity-related organization as a predictor of ethnic identity

trajectories among those participants who stated they were at least "a little involved" in such an organization. I tested the role of general organizational involved and ethnicity-related organizational involvement in predicting membership of ethnic identity trajectories simultaneously in one model.

For peer racial diversity, I examined students' friendship and classmate diversity, respectively, at the end of their first year of college (spring semester of freshman year, T2) to predict membership into the ethnic identity trajectories for each construct while accounting for their high school friendship and classmate diversity. To account for prior friendship and classmate diversity in high school, I estimated the residuals by regressing college friendship diversity on high school friendship diversity (the same modeling approach was used for classmate diversity): For example: Friendship Diversity in College = $\beta_0 + \beta_1$(Friendship Diversity in High School) + ε. The residuals of these regressions reflect that unique variability that is not explained by the prior levels of friendship and classmate diversity, respectively. I tested the role of friendship and classmate diversity in predicting membership of ethnic identity trajectories simultaneously in one model.

Research Question 3

To assess my third research aim - how trajectories predict psychological and academic adjustment – I compared the identified classes of individuals in terms of means on distal outcomes using the DU3STEP command in Mplus 7.4 (Muthén & Muthén, 2012). This procedure allows for the examination of differences in a distal outcome by membership in a latent class (trajectory group), while simultaneously accounting for uncertainty in the individual's classification (i.e., grouping into a trajectory). Given the technical complication of including covariates in multistep distal outcome models (see Asparouhov & Muthén, 2014), it

was necessary to use residuals as the distal outcomes. The residuals (of a given distal outcome) were first estimated using the following regression equation:

$$\text{Distal Outcome} = \beta_0 + \beta_1(\text{T1 Predictor}) + \beta_2(\text{Gender}) + \beta_3(\text{Nativity Status})$$

$$+ \beta_4(\text{Social Class Status}) + \beta_4(\text{Mother' Educational Attainment}) + \varepsilon \qquad (1)$$

By analyzing the residuals from Equation 1 as the actual distal outcomes, I modeled what is unique about the distal outcome that is not explained by the T1 predictor, gender, nativity status, subjective social class, and mother's educational attainment. Thus, the distal outcomes in the Mplus model using the DU3STEP command reflect the unique variability that is not explained by the aforementioned regression equation. To clarify: consider a hypothetical case in which, using the regression equation above, the *predicted* value of a given outcome based on the T1 predictor, being female, being born in the U.S., being middle class, and having a mother who completed a college degree is 10. If the *actual* value observed for this individual is 13, this would leave a residual of 3. The residual of 3 represents what is unique about her response that is not already accounted for by the covariates. If the residual value is positive, then the person was higher than expected on average for their trajectory class. If the residual value is negative, then the person was lower than expected on average for their trajectory class. If the residual value is zero, then there is nothing unique about the person's response that is not accounted for by the covariates. Lastly, it is important to note that the DU3STEP command is employed simultaneously with the LGMM, so the fit indices of the final models for this research question are the same ones reported in research question 1 (i.e., fit indices do not change with the addition of the DU3STEP command).

CHAPTER IV

Results

Preliminary Analyses

I began data analysis by examining the means, standard deviations, ranges, skewness and kurtosis for the primary variables of interest (provided in Table 3). The preliminary analyses suggested that the data did not violate assumptions of regression analysis, thus the data was used as is (i.e., not transformed). Descriptive information for the variables using residuals values (i.e., peer diversity and psychosocial outcomes) are provided in Table 4. Bivariate correlations between ethnic identity variables are provided in Table 5. Bivariate correlations among ethnic identity and independent variables (i.e., perceived ethnic threat, organizational involvement, and peer racial diversity) for each time point are provided in Tables 6 through 10.

Attrition analyses indicated that participants who completed all five waves did not differ from those with at least one wave of missing data in terms of gender (χ^2 (1, $N = 378$) = 2.58, p = .109), nativity status (χ^2 (1, $N = 378$) = 2.29, p = .130), social class status (χ^2 (1, $N = 378$) = 3.99, p = .551), or maternal education (χ^2 (1, $N = 378$) = 9.94, p = .192). Moreover, those who completed all five waves did not differ from those with at least one wave of missing data on the main variables of interest, with two exceptions. Those who did not participate in five waves of data ($M = .17$, $SD = .70$) reported greater levels of distress in the residual variable of psychological distress compared to those who completed all five waves ($M = -.16$, $SD = .66$), $t(72) = 2.09$, $p = .040$. Additionally, those who did not participate in five waves ($M =$

3.02, SD = 2.78) reported involvement in fewer organizations compared to those who completed all five waves (M = 3.95, SD = 2.32), $t(376)$ = -2.00, p = .046.

Research Question 1 - Ethnic Identity Trajectories

Exploration. A three-class solution emerged as the best fit to the data for ethnic identity exploration (see Table 11 for ssBIC, LMR adjusted LRT, and BLRT). The first class (n = 133) suggested participants were moderately high and increasing across the college years with a mean intercept of 3.15 (p < .001) and slope of .084 (p < .001). The second class (n = 25) reflected a group that was low and stable in exploration throughout the college years, with a mean intercept of 1.78 (p < .001) and a slope of -.041 (p = .484). The third class (n = 216) reflected moderate and stable ethnic identity exploration throughout the college years, with a mean intercept of 2.50 (p < .001) and a slope of .008 (p = .497). Two sociodemographic controls predicted the probability of belonging to class 1 (moderately-high and increasing) and class 3 (moderate and stable), relative to the probability of being in class 2 (low and stable). Specifically, males demonstrated a significantly reduced probability of being in class 1 (b = -2.06, SE = .67, p = .002; odds ratio = .13 [95% CI: .03 – .49]), and class 3 (b = -1.67, SE = .69, p = .016; odds ratio = .19 [95% CI: .05 – .73]). In addition, for a one-unit increase in maternal education, the odds of being in class 1 (b = .64, SE = .18, p = .002; odds ratio = .53 [95% CI: .37 – .75]) and class 3 (b = .53, SE = .19, p = .005; odds ratio = .59 [95% CI: .41 – .85]) were 47% and 41% *lower*, respectively. There was also a marginal effect of subjective social class status in the probability of being in class 2 relative to class 3, (b = -0.55, SE = .29, p = .055; odds ratio = 1.73 [95% CI: .98 – 3.03]). Thus, gender and mother's educational attainment were kept as controls in the remaining analyses for exploration trajectories. Figure 2 provides a visual representation of the ethnic identity exploration trajectories.

Resolution. A two-class solution emerged as the best fit to the data for ethnic identity resolution (see Table 11 for ssBIC, LMR adjusted LRT, and BLRT). The first class ($n = 43$) reflected participants who reported low initial levels of resolution and then increased throughout the college years, with a mean intercept of 1.98 ($p < .001$) and a slope of .132 ($p < .001$). The second class ($n = 332$) reflected participants who reported high resolution and remained stable throughout the college years, with a mean intercept of 3.09 ($p < .001$) and a slope of -.008 ($p = .608$). None of the sociodemographic controls (i.e., nativity status, gender, or SES variables) predicted membership into either trajectory class. Thus, no sociodemographic controls were used in subsequent trajectory analyses for resolution. Figure 3 provides a visual representation of the ethnic identity resolution trajectories.

Private regard. A two-class solution emerged as best fit[2] to the data for ethnic identity private regard (see Table 11 for ssBIC, LMR adjusted LRT, and BLRT). The first class ($n = 221$) reflected participants who reported high and stable private regard throughout the college years, with a mean intercept of 6.29 ($p < .001$) and a slope of -.049 ($p = .304$). The second class ($n = 151$) reflected participants who reported moderate levels of private regard and remained stable throughout the college years, with a mean intercept of 4.54 ($p < .001$) and a slope of .054 ($p = .409$). None of the sociodemographic controls (i.e., nativity status, gender, or SES variables) predicted membership in either trajectory class. Thus, no sociodemographic controls were used in the following trajectory analyses for private regard. Figure 4 provides a visual representation of the ethnic identity private regard trajectories.

---

[2] Initially, a three-class solution emerged as best fit to the data for ethnic identity private regard (fit indices available upon request). The three classes reflected a low and decreasing trajectory class, a moderate and stable trajectory class, and a high and stable trajectory class. However, the first class (low and stable) was comprised of four participants, none of whom had data at T5. Thus, analyses examining distal outcomes could not be carried out with a trajectory class containing no data, resulting in the four participants (and class) being removed from the analyses.

Summary. Hypothesis 1 (exploration), 2 (resolution), and 3 (private regard) was partially

supported. For exploration (H1), three classes emerged instead of the hypothesized four. The

classes that emerged reflected two (or three) of my hypothesized trajectories: an increasing

trajectory, a low and stable trajectory, along with a moderate and stable trajectory. For resolution

(H2), two classes emerged instead of the hypothesized four: an increasing trajectory and a high

and stable trajectory. For private regard (H3), two classes emerged instead of the hypothesized

four: a high and stable trajectory and moderate and stable trajectory. Table 12 provides a

summary of the trajectories that were found for all three ethnic identity constructs.

Research Question 2 – Perceived Ethnic Threat and Ethnic Identity Trajectories

Exploration. The results of the multinomial logistic regression analyses using the

R3STEP command revealed that, relative to reference group (class 1, moderately high and

increasing), perceived ethnic threat at the beginning of college did not predict membership into

class 2 (low and stable), $b = -.38$, $SE = .46$, $p = .412$, or membership into class 3 (moderate and

stable), $b = .11$, $SE = .17$, $p = .500$. Thus, there was no effect of perceived ethnic threat on

exploration trajectories. Those with lower ethnic centrality at the beginning of college were more

likely to be in class 2 (low and stable), $b = -1.50$, $SE = .40$, $p < .001$ (odds ratio = .22 [95%

CI: .10 – .49]) and class 3 (moderate and stable), $b = -.90$, $SE = .22$, $p < .001$ (odds ratio = .41

[95% CI: .27 – .62]), compared to the reference group (class 1, moderately high and increasing).

Specifically, for a one-unit increase in ethnic centrality, the odds of being in class 2 (low and

stable) are 77% *lower* than the odds of being in class 1 (moderately high and increasing), and the

odds of being in class 3 (moderate and stable) are 59% *lower* than the odds of being in class 1

(moderately high and increasing). However, the interaction term (perceived ethnic threat X

ethnic centrality) was not significant; thus, ethnic centrality did not moderate the relation

between perceived ethnic threat and membership in ethnic identity exploration trajectory classes.

These findings suggest that, when accounting for gender and mother's educational attainment, students' perceptions of compatibility between their ethnicity and university at the beginning of college were not associated with the trajectory of ethnic identity exploration during college.

Resolution. The results of the multinomial logistic regression analyses using the R3STEP command revealed that, relative to the reference group (class 1, low and increasing), perceived ethnic threat at the beginning of college did not predict membership into class 2 (high and stable), $b = -.09$, $SE = .23$, $p = .709$. Thus, there was no effect of perceived ethnic threat on resolution trajectories. Those with higher ethnic centrality at the beginning of college were more likely to be in class 2 (high and stable), $b = 1.36$, $SE = .30$, $p < .001$ (odds ratio $3.90 = [95\%$ CI: $2.19 -$ $6.95]$), compared to the reference group (class 1, low and increasing). Specifically, for a one-unit increase in centrality, the odds of being in class 2 (high and stable) are 289% *higher* than being in class 1 (low and increasing). However, the interaction term (perceived ethnic threat X ethnic centrality) was not significant; thus, ethnic centrality did not moderate the relation between perceived ethnic threat and membership in ethnic identity resolution trajectory classes. These findings suggest that students' perceptions of compatibility between their ethnicity and university at the beginning of college were not associated with the trajectory of ethnic identity resolution during the college years.

Private regard. The results of the multinomial logistic regression analyses using the R3STEP command revealed that, relative to reference group (class 1, high and stable), perceived ethnic threat at the beginning of college predicted membership into class 2 (moderate and stable), $b = .90$, $SE = .22$, $p < .001$ (odds ratio $= 2.47$ [95 % CI: $1.59 - 3.83]$). Those with lower ethnic centrality at the beginning of college were more likely to be in class 2 (moderate and stable), $b =$ -1.61, $SE = .26$, $p < .001$ (odds ratio $= .20$ [95% CI: $.12 - .34]$), compared to the reference group

(class 1, high and stable). Specifically, for a one-unit increase in centrality, the odds of being in class 2 (moderate and stable) are 80% *lower* than being in class 1 (high and stable). However, the interaction term (perceived ethnic threat X ethnic centrality) was not significant; thus. ethnic centrality did not moderate the relation between perceived ethnic threat and membership in ethnic identity resolution trajectory classes. Therefore, we see that as perceived ethnic threat at T1 increases, the probability of being in class 2 (moderate and stable) relative to class 1 (high and stable) significantly increases, regardless of ethnic centrality. Specifically, for a one-unit increase in perceived ethnic threat, the odds of being a member of class 2 are 146% *higher* than being a member of class 1. This finding suggests that students' perceptions of incompatibility between their ethnicity and university at the beginning of college were associated with having stable and less positive feelings about their ethnicity over the course of their time at the university.

Summary. The findings partially supported my prediction that perceived ethnic threat at the beginning of college would influence ethnic identity trajectories (H4). The data suggest that greater perceived ethnic threat was associated with consistently moderate levels of private regard compared to consistently higher levels of private regard. Thus, my prediction that greater perceived ethnic threat would be predictive of membership into characterized by lower levels of ethnic identity was supported. However, no significant associations emerged between perceived ethnic threat and trajectories of exploration and resolution. Moreover, ethnic centrality did not moderate any associations between perceived ethnic threat and the three ethnic identity constructs.

Research Question 2 – Organizational Involvement and Ethnic Identity Trajectories

Exploration. The results of the multinomial logistic regression analyses using the R3STEP command revealed that, relative to reference group (class 1, moderately high and increasing), the *number of organizations* during college was marginally predictive of membership into class 2 (low and stable), $b = -.33$, $SE = .18$, $p = .063$ (odds ratio = .72 [95% CI: .51 – 1.02]), and significantly predictive of membership into class 3 (moderate and stable), $b = .25$, $SE = .11$, $p = .019$ (odds ratio = 1.28 [95% CI: 1.04 – 1.58]). That is, participating in a greater amount of organizations was marginally associated with the probability of being in class 2 (low and stable) compared to the reference group (class 1, moderately high and increasing); for a one-unit increase in organizations, the odds of being a member of class 2 are 28% *lower* than being a member of class 1. However, as the number of organizations increases, the probability of being in class 3 (moderate and stable) compared to class 1 (moderately high and increasing) significantly increases. Specifically, for a one-unit increase in organizations, the odds of being a member of class 3 are 28% *higher* than being a member of class 1. Thus, students who were involved in more organizations were more likely to begin and remain consistently moderate in their ethnic identity exploration rather than begin with higher exploration and increase over time. Students who reported involvement in fewer organizations were also marginally more likely to be characterized by a low and stable exploration than by increasing exploration.

Moreover, relative to the reference group (class 1, moderately high and increasing), involvement in *ethnicity-related organizations* in college predicted membership into class 2 (low and stable), $b = -2.22$, $SE = .87$, $p = .010$ (odds ratio = 1.11 [95% CI: .02 – .59]) and class 3 (moderate and stable), $b = -2.38$, $SE = .60$, $p < .001$ (odds ratio = .09 [95% CI: .03 – 0.30]). Specifically, for a one-unit increase in ethnicity-related organizations, the odds of being a member of class 2 are 89% *lower* than being a member of class 1, and the odds of being a

84

member of class 3 are 90% *lower* than being a member of class 1. These findings suggest that, when controlling for gender and mother's educational attainment, those who participated in ethnicity-related organizations as freshmen were more likely to evince an increase in ethnic identity exploration during college.

Resolution. The results of the multinomial logistic regression analyses using the R3STEP command revealed, that relative to reference group (class 1, low and increasing), the number of organizations one is involved with in college did not predict membership into class 2 (high and stable), b = -.04, *SE* = .16, *p* = .792. Moreover, relative to the reference group (class 1, low and increasing), involvement in ethnicity-related organizations in college did not predict membership into class 2 (high and stable), b = 1.01, *SE* = .76, *p* = .185. Thus, there was no effect of either type of organizational involvement on resolution trajectories. The number of organizations students participated in during their first year of college were not associated with their sense of ethnic resolution over time, nor was their participation in ethnic-related organizations.

Private regard. The results of the multinomial logistic regression analyses using the R3STEP command revealed that relative to the reference group (class 1, high and stable), the number of organizations predicted membership into class 2 (moderate and stable), *b* = .27, *SE* = .08, *p* < .001 (odds ratio = 1.31 [95% CI: 1.13 – 1.52]). That is, for every one-unit increase in the number of organizations in which students were involved, the odds of being a member of class 2 are 31% *higher* than being a member of class 1. Moreover, we see that relative to class 2 (moderate and stable), involvement in ethnicity-related organizations at T2 positively predicted membership into class 1 (high and stable), *b* = 1.56, *SE* = .42, *p* < .001 (odds ratio = 4.75 [95% CI: 2.08 – 10.86]). Specifically, as involvement in ethnicity-related organizations increases by one unit, the odds of being a member of class 1 are 374% *higher* than being a member of class 2.

Thus, we see that involvement in ethnicity-related organizations during the first year of college was predictive of having consistently high levels of private regard over time.

Summary. The findings partially supported my prediction that organizational involvement at the beginning of college would influence ethnic identity trajectories (H5). The data suggest that involvement in more organizations predicted a greater likelihood of being in a trajectory characterized by consistently moderate exploration levels than the trajectory associated with increasing exploration. Similarly, involvement in more organizations predicted a greater likelihood of being in a trajectory characterized by consistently moderate levels of private regard than the trajectory associated with consistently high levels of private regard. This finding refutes my prediction that greater organizational involvement would be predictive of membership into trajectories characterized by greater levels of ethnic identity. However, involvement in fewer organizations marginally predicted membership into a trajectory characterized by consistently low exploration levels when compared to those who increased in exploration. Thus, my prediction that less organizational involvement would be predictive of membership into classes characterized by lower levels of ethnic identity was partially supported. No significant associations emerged between the number of organizations and the trajectories of resolution.

Additionally, the findings partially supported my prediction that ethnicity-related organizational involvement would influence ethnic identity trajectories (H5). Involvement in ethnicity-related organizations predicted membership into trajectories characterized by greater levels of ethnic identity for exploration and private regard. Specifically, increases in ethnicity-related organizations predicted a greater likelihood of being in a trajectory characterized by increasing levels of exploration compared to consistently low levels and consistently moderate levels of exploration. Additionally, increases in ethnicity-related organizations predicted a

86

greater likelihood of being in a trajectory characterized by consistently high levels of private regard compared to consistently moderate levels of private regard. No significant associations emerged between ethnicity-related organizational involvement and the trajectories of resolution.

Research Question 2 – Peer Racial Diversity and Ethnic Identity Trajectories

This analysis uses residuals of racial diversity (i.e., reflecting change in racial diversity between high school and freshman year) and considers two peer contexts – the number of close friends and classmates who are of a different racial background.

Exploration. The results of the multinomial logistic regression analyses using the R3STEP command revealed that relative to the reference group (class 1, moderately high and increasing), the residuals of friendship diversity were not predictive of membership into class 2 (low and stable), $b = .73$, $SE = .70$, $p = .299$, or class 3 (moderate and stable), $b = .04$, $SE = .21$, $p = .832$. Thus, there was no effect of friendship diversity on exploration trajectories. These findings suggest that, when accounting for the friendship diversity reported in high school, the friendship diversity students experienced during their freshman year of college was not predictive of their ethnic identity exploration trajectory in college.

Relative to the reference group (class 1, moderately high and increasing), the residuals of classmate diversity were predictive of membership into class 3 (moderate and stable), $b = -.43$, $SE = .20$, $p = .030$ (odds ratio = .65 [95% CI: .44 – .96]), but not class 2 (low and stable), $b = 2.61$, $SE = 1.98$, $p = .186$. These results suggest that, for a one-unit increase in classmate racial diversity, the odds of being a member of class 3 (moderate and stable) are 34% *lower* than being a member of class 1 (moderately high and increasing). Thus, we see that change in classmate diversity was predictive of students' ethnic identity exploration trajectory in college.

Resolution. The results of the multinomial logistic regression analyses using the R3STEP command revealed that relative to the reference group (class 1, low and increasing), the residuals of friendship diversity were not predictive of membership into class 2 (high and stable), $b = -.05$, $SE = .36$, $p = .890$. Furthermore, relative to the reference group (class 1, low and increasing), the residuals of classmate diversity were not predictive of membership into class 2 (high and stable), $b = -.10$, $SE = .33$, $p = .763$. These findings suggest that neither changes in friendship nor classmate diversity were predictive of students' ethnic identity resolution trajectory.

Private regard. The results of the multinomial logistic regression analyses using the R3STEP command revealed that relative to the reference group (class 1, high and stable), the residuals of friendship diversity were not predictive of membership into class 2 (moderate and stable), $b = -.10$, $SE = .15$, $p = .511$. Furthermore, relative to the reference group (class 1, high and stable), the residuals of classmate diversity were not predictive of membership into class 2 (moderate and stable), $b = -.20$, $SE = .15$, $p = .168$. These findings suggest that neither changes in friendship nor classmate diversity were predictive of students' private regard trajectory.

Summary. The findings partially supported my prediction that changes in racial diversity of friends and classmates from high school to college would influence ethnic identity trajectories. For ethnic identity exploration, the data suggest that greater classmate diversity in their freshman year of college is linked to increased ethnic identity exploration throughout the years of college. Thus, my prediction that greater classmate racial diversity would predict membership into trajectories characterized by positive ethnic identity development was supported. However, no significant associations emerged between peer racial diversity (either friends and classmates) and trajectories of resolution and private regard.

Research Question 3 – Ethnic Identity Trajectories and Psychological Adjustment

Exploration. The analysis of mean differences in *residual* self-acceptance among the

three classes using the DU3STEP command revealed no significant differences between the

moderately high and increasing class ($M = -.069$), the low and stable class ($M = -.149$), and the

moderate and stable class ($M = .088$), χ^2 (2, $N = 374$) = .034, $p = .983$. Class 1 (moderately high

and increasing) was not significantly different from class 2 (low and stable) in self-acceptance, χ^2

(1, $N = 374$) = .017, $p = .897$, or class 3 (moderate and stable), χ^2 (1, $N = 374$) = .028, $p = .867$.

Moreover, class 2 (low and stable) was not significantly from class 3 (moderate and stable), χ^2 (1,

$N = 374$) = .034, $p = .854$. These findings suggest that, when controlling for baseline levels of

self-acceptance and sociodemographic factors (i.e., gender, nativity status, social class status,

mother's educational attainment), the initial point and growth pattern of ethnic identity

exploration was not associated with change in self-acceptance during college.

The analysis of mean differences in *residual* environmental mastery among the three

classes using the DU3STEP command revealed no significant differences between the

moderately high and increasing class ($M = .059$), the low and stable class ($M = .126$), and the

moderate and stable class ($M = -.072$), χ^2 (2, $N = 374$) = .321, $p = .852$. Class 1 (moderately high

and increasing) was not significantly different from class 2 (low and stable) in environmental

mastery, χ^2 (1, $N = 374$) = .031, $p = .860$, or class 3 (moderate and stable), χ^2 (1, $N = 374$) = .260,

$p = .610$. Moreover, class 2 (low and stable) was not significantly from class 3 (moderate and

stable), χ^2 (1, $N = 374$) = .212, $p = .645$. These findings suggest that, when controlling for

baseline levels of environmental mastery and sociodemographic factors (i.e., gender, nativity

status, social class status, mother's educational attainment), the initial point and growth pattern

of ethnic identity exploration was not associated with change in environmental mastery students

during college.

The analysis of mean differences in *residual* psychological distress among the three

classes using the DU3STEP command revealed no significant differences between the

moderately high and increasing class ($M = .056$), the low and stable class ($M = .220$), and the

moderate and stable class ($M = -.098$), χ^2 (2, $N = 374$) = .345, $p = .841$. Class 1 (moderately high

and increasing) was not significantly different from class 2 (low and stable), χ^2 (1, $N = 374$)

= .204, $p = .651$, or class 3 (moderate and stable), χ^2 (1, $N = 374$) = .108, $p = .742$. Moreover,

class 2 (low and stable) was not significantly from class 3 (moderate and stable), χ^2 (1, $N = 374$)

= .319, $p = .572$. These findings suggest that, when controlling for baseline levels of

psychological distress and sociodemographic factors (i.e., gender, nativity status, social class

status, mother's educational attainment), the initial point and growth pattern of ethnic identity

exploration was not associated with change in psychological distress students during college.

Resolution. The analysis of mean differences in *residual* self-acceptance between the

two classes using the DU3STEP command revealed no significant differences between the low

and increasing class ($M = -.449$) and the high and stable class ($M = .114$), χ^2 (1, $N = 375$) = .618,

$p = .432$. This finding suggests that, when controlling for baseline levels of self-acceptance and

sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational

attainment), the initial point and growth pattern of ethnic identity resolution was not associated

with change in self-acceptance students during college.

The analysis of mean differences in *residual* environmental mastery between the two

classes using the DU3STEP command revealed no significant differences between the low and

increasing class ($M = -.285$) and the high and stable class ($M = .073$), χ^2 (1, $N = 375$) = 1.611, p

= .204. This suggests that, when controlling for baseline levels of environmental mastery and

sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational

attainment), the initial point and growth pattern of ethnic identity resolution was not associated with change in environmental mastery during college.

The analysis of mean differences in *residual* psychological distress between the two classes using the DU3STEP command revealed no significant differences between the low and increasing class ($M = .164$) and the high and stable class ($M = -.041$), χ^2 (1, $N = 375$) = .089, $p = .765$. This suggests that, when controlling for baseline levels of psychological distress and sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of ethnic identity resolution was not associated with change in psychological distress students during college.

Private regard. The analysis of mean differences in *residual* self-acceptance between two classes using the DU3STEP command revealed a marginal difference between the high and stable class ($M = .236$) and the moderate and stable class ($M = -.249$), χ^2 (1, $N = 372$) = 2.904, $p = .088$. Therefore, the mean residuals in class 1 are positive and marginally greater than the negative mean residuals in class 2, suggesting that, when controlling for baseline levels of self-acceptance and sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), class 1 tends to have a higher than expected mean at T5. Thus, we see that students who reported consistently high levels of positive feelings in regards to their ethnic group membership were more likely to report higher than expected feelings of self-acceptance over time than those who consistently reported moderate levels of such feelings.

The analysis of mean differences in *residual* environmental mastery between two classes using the DU3STEP command revealed no significant differences between the high and stable class ($M = .095$) and the moderate and stable class ($M = -.052$), χ^2 (1, $N = 372$) = .458, $p = .498$. This finding suggests that, when controlling for baseline levels of environmental mastery and

sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of private regard was not associated with change in environmental mastery students report during college.

The analysis of mean differences in *residual* psychological distress between two classes using the DU3STEP command revealed a marginally significant difference in private regard between the high and stable class ($M = -.171$) and the moderate and stable ($M = .192$), χ^2 (1, $N = 372$) = 3.187, $p = .074$. Therefore, the mean residuals in class 2 are positive and marginally greater than the negative mean residuals in class 1, suggesting that, when controlling for baseline levels of psychological distress and sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), class 2 tends to have a higher than expected mean at T5. Thus, we see that students who reported consistently moderate levels of positive feelings in regards their ethnic group membership tended to report higher than expected psychological distress over time than those who consistently reported high levels of positive feelings in regards their ethnic group membership.

Summary. The findings partially supported my prediction that ethnic identity trajectories would predict psychological outcomes at the end of college (H7). The data suggest those with consistently high levels of private regard had marginally greater levels of self-acceptance than those with consistently moderate levels of private regard. Moreover, those with consistently high levels of private regard reported marginally lower levels of psychological distress than those with consistently moderate levels of private regard. Thus, my prediction that trajectories characterized by more positive levels of ethnic identity would predict positive psychological outcomes was marginally supported with respect to private regard. However, no significant or

marginal associations emerged for exploration and resolution trajectories in regards to psychological outcomes.

Research Question 3 – Ethnic Identity Trajectories and Academic Adjustment

Exploration. The analysis of mean differences among the three classes using the DU3STEP command revealed no significant differences in *residual* GPA among the moderately high and increasing class (M = -.068), the low and stable class (M = -.173), and the moderate and stable class (M = .099), χ^2 (2, N = 374) = 1.187, p = .552. Class 1 (moderately high and increasing) was not significantly different from class 2 (low and stable) in GPA, χ^2 (1, N = 374) = .196, p = .658, or class 3 (moderate and stable), χ^2 (1, N = 374) = .763, p = .382. Moreover, class 2 (low and stable) was not significantly from class 3 (moderate and stable), χ^2 (1, N = 374) = 1.015, p = .314. These findings suggest that, when controlling for baseline GPA and sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of ethnic identity exploration was not associated with change in GPA over time.

The analysis of mean differences among the three classes using the DU3STEP command revealed no significant differences in *residual* college competence among the moderately high and increasing class (M = .004), the low and stable class (M = .196), and the moderate and stable class (M = -.056), χ^2 (2, N = 374) = 1.891, p = .338. Class 1 (moderately high and increasing) was not significantly different from class 2 (low and stable) in college competence, χ^2 (1, N = 374) = 1.171, p = .279, or class 3 (moderate and stable), χ^2 (1, N = 374) = .170, p = .680. Moreover, class 2 (low and stable) was not significantly from class 3 (moderate and stable), χ^2 (1, N = 374) = 1.848, p = .174. These findings suggest that, when controlling for baseline levels of college competence and sociodemographic factors (i.e., gender, nativity status, social class status,

mother's educational attainment), the initial point and growth pattern of ethnic identity exploration was not associated with change in college competence over time.

The analysis of mean differences among the three classes using the DU3STEP command revealed no significant differences in *residual* cognitive engagement among the moderately high and increasing class ($M = .136$), the low and stable class ($M = -.130$), and the moderate and stable class ($M = -.059$), χ^2 (2, $N = 374$) = 1.285, $p = .526$. Class 1 (moderately high and increasing) was not significantly different from class 2 (low and stable) in cognitive engagement, χ^2 (1, $N = 374$) = .762, $p = .383$, or class 3 (moderate and stable), χ^2 (1, $N = 374$) = .730, $p = .393$. Moreover, class 2 (low and stable) was not significantly from class 3 (moderate and stable), χ^2 (1, $N = 374$) = .041, $p = .839$. These findings suggest that, when controlling for sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of ethnic identity exploration was not associated with change in cognitive engagement during college.

The analysis of mean differences among the three exploration trajectory classes using the DU3STEP command revealed significant differences in *residual* academic curiosity among the moderately high and increasing class ($M = .422$), the low and stable class ($M = .408$), and the moderate and stable class ($M = -.421$), χ^2 (2, $N = 374$) = 18.693, $p < .001$. Upon examining the specific differences between the three trajectory classes, we find that the difference between class 1 (moderately high and increasing) and class 3 (moderate and stable) is significant, χ^2 (1, $N = 374$) = 16.292, $p < .001$. Class 1 (moderately high and increasing) was not significantly different from class 2 (low and stable) in academic curiosity, χ^2 (1, $N = 374$) = .001, $p = .981$, nor were class 2 and class 3 significantly different from one another, χ^2 (1, $N = 374$) = 1.566, $p = .211$. Therefore, the mean residuals in class 1 were positive and significantly greater than the

negative mean residuals in class 3. This suggests that, when controlling for sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), class 1 had a significantly higher than expected, and class 3 had a significantly lower than expected, mean at T5. Moreover, these means were significantly different from one another. Thus, we see that compared to students whose ethnic identity exploration remained moderately stable, those whose ethnic identity exploration continually increased during college were more likely to report higher than expected academic curiosity over time.

The analysis of mean differences among the three classes using the DU3STEP command revealed significant differences in *residual* academic persistence among the moderately high and increasing class ($M = .301$), the low and stable class ($M = .306$), and the moderate and stable class ($M = -.280$), χ^2 $(2, N = 374) = 6.882$, $p = .032$. Upon examining the specific differences between the three trajectory classes, we find that the difference between class 1 (moderately high and increasing) and class 3 (moderate and stable) is significant, χ^2 $(1, N = 374) = 6.845$, $p = .009$. Class 1 (moderately high and increasing) was not significantly different from class 2 (low and stable) in academic persistence, χ^2 $(1, N = 374) = .000$, $p = .991$. In addition, class 2 and class 3 are not significantly different from one another, χ^2 $(1, N = 374) = 1.337$, $p = .248$. Therefore, the mean residuals in class 1 were positive and significantly greater than the negative mean residuals in class 3. This suggests that, when controlling sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), class 1 had a significantly higher expected mean at T5 that was significantly different from class 3. Thus, we see that compared to students whose ethnic identity exploration remained moderate and stable during college, those whose ethnic identity exploration increased were more likely to report higher than expected academic persistence over time.

Resolution. The analysis of mean differences in *residual* GPA using the DU3STEP command revealed that class 1 (low and increasing) ($M = -.093$) did not report significantly different GPAs than those in class 2 (high and stable) ($M = .023$), χ^2 (1, $N = 375$) = .327, $p = .567$. This suggests that, when controlling for baseline levels of GPA and sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of ethnic identity resolution was not associated with change in GPA during college.

No mean differences were found in *residual* college competence between class 1 (low and increasing) ($M = .023$) and class 2 (high and stable) ($M = -.006$), χ^2 (1, $N = 375$) = .036, $p = .850$, using the DU3STEP command. This suggests that, when controlling for baseline levels of college competence and sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of ethnic identity resolution was not associated with change in college competence during college.

No mean differences were found in *residual* cognitive engagement between class 1 (low and increasing) ($M = -.178$) and class 2 (high and stable) ($M = .044$), χ^2 (1, $N = 375$) = .734, $p = .392$, using the DU3STEP command. This suggests that, when controlling for sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of ethnic identity resolution was not associated with change in cognitive engagement during college.

No mean differences were found in *residual* academic curiosity between class 1 (low and increasing) ($M = .112$) and class 2 (high and stable) ($M = -.028$), χ^2 (1, $N = 375$) = .148, $p = .700$, using the DU3STEP command. This finding suggests that, when controlling for sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational

attainment), the initial point and growth pattern of ethnic identity resolution was not associated with change in academic curiosity during college.

For *residual* academic persistence, marginal differences emerged between class 1 (low and increasing) (M = .274) and class 2 (high and stable) (M = -.064), χ^2 (1, N = 375) = 3.597, p = .058. Therefore, the mean residuals in class 1 were positive and marginally greater than the negative mean residuals in classes and 2, suggesting that, when controlling for sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), class 1 had a marginally higher than expected mean at T5 that tended to be different from class 2. Thus, compared to students with high and stable ethnic identity resolution, those who had low but increasing levels in such clarity tended to report higher than expected academic persistence over time.

Private regard. The analysis of mean differences in *residual* GPA between the two private regard trajectory classes using the DU3STEP command revealed that class 1 (high and stable) (M = .032) and class 2 (moderate and stable) (M = -.048) were not significantly different, χ^2 (1, N = 375) = .382, p = .537. This finding suggests that, when controlling for baseline levels of GPA and sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of private regard was not associated with change in GPA students during college.

The analysis of mean differences in *residual* college competence between the two private regard trajectory classes using the DU3STEP command revealed that class 1 (high and stable) (M = -.001) and class 2 (moderate and stable) (M = .027) were not significantly different, χ^2 (1, N = 375) = .075, p = .784. This finding suggests that, when controlling for baseline levels of college competence and sociodemographic factors (i.e., gender, nativity status, social class status,

mother's educational attainment), the initial point and growth pattern of private regard was not associated with change in competence students during college.

The analysis of mean differences in *residual* cognitive engagement between the two private regard trajectory classes using the DU3STEP command revealed that class 1 (high and stable) ($M = .033$) and class 2 (moderate and stable) ($M = -.068$) were not significantly different, χ^2 (1, $N = 375$) = .324, $p = .569$. This finding suggests that, when controlling for sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of private regard was not associated with change in cognitive engagement during college.

The analysis of mean differences in *residual* academic curiosity between the two private regard trajectory classes using the DU3STEP command revealed that class 1 (high and stable) ($M = .104$) and class 2 (moderate and stable) ($M = -.146$) were not significantly different, χ^2 (1, $N = 375$) = 1.496, $p = .221$. This finding suggests that, when controlling for sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of private regard was not associated with change in academic curiosity students during college.

The analysis of mean differences in *residual* academic persistence between the two private regard trajectory classes using the DU3STEP command revealed that class 1 (high and stable) ($M = .058$) and class 2 (moderate and stable) ($M = -.111$) were not significantly different, χ^2 (1, $N = 375$) = .646, $p = .422$. This finding suggests that, when controlling for sociodemographic factors (i.e., gender, nativity status, social class status, mother's educational attainment), the initial point and growth pattern of private regard was not associated with change in academic persistence students during college.

Summary. The findings partially supported my prediction that ethnic identity trajectories would predict academic outcomes at the end of college (H8). The data suggest those with increasing levels of exploration reported significantly greater academic curiosity and persistence than those with stable levels of exploration. Thus, my prediction that trajectories characterized by more positive levels of ethnic identity would predict positive academic outcomes was supported with respect to exploration. However, the finding regarding the resolution and academic trajectories complicates this hypothesis. Those who increased in resolution throughout the college years reported marginally greater academic persistence than those who were high and stable in ethnic identity resolution. This finding is described in greater detail in the discussion. Lastly, no significant associations emerged for private regard trajectories in regards to academic outcomes. All associations between the varying ethnic identity trajectories, experiences in college, and psychosocial outcomes are summarized in Table 13.

Chapter V

Discussion

The current study examined the ways ethnic identity develops throughout the college years for Latino students as well as the social experiences that influence ethnic identity trajectories and the implications of such trajectories for psychosocial outcomes. I examined how Latino college students come to explore and understand their ethnic identity (exploration), the clarity Latino college students have regarding their ethnic group membership (resolution), and how Latino college students feel about their ethnic group membership (private regard). One key finding in this study is that Latino college students exhibited multiple pathways to and through their ethnic identities in college. Another overall finding is that the pattern of results varied across ethnic identity dimensions: thus in the following sections, I first discuss the contribution of this research for theorizing about developmental change in ethnic identity more generally and then unpack the particular findings—including the types of trajectories and their links with social experiences and psychosocial outcomes in college—for each dimension (exploration, resolution, and private regard) individually.

Variation in Ethnic Identity Trajectories

The findings in the current dissertation demonstrate that ethnic identity exhibits multiple pathways throughout the four years of college: Ethnic identity exploration demonstrated three

unique pathways, while resolution and private regard demonstrated two unique pathways. These findings suggest that there may not be a single normative pathway to ethnic identity. Although Erikson (1968) did not make predictions regarding the pathways for identity development, he signaled that an individual should eventually come to feel resolved regarding his or her identity through the process of exploring identities, which is also suggested by Marcia (1966, 1980) and Phinney (1989, 1993). The research examining ethnic identity over the four years in college has found a general increase in exploration and commitment (e.g., Syed & Azmitia, 2009). My research, however, suggests that there are multiple pathways among exploration and other ethnic identity constructs. Additionally, although previous research suggests that individuals either increase, decrease, or remain stable during periods of college (e.g., Syed et al., 2007; Syed & Azmitia, 2010), the current findings suggest that individuals may not decrease and that stability can be qualitatively different among individuals. Thus, there are pathways where ethnic identity increases (e.g., moderately-high and increasing for exploration and low and increasing for resolution), while the others reflect stability (low, moderate, and high levels of stability). Such variation provides further evidence of the important within-group variability of Latinos' ethnicity-related experiences and beliefs. Additionally, the findings suggest that the point in which people choose to engage with their ethnic identity may vary. For exploration, increases were observed for participants who began college with moderately high levels, while increases in resolution happened for participants who began college with low levels. Thus, even those who begin with relatively high levels of exploration can continue to search and explore what their ethnic group membership means.

The current research also suggests that the overlap between simultaneously occurring ethnic identity trajectories is complex. For example, post-hoc analyses revealed that some

participants who are consistently low in exploration throughout college, yet report consistently high positive affect regarding their ethnic group membership. Although they were a minority (5%), this shows that it is possible for one to report positive affect without reporting high levels of exploration, a relationship Umaña-Taylor and colleagues (2004) posited. Additionally, not all individuals who report increases in clarity surrounding their ethnic group membership will report increases in exploration. In the current study, 90% of those who reported increasing resolution were members of a stable exploration trajectory. Table 14 provides complete information regarding the overlap in exploration trajectories with resolution trajectories and private regard trajectories, and Table 15 provides information regarding the overlap in resolution and private regard trajectories.

Ethnic Identity Exploration, Social Experiences, and Psychosocial Outcomes

In this study, Latino college students evinced three unique pathways for exploring their ethnic identity. There were students who increased in exploration over time, students who were low and stable – both of which support my original hypothesis – and those who were *moderate* and stable in exploration over time. Taken together, these findings provide partial support for my original hypothesis regarding the number and kinds of trajectories that would emerge. The first trajectory was characterized by those who began college with a moderately high level of exploration and continued to increase throughout the college years – this group comprised approximately 35% of the sample. Approximately 6% of the sample was characterized as individuals who initially reported low levels in exploration and did not increase over time (i.e., they were stable in their low exploration). The majority of the sample (62.7%), however, reported a moderate level of exploration that remained stable over the college years.

Typically, previous research has found three classes when examining ethnic identity in college students (with samples including Latinos): those who increase, those who decrease, and those who do not change over time (e.g., Syed & Azmitia, 2010; Syed et al., 2007). Similar to previous research that examined change in ethnic identity across the college years (i.e., Syed & Azmitia, 2010; Syed et al., 2007), I found that the majority of the participants remained stable over time. Interestingly, my research did not find that Latino college students decrease in exploration over time. One reason for this may be that unlike previous studies, which combined those who did not change over time (i.e., remained stable), I found two different kinds of stability – those who remained low and those who remained moderate in their levels of exploration. Thus, I found that there was a qualitative difference among individuals who remained stable over time.

Although the two stable exploration groups did not differ from each other in what predicted membership in each group relative to each other, social experiences differentially predicted membership in each stable group relative to the moderately-high and increasing exploration group in unique ways. For example, participating in more campus organizations marginally predicted a greater likelihood of being in the moderately-high and increasing class as compared to the low and stable class. However, increases in the number of organizations in which students participated predicted a significantly greater likelihood of being in the moderate and stable class than the moderately-high and increasing class. Thus, being involved in a greater number of organizations, in general, only marginally predicted membership in the moderately-high and increasing group when compared to the low and stable group; however, number of organizations predicted membership in the moderate and stable group when compared to the moderately-high and increasing group.

The finding that greater organizational involvement predicts greater membership in the moderate and stable group relative to the increasing group complicates findings from previous research examining the association between organizational involvement and ethnic identity exploration. Tsai and Fuligni (2012) found that increased organizational involvement was predictive of greater ethnic identity search across the transition to college among racially diverse college students. On the one hand, the marginal difference between the low and stable class versus the increasing class suggests that there may be a role of any organizational involvement in exploring one's ethnic identity, as organization involvement tended to be predictive of an increasing exploration rather than low and stable exploration levels in the current study. To an extent, this finding provides modest support for the association Tsai and Fuligni (2012) found between organizational involvement and ethnic identity search.

On the other hand, the current findings also suggest that participation in more organizations predicted moderate rather than increasing levels of exploration, which is not consistent with Tsai and Fuligni's (2012) finding. One reason for this discrepancy may be that the increased organizational involvement reflects that individuals in the moderate and stable group may be exploring any number of identities (e.g., gender, occupational, political) in their first year of college, and not focusing on their ethnic identity, in particular (hence the stability observed). The increasing group, however, may be relying on ethnicity-related organizations to more specifically explore their *ethnic* identity – a conclusion that is supported from the results pertaining to ethnicity-related organizations. Thus, it is possible that organizational involvement can play different roles in ethnic identity exploration, perhaps depending on the levels of ethnic centrality that an individual reports – a consideration that future research would benefit from examining.

Turning to involvement in ethnicity-related organizations, I found an increased probability of being in the moderately-high and increasing group relative to both stable (moderate, low) groups when students were involved in ethnicity-related organizations. These results suggest that involvement in ethnicity-related organizations was associated with increasing levels of ethnic identity exploration among students in this sample, supporting qualitative research in which Latino students retrospectively reported such an association (Case & Hernandez, 2013; Nuñez, 2004; Guardia & Evans, 2008; Maramba & Velasquez, 2012). In one study, participants reported that involvement in ethnic student organizations was one of the most significant influences on their ethnic identity, if not the most significant influence (Maramba & Velasquez, 2012). The current results complement and extend those of retrospective qualitative studies as well quantitative research (Tsai & Fuligni, 2012) in that they found that participation in ethnicity-related organizations, in particular, during the first year of college shapes the trajectory of ethnic identity exploration in a larger sample of Latino students across five different universities.

In addition, the classmate diversity reported in college (accounting for the diversity reported in high school) predicted membership in the moderately-high and increasing group compared to the moderate and stable group. Thus, increased exposure to different-race peers in labs and classrooms was associated with increasing levels of ethnic identity exploration for this sample. This finding complicates findings from a previous study by Tsai and Fuligni (2012), who found that ethnic composition of college (for both 2-year and 4-year schools) was not associated with change in ethnic identity search/exploration across the transition to college among racially diverse young adults. Moin and colleagues (2007) also reported that campus ethnic composition (i.e., whether the campus was an HSI or a PWI) was not associated with differences in

exploration among Latino college students. The current findings suggest that more proximal experiences with racial diversity in everyday activities *within* a campus may be more salient to the identity exploration processes of college students, as students might draw on these interactions more than their general representation of a campus to make meaning of their ethnic group membership. This seems consistent with other studies that have examined the effects of interracial interactions on psychological outcomes among diverse college students (e.g., Maramba & Museus, 2013; Santos et al., 2007; Trail, Shelton, & West, 2009). Theory and research suggests that interactions with individuals of different backgrounds can trigger reevaluation of one's own ethnicity (e.g. Cross, 1991; Santos et al., 2007). Yet, it is important to note that not all such interactions are positive (e.g., Santos et al., 2007; Trail et al., 2009), and it is possible that for some, exploration was triggered by negative cross-group encounters. In the current study, it appears that irrespective of whether those encounters were positive or negative triggers, students who increased in ethnic identity exploration ultimately demonstrated favorable psychosocial outcomes, which is discussed in greater detail below. This suggests that to the extent that cross-ethnic interactions stimulated identity exploration, they were not ultimately harmful to students' adjustment, though future research should continue to examine the nature of interactions more closely among Latinos as well as the emotional benefits and consequences of such interactions among this population.

Links to Outcomes. With regard to the differences in distal outcomes by the ethnic identity exploration trajectories, there were two key findings related to academic outcomes. Those in the moderately-high and increasing group reported more academic curiosity and persistence compared to those in the moderate and stable class. This suggests that increasing levels of ethnic identity exploration are associated with greater academic curiosity and

persistence at the end of college. In this study, the construct of academic curiosity (e.g., "I participate when we discuss new material") reflects academic engagement in classroom settings, and academic persistence reflects the motivation to trying harder to overcome challenges and problems that arise (e.g., "If I do badly on a test or assignment, I work harder next time"). Thus, students who were increasingly thinking about and making meaning of their ethnic identity in their college environment may have been motivated to contribute actively or to contribute their perspectives on material in class and making effectual choices regarding their studying or time spent on academic activities in order to support their learning. Taken together, these findings corroborate previous work that suggests students may draw on their ethnic-specific experiences (e.g., identity, understanding of how ethnicity is a factor in their educational and occupational opportunity) as sources of academic motivation in college (e.g., Arellano & Padilla, 1996; Rivas-Drake, 2008).

In addition, the current pattern of findings is similar to what has been reported in studies of ethnic identity and academic engagement among students of color in middle school and high school (e.g. Bennett, 2006; Shin, Daly, & Vera, 2007). However, those studies have used composite score of ethnic identity (most often a combination of MEIM items), which obscures the relationship between ethnic identity exploration and academic outcomes. In the current study, ethnic identity exploration, measured as an individual dimension of ethnic identity, has implications for academic engagement and motivation (in this case, academic curiosity and persistence, respectively). Furthermore, this study provides evidence that such an association exists beyond adolescence and into the college years, which is also suggested by prior longitudinal mixed-methods research examining the growth of ethnic awareness in relation to major selection in college (Syed, 2010). Although these findings are informative, it is also

important to note that academic curiosity and persistence were the only psychosocial constructs without baseline measures. Thus, it is possible that when controlling for the initial reports of these academic efforts, the differences may disappear.

Whereas a few differences in academic outcomes across ethnic identity exploration trajectory types were observed, no differences in *psychological* outcomes emerged across groups. Finding no differences in psychological outcomes among exploration trajectories highlights, contrary to my hypothesis, that no single trajectory seems to be better for psychological health. This may reflect that the individuals in each group are on a path to their ethnic identity that is developmentally appropriate for them, especially when we consider how central their ethnicity is to their overall self-concept at the outset of college. The moderately high and increasing group reports the highest levels of centrality at the outset of college, followed by moderate and stable, then low and stable. Thus, the perception of how central ethnicity is to their self-concept at the beginning of college likely has implications for how they engage with ethnic identity exploration throughout the college years, and it may make such exploration more pertinent to psychological health for some and not others.

One important next step in this line of inquiry, then, is to examine the role of centrality as a moderator of the association of trajectory membership and psychological outcomes. Furthermore, the prior research that has found that increases in exploration, including composite scores, are associated with positive psychological outcomes (e.g., Gummadam et al., 2016; Phinney et al., 1994; Ong et al., 2006) treats their sample as homogenous (i.e., considers mean levels of exploration across the entire sample). Identifying heterogeneity among samples and separating individuals into groups that reflect a similar process, as done in this dissertation, is one way to examine how identity-adjustment associations may vary within groups. Examining

ethnic centrality as a moderator of such associations is another way to capture within-group variation that should be pursued in future studies that do not employ latent class approaches.

Ethnic Identity Resolution, Social Experiences, and Psychosocial Outcomes

Latino college students demonstrated two pathways for ethnic identity resolution throughout the course of college – a pathway where resolution increased and a pathway where resolution remained stable. The first pathway, low and increasing, represented approximately 11% of the sample and was characterized by individuals who started low and then increased over the years of college. The second pathway, high and stable, represented approximately 88% of the sample and was characterized by individuals who reported consistently high levels of resolution throughout the four years of college. These findings provide partial support for my original hypothesis regarding the number and kinds of trajectories that would emerge; however, two hypothesized trajectories – the decrease trajectory and the low and stable trajectory – did not emerge for the construct of resolution.

An interesting finding regarding ethnic identity resolution is that resolution increased for those who initially began college with low levels of resolution and remained stable for those who began with high levels of resolution. This suggests that throughout the college years, there were opportunities to gain additional clarity regarding ethnic group membership for the students in this sample who felt less clear about this aspect of their identities at the outset of their college years. Importantly, those who reported beginning college with low levels of resolution increasingly grew in resolution, to the point where they almost matched the levels of resolution reported by the high and stable group. These findings are encouraging given the importance of clarity regarding one's identity for their psychological health and overall sense of self

109

theoretically (e.g., Erikson, 1968) and empirically (e.g., Gonzales-Backen et al., 2015; Schwartz et al., 2015; St. Louis & Liem, 2005; Syed et al., 2013).

The current study also contributes knowledge regarding the variation surrounding ethnic identity resolution among college students, which has not been examined extensively in the past. I expected there were would be differences in how clear people feel their ethnicity is to them over time, and this was borne out by the data, which is consistent with previous research. In particular, previous research examining variation around ethnic identity resolution found three pathways for resolution (in conjunction with exploration) among high school students: consistently diffused, consistently foreclosed, and increasingly achieved (Douglass & Umaña-Taylor, 2015). Thus, they found two groups who were consistently stable and one group that increased throughout the four years of high school. Over 47% of their sample reported increasing levels of resolution, but these levels were still higher than the levels of resolution reported by the consistently diffused and consistently foreclosed groups. That is, those who were increasing reported higher initial levels of resolution compared to their peers in the stable groups. The current findings suggest that those with initially low levels are the ones who increase, which is the opposite of what Douglass and Umaña-Taylor (2015) found. However, they assessed resolution across the high school years, whereas I assessed resolution across the college years. Perhaps the transition to college and the years spent in college promote understanding of one's sense of self, as theory and research suggest (e.g., Arnett, 2000, 2014; Pizzolato, Chaudhari, Murrell, Podobnik, & Schaeffer, 2008; Syed & Azmitia, 2009). Given the limited studies examining ethnic identity resolution, it is important that more research be conducted in the future to better understand how and why ethnic identity resolution changes.

With regard to my second research aim (to examine predictors of trajectories), the two pathways of ethnic identity resolution did not differ in terms of what predicted their membership. Perceived ethnic threat, organizational involvement (i.e., the number of organizations and whether or not they were involved in ethnicity-related organizations), and peer racial diversity (classmate and friendship diversity) did not predict membership in either trajectory. Ethnic centrality, however, did predict membership in the trajectories. Specifically, students who reported that ethnicity was a central aspect of their sense of self were more likely to be members of the high and stable group relative to the low and increasing group. This finding is intuitive given that ethnic centrality was measured at the outset of college, when students in the low and increasing class were reporting low levels of resolution. Thus, those who reported that ethnicity is important to their self-concept report greater clarity regard their ethnic group membership, compared to those who report low levels yet increase over time.

As previously mentioned, the ethnic centrality level with which youth begin college is likely to play a role in how they engage with their college contexts in terms of ethnic identity development. For example, those who report low levels of centrality may not seek experiences that are ethnicity-related, which means their levels of resolution may be lower. On the other hand, those who are high on centrality may seek more experiences that are related to their ethnic group (e.g., classes, literature, art), providing greater clarity regarding ethnic group membership. Although I was not able to test this in the current study, future research should consider such associations. Moreover, future research should also consider the ethnic composition (e.g., PWI versus HSI) to examine if sense of clarity (resolution) pathways are different across different types of contexts. Unfortunately, I was not able to examine this given that the majority of the current study sample attended a university where they were the numerical minority. A study by

111

Garcia and colleagues (2016) examining ethnic identity salience, identity development, and college contexts among Latino male college students suggests that that previous and current experiences with various ethnic compositions (e.g., going from a predominantly Latino town to a PWI) influences identity development. Thus, future research in this area should pursue similar questions with regard to ethnic identity resolution, which may help explain the different pathways in this aspect of ethnic identity.

Links to Outcomes. With regard to distal outcomes, the two pathways of ethnic identity resolution did not demonstrate significant differences in psychological outcomes (i.e., self-acceptance, environmental mastery, and psychological distress). Although research on ethnic identity and psychological outcomes in college students has generally found positive associations (e.g., Brittian et al., 2013, 2015; Gummadam et al., 2016; Ong et al., 2006), research examining ethnic identity resolution, specifically, is not as supportive. For example, Gonzales-Backen and colleagues (2016) found no association between the trajectory of resolution and self-esteem or depression among Mexican American adolescents. Similarly, Umaña-Taylor and colleagues (2009) found no association between the trajectory of resolution and self-esteem among Latino adolescents. Researchers have suggested that perhaps ethnic identity resolution in and of itself is not enough to predict psychological outcomes for individuals; it is likely that resolution resulting from substantial identity exploration is what leads to greater psychological outcomes (e.g., Erikson, 1968; Umaña-Taylor et al., 2009).

Perhaps one reason for this pattern of findings in previous research and in the current study is that resolution is a construct that is based on different experiences at each point in time that a person is asked. That is, the clarity the participants reported in the high and stable trajectory, for example, may be quantitatively similar but *qualitatively* different at each point in

112

time. At any given point, people may understand what their ethnicity means to them, but it may mean *different* things at *different* time points – examining this possibility, perhaps with qualitative methods, is an important direction for future research and theorizing about ethnic identity. When examining the overlap among trajectories, only about 40% of students in the high and stable resolution group were also in the increasing exploration group. This suggests that exploration and resolution are not co-occurring for a large segment of the students in the study. A qualitative component to this study, where such clarity is examined in-depth, would help us understand if the nature of resolution and whether the basis of resolution is truly remaining the same over time.

Similarly to psychological outcomes, no significant differences emerged between the two classes for academic adjustment. There was, however, a marginal difference between the two classes in academic persistence, with those in the low and increasing trajectory reporting marginally greater academic persistence than those who were high and stable. This is an interesting finding that suggests that the increasing clarity in terms of one's ethnic group membership may be associated with the academic persistence Latino college students report in the college environment. Given that this association did not reach the threshold for significance, it is not possible to draw definitive conclusions about this finding. However, future work on this topic should consider the notion of *contextual identity integration* in theorizing about the link between ethnic identity resolution and academic outcomes. Contextual identity integration is the idea that people have to make sense of "the multiple identity domains that individuals either consider important to who they are, or are forced to deal with due to social-structural factors (e.g., ethnicity, sexuality, adoption)" (Syed & McLean, 2016, p. 111). The notion of contextual identity integration is applicable for ethnic minority students in college. For students of color,

previous research shows that they are more likely to think of their ethnic identity as related to their academic major, and that stronger ethnic identity is predictive of ethnicity-academic identity integration (Walker & Syed, 2013). Thus, there is an association between ethnic identity and academic identities. Moreover, research has found that the association between ethnic identity exploration and psychological well-being is mediated by identity coherence among college students (Syed et al., 2013). That is, the positive association between exploration and well-being can be explained by greater feelings that one's identity is interconnected and whole. Thus, it is possible and likely that clarity (resolution) regarding ethnic identity may be relevant for academic identities and the effort put into academics, though I did not obtain support for such hypothesized associations in the current study.

Private Regard, Social Experiences, and Psychosocial Outcomes

The final set of results, regarding private regard, indicated there were two different trajectories for this aspect of ethnic identity–those who were *high* and stable and those were *moderate* and stable. The first trajectory represented 60% of the sample and was characterized by consistently high levels of private regard throughout the college years. The second trajectory represented 40% of the sample and was characterized by consistently moderate levels of private regard throughout the college years. To my knowledge, this is the first study to examine the varying trajectories of private regard. Often, researchers have found a ceiling effect of private regard among college students, with participants reporting mostly positive feelings (e.g., Ho & Sidanius, 2009; Neblett & Roberts, 2013; Sellers et al., 1997). Given that researchers traditionally see a ceiling effect with private regard, the pattern of findings in this study suggests that the moderate and stable group are indeed meaningfully distinct from those who are high and stable. Thus, although the moderate and stable class does not feel *badly* about their group ethnic

membership, they certainly deviate from what appears to be a norm of very positive feelings, such as that reflected among the students in the high and stable group.

With regard to the influence of college social experiences, I found that perceived ethnic threat and organizational involvement predicted membership in private regard trajectories. Those who perceived greater ethnic threat were more likely to report moderate and stable levels of private regard when compared to those in the high and stable private regard class. This suggests that such incompatibility (between one's ethnicity and university) was associated with reporting less positive feelings about their ethnicity. Although such students reported lower levels of positive feelings, one cannot say that they did not feel *positively* about their ethnic group membership. Nonetheless, this finding supports previous research showing that belonging, compatibility, and person-environment fit have implications for psychosocial outcomes among students of color in college (e.g., Ethier & Deaux, 1994; Gummadam et al., 2016; Jackson, 2016; Pittmond & Richmond, 2008; Strayhorn, 2012, 2015; Walton & Cohen, 2007, 2011). Ethier and Deaux (1994), for example, found that greater perceived ethnic threat was predictive of a weaker identification with one's ethnic group among Latino college students at the end of their first year. Although I cannot conclude that perceived ethnic threat caused membership in the moderate and stable private regard group, I conclude that such threat can be an influence in shaping private regard among Latino college students. Experimental research has found that we can reduce the negative effects of environmental threat on belonging (Cook, Purdie-Vaughns, Garcia, & Cohen, 2012; Walton & Cohen, 2007, 2011), which may also have implications for identity development. Thus, future research should consider how interventions focusing on increasing belonging in the face of perceived threat could, in turn, relate to ethnic identity affirmation (i.e., private regard).

For private regard, involvement in more organizations was predictive of having consistently moderate levels of private regard over time, similar to the finding with moderate and stable exploration trajectory. These two trajectories shared 72% of the same participants; thus, similar to exploration, it might be that those involved in more groups are exploring other identities and are concerned less with their ethnic identity. This is supported by the lower levels of centrality reported by this group. This finding refutes my hypothesis that greater organizational involvement would be predictive of higher levels of ethnic identity. Past research with adolescents and college students suggests that those with positive in-group attitudes, including an "achieved" ethnic identity, have greater positive out-group attitudes and experiences (e.g., Maramba & Museus, 2013; Phinney, Ferguson, & Tate, 1997; Phinney, Jacoby, & Silva, 2007). Thus, it is surprising that students who have participated in a greater number of organizations is not associated with high levels of private regard. Perhaps, as with the exploration group, those who feel their ethnicity is important are taking advantage of ethnicity-related groups instead of other organizational groups.

Indeed, the current study found that involvement in ethnicity-related organizations was predictive of having consistently high levels of private regard over time compared to consistently moderate levels of private regard. Thus, participating in ethnicity-related organizations was associated with feeling greater levels of positive affect towards Latinos in this sample. The aforementioned qualitative research with Latino college students has highlighted this association (e.g., Case & Hernandez, 2013; Guardia & Evans, 2008; Maramba & Velasquez, 2012), and the current study adds to these findings in a quantitative, prospective, and longitudinal manner. It also strengthens this line of research by examining specific constructs in ethnic identity, as

opposed to a participant's broad understanding of what ethnic identity may mean in the context of a qualitative research study.

Links to Outcomes. With regard to distal outcomes, the two pathways of private regard did not demonstrate significant differences in psychological or academic outcomes. Two marginal differences, however, emerged for psychological well-being (i.e., self-acceptance) and psychological distress. Those in the high and stable private regard class tended to report higher self-acceptance and lower levels of psychological distress compared to those in the moderate and stable class. Although these group differences are not significant, the findings are encouraging as they provide modest evidence for my hypothesis that trajectories characterized by more positive levels of ethnic identity would be associated with better psychosocial outcomes. As with the exploration trajectories, the lack of significant differences in distal outcomes between the private regard trajectories might be explained by the possibility that the individuals in each group are on the path that is developmentally appropriate for them, especially if we consider how they normatively define themselves in terms of their ethnicity (i.e., centrality). Among this sample, I did find greater centrality was associated with an increased probability of being in the high and stable class compared to the moderate and stable class. However, future research should continue to examine the role of centrality to determine its role more conclusively in private regard over time.

Limitations and Future Directions

The current study helps to advance the field's understanding of the ways ethnic identity develops throughout the college years for Latino students, as well as the social experiences that influence ethnic identity trajectories and the implications of such trajectories for psychosocial outcomes. However, future research would benefit from addressing some of the limitations of

this study such as issues pertaining to size and nature of the sample, missing data, and measurement. I discuss these issues below.

The sample in this study is sizable (~375), but still on the lower end of the sample size desired to carry out complex statistical analyses (i.e., 300) such as the ones in the current dissertation (e.g., Muthén, 2004). Although there is no minimum sample size for such analyses (e.g., growth mixture models have successfully been applied to sample sizes as low as 34; see Ram & Grimm, 2009), larger sample sizes are beneficial in dissecting the subgroups in samples (Tolvanen, 2007). A larger sample would also aid in detecting differences among the subgroups, as classes were numerically unequal in their comparisons (e.g., a class of 25 being compared to a class of 216). Moreover, the sample size in conjunction with the somewhat high attrition of data over five waves[3] markedly reduced the amount of available data for the distal outcomes. Having more data available for the distal outcomes would likely increase power and therefore help to clarify the marginal differences that emerged between trajectories. Although FIML in Mplus is an appropriate method for missing data, it would be ideal to have a greater amount of participant-reported data available in examining the relationship between ethnic identity trajectories and distal outcomes.

Moreover, to the extent possible, collaborative, multi-site research approaches that sample across many universities and colleges serving different student populations, such as the Multi-University Study of Identity and Culture (MUSIC; Weisskirch et al., 2013), should also be considered in conducting ethnic identity research to build on extant studies. This approach provides access to not only numerical large samples, but it also helps diversify samples in terms of participants' background characteristics and geographical locations. Although the sample in

---

[3] The sample included 378 participants at T1, and it reduced to 305 at T2, 276 at T3, 165 at T4, and 72 at T5.

the current study draws from five universities, two of the universities accounted for nearly 83%

of the sample. Thus, it is difficult to draw conclusions that about the nature of ethnic identity

trajectories across universities within this sample. In future work in this area, researchers using a

multi-site investigative approach should consider how college contexts (e.g., racial

characteristics and geographical locations) influence ethnic identity, as prior research has

demonstrated that college contexts (as well as pre-college contexts) can have meaningful

influences on ethnic identity development among Latino college students (e.g., Garcia et al.,

2016).

Additionally, the participants in this study only represent a subsample of Latino college

students in the United States. The five four-year institutions were PWIs in which Latino students

made up approximately 4% of the student population. However, approximately 64% of Latino

college students in the United States attend an HSI, not a PWI (Excelenia in Education, 2017).

Thus, the results cannot be generalized to all Latino college students, nor all Latino college

students attending PWIs since participants attended college in one geographic area. To address

these issues, future work can assess whether or how ethnic identity varies at different institutions

(e.g., PWI vs HSI). Future work in this area would also benefit from a nationally representative

sample of Latino college students to clarify the association and trends seen in the current study.

Finally, the current study used well-established items to measure ethnic identity

exploration and private regard (i.e., from the MEIM and MIBI, respectively), but the construct of

resolution was less well assessed and only by two items. Further, the second item was a reverse-

coded duplicate of the first item (i.e., the same question but worded negatively). Future research

on this aspect of ethnic identity should employ new and more diverse measures developed to

directly assess resolution, such as one by Umaña-Taylor and colleagues (2004), which has been

119

used with college student samples (e.g., MUSIC samples; Brittian et al., 2015). This will help clarify if the pattern of results regarding ethnic identity resolution in the current study by minimizing measurement error.

Implications for Practice and Policy

Universities have a responsibility to assist their students in achieving their academic and career goals, and they also have a responsibility to ensure that their students are pursuing such goals on campuses that are not socially and racially hostile. The current dissertation suggests that such threatening environments have implications for how Latino college students feel about their ethnic group membership. Students who perceived greater ethnic threat were more likely to report lower levels of private regard, thus undermining the potential to cultivate this asset in students' lives. Other research indicates that even students who do not feel their ethnicity is central to their overall identity are vulnerable to the stress of experiencing ethnically threatening campuses (e.g., Brittian et al., 2013). To address these challenges, universities could implement programming that helps to promote inclusion and belonging for all students. Such programs do not have to be exhaustive and time-consuming for universities, as even brief (i.e., one day) social-belonging interventions in a laboratory setting have been shown to help increase feelings of belonging among college students (e.g., Walton & Cohen, 2011). The benefits of feelings of belonging at the university for students of color, including Latinos, are overwhelmingly clear. Belonging is found to be important for psychological and academic outcomes, such as retention (e.g., Museus, Nichols, & Lambert, 2008), persistence (e.g., Hausmann et al., 2007; Wei, Ku, & Liao, 2011), and mental health (e.g., Gummadam et al., 2016). Therefore, universities would likely see a return on their investment in programming that supports belonging by seeing increased and favorable academic and psychological adjustment among their Latino students.

In addition to promoting inclusion and belonging, universities should ensure that they offer students ample experiences to engage in student organizations and promote the advantages of such engagement. The current dissertation results suggest that organizational involvement, especially involvement in ethnicity-related organizations, tends to be linked to greater ethnic identity exploration and affirmation (i.e., private regard). In addition, universities should continue their efforts to increase exposure to ethnic and racial diversity among their undergraduate students. Universities have cultural centers and programs such as intergroup dialogue that have been found to promote ethnic identity development (e.g., Nagda & Zúñiga, 2003; Patton, 2010), but these are avenues that require a student to voluntarily be a part of. In the current study, reporting greater levels of classmate racial diversity was association with greater exploration of one's own ethnic identity. Thus, the racial makeup in classrooms may also be a form of university policy that can aid for identity development. Seeing that such ethnic exploration is thought to be a positive process among ethnic minority students with potential benefits for their academic and social outcomes, this finding aligns with other studies showing the benefits of exposure to diversity in higher education (cf. Antonio, 2004; Guiton, Chang, & Wilkerson, 2007; Gurin et al., 2013; Hurtado, 2003; Terenzini et al., 1996; Whitla, 2003). Indeed, students with increasing levels of ethnic identity exploration in the present study reported greater academic engagement (i.e., academic curiosity and persistence) than those who remained stable in their levels of exploration. Thus, the ability to explore one's ethnic identity can be important for the academic outcomes of Latino college students. Programming that aims to support and enhance ethnic identity exploration could be one important way to address issues of academic adjustment among Latino college students, a group that is awarded the least amount of Bachelor's degrees compared to their Black, White, and Asian adult peers (NCES, 2016).

Conclusion

       This dissertation furthers our understanding of how ethnic identity functions throughout the college years among Latino college students, and that ethnic identity among such students unfolds through diverse pathways. The study contributes to the growing literature examining ethnic identity dimensions individually as opposed to relying on composite scores of multiple dimensions (e.g., Rivas-Drake, Seaton, et al., 2014; Schwartz et al., 2014). The study also utilized a person-centered approach and thus contributes new insights that are not possible with variable-centered approaches in that it helps better capture the heterogeneity of identity development processes (Crocetti & Meeus, 2015). Research with ethnic identity composite scores (e.g., Smith & Silva, 2011, St. Louis & Liem, 2005) and variable-centered approaches where the sample is treated as homogenous (e.g., Ong et al., 2006) generally find positive associations between ethnic identity and psychosocial outcomes. The current research, however, suggests that these associations are likely to be more complex (present under some conditions, absent in others). The advancement of methodological and statistical techniques will help researchers address the complexities of such associations, and future research should continue utilizing such techniques (e.g., person-centered statistical approaches). Moreover, the current study demonstrates that institutions of higher education can play an influential role in shaping ethnic identity through the messages students receive regarding their ethnic group, the organizations offered, and the racial diversity available in classrooms. Given that the college years are often formative and transformative periods for identity development, institutions should consider how their policies and practices shape how Latino students make sense of their ethnicity in relation to their sense of self *and* to other groups, especially as they are becoming highly educated members of an increasingly ethnically polarized society.

Table 1

Participation in Study by Cohort, Year, and Semester

	Year 1		Year 2		Year 3		Year 4
	Fall '12	Spring '13	Fall '13	Spring '14	Fall '14	Spring '15	Spring '16
Cohort 1	X	X		X		X	X
Cohort 2			X	X		X	X
Cohort 3					X	X	X

Note. X denotes participation in study.

Table 2

Cronbach's Alpha (α) and Sample Size (n) for Scales Across Time Points

Variable	Time 1		Time 2		Time 3		Time 4		Time 5	
	α	*n*	α	*n*	α	*n*	α	*n*	α	*n*
Exploration	.78	370	.81	298	.85	264	.81	158	.87	72
Resolution	.63	371	.63	301	.63	267	.64	158	.75	72
Private Regard	.90	374	.87	303	.88	275	.88	164	.89	72
Centrality	.87	375	/	/	/	/	/	/	/	/
Perceived Ethnic Threat	.81	375	/	/	/	/	/	/	/	/
PWB - Self-acceptance	.74	363	/	/	/	/	/	/	.85	72
PWB - Environmental Mastery	.58	357	/	/	/	/	/	/	.74	70
Psychological Distress	.90	365	/	/	/	/	/	/	.92	72
College Competence	.70	373	/	/	/	/	/	/	.63	75
AE - Cognitive Engagement	-	-	/	/	/	/	/	/	.76	73
AE - Curiosity	-	-	/	/	/	/	/	/	.76	73
AE - Persistence	-	-	/	/	/	/	/	/	.79	.74

Note. PWB = psychological well-being. AE = academic engagement. Dash denotes measures not collected at that time point, forward slash denotes measure was collected but not used in the current study. Alphas for exploration, resolution, and private regard were examined among participants who had at least two time points on each measure (i.e., the analytic sample).

Table 3

Descriptive Statistics for Primary Study Variables

Variable	*n*	*M*	*SD*	Range	Skewness	Kurtosis
Exploration T1	376	2.66	.74	1 - 4	-.20	-.22
Exploration T2	301	2.75	.75	1 – 4	-.27	-.27
Exploration T3	271	2.79	.79	1 – 4	-.22	-.53
Exploration T4	161	2.84	.75	1 – 4	-.13	-.71
Exploration T5	72	2.75	.86	1 – 4	-.32	-.66
Resolution T1	375	2.89	.74	1 – 4	-.38	-.06
Resolution T2	302	2.94	.73	1 – 4	-.52	.23
Resolution T3	271	2.97	.75	1 – 4	-.24	-.55
Resolution T4	160	2.99	.74	1 – 4	-.30	-.55
Resolution T5	72	2.90	.84	1 – 4	-.36	-.52
Private Regard T1	376	5.58	1.23	1 – 7	-.63	-.32
Private Regard T2	304	5.46	1.19	1.67 – 7	-.47	-.47
Private Regard T3	276	5.45	1.26	1 – 7	-.64	.18
Private Regard T4	165	5.49	1.19	1.67 – 7	-.44	-.48
Private Regard T5	72	5.59	1.30	2 – 7	-.72	-.18
Centrality T1	379	4.72	1.46	1 – 7	-.32	-.49
Perceived Ethnic Threat T1	380	1.95	1.11	1 – 6.67	1.65	2.88
PWB - Self-Acceptance T1	373	4.54	.92	1 – 6	-.40	-.19
PWB - Self-Acceptance T5	73	4.49	1.04	1 – 6	-.74	.63
PWB - Environmental Mastery T1	372	3.95	.79	1.25 – 6	.20	.47
PWB - Environmental Mastery T5	73	4.13	.97	1.50 – 6	.02	-.05
Psychological Distress T1	377	2.24	.73	1 – 5	.83	.71
Psychological Distress T5	74	2.08	.80	1 – 4.20	.71	-.50
GPA T1	375	3.68	.38	1.50 – 4.68	-1.72	5.06
GPA T5	74	3.25	.50	2 – 4	-.49	-.61
College Competence T1	378	3.56	.58	1.67 – 5	.09	-.20
College Competence T5	74	3.60	.57	2.33 – 5	.06	-.52
AE - Cognitive Engagement T5	74	3.39	.69	2 – 4.83	.10	-.67
AE - Curiosity T5	75	3.77	.78	2 – 5	-.30	-.71
AE - Persistence T5	74	3.98	.72	2.25 – 4	-.48	-.41

Note. n = sample size, *M* = mean, *SD* = standard deviation. PWB = Psychological Well-Being.
AE = Academic Engagement.

Table 4

Descriptive Statistics of Unstandardized Residuals for Diversity Variables and Distal Outcomes Variables

	N	Minimum	Maximum	Mean	Standard Deviation
Friendship Diversity	294	-3.29	1.75	0.00	1.13
Classmate Diversity	296	-3.36	1.12	0.00	1.12
Self-Acceptance	73	-2.21	1.47	0.00	0.91
Environmental Mastery	72	-2.42	1.50	0.00	0.83
Psychological Distress	74	-1.25	1.94	0.00	0.70
GPA	74	-1.05	0.85	0.00	0.43
College Competence	75	-1.26	0.81	0.00	0.39
Academic Curiosity	74	-1.24	1.77	0.00	0.66
Cognitive Engagement	75	-1.82	1.32	0.00	0.75
Academic Persistence	74	-1.73	1.11	0.00	0.71

Table 5

Bivariate Correlations Among T1-T5 Ethnic Identity Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) Exploration T1	1															
(2) Exploration T2	.63***	1														
(3) Exploration T3	.59***	.67***	1													
(4) Exploration T4	.54***	.65***	.65***	1												
(5) Exploration T5	.55***	.61***	.57***	.77***	1											
(6) Resolution T1	.61***	.44***	.42***	.39***	.22+	1										
(7) Resolution T2	.43***	.50***	.35***	.35***	.25+	.54***	1									
(8) Resolution T3	.40***	.44***	.57***	.32***	.30*	.50***	.53***	1								
(9) Resolution T4	.31***	.39***	.44***	.58***	.37*	.45***	.56***	.47***	1							
(10) Resolution T5	.32**	.26+	.19	.47***	.54***	.28*	.45**	.32*	.55***	1						
(11) Private Regard T1	.39***	.32***	.34***	.22**	.14	.54***	.38***	.44***	.33***	.12	1					
(12) Private Regard T2	.27***	.36***	.33***	.30***	.10	.35***	.44***	.41***	.39***	.18	.58***	1				
(13) Private Regard T3	.25***	.36***	.47***	.23***	.22	.34***	.35***	.57***	.38***	.29*	.54***	.54***	1			
(14) Private Regard T4	.27**	.40***	.47***	.44***	.38**	.44***	.49***	.38***	.54***	.32*	.49***	.55***	.65***	1		
(15) Private Regard T5	0.23+	.27*	.26+	.39**	.48***	.19	.35**	.25+	.41**	.43***	.29**	.41**	.23	.66***	1	
(16) Centrality T1	.53***	.41***	.39***	.33***	.33***	.57***	.38**	.50***	.29**	.19	.67***	.42***	.40***	.32***	.13	1

Note. *p < .05, **p < .01, ***p < .001; +p < .073.

Table 6

Bivariate Correlations – T1 Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Exploration	1												
(2) Resolution	.61***	1											
(3) Private Regard	.39***	.54***	1										
(4) Centrality	.53***	.57***	.67***	1									
(5) Perceived Ethnic Threat	.09	-.09[+]	-.20***	.05	1								
(6) Number of Orgs[a]	.15**	.10[+]	.05	.11*	0.04	1							
(7) Friend Div.[a]	-.04	-.07	-.05	-.09	-.11*	.03	1						
(8) Classmate Div.[a]	.07	-.02	.02	-.04	-.10[+]	.02	.65***	1					
(9) Self-Acceptance	.06	.34***	.30***	.16**	-.34***	.14**	.02	-.05	1				
(10) Environmental Mastery	.10[+]	.25***	.27***	.14**	-.31***	.12*	.00	-.01	.50***	1			
(11) Psychological Distress	0.03	-.16**	-.14**	-.06	.28***	.01	-0.07	-.09	-.43***	-.52***	1		
(12) GPA T1 (HS)	.06	.04	.07	.02	-.07	.17**	.12*	.14**	.09	.04	-.08	1	
(13) College Competence	.12*	.14**	.21***	.09	-.26***	.09	.10*	.09	.29***	.33***	-.18***	.14**	1

Note. [a]Variable reflects information from high school (i.e., pre-college).
p < .05, **p* < .01, ***p* < .001; [+]*p* < .072.

128

Table 7

Bivariate Correlations – T2 Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Exploration	1														
(2) Resolution	.50***	1													
(3) Private Regard	.36***	.44***	1												
(4) Perceived Ethnic Threat	.17***	-.10	-.16**	1											
(5) Number of Orgs	.22***	-.01	-.06	.33***	1										
(6) Friend Div.	.02	.05	.08	-.06	.07	1									
(7) Classmate Div.	.07	.15*	.08	-.04	.00	.52***	1								
(8) Self-Acceptance	.11+	.34***	.30***	-.38***	-.12*	.11+	.12*	1							
(9) Environmental Mastery	.03	.23***	.19**	-.41***	-.07	.11+	.13*	.56***	1						
(10) Psychological Distress	.01	-.23***	-.20***	.47***	.22***	-.05	-.05	-.43***	-.52***	1					
(11) GPA	.18**	.09	.09	-.10	-.05	-.02	-.03	.16**	.25***	-.27***	1				
(12) College Competence	.15**	.13*	.12*	-.07	.04	0.08	.06	.17**	.26***	-.01	.27**	1			
(13) Academic Curiosity	.17**	.16**	.16**	-.14*	-.05	.01	.03	.31***	.32***	-.27***	.24***	.29***	1		
(14) Cognitive Engagement	.27***	.11+	.14*	-.01	.18**	.00	.03	.16**	.23***	.05	.19**	.42***	.34***	1	
(15) Academic Persistence	.19**	.19**	.23***	-.23***	-.04	-.02	.10	.33***	.38***	-.22***	.31***	.37***	.49***	.48***	1

Note. *p < .05, **p < .01, ***p < .001; +p < .058.

Table 8

Bivariate Correlations – T3 Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Exploration	1														
(2) Resolution	.57***	1													
(3) Private Regard	.47***	.57***	1												
(4) Perceived Ethnic Threat	.15*	-.03	-.15*	1											
(5) Number of Orgs	.16**	.03	.04	.16**	1										
(6) Friend Div.	.01	.03	.04	-.17**	-.01	1									
(7) Classmate Div.	.09	.14*	,08	-.06	-.05	.64***	1								
(8) Self-Acceptance	.17**	.34***	.39***	-.31***	-.03	.16**	.18**	1							
(9) Environmental Mastery	.06	.24***	.25***	-.35***	-.03	.23***	.15*	.59***	1						
(10) Psychological Distress	-.03	-.18**	-.18**	.36***	.13*	-.08	-.06	-.44***	-.53***	1					
(11) GPA	.07	-.02	.09	-.07	.05	.07	.11+	.13*	.20**	-.16**	1				
(12) College Competence	.17**	.23***	.17**	-.15**	.07	.15*	.14*	.33***	.26***	-.13*	.29***	1			
(13) Academic Curiosity	.20***	.16**	.06	-.06	-.05	.12*	.20***	.27***	.25***	-.19**	.19***	.26**	1		
(14) Cognitive Engagement	.27***	.20***	.17**	-.03	.17**	.11+	.08	.24***	.26***	-.10	.19**	.42***	.38***	1	
(15) Academic Persistence	.23***	.21***	.19**	-.21***	.03	.16**	.20***	.41***	.40***	-.23***	.33***	.42***	.45***	.55***	1

Note. *p < .05, **p < .01, ***p < .001; +p < .066.

Table 9

Bivariate Correlations – T4 Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Exploration	1														
(2) Resolution	.57***	1													
(3) Private Regard	.47***	.57***	1												
(4) Perceived Ethnic Threat	.15*	-.03	-.15*	1											
(5) Number of Orgs	.16**	.03	.04	.16**	1										
(6) Friend Div.	.01	.03	.04	-.17**	-.01	1									
(7) Classmate Div.	.09	.14*	,08	-.06	-.05	.64***	1								
(8) Self-Acceptance	.17**	.34***	.39***	-.31***	-.03	.16**	.18**	1							
(9) Environmental Mastery	.06	.24***	.25***	-.35***	-.03	.23***	.15*	.59***	1						
(10) Psychological Distress	-.03	-.18**	-.18**	.36***	.13*	-.08	-.06	-.44***	-.53***	1					
(11) GPA	.07	-.02	.09	-.07	.05	.07	.11+	.13*	.20**	-.16**	1				
(12) College Competence	.17**	.23***	.17**	-.15**	.07	.15*	.14*	.33***	.26***	-.13*	.29***	1			
(13) Academic Curiosity	.20***	.16**	.06	-.06	-.05	.12*	.20***	.27***	.25***	-.19**	.19***	.26**	1		
(14) Cognitive Engagement	.27***	.20***	.17**	-.03	.17**	.11+	.08	.24***	.26***	-.10	.19**	.42***	.38***	1	
(15) Academic Persistence	.23***	.21***	.19**	-.21***	.03	.16**	.20***	.41***	.40***	-.23***	.33***	.42***	.45***	.55***	1

Note. *p < .05, **p < .01, ***p < .001; +p < .075.

Table 10

Bivariate Correlations – T5 Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Exploration	1														
(2) Resolution	.54***	1													
(3) Private Regard	.48***	.43***	1												
(4) Perceived Ethnic Threat	.27*	.03	-.14	1											
(5) Number of Orgs	.31**	.19	.10	.24*	1										
(6) Friend Div.	-.07	.10	.10	-.05	-.08	1									
(7) Classmate Div.	.07	.15	.21	-.00	-.10	.57***	1								
(8) Self-Acceptance	.11	.12	.38***	-.31**	-.17	.05	.06	1							
(9) Environmental Mastery	-.05	.18	.16	-.52***	-.07	.03	.05	.65***	1						
(10) Psychological Distress	-.07	-.19	-.25*	.43***	.04	-.09	-.01	-.61***	-.62***	1					
(11) GPA	-.07	-.25*	-.22	.09	-.06	.01	.14	.12	.09	.16	1				
(12) College Competence	-.23*	.04	-.13	-.32**	-.08	.13	.20	.23+	.33**	-.08	.13	1			
(13) Academic Curiosity	.21+	.25*	.16	-.26*	-.04	.16	.09	.14	.23*	-.14	.11	.19	1		
(14) Cognitive Engagement	.17	.08	.01	-.12	.12	.02	.06	.05	.03	.05	.19	.34**	.53***	1	
(15) Academic Persistence	.07	.04	.00	-.15	-.04	-.16	.06	.12	.14	.07	.29*	.29*	.43***	.60***	1

*Note. *$p < .05$, **$p < .01$, ***$p < .001$; +$p < .075$.

Table 11

Fit indices for Latent Growth Mixture Models by Ethnic Identity Construct

Models	n	ssBIC	Entropy	LMR adjusted LRT test	LMR adjusted LRT p-value	BLRT p-value
Exploration						
2 classes	374	2244.918	0.386	7.362	0.2842	0.2500
3 classes	**374**	**2239.728**	**0.632**	**12.728**	**0.2660**	**0.0400**
4 classes[a b]	374	2238.297	0.549	14.001	0.3604	0.0400
Resolution						
2 classes	**375**	**2390.152**	**0.661**	**12.216**	**0.0410**	**0.0300**
3 classes [b]	375	2392.767	0.662	5.346	0.6148	0.3750
4 classes [b]	375	2396.044	0.731	4.720	0.1712	0.6667
Private Regard						
2 classes	**372**	**3405.919**	**0.750**	**46.283**	**0.1957**	**0.0000**
3 classes [a b]	372	3400.553	0.764	12.879	0.1190	0.0000
4 classes	372	3391.168	0.655	16.684	0.4920	0.0000

Note. Bold text represents the best-fitting class solution. ssBIC = sample-size-adjusted Bayesian Information Criteria. LMR adjusted LRT = Lo-Mendell-Rubin adjusted likelihood ratio test. BLRT = bootstrapped likelihood ratio test. [a]No repeated log-likelihood value (i.e., local maxima). [b]Inadmissible solution (i.e., negative variance).

Table 12

Descriptive Information of Obtained Ethnic Identity Trajectories

	n	Average Latent Class Probability	Mean Intercept	p-value	Mean Slope	p-value
Exploration						
Class 1 (Mod-High & Increasing)	133	0.862	3.15	0.000	0.084	0.000
Class 2 (Low & Stable)	25	0.842	1.78	0.000	-0.041	0.484
Class 3 (Moderate & Stable)	216	0.800	2.50	0.000	0.008	0.497
Resolution						
Class 1 (Low & Increasing)	43	0.764	1.98	0.000	0.132	0.000
Class 2 (Mod-High & Stable)	332	0.922	3.09	0.000	-0.008	0.608
Private Regard						
Class 1 (High & Stable)	221	0.934	6.29	0.000	-0.049	0.304
Class 2 (Moderate & Stable)	151	0.920	4.54	0.000	0.054	0.409

Table 13

Results Summary

	Exploration Trajectories			Resolution Trajectories		Private Regard Trajectories	
	C1: Moderately High and Increasing	C2: Low and Stable	C3: Moderate and Stable	C1: Low and Increasing	C2: High and Stable	C1: High and Stable	C2: Moderate and Stable
Social Experiences (coefficient)							
Perceived Ethnic Threat	Ref Group	-0.38	0.11	Ref Group	-0.09	Ref Group	0.90***
Number of Organizations	Ref Group	-0.33[+]	0.25*	Ref Group	-0.04	Ref Group	0.27***
Ethnicity-Related Organizations	Ref Group	-2.22**	-2.38***	Ref Group	1.01	1.56***	Ref Group
Friendship Racial Diversity	Ref Group	0.73	0.04	Ref Group	-0.05	Ref Group	-0.10
Classmate Racial Diversity	Ref Group	2.61	-0.43*	Ref Group	-0.10	Ref Group	-0.20
Psychological Outcomes (mean score)							
Self-Acceptance	-0.07	-0.15	0.09	-0.45	0.11	.24	-0.24[+]
Environmental Mastery	0.06	0.13	-0.07	-0.29	0.07	.10	-0.05
Psychological Distress	0.06	0.22	-0.10	0.16	-0.04	-.17	0.19[+]
Academic Outcomes (mean score)							
GPA	-.07	-.17	.10	-.09	0.02	.03	0.05
College Competence	.00	0.20	-.06	.02	-0.01	.00	0.03
Cognitive Engagement	-0.14	-0.13	-.06	-.18	0.04	.03	-0.07
Academic Curiosity	0.42	0.41	-0.42	.11	-0.03	.10	-0.15
Academic Persistence	0.30	0.31	-0.28	.27	-0.06[+]	.06	-0.11

Note. Ref Group = reference group.
*p < .05, **p < .01, ***p < .001; [+]p < .088.

Table 14

Overlap of Exploration Trajectories with Resolution and Private Regard Trajectories

	Resolution Trajectories		Private Regard	
	Low & Increasing	High & Stable	Moderate & Stable	High & Stable
Exploration				
Mod-High & Increasing	4 (9%)	129 (39%)	27 (18%)	106 (48%)
Low & Stable	9 (21%)	16 (5%)	14 (9%)	10 (5%)
Mod & Stable	30 (70%)	186 (56%)	107 (72%)	104 (47%)

Table 15

Overlap of Resolution and Private Regard Trajectories

	Private Regard	
	Moderate & Stable	High & Stable
Resolution		
Low & Increasing	37 (25%)	5 (2%)
High & Stable	112 (75%)	215 (98%)

Ethnic Identity Trajectories

- Exploration
- Resolution
- Private Regard

Perceived Ethnic
Threat

Peer Racial
Diversity

Organizational
Involvement

Psychological
Adjustment

Academic
Adjustment

| Year 1 | Year 2 | Year 3 | Year 4 |
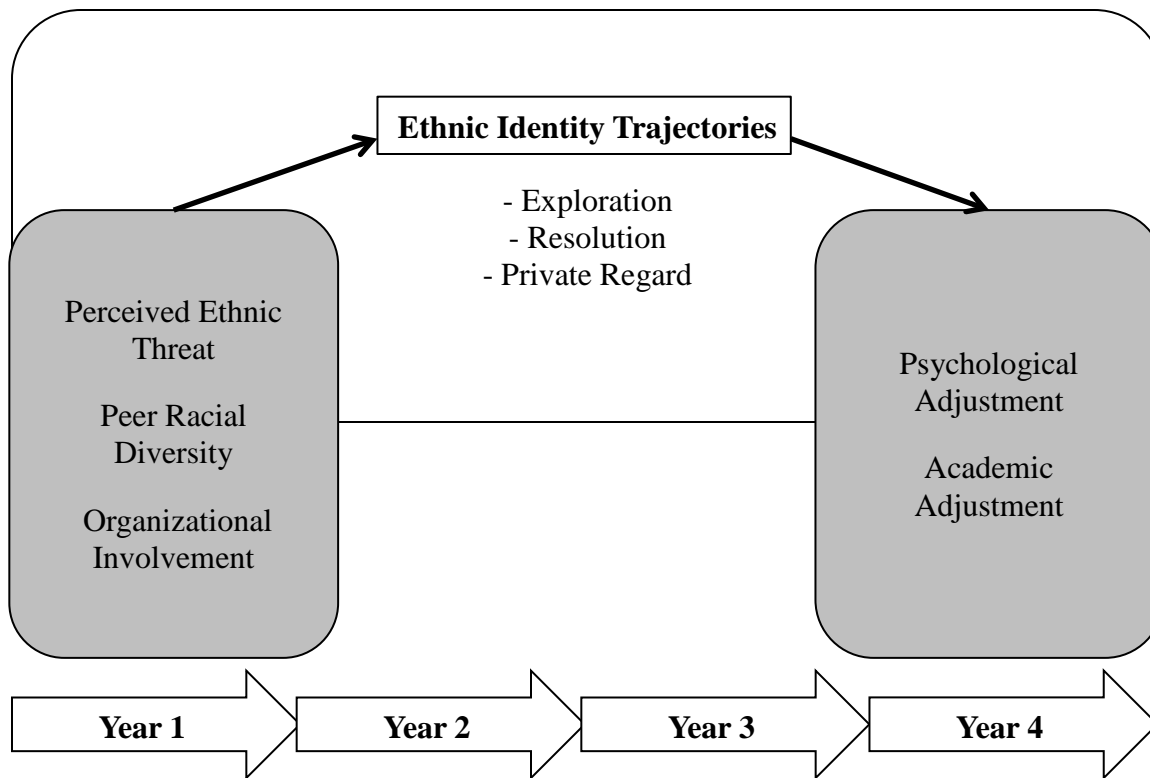
Figure 1. Conceptual model of the dissertation.

138
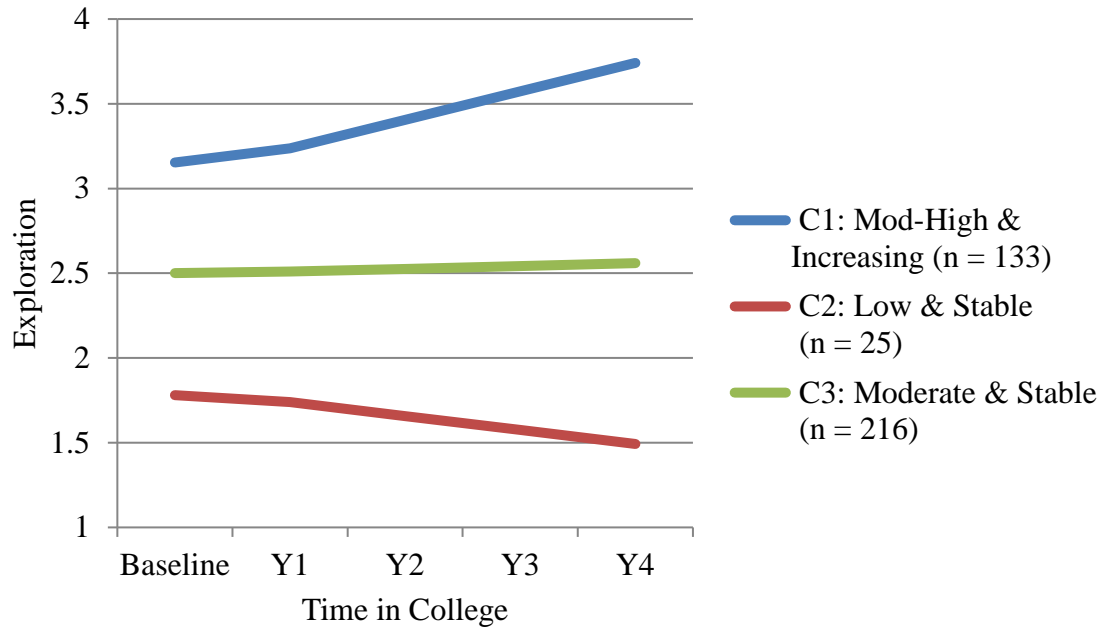
Figure 2. Exploration Trajectories. C = Class. Baseline = Fall. Y1 = Year 1 (Spring), Y2 = Year 2 (Spring), Y3 = Year 3 (Spring), Y4 = Year 4 (Spring).
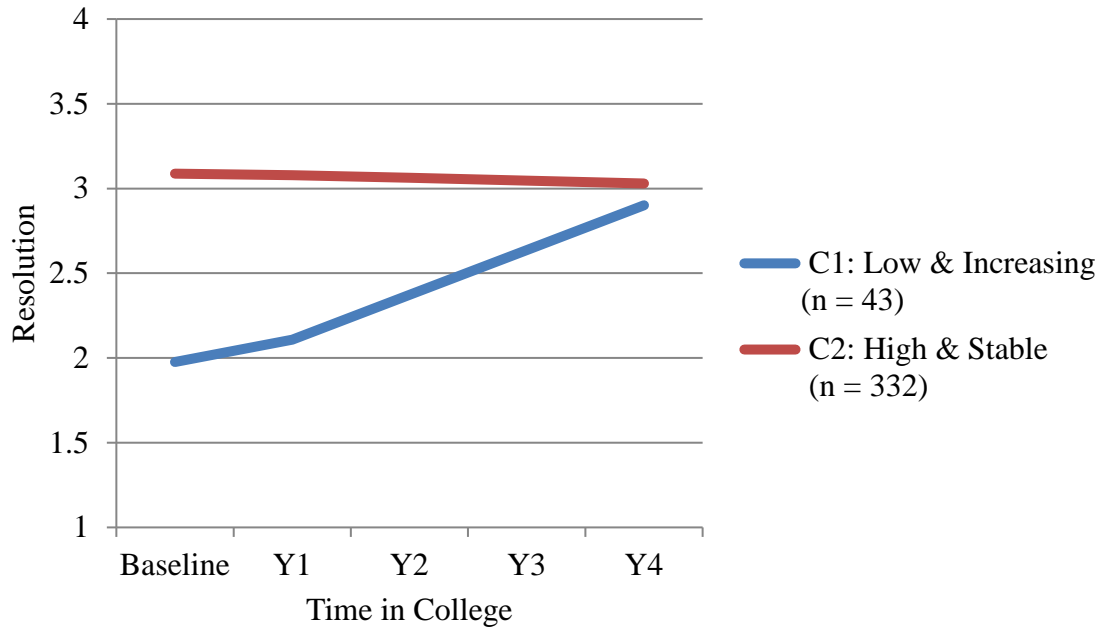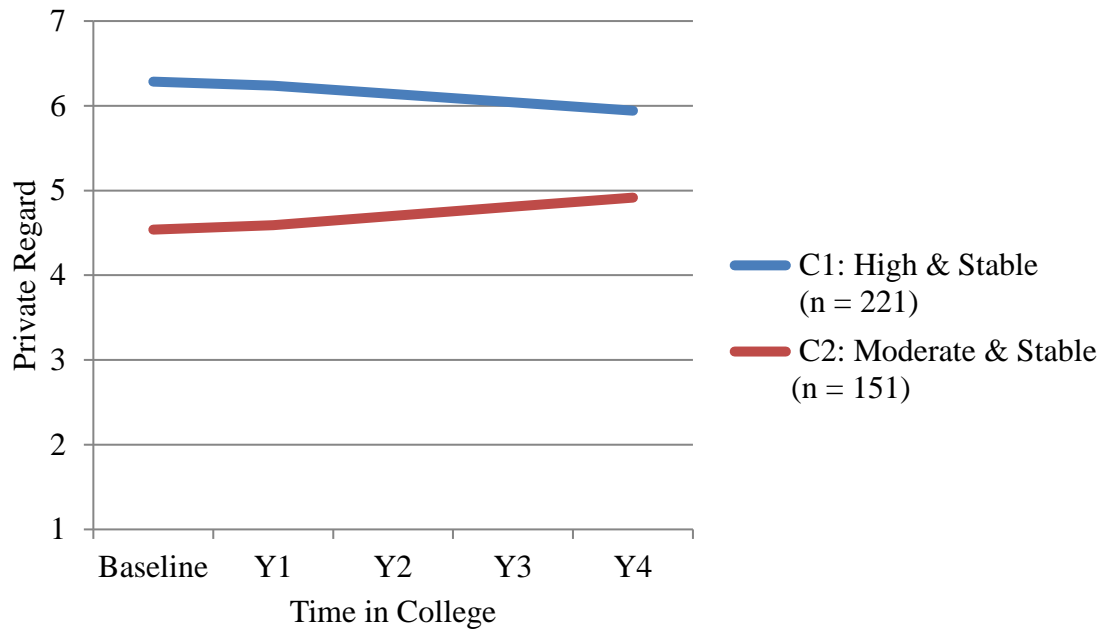
Figure 3. Resolution Trajectories. C = Class. Baseline = Fall. Y1 = Year 1 (Spring), Y2 = Year 2 (Spring), Y3 = Year 3 (Spring), Y4 = Year 4 (Spring).

Figure 4. Private Regard Trajectories. C = Class. Baseline = Fall. Y1 = Year 1 (Spring), Y2 = Year 2 (Spring), Y3 = Year 3 (Spring), Y4 = Year 4 (Spring).

Appendix A

Ethnic Identity Exploration

1. I have spent time trying to find out more about my own racial/ethnic group, such as history, traditions, and customs.*
2. I think a lot about how my life will be affected by my racial/ethnic group membership.*
3. In order to learn more about my racial/ethnic background, I have often talked to other people about my racial/ethnic group.*
4. I really have not spent much time trying to learn more about the culture and identity of my racial/ethnic group.

Note. Response options are: 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Somewhat Agree, 4 = Strongly Agree. Asterisks denote items from Phinney (1992) and/or Phinney and Ong (2007) scale.

Appendix B

Perceived Ethnic Threat

1. I feel that I have to change myself to fit in at school.*
2. I cannot talk to my family about my friends at school or what I am learning at school.*
3. I feel like a chameleon at school, having to change my "colors" according to the race or ethnicity of the person I am with.*
4. I feel as though I cannot be myself because of my ethnicity.
5. I feel that my ethnicity is incompatible with the new people I am meeting and the new things that I am learning.*
6. I do not feel comfortable talking about my culture in class discussions.

Note. Response options range from 1 = *Not true of me at all* to 7 = *Very true of me*. Asterisks denote items from original Ethier and Deaux (1990) scale.

Appendix C

Organizational Involvement

We are interested in the types of curricular and extracurricular activities students are in involved in and their interactions with others in their campus community

How much were you involved in the following of activities on campus or in your community?
- Student government or leadership
- Greek fraternity or sorority
- Creative or performing arts (such as music, drama/acting, painting)
- Religious clubs and activities
- Cultural or multicultural organizations or activities
- Academic organizations/clubs
- Community service or volunteer activities
- Varsity athletic teams
- Other athletic activities or clubs (intramural, community)
- Other activity (indicate)

Note. Response options are (1) Not at All Involved, (2) A Little Involved, (3) Somewhat Involved, and (4) Very Involved.

Appendix D

Psychological Well-Being

The questions below relate to how people think about themselves generally. Select the number that best describes your agreement or disagreement with each statement.

Self-Acceptance Subscale
   1. In general, I feel confident and positive about myself.
   2. If I could, there are many things about myself that I would change.*
   3. I like most aspects of my personality.
   4. For the most part, I am proud of who I am.

Environmental Mastery Subscale
   1. In general, I feel I am in charge of my life.
   2. The demands of everyday life often get me down.*
   3. I am quite good at managing the responsibilities of my daily life.
   4. I often feel overwhelmed by my responsibilities.*

Note. Response options are: 1 = Strongly Disagree, 2 = Sort of Disagree, 3 = Disagree a Little, 4 = Agree a Little, 5 = Sort of Agree, 6 = Strongly Agree. Asterisks denote reverse-coded items.

Appendix E

Psychological Distress Scale

These questions concern how you have been feeling over the past 30 days. For each item, please select the choice that best represents how you have been.

During the last 30 days, about how often:

1) Did you feel tired out for no good reason?
2) Did you feel nervous?
3) Did you feel so nervous that nothing could calm you down?
4) Did you feel hopeless?
5) Did you feel restless or fidgety?
6) Did you feel so restless you could not sit still?
7) Did you feel depressed?
8) Did you feel that everything was an effort?
9) Did you feel so sad that nothing could cheer you up?
10) Did you feel worthless?

Note. Response options are 1 = none of the time, 2 = a little of the time, 3 = some of the time, 4 = most of the time, 5 = all of the time.

Appendix F

College Competence – Academic Subscale

Below are a list of statements describing activities, goals, and abilities. Using the scale provided, please rate how well you feel that you do each of the following things compared to other college students at [University].

Compared to the average college student at my school, I am able to:

1. Do my schoolwork quickly and efficiently
2. Write good papers for my courses
3. Do well in advanced math and science
4. Logical, analytic thinking
5. Develop new skills and abilities
6. Do very well at my coursework

Note. Response options are: 1 = *much less* than the average college student (bottom 10%), 2 = *somewhat less* than the average college student (bottom 25%), 3 = *about the same* as the average college student, 4 = somewhat more than the average college student (top 25%), 5 = *much more* than the average college student (top 10%).

Appendix G

Academic Engagement Scale

Please think about your classes over the last academic year and respond how true each statement is of you in general.

1. I participate when we discuss new material. (C)
2. I work hard when we start something new in class. (CE)
3. The first time my professors talk about a new topic, I listen very carefully. (C)
4. My mind wanders when my professor starts a new topic.* (C)
5. I never seem to pay attention when we begin a new subject.* (C)
6. If I don't understand something I read for class, I go back and read it over again. (CE)
7. When reading for class, I ask myself questions to make sure I understand what it is about. (CE)
8. I study at home even when I don't have a test. (CE)
9. I talk with people outside of class about what I am learning in my classes. (CE)
10. I often read or do work beyond required assignments to learn more about topics from my classes. (CE)
11. When I run into a difficult question, I try even harder. (P)
12. If I do badly on a test or assignment, I work harder next time. (P)
13. When I come to a problem that I can't solve right away, I tend to give up.* (P)
14. If I can't get a problem right the first time, I just keep trying. (P)

Note. C = curiosity subscale, CE = cognitive engagement subscale, P = persistence subscale. Response options are (1) Not True of Me at All to (5) Very True of Me. Asterisks denotes reverse-coded item.

References

Abrahamowicz, D. (1988). College involvement, perceptions, and satisfaction: A study of membership in student organizations. *Journal of College Student Development, 29,* 233-238.

Altschul, I., Oyserman, D., & Bybee, D. (2006). Racial-ethnic identity in mid-adolescence: Content and change as predictors of academic achievement. *Child Development*, *77*, 1155-1169. doi:10.1111/j.1467-8624.2006.00926.x

Anderman, E. M. (2002). School effects on psychological outcomes during adolescence. *Journal of Educational Psychology*, *94*, 795-809. http://dx.doi.org/10.1037/0022-0663.94.4.795

Anderman, L. H. (2003). Academic and social perceptions as predictors of change in middle school students' sense of school belonging. *The Journal of Experimental Education*, *72*, 5-22. http://dx.doi.org/10.1080/00220970309600877

Antonio, A. L., Chang, M. J., Hakuta, K., Kenny, D. A., Levin, S., & Milem, J. F. (2004). Effects of racial diversity on complex thinking in college students. *Psychological Science*, *15*, 507-510. doi:10.1111/j.0956-7976.2004.00710.x

Arellano, A. R., & Padilla, A. M. (1996). Academic invulnerability among a select group of Latino university students. *Hispanic Journal of Behavioral Sciences, 18,* 485–507. doi:10.1177/07399863960184004

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*, 469-480. http://dx.doi.org/10.1037/0003-066X.55.5.469

Arnett, J. J. (2006). Emerging adulthood: Understanding the new way of coming of age. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 3–19). Washington, DC: APA Books.

Arnett, J. J. (2007). Emerging adulthood: What is it, and what is it good for?. *Child Development Perspectives*, *1*(2), 68-73. doi:10.1111/j.1750-8606.2007.00016.x

Arnett, J. J. (2014). *Emerging adulthood: The winding road from the late teens through the twenties*. New York, NY: Oxford University Press.

Astin, A. W. (1977). *Four critical years*. San Francisco, CA: Jossey-Bass

Astin, A. W. (1984). Student involvement: A development theory for higher education. *Journal of College Student Personnel, 25,* 297-308.

Astin, A. W. (1993). *What matters in college? Four critical years revisited.* San Francisco, CA: Jossey-Bass.

Astin, A. W. (1996). Involvement in learning revisited: Lessons we have learned. *Journal of College Student Development, 37,* 123-134.

Azmitia, M., Syed, M., & Radmacher, K. (2008). On the intersection of personal and social identities: Introduction and evidence from a longitudinal study of emerging adults. In M. Azmitia, M. Syed, & K. Radmacher (Eds.), The intersections of personal and social identities. *New Directions for Child and Adolescent Development, 120,* 1-16.

Baker, C. N. (2008). Under-represented college students and extracurricular involvement: The effects of various student organizations on academic performance. *Social Psychology of Education, 11,* 273-298. doi:10.1007/s11218-007-9050-y

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497-529. http://dx.doi.org/10.1037/0033-2909.117.3.497

Bennett, M. D. (2006). Cultural resources and school engagement among African American youths: The role of racial socialization and ethnic identity. *Children & Schools*, *28*, 197-206. https://doi.org/10.1093/cs/28.4.197

Biglin, K. (2016, September 26). Update: Three types of racially charged posters found on University of Michigan campus. *The Michigan Daily.* Retrieved from https://www.michigandaily.com/section/campus-life/racially-charged-posters-found-university-michigan-campus

Brittian, A. S., Kim, S. Y., Armenta, B. E., Lee, R. M., Umaña-Taylor, A. J., Schwartz, S. J., ... & Hudson, M. L. (2015). Do dimensions of ethnic identity mediate the association between perceived ethnic group discrimination and depressive symptoms? *Cultural Diversity and Ethnic Minority Psychology, 21*, 41-53. http://dx.doi.org/10.1037/a0037531

Brittian, A. S., Umaña-Taylor, A. J., & Derlan, C. L. (2013). An examination of biracial college youths' family ethnic socialization, ethnic identity, and adjustment: Do self-identification labels and university context matter? *Cultural Diversity and Ethnic Minority Psychology*, *19*, 177-189. http://dx.doi.org/10.1037/a0029438

Brittian, A. S., Umana-Taylor, A. J., Lee, R. M., Zamboanga, B. L., Kim, S. Y., Weisskirch, R. S., ... & Caraway, J. (2013). The moderating role of centrality on associations between ethnic identity affirmation and ethnic minority college students' mental health. *Journal of American College Health*, *61*, 133-140. http://dx.doi.org/10.1080/07448481.2013.773904

Bronfenbrenner, U., & Morris, P. (2006). The bioecological model of human development. In R. Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (6th ed.). Hoboken, NJ: Wiley.

Case, K. F., & Hernandez, R. (2013). "But Still, I'm Latino and I'm Proud": Ethnic identity exploration in the context of a collegiate cohort program. *Christian Higher Education*, *12*, 74-92. http://dx.doi.org/10.1080/15363759.2013.738978

Castillo, L. G., Conoley, C. W., Choi-Pearson, C., Archuleta, D. J., Phoummarath, M. J., & Van Landingham, A. (2006). University environment as a mediator of Latino ethnic identity and persistence attitudes. *Journal of Counseling Psychology*, *53*, 267-271. http://dx.doi.org/10.1037/0022-0167.53.2.267

Cerezo, A., & Chang, T. (2013). Latina/o achievement at Predominantly White Universities: The importance of culture and ethnic community. *Journal of Hispanic Higher Education*, *12*, 72-85. doi:10.1177/1538192712465626

Cerezo, A., McWhirter, B. T., Peña, D., Valdez, M., & Bustos, C. (2013). Giving voice: Utilizing critical race theory to facilitate consciousness of racial identity for Latina/o college students. *Journal for Social Action in Counseling and Psychology*, *5*, 1-24.

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*, 485-492.

Chang, M. J. (2001). Is it more than about getting along? The broader educational relevance of reducing students' racial biases. *Journal of College Student Development, 42,* 93-105. http://dx.doi.org/10.1037/a0020654

Chavez-Korell, S., & Torres, L. (2014). Perceived stress and depressive symptoms among Latino adults: The moderating role of ethnic identity cluster patterns. *The Counseling Psychologist*, *42*, 230-254. doi:10.1177/0011000013477905

Chavous, T. M. (2000). The relationships among racial identity, perceived ethnic fit, and organizational involvement for African American students at a predominantly White university. *Journal of Black Psychology*, *26*, 79-100. doi:10.1177/0095798400026001005

Chavous, T., Rivas, D., Green, L., & Helaire, L. (2002). Role of student background, perceptions of ethnic fit, and racial identification in the academic adjustment of African American students at a predominantly White university. *Journal of Black Psychology*, *28*, 234-260. doi:10.1177/0095798402028003004

Cook, J. E., Purdie-Vaughns, V., Garcia, J., & Cohen, G. L. (2012). Chronic threat and contingent belonging: Protective benefits of values affirmation on identity development. *Journal of Personality and Social Psychology*, *102*, 479-496. http://dx.doi.org/10.1037/a0026312

Crocetti, E., & Meeus, W. (2105). Identity statuses: Advantages of a person-centered approach. In K. C. McLean, & M. Syed (Eds.), *Oxford handbook of identity development* (pp. 97-114). New York, NY: Oxford University Press.

Cross, W. E., Jr. (1971). The Negro-to-Black conversion experience. *Black World, 20,* 13–27.

Cross, W. E., Jr. (1991). *Shades of black: Diversity in African-American identity*. Philadelphia, PA: Temple University Press.

Cross, W. E., Jr, & Fhagen-Smith, P. (1996). Nigrescence and ego identity development: Accounting for differential Black identity patterns. In P. B. Pedersen, J. G. Draguns, W. J. Lonner, J. E. Trimble (Eds.), *Counseling across cultures* (pp. 108-123). Thousand Oaks, CA: SAGE Publications, Inc.

Dickerson, C., & Saul, S. (2016, November 10). Campuses confront hostile acts against minorities after Donald Trump's election. *The New York Times.* Retrieved from https://www.nytimes.com/2016/11/11/us/police-investigate-attacks-on-muslim-students-at-universities.html?_r=0

Diemer, M. A., Mistry, R. S., Wadsworth, M. E., López, I., & Reimers, F. (2013). Best practices in conceptualizing and measuring social class in psychological research. *Analyses of Social Issues and Public Policy*, *13*, 77-113. doi:10.1111/asap.12001

Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*, 227-268. http://dx.doi.org/10.1207/S15327965PLI1104_01

Denson, N., & Bowman, N. (2013). University diversity and preparation for a global society: The role of diversity in shaping intergroup attitudes and civic outcomes. *Studies in Higher Education*, *38*, 555-570. http://dx.doi.org/10.1080/03075079.2011.584971

Douglass, S., Mirpuri, S., & Yip, T. (2016). Considering friends within the context of peers in school for the development of ethnic/racial identity. *Journal of Youth and Adolescence, 46,* 300-316. doi:10.1007/s10964-016-0532-0

Douglass, S., & Umaña-Taylor, A. J. (2015). Development of ethnic-racial identity among Latino adolescents and the role of family. *Journal of Applied Developmental Psychology*, *41*, 90-98. http://dx.doi.org/10.1016/j.appdev.2015.09.002

Early, G. (1993). *Lure and loathing*. New York, NY: Allen Lane.

Erikson, E. (1968). *Identity: Youth and crisis*. New York, NY: Norton.

Ethier, K., & Deaux, K. (1990). Hispanics in ivy: Assessing identity and perceived threat. *Sex Roles*, *22*, 427-440. doi:10.1007/BF00288162

Ethier, K. A., & Deaux, K. (1994). Negotiating social identity when contexts change: Maintaining identification and responding to threat. *Journal of Personality and Social Psychology*, *67*, 243-251. http://dx.doi.org/10.1037/0022-3514.67.2.243

Excelencia in Education. (2017). *Hispanic-Serving Institutions (HSIs): 2015-2016.* Retrieved from http://www.edexcelencia.org/gateway/download/29055/1500248205

Faircloth, B. S., & Hamm, J. V. (2005). Sense of belonging among high school students representing 4 ethnic groups. *Journal of Youth and Adolescence, 34,* 293-309. doi:10.1007/s10964-005-5752-7

Foubert, J. D., & Urbanski, L. A. (2006). Effects of involvement in clubs and organizations on the psychosocial development of first-year and senior college students. *NASPA Journal*, *43*, 166-182.

Frankfurt, S., Frazier, P., Syed, M., & Jung, K. R. (2016). Using group-based trajectory and growth mixture modeling to identify classes of change trajectories. *The Counseling Psychologist*, *44*, 622-660. doi:10.1177/0011000016658097

Freeman, T. M., Anderman, L. H., & Jensen, J. M. (2007). Sense of belonging in college freshmen at the classroom and campus levels. *The Journal of Experimental Education*, *75*, 203-220. http://dx.doi.org/10.3200/JEXE.75.3.203-220

French, S. E., Seidman, E., Allen, L., & Aber, J. L. (2006). The development of ethnic identity during adolescence. *Developmental Psychology*, *42*, 1-10. doi:10.1037/0012-1649.42.1.1

Fry, R., & Lopez, M. H. (2012). *Hispanic student enrollments reach new highs in 2011.* Retrieved from http://www.pewhispanic.org/files/2012/08/Hispanic-Student-Enrollments-Reach-New-Highs-in-2011_FINAL.pdf

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*, 799-811. http://dx.doi.org/10.1037/0012-1649.41.5.799

Garcia, G. A., Patrón, O. E., Ramirez, J. J., & Hudson, L. T. (2016). Identity salience for Latino male collegians at Hispanic Serving Institutions (HSIs), emerging HSIs, and non-HSIs. *Journal of Hispanic Higher Education*. doi: 10.1177/1538192716661907

García Coll, C., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & Vázquez García, H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, *67*, 1891-1914. doi:10.1111/j.1467-8624.1996.tb01834.x

Graham, S., Munniksma, A., & Juvonen, J. (2014) Psychosocial benefits of cross-ethnic friendships in urban middles school. *Child Development, 85,* 469-483. doi:10.1111/cdev.12159

Gonzalez, K. P. (2003). Campus culture and the experiences of Chicano students in a predominantly White university. *Urban Education, 37*, 193-218. doi:10.1177/0042085902372003

Gonzales-Backen, M. A., Bámaca-Colbert, M. Y., & Allen, K. (2016). Ethnic identity trajectories among Mexican-origin girls during early and middle adolescence: Predicting future psychosocial adjustment. *Developmental Psychology*, *52*, 790-797. http://dx.doi.org/10.1037/a0040193

Gonzales-Backen, M. A., Dumka, L. E., Millsap, R. E., Yoo, H. C., Schwartz, S. J., Zamboanga, B. L., ... & Vazsonyi, A. T. (2015). The role of social and personal identities in self-esteem among ethnic minority college students. *Identity*, *15*, 202-220. doi:10.1080/15283488.2015.1055532

Guardia, J. R., & Evans, N. J. (2008). Factors influencing the ethnic identity development of Latino fraternity members at a Hispanic serving institution. *Journal of College Student Development*, *49*, 163-181. doi:10.1353/csd.0.0011

Guiton, G., Chang, M. J., & Wilkerson, L. (2007). Student body diversity: Relationship to medical students' experiences and attitudes. *Academic Medicine*, *82*, S85-S88. doi:10.1097/ACM.0b013e31813ffe1e

Gummadam, P., Pittman, L. D., & Ioffe, M. (2016). School belonging, ethnic identity, and psychological adjustment among ethnic minority college students. *The Journal of Experimental Education*, *84*, 289-306. http://dx.doi.org/10.1080/00220973.2015.1048844

Gurin, P., Dey, E. L., Gurin, G., & Hurtado, S. (2004). The educational value of diversity. In P. Gurin (Ed.) *Defending diversity: Affirmative action at the University of Michigan*. Ann Arbor, MI: University of Michigan Press.

Gurin, P., Nagda, B.A., Lopez, G. E. (2004). The benefits of diversity in education for democratic citizenship. *Journal of Social Issues, 60,* 17-34. doi:10.1111/j.0022-4537.2004.00097.x

Gurin, P., Nagda, B. R. A., & Zúñiga, X. (2013). *Dialogue across difference: Practice, theory, and research on intergroup dialogue*. New York, NY: Russell Sage Foundation.

Harper, S. R., & Quaye, S. J. (2007). Student organizations as venues for Black identity expression and development among African American male student leaders. *Journal of College Student Development*, *48*, 127-144. doi:10.1353/csd.2007.0012

Hartup, W. W., & Stevens, N. (1997). Friendships and adaptation in the life course. *Psychological Bulletin, 121,* 355–370. http://dx.doi.org/10.1037/0033-2909.121.3.355

Hausmann, L. R., Schofield, J. W., & Woods, R. L. (2007). Sense of belonging as a predictor of intentions to persist among African American and White first-year college students. *Research in Higher Education*, *48*, 803-839. doi:10.1007/s11162-007-9052-9

Ho, A. K., & Sidanius, J. (2009). Preserving positive identities: Public and private regard for one's ingroup and susceptibility to stereotype threat. *Group Processes & Intergroup Relations, 13,* 55-67. doi:10.1177/1368430209340910

Huang, C. Y., & Stormshak, E. A. (2011). A longitudinal examination of early adolescence ethnic identity trajectories. *Cultural Diversity and Ethnic Minority Psychology, 17,* 261-270. http://dx.doi.org/10.1037/a0023882

Hughes, D., Way, N., & Rivas‐ Drake, D. (2011). Stability and change in private and public ethnic regard among African American, Puerto Rican, Dominican, and Chinese American early adolescents. *Journal of Research on Adolescence*, *21*, 861-870. doi:10.1111/j.1532-7795.2011.00744.x

Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino college students' sense of belonging. *Sociology of Education*, *70,* 324-345. doi:10.2307/2673270

Hurtado, S. (2003) Preparing College Students for a Diverse Democracy: Final Report to the U.S. Department of Education, OERI, Field Initiated Studies Program. Ann Arbor, MI: Center for the Study of Higher and Postsecondary Education.

Hurtado, S., & Ponjuan, L. (2005). Latino educational outcomes and the campus climate. *Journal of Hispanic Higher Education*, *4*, 235-251. doi:10.1177/1538192705276548

Iturbide, M. I., Raffaelli, M., & Carlo, G. (2009). Protective effects of ethnic identity on Mexican American college students' psychological well-being. *Hispanic Journal of Behavioral Sciences, 31*, 536-552. doi:10.1177/0739986309345992

Jackson, L. (2016). *Sense of belonging of Black students in STEM majors: A mixed methods study* (Doctoral dissertation). Retrieved from http://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=5503&context=etd

Johnson, J. M. (1981). *The influence of assimilation on psychosocial adjustment of Black homosexual men.* (Unpublished doctoral dissertation). California School of Professional Psychology at Berkeley.

Johnson, D. R., Soldner, M., Leonard, J. B., Alvarez, P., Inkelas, K. K., Rowan-Kenyon, H. T., & Longerbeam, S. D. (2007). Examining sense of belonging among first-year undergraduates from different racial/ethnic groups. *Journal of College Student Development*, *48*, 525-542. doi:10.1353/csd.2007.0054

Jones, S. R., & Abes, E. S. (2004). Enduring influences of service-learning on college students' identity development. *Journal of College Student Development*, *45*, 149-166. doi:10.1353/csd.2004.0023

Kahn, N. (2016, November 14). Posters promoting white supremacy found on campus. *The Michigan Daily.* Retrieved from: https://www.michigandaily.com/section/campus-life/white-supremacist-posters-found-campus

Kiang, L., & Fuligni, A. J. (2009). Ethnic identity in context: Variations in ethnic exploration and belonging within parent, same-ethnic peer, and different-ethnic peer relationships. *Journal of Youth and Adolescence*, *38*, 732-743. doi:10.1007/s10964-008-9278-7

Kiang, L., Witkow, M. R., Baldelomar, O., & Fuligni, A. J. (2010). Change in ethnic identity across the high school years among adolescents with Latin American, Asian, and European backgrounds. *Journal of Youth and Adolescence, 39,* 683-693. doi:10.1007/s10964-009-9429-5

Krogstad, J. M. (2016, July 16). *5 facts about Latinos and education*. Retrieved from http://www.pewresearch.org/fact-tank/2016/07/28/5-facts-about-latinos-and-education/

Kuperminc, G. (1994). Social orientation, social competence and the prevention of adolescent problem behavior. Dissertation Abstracts International, 55, 2023.

Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, *18*, 302-318. doi:10.1177/0146167292183006

Maramba, D. C., & Museus, S. D. (2013). Examining the effects of campus climate, ethnic group cohesion, and cross-cultural interaction on Filipino American students' sense of belonging in college. *Journal of College Student Retention: Research, Theory & Practice*, *14*, 495-522. doi:10.2190/CS.14.4.d

Maramba, D. C., & Velasquez, P. (2012). Influences of the campus experience on the ethnic identity development of students of color. *Education and Urban Society*, *44*, 294-317. doi:10.1177/0013124510393239

Marcia, J. E. (1966). Development and validation of ego identity status. *Journal of Personality and Social Psychology, 3,* 551-558. http://dx.doi.org/10.1037/h0023281

Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology*, *(pp.* 159-187). New York, NY: Wiley.

Martin, N. D., Tobin, W., & Spenner, K. I. (2014). Interracial friendships across the college years: Evidence from a longitudinal case study. *Journal of College Student Development*, *55*, 720-725. doi:10.1353/csd.2014.0075

Matsunaga, M., Hecht, M. L., Elek, E., & Ndiaye, K. (2010). Ethnic identity development and acculturation: A longitudinal analysis of Mexican-heritage youth in the Southwest United States. *Journal of Cross-Cultural Psychology, 41*, 410–427. doi:10.1177/0022022109359689

McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, *14*, 6-23.

Meeus, W. (2011). The study of adolescent identity formation 2000–2010: A review of longitudinal research. *Journal of Research on Adolescence*, *21*, 75-94. doi:10.1111/j.1532-7795.2010.00716.x

Miller-Cotto, D., & Brynes, J. P. (2016). Ethnic/racial identity and academic achievement: A meta-analytic review. *Developmental Review, 41*, 51-70. DOI: http://dx.doi.org/10.1016/j.dr.2016.06.003

Moore, J., Lovell, C. D., McGann, T., & Wyrick, J. (1998). Why involvement matters: A review of research on student involvement in the collegiate setting. *College Student Affairs Journal, 17,* 4–17.

Museus, S. D. (2008). The role of ethnic student organizations in fostering African American and Asian American students' cultural adjustment and membership at predominantly White institutions. *Journal of College Student Development*, *49*, 568-586. doi:10.1353/csd.0.0039

Museus, S. D., Nichols, A. H., & Lambert, A. D. (2008). Racial differences in the effects of campus racial climate on degree completion: A structural equation model. *Review of Higher Education, 32,*107-134. doi:10.1353/rhe.0.0030

Muthén, L. K., & Muthén, B. O. (1998-2012). Mplus User's Guide. Seventh Edition. Los Angeles, CA: Muthén & Muthén.

National Center for Education Statistics. (2016). *Percentage of 18- to 24-year-olds enrolled in degree-granting postsecondary institutions, by level of institution and sex and race/ethnicity of student: 1970 through 2015.* Retrieved from https://nces.ed.gov/programs/digest/d16/tables/dt16_302.60.asp

Nagda, B. A., & Zúñiga, X. (2003). Fostering meaningful racial engagement through intergroup dialogues. *Group Processes & Intergroup Relations, 6*, 111-128.

Neblett, E. W., Rivas-Drake, D., & Umaña-Taylor, A. J. (2010). The promise of racial and ethnic protctive factors in promoting ethnic minority youth development. *Child Development Perspectives, 6,* 295-303. doi:10.1111/j.1750-8606.2012.00239.x

Neblett, E. W., & Roberts, S. O. (2013). Racial identity and autonomic responses to racial discrimination. *Psychophysiology*, *50*, 943-953. doi:10.1111/psyp.12087

Neel, C. G. O., & Fuligni, A. (2013). A longitudinal study of school belonging and academic motivation across high school. *Child Development*, *84*, 678-692. doi:10.1111/j.1467-8624.2012.01862.x

Nuñez, J. G. (2004). *The empowerment of Latina university students: A phenomenological study of ethnic identity development through involvement in a Latina-based sorority.* Unpublished master's thesis, Iowa State University, Ames.

Ong, A. D., Phinney, J. S., & Dennis, J. (2006). Competence under challenge: Exploring the protective influence of parental support and ethnic identity in Latino college students. *Journal of Adolescence*, *29*, 961-979. http://dx.doi.org/10.1016/j.adolescence.2006.04.010

Orfield, G. (2009). *Reviving the dream of an integrated society: A 21st century challenge.* Los Angeles, CA: Civil Rights Project/Proyecto Derechos Civiles.

Orfield, G., Kucsera, J., & Siegel-Hawley, G. (2012). *E pluribus*…segregation: Deepening double segregation for more students. Retrieved from http://civilrightsproject.ucla.edu/research/k-12-education/integration-and-diversity/mlk-national/e-pluribus...separation-deepening-double-segregation-for-more-students/orfield_epluribus_revised_omplete_2012.pdf

Pahl, K., & Way, N. (2006). Longitudinal trajectories of ethnic identity among urban Black and Latino adolescents. *Child Development*, *77*, 1403-1415. doi:10.1111/j.1467-8624.2006.00943.x

Park, J. J. (2014). Clubs and the campus racial climate: Student organizations and interracial friendship in college. *Journal of College Student Development*, *55*, 641-660. doi:10.1353/csd.2014.0076

Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research.* San Francisco, CA: Jossey-Bass.

Patton, L. (2012). *Culture centers in higher education: Perspectives on identity, theory, and practice*. Sterling, VA: Stylus Publishing, LLC.

Pew Research Center. (2014). *The rising cost of not going to college.* Retrieved from: http://www.pewsocialtrends.org/2014/02/11/the-rising-cost-of-not-going-to-college/

Phinney, J. S. (1989). Stages of ethnic identity development in minority group adolescents. *The Journal of Early Adolescence*, *9*, 34-49. doi:10.1177/0272431689091004

Phinney, J. S. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with diverse groups. *Journal of Adolescent Research, 7,* 156-176. doi:10.1177/074355489272003

Phinney, J. S. (1993). A three-stage model of ethnic identity development in adolescence. In M. E. Bernal & G. P. Knight (Eds.), *Ethnic identity: Formation and transmission among Hispanics and other minorities* (pp. 61-79). Albany, NY: State University of New York Press.

Phinney, J. S. (2006). Ethnic identity exploration in emerging adulthood. In J. Arnett & J. L. Tanner (Eds.), *Coming of age in the 21st century: The lives and contexts of emerging adults* (pp. 117–134). Washington, DC: American Psychological Association.

Phinney, J. S., & Alipuria, L. L. (1990). Ethnic identity in college students from four ethnic groups. *Journal of Adolescence*, *13*, 171-183. http://dx.doi.org/10.1016/0140-1971(90)90006-S

Phinney, J. S., & Chavira, V. (1992). Ethnic identity and self-esteem: An exploratory longitudinal study. *Journal of Adolescence, 15*, 271-281. doi: http://dx.doi.org/10.1016/0140-1971(92)90030-9

Phinney, J. S., Dennis, J., & Osorio, S. (2006). Reasons to attend college among ethnically diverse college students. *Cultural Diversity and Ethnic Minority Psychology*, *12*, 347-366. http://dx.doi.org/10.1037/1099-9809.12.2.347

Phinney, J. S., DuPont, S., Espinosa, C., Revill, J., & Sanders, K. (1994). Ethnic identity and American identification among ethnic minority youths. In M. Bouvy, F. J. R. van de Vijver, P. Boski, & P. Schmitz (Eds.), *Journeys into cross-cultural psychology* (pp. 167-183). Amsterdam: Swets & Zeitlinger B.V.

Phinney, J. S., Ferguson, D. L., & Tate, J. D. (1997). Intergroup attitudes among ethnic minority adolescents: A causal model. *Child Development*, *68*, 955-969.

Phinney, J. S., Jacoby, B., & Silva, C. (2007). Positive intergroup attitudes: The role of ethnic identity. *International Journal of Behavioral Development*, *31*, 478-490. doi:10.1177/0165025407081466

Phinney, J. S., & Ong, A. D. (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. *Journal of Counseling Psychology*, *54*, 271-281. http://dx.doi.org/10.1037/0022-0167.54.3.271

Pittman, L. D., & Richmond, A. (2008). University belonging, friendship quality, and psychological adjustment during the transition to college. *The Journal of Experimental Education*, *76*, 343-362. http://dx.doi.org/10.3200/JEXE.76.4.343-362

Pizzolato, J. E., Chaudhari, P., Murrell, E. D., Podobnik, S., & Schaeffer, Z. (2008). Ethnic identity, epistemological development, and academic achievement in underrepresented students. *Journal of College Student Development*, *49*, 301-318. doi:10.1353/csd.0.0020

Potok, M. (2017). The year in hate and extremism. *The Intelligence Report.* Retrieved from
https://www.splcenter.org/fighting-hate/intelligence-report/2017/year-hate-and-
extremism

Ortiz, A. M., & Santos, S. J. (2009). *Ethnicity in college: Advancing theory and improving
diversity practices on campus*. Sterling, VA: Stylus Publishing, LLC.

Quintana, S. M. (2007). Racial and ethnic identity: Developmental perspectives and research.
Journal of Counseling Psychology, *54*, 259-270. http://dx.doi.org/10.1037/0022-
0167.54.3.259

Ram, N., & Grimm, K. J. (2009). Methods and measures: Growth mixture modeling: A method
for identifying differences in longitudinal change among unobserved groups.
International Journal of Behavioral Development, *33*, 565-576.
doi:10.1177/0165025409343765

Rivas-Drake, D. (2008). Perceived opportunity, ethnic identity, and achievement motivation
among Latinos at a selective public university. *Journal of Latinos and Education, 7,* 113–
128. http://dx.doi.org/10.1080/15348430701828632

Rivas-Drake, D. (2011a). Ethnic-racial socialization and adjustment among Latino college
students: The mediating roles of ethnic centrality, public regard, and perceived barriers to
opportunity. *Journal of Youth and Adolescence*, *40*, 606-619. doi:10.1007/s10964-010-
9564-z

Rivas-Drake, D. (2011b). Public ethnic regard and academic adjustment among Latino
adolescents. *Journal of Research on Adolescence*, *21*, 537-544. doi:10.1111/j.1532-
7795.2010.00700.x

Rivas-Drake, D. (2012). Ethnic identity and adjustment: The mediating role of sense of
community. *Cultural Diversity and Ethnic Minority Psychology*, *18*, 210-215.
http://dx.doi.org/10.1037/a0027011

Rivas-Drake, D., & Mooney, M. (2009). Neither colorblind nor oppositional: Perceived minority
status and trajectories of academic adjustment among Latinos in elite higher education.
Developmental Psychology, *45*, 642-651. http://dx.doi.org/10.1037/a0014135

Rivas-Drake, D., Seaton, E. K., Markstrom, C., Quintana, S., Syed, M., Lee, R. M., … & 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*, 40-57. doi:10.1111/cdev.12200

Rivas-Drake, D., Syed, M., Umaña-Taylor, A., J., Markstrom, C., French, S., Schwartz, S. J., &
… & Ethnic and Racial Identity in the 21st Century Study Group. (2014). Feeling good,
happy, and proud: A meta‐ analysis of positive ethnic–racial affect and adjustment. *Child
Development*, *85*, 77-102. doi:10.1111/cdev.12175

Rivas-Drake, D., Umaña-Taylor, A., J., Medina, M. (in press). Ethnic-racial identity and friendships in early adolescence. *Child Development.*

Roberts, R., Phinney, J., Masse, L., Chen, Y., Roberts, C., & Romero, A. (1999). The structure of ethnic identity in young adolescents from diverse ethnocultural groups. *Journal of Early Adolescence, 19,* 301–322. doi:10.1177/0272431699019003001

Sánchez, B., Colón, Y., & Esparza, P. (2005). The role of sense of school belonging and gender in the academic adjustment of Latino adolescents. *Journal of Youth and Adolescence*, *34*, 619-628. doi:10.1007/s10964-005-8950-4

Santos, S. J., Ortiz, A. M., Morales, A., & Rosales, M. (2007). The relationship between campus diversity, students' ethnic identity and college adjustment: A qualitative study. *Cultural Diversity and Ethnic Minority Psychology*, *13*, 104-114. http://dx.doi.org/10.1037/1099-9809.13.2.104

Schwartz, S. J., Hardy, S. A., Zamboanga, B. L., Meca, A., Waterman, A. S., Picariello, S., ... & Roberts, S. E. (2015). Identity in young adulthood: Links with mental health and risky behavior. *Journal of Applied Developmental Psychology*, *36*, 39-52. http://dx.doi.org/10.1016/j.appdev.2014.10.001

Schwartz, S. J., Syed, M., Yip, T., Knight, G. P., Umaña-Taylor, A. J., Rivas-Drake, D., & Lee, R. M. (2014). Methodological issues in ethnic and racial identity research with ethnic minority populations: Theoretical precision, measurement issues, and research designs. *Child Development*, *85*, 58-76. doi:10.1111/cdev.12201

Schwartz, S. J., Zamboanga, B. L., & Jarvis, L. H. (2007). Ethnic identity and acculturation in Hispanic early adolescents: Mediated relationships to academic grades, prosocial behaviors, and externalizing symptoms. *Cultural Diversity and Ethnic Minority Psychology*, *13*, 364-373. http://dx.doi.org/10.1037/1099-9809.13.4.364

Schwartz, S. J., Zamboanga, B. L., Weisskirch, R. S., & Rodriguez, L. (2009). The relationships of personal and ethnic identity exploration to indices of adaptive and maladaptive psychosocial functioning. *International Journal of Behavioral Development*, 33, 131-144 doi:10.1177/0165025408098018

Sellers, R. M., Chavous, T. M., & Cooke, D. Y. (1998). Racial ideology and racial centrality as predictors of African American college students' academic performance. *Journal of Black Psychology, 24*, 8-27. doi:10.1177/00957984980241002

Sellers, R. M., Rowley, S. A., Chavous, T. M., Shelton, J. N. & Smith, M. A. (1997). The Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and constuct validity. *Journal of Personality and Social Psychology, 73*, 805-815. http://dx.doi.org/10.1037/0022-3514.73.4.805

Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review*, *2*, 18-39. doi:10.1207/s15327957pspr0201_2

Shin, R., Daly, B., & Vera, E. (2007). The relationships of peer norms, ethnic identity, and peer support to school engagement in urban youth. *Professional School Counseling*, *10*, 379-388. http://dx.doi.org/10.5330/prsc.10.4.l0157553k063x29u

Smith, T. B., & Silva, L. (2011). Ethnic identity and personal well-being of people of color: A meta-analysis. *Journal of Counseling Psychology*, *58*, 42-60. http://dx.doi.org/10.1037/a0021528

Southern Poverty Law Center. (2017). White nationalists work to make inroads at U.S. colleges. *The Intelligence Report.* Retrieved from https://www.splcenter.org/fighting-hate/intelligence-report/2017/white-nationalists-work-make-inroads-us-colleges

Spencer, M. B. (1995). Old issues and new theorizing abut African American youth: A phenomenological variant of ecological systems theory. In R. L. Taylor (Ed.), *Black youth: Perspectives on their status in the United States* (pp. 37-69). Westport, CT: Praeger.

Spencer, M. B., Harpalani, V., Cassidy, E., Jacobs, C. Y., Donde, S., & Goss, T. N.(2006). Understanding vulnerability and resilience from a normative developmental perspective: Implications for racially and ethnically diverse youth. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Vol. 1. Theory and method* (2nd ed., pp. 627-672). Hoboken, NJ: Wiley.

St. Louis, G. R., & Liem, J. H. (2005). Ego identity, ethnic identity, and the psychosocial well-being of ethnic minority and majority college students. *Identity*, *5*, 227-246. http://dx.doi.org/10.1207/s1532706xid0503_1

Strayhorn, T. L. (2012). *College students' sense of belonging: A key to educational success for all students*. New York, NY: Routledge.

Strayhorn, T. L. (2015). Factors Influencing Black males' preparation for college and success in STEM majors: A mixed methods study. *Western Journal of Black Studies*, *39*, 45-63.

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*, 1427-1433. doi:10.1111/j.1467-8624.2006.00945.x

Syed, M. (2010). Developing an integrated self: Academic and ethnic identities among ethnically diverse college students. *Developmental Psychology*, *46*, 1590-1604. http://dx.doi.org/10.1037/a0020738

Syed, M., & Azmitia, M. (2008). A narrative approach to ethnic identity in emerging adulthood: Bringing life to the identity status model. *Developmental Psychology, 44,* 1012-1027. http://dx.doi.org/10.1037/0012-1649.44.4.1012

Syed, M., & Azmitia, M. (2009). Longitudinal trajectories of ethnic identity during the college years. *Journal of Research on Adolescence*, *19*, 601-624. doi:10.1111/j.1532-7795.2009.00609.x

Syed, M., & Azmitia, M. (2010). Narrative and ethnic identity exploration: A longitudinal account of emerging adults' ethnicity-related experiences. *Developmental Psychology, 46*, 208-219. http://dx.doi.org/10.1037/a0017825

Syed, M., Azmitia, M., & Phinney, J. S. (2007). Stability and change in ethnic identity among Latino emerging adults in two contexts. *Identity: An International Journal of Theory, 7,* 155-178. http://dx.doi.org/10.1080/15283480701326117

Syed, M., & Juan, M. J. D. (2012). Birds of an ethnic feather? Ethnic identity homophily among college-age friends. *Journal of Adolescence*, *35*, 1505-1514. http://dx.doi.org/10.1016/j.adolescence.2011.10.012

Syed, M., Juan, M. J. D., & Juang, L. P. (2011). Might the survey be the intervention? Participating in ethnicity-related research as a consciousness-raising experience. *Identity*, *11*, 289-310. http://dx.doi.org/10.1080/15283488.2011.613581

Syed, M., & Juang, L. P. (2014). Ethnic identity, identity coherence, and psychological functioning: Testing basic assumptions of the developmental model. *Cultural Diversity and Ethnic Minority Psychology*, *20*, 176-190. http://dx.doi.org/10.1037/a0035330

Syed, M., & McLean, K. C. (2016). Understanding identity integration: Theoretical, methodological, and applied issues. *Journal of Adolescence*, *47*, 109-118. http://dx.doi.org/10.1016/j.adolescence.2015.09.005

Syed, M., & Mitchell, L. L. (2013). Race, ethnicity, and emerging adulthood: Retrospect and prospects. *Emerging Adulthood*, *1*, 83-95. doi:10.1177/2167696813480503

Syed, M., & Mitchell, L. L. (2015). How race and ethnicity shape emerging adulthood. In J. J. Arnett (Ed), *The Oxford Handbook of Emerging Adulthood* (pp. 87-104). New York, NY: Oxford University Press.

Syed, M., Walker, L. H., Lee, R. M., Umaña-Taylor, A. J., Zamboanga, B. L., Schwartz, S. J., ... & Huynh, Q. L. (2013). A two-factor model of ethnic identity exploration: Implications for identity coherence and well-being. *Cultural Diversity and Ethnic Minority Psychology*, *19*, 143-154. http://dx.doi.org/10.1037/a0030564

Tajfel, H. (1981). Human groups and social categories. Cambridge, England: Cambridge University,

Tajfel, H., & Turner, J. (1986). The social identity theory of intergroup behavior. In S. Worchel, & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago, IL: Nelson Hall.

Taylor, C. M., & Howard-Hamilton, M. F. (1995). Student involvement and racial identity attitudes among African American males. *Journal of College Student Development*, *36*, 330-330.

Terenzini, P. T., Pascarella, E. T., & Blimling, G. S. (1996). Students' out-of-class experiences and their influence on learning and cognitive development: A literature review. *Journal of College Student Development, 37,* 149–162.

Tolvanen, A. (2007). *Latent growth mixture modeling: A simulation study* (Doctoral dissertation). Retrieved from https://www.statmodel.com/download/rep111.pdf

Torres, V., & Baxter Magolda, M. B. (2004). Reconstructing Latino identity: The influence of cognitive development on the ethnic identity process of Latino students. *Journal of College Student Development*, *45*, 333-347. doi:10.1353/csd.2004.0043

Trail, T. E., Shelton, J. N., & West, T. V. (2009). Interracial roommate relationships: Negotiating daily interactions. *Personality and Social Psychology Bulletin*, *35*, 671-684. doi:10.1177/0146167209332741

Tsai, K. M., & Fuligni, A. J. (2012). Change in ethnic identity across the college transition. *Developmental Psychology*, *48*, 56-64. http://dx.doi.org/10.1037/a0025678

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Cambridge, MA: Basil Blackwell.

Umaña-Taylor, A. J. (2004). Ethnic identity and self-esteem: Examining the role of social context. *Journal of Adolescence*, *27*, 139-146. http://dx.doi.org/10.1016/j.adolescence.2003.11.006

Umaña-Taylor, A. J. (2015). Ethnic identity research: How far have we come? In C. E. Santos & A. J. Umaña-Taylor (Eds.), *Studying ethnic identity: Methodological and conceptual approaches across disciplines* (pp. 11-26). Washington, DC: American Psychological Association. http://dx.doi.org/10.1037/14618-002

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*, 391-405. doi:10.1111/j.1467-8624.2009.01267.x

Umana-Taylor, A. J., & Guimond, A. B. (2010). A longitudinal examination of parenting behaviors and perceived discrimination predicting Latino adolescents' ethnic identity. *Developmental Psychology, 46*, 636-650. http://dx.doi.org/10.1037/2168-1678.1.S.14

Umaña-Taylor, A. J., & Shin, N. (2007). An examination of ethnic identity and self-esteem with diverse populations: Exploring variation by ethnicity and geography. *Cultural Diversity and Ethnic Minority Psychology*, *13*, 178-186. http://dx.doi.org/10.1037/1099-9809.13.2.178

Umaña-Taylor, A. J., Wong, J. J., Gonzales, N. A., Dumka, L. E. (2012). Ethnic identity and gender as moderators of the association between discrimination and academic adjustment among Mexican-origin adolescents. *Journal of Adolescence, 35*, 773-786. http://dx.doi.org/10.1016/j.adolescence.2011.11.003

Umaña-Taylor, A. J., Yazedjian, A., & Bámaca-Gómez, M. (2004). Developing the ethnic identity scale using Eriksonian and Social Identity perspectives. *Identity: An International Journal of Theory and Research*, *4*, 9-38. http://dx.doi.org/10.1207/S1532706XID0401_2

Umaña-Taylor, A. J., Zeiders, K. H., & Updegraff, K. A. (2013). Family ethnic socialization and ethnic identity: A family-driven, youth-driven, or reciprocal process? *Journal of Family Psychology, 27,* 137-146. http://dx.doi.org/10.1037/a0031105

Walker, L. H., & Syed, M. (2013). Integrating identities: Ethnic and academic identities among diverse college students. *Teachers College Record*, *115*(8), 1-24.

Walton, G.M., & Cohen, G.L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology, 92,* 82-96. http://dx.doi.org/10.1037/0022-3514.92.1.82

Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*, *331*, 1447-1451. doi: 10.1126/science.1198364

Wei, M., Ku, T. Y., & Liao, K. Y. H. (2011). Minority stress and college persistence attitudes among African American, Asian American, and Latino students: Perception of university environment as a mediator. *Cultural Diversity and Ethnic Minority Psychology*, *17*, 195-203. http://dx.doi.org/10.1037/a0023359

Weisskirch, R. S., Zamboanga, B. L., Ravert, R. D., Whitbourne, S. K., Park, I. J. K., Lee R. M., & Schwartz, S. J. (2013). The composition of the Multi-Site University Study of Identity and Culture (MUSIC): A collaborative approach to research and mentorship. *Cultural Diversity and Ethnic Minority Psychology, 19*, 123-130. http://dx.doi.org/10.1037/a0030099

Whitla, D. K., Orfield, G., Silen, W., Teperow, C., Howard, C., & Reede, J. (2003). Educational benefits of diversity in medical school: A survey of students. *Academic Medicine*, *78*, 460-466.

Wiggins, F. (1989). *The relationship between racial identity attitudes and ego identity status in Black college students.* Unpublished paper, Illinois State University.

Williams, J. L., Tolan, P. H., Durkee, M. I., Francois, A. G., & Anderson, R. E. (2012). Integrating racial and ethnic identity research into developmental understanding of adolescents. *Child Development Perspectives*, *6*, 304-311. doi:10.1111/j.1750-8606.2012.00235.x

Winston, R. B., & Saunders, S. A. (1987). The Greek experience: Friend or foe to student development? In R. B. Winston., W. R. Nettles III, & J. H. Opper, Jr. (Eds.), *Fraternities and sororities on the contemporary college campus* (pp. 5-20). San Francisco, CA: Jossey-Bass

Xu, Y., Farver, J. A. M., & Pauker, K. (2015). Ethnic identity and self‐ esteem among Asian and European Americans: When a minority is the majority and the majority is a minority. *European Journal of Social Psychology*, *45*, 62-76. doi:10.1002/ejsp.2061

Yeager, D. S., Walton, G. M., Brady, S. T., Akcinar, E. N., Paunesku, D., Keane, L., ... & Dweck, C. S. (2016). Teaching a lay theory before college narrows achievement gaps at scale. *Proceedings of the National Academy of Sciences*, *113*, E3341-E3348. www.pnas.org/cgi/doi/10.1073/pnas.1524360113

Yip, T., Douglass, S., & Shelton, J. N. (2013). Daily intragroup contact in diverse settings: Implications for Asian adolescents' ethnic identity. *Child Development*, *84*, 1425-1441. doi:10.1111/cdev.12038

Yip, T., Seaton, E. K., & Sellers, R. M. (2006). African American racial identity across the lifespan: Identity status, identity content, and depressive symptoms. *Child Development, 77,* 1504-1517. doi:10.1111/j.1467-8624.2006.00950.x