Developing an Integrated Self:
Academic and Ethnic Identities among Diverse College Students

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Dissertation Proposal
May 16, 2008
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Despite significant advances over the last several decades, colleges and universities in the United States continue to struggle to achieve educational equity for under-represented ethnic minority students. The University of California (UC), one of the premier public university systems in the U.S., is no exception to this problem. Under-represented students, defined in the UC system as students from Chicano/Latino, Native American, and African heritage, have lower retention rates, lower grades, and take longer to graduate than students from Asian and European backgrounds. These differences in academic parity translate directly to the ongoing under-representation of ethnic minorities in graduate programs and the workforce (Cooper, Chavira, & Mena, 2005; Gándara & Maxwell-Jolley, 1999), and are thusly symptomatic of larger racial, economic, and social inequities in the U.S. The purpose of the proposed research is to understand college students’ educational experiences through identification of both resources and challenges they experience on the road to graduation. In particular, I will focus on how students’ academic major supports or constrains their ability to form an academic identity that is compatible with another important aspect of their identities: their ethnicity. In turn, this integration of identities may provide a sense of belongingness that contributes to persistence and eventual graduation.

Attending college is often considered to be a consciousness-raising experience for students. College provides a new context, both educationally and socially, for students to learn about themselves and others through exposure to diverse perspectives, opinions, and ways of living (Azmitia, Syed, & Radmacher, in press; French, Seidman, Allen, & Aber, 2000; Hurtado, 2003). Accordingly, it has been theorized that this new context is instrumental in the ongoing identity development of late adolescents and emerging adults (Arnett, 2004; Eccles, Templeton, Barber, & Stone, 2003; Shaver, Furman, & Buhrmester, 1985). This suggestion converges with Erikson’s (1968) influential theory of identity development. Eriksonian theory specifies that identity development takes center stage in adolescence and young adulthood, when advances in cognitive skills and societal pressures and opportunities to explore future roles prompt youth to focus on the possibilities of their present and future selves. Optimal development is characterized, in part, by an ability to integrate seemingly disparate aspects of the self to arrive at a sense of personal sameness and continuity across time and context. Although Erikson believed identity formation to be a life-long process, he suggested that adolescence and young adulthood were particularly critical developmental periods in which to begin the process of identity integration.

Building on Erikson’s theoretical foundation, Cooper’s (1999) interdisciplinary Bridging Multiple Worlds Theory emphasizes the resources and challenges youth experience as they navigate and seek to integrate their multiple contexts, or ‘worlds’, such as schools, families, peers, and communities. A major component of this theory is how key individuals and opportunities in students’ multiple worlds can provide bridges to promote educational success. Thus, integration of worlds and identities is seen to serve as a positive function in youth development. For example, Azmitia and Cooper (2001) investigated how peers can serve as both

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1 Although there is a great deal of heterogeneity in the academic success of students from Asian backgrounds (e.g., Filipinos and Southeast Asians vs. Chinese and Japanese), the UC does not disaggregate this group.
resources and challenges for adolescent academic performance as they built pathways to college. Their results generally indicated that perceiving peers as resources, such as providing emotional support and academic guidance, was associated with higher grades in junior high school. In another study, Latino and African American high school students did not consider prestige as a primary determining factor for selecting a college, but rather their selection was often associated with family and cultural factors (e.g., attending a historically Black college; Cooper, Cooper, Azmitia, Chavira, & Gullat, 2002). These findings suggest that coordinating identity domains may have implications for future orientations and identity concerns.

The proposed project is inspired by Erikson’s and Cooper’s theoretical conceptions of identity development, and is particularly concerned with how college students integrate their ethnic identities with their academic identities (see also Azmitia et al., in press). The resources and challenges that support or constrain this identity integration will be investigated along three inter-related planes of analysis: the integration of multiple identities, mechanisms of development, and perceived social context (Syed, 2008). For this project the three planes correspond with the degree of synthesis in ethnic and academic identities, the factors that contribute to or hinder this synthesis, and how the college environment contours the students’ academic experiences. Qualitative methods, such as students’ reflections and narratives about their past, will be used to capture the connections among these different planes and provide a rich developmental picture of identity development during the college years.

Identity Integration: Erikson and Beyond

Erikson (1968) proposed that the integration of multiple identities is a hallmark of healthy psychosocial development (see also Harter, 1999; Grotevant, 1987; McAdams, 2001). He emphasized the importance of synthesizing across three particular identity domains: work, love, and ideology. Subsequent research has expanded these domains to include, among others, religion, politics, relationships, sexuality, gender, and ethnicity (e.g., Grotevant & Cooper, 1981; Grotevant, Thorebecke, & Meyer, 1982; Marcia, 1980; Meeus, Iedema, Helsen, & Vollebergh, 1999; Phinney, 1990). Comprehensive reviews of research have indicated that, although the domains generally develop in tandem, each domain has its own developmental course due to the unique life contexts and social structures that individuals’ inhabit (Meeus et al., 1999; Schwartz, 2001). For example, Meeus et al. (1999) suggested that the occupational/school domain is more rigidly institutionalized than other domains, which makes movement towards achievement challenging if in an undesirable or unsure situation. For ethnic identity, however, movement between the statuses may occur on a more individualized basis in response to events that cause individuals to re-think their ethnicities, such as experiences of prejudice or feelings of connection to their culture (Syed & Azmitia, 2008b; Syed, Azmitia, & Phinney, 2007; see also Cooper, Behrens, & Trinh, in press). Despite these differences in trajectories, other research has demonstrated a moderate to high level of congruence across domains, and has provided evidence for a domain-general identity construct that may account for development in specific domains (Schwartz, 2007; Syed & Azmitia, 2008a).

Domain-general identity has been discussed by some narrative theorists in terms of developing a coherent life story that integrates various facets of the self (e.g., McAdams, 1993, 2001). This approach to identity is influenced by Erikson’s (1968) proposal that successful
identity resolution involves a synthesis of one’s past experiences, current concerns, and future prospects (see also Markus & Nurius, 1986). Thus, crafting a life-story is a constant, evolving process that requires individuals to make meaning of their experiences to develop a coherent, integrated identity (Bruner, 1990; McLean & Thorne, 2003). Relevant experiences can range from the highly salient to relatively mundane, but over time, all life experiences potentially contribute to the developing sense of self (Bamberg, 2006; Singer, 2004; Thorne, 2000, 2004).

It is important to note that identity theorists from the post-modern and social constructivist traditions have long argued that integration of identities is not a necessary, or even desirable, feature of the self in contemporary society. In his qualitative work on identity development with Israeli modern-orthodox Jews, Schachter (2004; see also Gergen & Gergen, 1986; Rattansi & Phoenix, 1997; and Sampson 1985) characterized some young adults as enjoying the ‘thrill of dissonance’ (see also Kraus, 2007 on ‘joyful diffusion’). These young adults viewed themselves as possessing many fractured and disparate identities, but were satisfied with this configuration and did not experience the psychological distress that would be predicted by Eriksonian theory. Although many theorists have suggested this hyper-contextual view of the self that shuns integration, empirical support for it is slim, and the long-term sustainability of this identity configuration is unknown. That is, does the ‘thrill of dissonance’ continue to be a thrill as the dissonance persists while demands for meaningful and productive work increase? Can fractured identities or identities that are only constructed in the moment and therefore have no permanence provide meaning and purpose to life? Longitudinal and in-depth qualitative studies, such as in the proposed project, can begin to address these and other important questions as they pertain to educational success.

A further consideration when investigating identity integration is that some identities are inherently interconnected. Feminists of color and critical race theorists argue that oppression is based on the full configuration of our identities, and thus, multiple social identities inseparably intersect with one another (Crenshaw, 1995; Dixson & Rousseau, 2005; hooks, 2003; Hurtado, 1997; see also Archer, 1992; Azmitia et al., in press). The implication of this theoretical argument is that examining one social identity in isolation provides an incomplete picture of the constructions and social functionings of that identity. Therefore, it is imperative to consider multiple social identities if one is interested in how those identities relate to individuals’ experiences. Given the focus in this research on integration of multiple identities, it is important to consider how the integration of ethnic and academic identities may be contoured, or even supplanted, by other salient identities. In the proposed research, I will also include gender and social class identities, which, with ethnicity, make up the ‘master statuses’ in the U.S. and serve as the primary basis for social stratification (Hurtado, 1997). Thus, although the primary emphasis of this project is ethnicity, I will also consider the interweaving influences of gender and social class. The use of the narrative approach in this project will be particularly useful to this end, as individuals tend to disclose the experiences and identities that are salient to them through their storytelling (McAdams, 2001; Thorne, 2000).

Ethnic Identity Development in Emerging Adulthood

Ethnic identity, which has been defined as one's identity as a member of an ethnic group and the feelings that accompany such membership (Phinney, 1990; Tajfel & Turner, 1986), has
been linked to a host of beneficial outcomes, such as greater self-esteem, lower depression, more effective coping in the face of discrimination, and higher academic achievement (Fuligni, Witkow, & Garcia, 2005; Phinney & Chavira, 1992; Quintana, 2007; Sellers & Shelton, 2003). These associations have been more pronounced for ethnic minority youth than for White youth, indicating that developing an ethnic identity is especially important for ethnic minorities. Nevertheless, there is mounting evidence that ethnic identity is important for White youth as well (Syed & Azmitia, 2008a). Thus, it seems that ethnic identity is a major developmental project for all youth to negotiate.

Theory and research on ethnic identity have overwhelming implicated adolescence as the key developmental period for ethnic identity formation (French, Seidman, Allen, & Aber, 2006; Pahl & Way, 2006; Phinney, 1990). However, a growing body of literature has suggested that ethnic identity development continues on into emerging adulthood, and perhaps beyond. For example, in tracing the longitudinal trajectories of ethnic identity exploration and commitment from the beginning to the end of college, Syed and Azmitia (2008a) found a steady increase in commitment over time, and a curvilinear increase in exploration that began rapidly accelerating shortly after the participants’ sophomore year in college. Notably, both exploration and commitment continued to follow an increasing trend at the end of college, suggesting that ethnic identity development continues into post-college young adulthood. Although we found greater change in ethnic identity in the later years of college, a more in-depth longitudinal study of students in their first year of college indicated a great deal of change during the first year as well (Syed, Azmitia, & Phinney, 2007). This study focused on how change in ethnic identity exploration and commitment occurred in tandem, as assessed by the ethnic identity status model (Phinney, 1989, 1993; see also Marcia, 1980). Although there was a general movement toward the achieved status and away from the moratorium and unexamined statuses, there was a great deal of variability, with many students regressing to earlier developmental statuses. Taken together, these studies indicate that ethnic identity development is by no means complete by the end of adolescence, and therefore research situated in emerging adulthood is needed (see also Phinney, 2006).

Further evidence for the importance of ethnic identity in emerging adulthood comes from qualitative studies of college students’ experiences. These studies have suggested that the college setting is an important context for facilitating ethnic identity development. In a study on college students’ narratives of ethnicity-related experiences, Syed and Azmitia (in press) found that a large percentage of the stories students told were directly tied to their college setting, such as experiences in the classroom and interactions with professors, staff, or roommates. This observation provides evidence for college as affording many opportunities for students to reflect on their ethnicities and continue to work on their ethnic identities. Furthermore, although these experiences might be available for students at all points in their college life, they may not be developmentally prepared to make meaning of them until later in college (Azmitia, Syed, & Radmacher, in press). That is, individuals’ ability to recognize ethnicity-related events as relevant to their identities, or to develop what we have called an ‘ethnic lens’ through which they see the world, seems to be a developmental process. This suggestion is buttressed by the finding that college students in more advanced ethnic identity statuses told different types of ethnicity-related stories, focusing more on experiences of prejudice or discrimination as well feelings of closeness or connection, than did those from less advanced statuses, who focused more on issues
of representation and differences between ethnic groups (Syed & Azmitia, in press; Syed & Azmitia, 2008b).

In sum, there is strong evidence that ethnic identity continues to develop into emerging adulthood, at least for those individuals who attend college. Indeed, the extant research suggests that there are features of the college context itself that may contribute to ethnic identity development, as opposed to universal changes regardless of context. Therefore, it would be valuable to understand the features (e.g., peers, classes, etc.) that are most directly related to changes in ethnic identity. Doing so would provide insight into how college experiences are integrated into ethnic identity development, and vice versa, as emerging adults attempt to synthesize their multiple identities.

Ethnic Identity and Academic Identity: College as a Site for Integration

While Erikson (1968) discussed the importance of several identity domains, he highlighted work, or occupational choice/career as particularly salient. Indeed, he suggested that occupational identity may be a driving force for identity development in other domains, and thus for identity development in general (Erikson, 1968; see also Seginer & Noyman, 2005; Skorikov & Vondracek, 1998). Subsequent empirical research has borne out this proposal. For example, research has shown that adolescents’ development in the occupational domain is more closely associated with development in the general ideological domain than the religious, lifestyle, or political domains (Skorikov & Vondracek, 1998). Furthermore, a longitudinal study of adolescents found a positive correlation between ethnic identity and vocational maturity, defined as knowledge about careers of interest and steps taken towards pursuing those careers (Perron, Vondracek, Skorikov, Tremblay, & Corbière, 1998). Taken together, these findings provide support for the notion that career identity is instrumental for overall identity development (Erikson, 1968).

Given the importance placed on occupational choice for identity development, there has been a great deal of research on how adolescents select and commit to a career orientation (e.g., Grotevant, Cooper, & Kramer, 1986; Lent, Brown, & Hackett, 1994; Pinquart, Juang, & Silbereisen, 2004; Skorikov & Vondracek, 1998; Vondracek, 2001). Despite this emphasis on adolescence, occupational identity during this time has been found to be rather under-developed. For example, one study found that congruence among occupational interests was associated with an understanding of the gender dominance in their primary occupational choice, but was not associated with knowledge of occupational prestige, substantive complexity, or occupational environments (Grotevant et al., 1986). The authors suggested that, although the developmental processes of occupational congruence and commitment are in the works during adolescence, it may not be until the entrance into college and the work-force that the more sophisticated knowledge about occupational choice develops. Similarly, longitudinal studies have shown that adolescents are more frequently classified as moratorium than achieved for the occupational domain (Meeus et al., 1999), which reflects the magnitude of uncertainly about the future during

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2 Studies of ethnic identity among non-college emerging adults are essentially non-existent, so it unknown whether their life circumstances give rise to change in ethnic identity. The fact that aspects of college life have been associated with change in ethnic identity (e.g., coursework, involvement in clubs and activities) suggests that there are different `active ingredients` for these two groups, although these ingredients are not well-understood.
this time (see also Arnett, 2000, 2006), although this may vary by cultural factors such as institutional tracking and obligatory military service (Nurmi, Poole, & Seginer, 1995). However, it should be noted that entrance into college does not guarantee clarity about the future. Indeed, as the demands for work-related skills have increased in postindustrial societies, it is not unusual for college seniors to be unsure of the occupational steps they will follow after graduation and to engage in a moratorium of a year or more to make decisions about their occupational futures (Azmitia & Syed, in progress).

For college students, a key ingredient in the development of their occupational identity—and identity in general—is their academic major (Garza & Herringer, 1987). When asked to list 10 social identities that came to mind, approximately 50% of participants listed their academic major/career goals—slightly less than hobbies (52%) and much more frequent than interpersonal roles (26%) or political affiliations (22%). Furthermore, majors were equally important as their gender, religious, and student identities. Interestingly, despite the importance college students place on their majors and/or career goals, relatively few studies have examined closely students’ experiences with their majors, such as how they come to choose a major, what their motivations are for changing their major, and how they view their major as congruent with other aspects of the self. Research addressing the latter aspect, congruence, has generally focused on congruence with personality traits or personal values and interest (e.g., Costa, McRae, & Kay, 1995; Grotevant et al., 1986; Reed, Bruch, & Haase, 2004). What is sorely lacking in the literature is an understanding of how college students perceive their social identities, such as ethnicity, gender, and social class, as relevant to their major choice and academic experiences.

While choosing a major that is compatible with personal interests is important for all college students, students from subordinated social identities (e.g., ethnic minorities, women, working-class) may face additional challenges in finding a field of study that is compatible with these identities (Azmitia et al., in press; Hurtado & Gurin, 2004). These challenges can stem from family pressures to major in a subject that will contribute to social advancement, the unavailability of potential mentors with similar backgrounds, or feelings of isolation from other students (Azmitia & Syed, in progress; Torres, 2006). This lack of perceived compatibility may divert students for whom these identities are salient towards particular majors (e.g., social science and humanities) and away from others (e.g., science and engineering), and would therefore contribute to their under-representation in certain graduate programs and the professoriate. Given its focus, the proposed research will contribute to efforts to understand the reasons ethnic minority students and women choose not to major in the natural sciences and engineering, and thus may contribute to efforts to make these domains more appealing to them.

One factor that may contribute to the appeal of particular majors is the extent to which students feel their salient social identities are included in the course material. According to Freire (1970, 1998) education must always integrate cultural and historical considerations with academic content (see also hooks, 1994). Although some have suggested that college is a consciousness-raising experience, particularly around issues of ethnicity, culture, and diversity (e.g., French, Seidman, Allen, & Aber, 2000; Hurtado, 2003), currently direct empirical support for the notion is scarce (but see Azmitia et al., in press). Exposure to new diverse peers and critical college curriculum may contribute to a heightened awareness and more sophisticated understanding of ethnicity. But for which students does college serve as a consciousness-raising
experience? And under what conditions does this occur? Contrary to Freire’s vision, not all students experience college in the same way, especially in terms of exposure to issues of diversity. Students’ majors serve as micro-contexts within the broader college context, which may be related to the degree to which they feel they are able to integrate their ethnicities with their educational pursuits. For example, the ethnic diversity of students and faculty varies from major to major, and these variations impact the potential for feelings of belongingness and availability of role models that share the students’ background characteristics (Zirkel, 2002).

Feelings of belongingness are important, as the degree to which students view themselves as typical college students has implications for educational success. For example, Lane and Gibbons (2007) found that students who felt they fit the prototype of a college student had higher GPAs and longer retention than those who did not. Unfortunately, this research used predominantly White samples, so they did not address issues of typicality that may be informed by ethnicity. Nevertheless, the findings point to the importance of feelings of acceptance, belongingness, and identity for college students’ academic success. Others (e.g., Gibson & Ogbu, 1991; Mehan, Hubbard, & Villanueva, 1994) have explored this relation with ethnic minority adolescents’ academic orientation, but few researchers have examined college students and specific subject matter (i.e., major). Congruence in this respect may contribute to feelings of institutional fit and belongingness, which Tinto (1993, 2000) has highlighted as being especially important for persistence. This same idea can be translated to understanding persistence within a major, which is the focus of the proposed study.

The Proposed Research

The proposed research seeks to understand the psychological factors associated with college students’ positive and successful educational experiences. The extant work investigating the factors associated with retention and graduation has focused primarily on academic concerns such as difficulty of the work, motivation to succeed, and attending part-time. As such, psychological predictors of student retention are not very well-understood (Bean & Eaton, 2000; Pascarella & Terenzini, 2005). However, to understand the causes of college non-completion and changes in major, it may be beneficial to connect academic concerns to psychological ones, such as students’ developing sense of identity. Exploring this connection is the over-arching goal of the proposed research.

In a departure from the dominant research methods that have been used to study the relation between identity, academic adjustment, and retention, I will be using a mixed-methods approach, with primary emphasis on qualitative analysis (Dellinger & Leech, 2007). This methodological approach is well-suited for the purpose of this research, which is to explore psychological factors (i.e., identity integration) associated with educational success. To this end, the proposed project will address the following research questions:

1) What is the role of ethnicity in college students’ major pathways (i.e., selection, acceptance, change)?

2) Do students view their ethnicity as compatible with their academic major? To what extent is this important to them?
3) Are feelings of incompatibility associated with changes in major, academic performance, and educational persistence?

4) How much are students exposed to issues of ethnicity, culture, and diversity in their classes? Does this level of exposure vary by major? Does this level of exposure meet the needs of the student?

5) What are the similarities and differences in these experiences and perspectives among ethnic minority and ethnic majority students?

Method

Study 1: Qualitative Longitudinal Analysis of Academic Major Pathways

Participants. Study 1 will be based on data that have already been collected as part of the Transition to College Project (PI: M. Azmitia). This project consists of survey and in-depth interview data for 211 ethnically- and socioeconomically-diverse college students from the University of California, Santa Cruz (UCSC). Data were collected at five time points: fall, winter, and spring quarters of the students’ first year of college, spring of their sophomore year, and fall of their senior year. However, the dataset does not contain complete data for all 211 participants. Accordingly, a subset of participants will be selected for inclusion in the present study that can help address issues of identity integration and persistence through college. This subset totals 165 participants, whom I have divided into two groups (see Table 1 for a summary). The first group, Completers, consists of 90 participants who completed the senior interview and graduated from UCSC. This group comprises 64 participants with complete data and 26 participants missing the sophomore data only. The second group, Non-completers, consists of 75 participants who potentially transferred to another university or dropped out following their first or second year at UCSC. This group includes 29 participants missing senior data only and 46 participants with no sophomore or senior data. Dividing the participants into these two groups allows for a comparison of themes arising from the qualitative data between students who remained at UCSC and graduated and students who transferred to another university or dropped out of school. The groups did not differ in their distribution of gender, ethnicity, or social class (see Table 2 for demographics by group).

Sample recruitment. The participants were drawn from a larger multi-year longitudinal study on the transition to college among ethnically and socioeconomically diverse students. Ethnic minority participants were recruited from a list of all ethnic minority first year students admitted to the university provided by the director of the office of Educational Opportunity Programs. One hundred potential participants, 50 men and 50 women, from each ethnic group.

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3 This includes participants who have data missing for the winter quarter of their first-year (n = 2), because no direct questions about major or career were asked during this interview.

4 We are in the process of determining whether they actually left school/transferred or simply stopped participating. This group will be adjusted accordingly.

5 There were no participants who were missing sophomore and winter data only or senior and winter data only.

6 Because there were less than 100 students who identified as African American (n = 59) and Native American (n = 30), all of these students were invited to participate in the study.
were randomly selected and invited to participate in a longitudinal study of the transition to college in a letter sent to them prior to their enrolling in the university. Students who were interested in participating returned a signed postcard. Approximately 50% of the students who were invited to participate in the study returned a postcard, all of which agreed to participate. This response rate did not vary substantially by ethnic group. In the fall, these students were contacted to determine whether they were still interested in participating; most confirmed their interest to participate. Additional ethnic minority participants and the White sample were recruited through flyers posted at dorms, dining halls, campus bus stops, and a recruitment table at the student commons. Students were paid $15 for their participation in the fall and winter sessions, $20 in the spring session, $25 in the sophomore session, and $40 in the senior session.

**Measures: Interview.** The interviews contained questions that elicited narratives about students’ college experiences, resources, and challenges. These narratives addressed the participants’ (a) aspirations and motivations for going to college; (b) academic routines and strategies; (c) views of the resources and challenges afforded by their relationships with family, friends (home community and university), and university personnel; (d) perceptions of fit with and engagement in the university experience (including experiences of isolation and discrimination); and (e) their goals and plans for the future.

Although the entirety of the participants’ interviews will be examined, the present study will focus on specific questions about the participants’ majors, academic experiences, and social identities. Questions include what majors they were considering in prior to officially declaring their major at UCSC, what major they chose, the benefits and challenges of studying their chosen major at UCSC, and whether they felt like their ethnicity, gender, or social class played a role in their major selection, future career goals, or college experiences in general (see Appendix A for a list of questions).

**Procedure.** The participants completed a survey and interview individually during the first five weeks of each quarter (fall, winter, spring) of their first year of college, during the spring quarter of their sophomore year, and during the fall quarter of their senior year. Participants completed the survey by themselves at their own pace in a campus laboratory with a researcher available to answer any questions. The individual interview was conducted following the completion of the survey.

**Study 2: Narratives of College Students Academic Experiences**

Study 2 is geared towards gaining a greater understanding of the variety of experiences students have with their major and academic experiences in general. Although Study 1 includes questions about the students’ favorite classes and their general feelings about their major, with Study 2 I hope to identify specific salient events in the students’ academic experiences. This will be achieved through a series of written narrative episodes pertaining to students’ experiences with their academic major.

**Participants.** Study 2 will be based on new data collected on the UCSC campus in the fall quarter of 2008. Approximately 200 ethnically-diverse students will be recruited from a diverse set of majors on campus. Some participants will be recruited through E-trak, the
Psychology Department’s research participation pool. However, I will also use alternative recruitment strategies because it will be necessary to include students from a wide variety of majors and class standings (i.e., first year through senior). The primary methods of recruitment will be announcements made in classes and sections, flyers posted around campus, and messages posted to social networking sites such as Facebook and MySpace. To encourage participation, students who complete the survey will be included in a raffle and will be eligible to receive one of 18 prizes: one grand prize of an iPod video, two first prizes of iPod shuffles, and fifteen prizes of movie tickets for two. Because my target sample is approximately 200 students, participants will have a 1 in 11 chance of winning a prize, which should serve as good incentive to participate. Because I want to ensure an ethnically-diverse and gender-balanced sample, interested students will complete a pre-screen questionnaire to determine their eligibility based on the needs of the study at the time.

Measures: Background information. The participants will be asked to provide their age, ethnicity, gender, immigrant generational status, parents’ income and occupation, year in school, major, and whether they transferred from a different college or university (see Appendix B for complete measure).

Measures: Narratives. The narrative component of the study is adapted from the Self-Defining Memory Questionnaire (Singer & Moffitt, 1991-1992; Thorne & McLean, 2002) and is similar to that used in our prior studies (e.g., Syed & Azmitia, in press). Self-defining memories have been conceptualized as stories that are highly emotional, frequently thought about, and considered to be very important (Singer & Moffitt, 1991-1992). Because many students may not be able to recount self-defining memories pertaining to their academic experiences, the memories will not be framed as self-defining. Rather, participants will be asked to recall three memories: a time in which they (a) felt like their ethnicity played a role in their academic major or classroom experiences, (b) felt especially positive about their academic major or classroom experiences, and (c) felt especially negative about their academic major or classroom experiences. In addition to describing the memory in as much detail as they can recall, the respondents will be asked a series of follow-up questions to probe their thoughts and feelings about the memories (see Appendix B for complete prompt).

The purpose of these three narratives is to encourage students to disclose experiences, feelings, and attitudes about their academic worlds that they may not reveal when asked to do so directly. That is, asking the students to write a story provides a concrete frame of reference and a familiar response format, as opposed to the more abstract reflection that is required when answering a question such as, “tell me about some of the challenges involved with studying chemistry.” When recounting stories, individuals will frequently move from plot details to reflective statements about their selves and society (McAdams, 2001). These stories will provide insight into the lived experiences of college students, which will aid in understanding how the college academic context supports and constrains advancement and success.

Procedure. The procedure for Study 2 will involve the participants visiting the psychology lab to complete a computer-guided interview that includes both open-ended questions and closed-ended survey items. In our past studies using this methodology we have received detailed responses and very high rates of completion (95%; Syed & Azmitia, in press).
This methodology is also well-suited to the nature of this project as it pertains to ethnicity. Issues of ethnicity are interlocked with issues of power, oppression, guilt, and stereotypes. Accordingly, interviewer-interviewee dynamics are particularly important and may impact the nature of responses that students offer. Thus, having an ‘anonymous’ interviewer, in the form of the computer-guided system, may open the door for more candid and honest responses pertaining to sensitive issues such as racism and discrimination. Although ‘computer-guided,’ all respondents will be administered the identical interview protocol, thereby facilitating comparisons among respondents from different majors and ethnic backgrounds. By computer-guided we mean that follow-up queries to open-ended questions are built in (e.g., How did you feel about the event? How did you react? Did this experience change the way you view your ethnicity or ethnicity in general?). These follow-up questions were derived from the types of follow-ups that we asked in our previous work using face-to-face interviews (e.g., Study 1).

Participants will be greeted by a research assistant and oriented to the nature of the study. They will be given an informed consent form to read and sign. This form will also request the participant to authorize release of their university transcript. The research assistant will then seat the participant at a computer and provided instructions on how to complete the online survey. The participant will complete the survey individually in a quiet room, with only the research assistant sitting in an unobtrusive position nearby to answer any potential questions. The survey will take approximately one hour to complete, as there are many other open- and closed-ended questions that are included in the survey that are not part of my dissertation.

Analytic Plan

Analyses will focus on the degree to which identity in general, and ethnic identity in particular, is integrated into college students’ academic worlds. In so doing, I may be able to identify sources of tension (i.e., challenges) as well as sources of strength (i.e., resources) that contribute to persistence and graduation, particularly for under-represented ethnic minority students.

Study 1: Qualitative Longitudinal Analysis of Academic Major Pathways

Study 1 will emphasize qualitative longitudinal analysis of students’ major pathways (e.g., selection, acceptance, change), positive and negative experiences with their major (e.g., with fellow students, professors, course content, administration), and the perceived relevance of their ethnicity to their major choice and career orientation. Although ethnicity is the focus, I will also consider the role of gender and social class for the students’ experiences.

The qualitative longitudinal analysis will comprise inductive generation of themes present in the student’s interviews. These themes will pertain to reasons for choosing a major, switching majors, benefits and challenges of being involved with their major, and how they perceive their major to be related to other aspects of their identities (e.g., ethnicity, gender, social class). The themes will be generated via group discussions with 3-4 other researchers so as to provide various perspectives on the interviews that may be informed by personal experiences and/or social position (Taylor, Gilligan, & Sullivan, 1996). Themes will then be examined longitudinally to discern patterns that can be compared by ethnicity, students’ majors, whether
and when they switched majors, and whether or not they persisted to graduation. Special emphasis will be placed on similarities and differences by ethnicity, to understand resources and challenges that may be common to all college students, as well as ones that might be ethnicity-specific.

The primary statistical tool that I will use for these analyses is prediction analysis (von Eye & Niedermeier, 1999), which is a chi-square-based analysis that allows for predictions based on the patterning of multiple categorical variables. For example, using prediction analysis I will be able to explore ethnic variations in when students change their major (e.g., first year or second year) and the nature of the change (e.g., natural science to social science). In this way, the prediction analysis will serve as a formal statistical tool for testing the themes and patterns discerned through qualitative analysis.

Study 2: Narratives of College Students Academic Experiences

The analysis of participants’ narratives will follow the same general procedure as the qualitative analysis in Study 1. However, the content of the analysis will be geared towards the narrative (i.e., storied) nature of the responses. For example, in addition to discerning the main themes of the narratives, I will also describe the ‘plot details’ of the stories, such as the social context of the experience (e.g., classroom, office hours, advising session, etc.), the source of the conflict (if any), how the participant reacted to the situation, and whether or not they derived any meaning from their experience. I will also be interested in identifying ‘turning-point’ narratives (McAdams, Josselson, & Lieblich, 2001), which are stories that mark a reorientation of individuals’ lives in particular domains. Based on the longitudinal study that will provide the data for the first study, I expect that some participants will relate turning-point narratives pertaining to selection and changing of majors. The analysis will be primarily descriptive, and themes will be explored for variations by ethnicity and major using the chi-square statistic. Thus, as with Study 1, the statistics serve as a formal test of the themes and patterns that will be determined through the qualitative analysis.

Conclusion

The two studies in the proposed research have the potential to provide complimentary and converging descriptions of students’ college experiences. Study 1 will offer the broad view, tracking students’ academic major pathways as they develop. From this study, we will learn the ways in which students make meaning of some of the most important life decisions that they are facing in college (e.g., major, career). In contrast, Study 2 is focused on more of the day-to-day experiences that students might have. This study will offer an understanding of the salient academic experiences for different students in different majors, and may shed light on some of the proximal causes for students to change their majors, or perhaps even leave college. Taken together, the two studies in the proposed research will hopefully shed light on some of the causes of educational inequity so that we can move towards alleviating the consequences of it.
References


Appendix A

Primary Interview Questions for Study 1

This list contains some of the key questions in Study 1 that will be helpful for exploring my research questions. Please be aware that this is not an exhaustive list of all of the questions I will be looking at, as issues of academic and social identities arise throughout the interviews.

All questions included appropriate probes (e.g., why? why not? etc.), as well as interviewer-specific probes (interviewers were not tightly bound to the interview protocol). These have been omitted from the list of questions for the sake of brevity.

**Fall Interview**

- Do you have a major in mind already?
- Was there anyone who was particularly helpful to you in choosing this major?
- Do you think that your ethnicity has influenced your ideas about the major or careers you are interested in?
- Do you think that your gender has influenced your ideas about the major or careers you are interested in?

**Winter Interview**

- How are your classes going this quarter?
- During high school, were you involved in any academic outreach programs like Early Academic Outreach (EAOP), Upward Bound, or others before coming to UCSC?
- How did you get involved in this program [these programs]?
- Were these programs helpful in preparing you for college?
- Were you involved in UCSC’s Summer Bridge program?
- What were the most helpful orientation activities you participated in?
- Did you participate in the EOP orientation? Yes  No
- All in all, do you feel that the orientation activities adequately prepared you to begin college?
- Are there any student organizations or clubs that have helped you adjust to life at UCSC?
• Are there any other programs or services that have helped you adjust to life at UCSC?

**Spring Interview**

• How are your classes going this quarter?

• When you look back over the year, what has been the best class you took?

• When you look back over the year, what was the worst class you took?

• In your experience, are your college classes more challenging than the classes you took in high school?

• What were the most challenging aspects of college classes for you?

• Last fall, you told me you were thinking of majoring in _________________. Are you still thinking of declaring this major?

• Do you think your ethnicity has played a role in your choice of major or the majors you are considering?

• Do you think your gender has played a role in your choice of major or the majors you are considering?

• At this point, do you think that coming to UCSC was a good decision for you?

• At this point in time, do you think you’ll be back next year?

• Do you think you would have been happier going to a community college?

• Do you think you would have been happier going to another university?

• Do you think you would have been happier going to a more ethnically-diverse university?

**Sophomore Interview**

• How are your classes going this year?

• Relative to the classes you took last year, were the classes you took this year easier, about the same, or harder?

• Last spring, you said you were thinking of majoring in _________________. Are you still thinking of declaring this major?

• What are the best things about majoring in _______(major) at UCSC?
• What are some of the challenges of majoring in ______(major) at UCSC?

• Sometimes, students develop special connections or mentoring relationships with staff, professors, TAs, or more advanced undergraduates. Have you made a special connection or developed a mentoring relationship with any of these people?

• For some people, their gender, ethnicity, or social class plays an important role in their choice of majors. Did any of these factors play a role in your choice of major or the majors you are considering?

• Do you think that your gender, ethnicity, or social class have played a role in your plans for the future?

• When you think back over the past two years since coming to UCSC, how much has your ethnicity played a role in your experiences?

• When you think back over the past two years since coming to UCSC, how much has your gender played a role in your experiences?

• When you think back over the past two years since coming to UCSC, how much has your social class (your family’s income, how far your parent went in college, or the kinds of jobs they have) played a role in your experiences?

• Has your current thinking about whether gender, ethnicity, or social class are important parts of your identity changed from last year?

• Has there been a time this year that you seriously considered dropping out of school?

• Last spring, you told us that coming to UCSC was a ___________ decision for you. Now that you’ve been here almost two years, do you think that coming to UCSC was a good decision for you?

• At this point in time, do you think you’ll be back next year?

• Have you thought about what you want to do after you finish college?

**Senior Interview**

• Why did you want to go to college?

• At this point, do you think that coming to UCSC was a good decision for you?

• What were the high points of college for you, your best college experiences?

• What were the low points of college for you, your worst college experiences?
• Where there any turning points in your college experience, things that changed your views on life or what you want to do in life? These turning points can be positive or negative.

• What were the biggest challenges you faced at UCSC?

• Was there any point during college at which you seriously considered transferring?

• Was there a time during college that you seriously considered dropping out of school?

• What were your biggest accomplishments at UCSC?

• All in all, how do you feel about your experiences at UCSC?

• Last time we talked, you were majoring in _____. Did you end up majoring in _____________?

• Were there some advantages to studying this major at UCSC?

• Were there some challenges of studying this major at UCSC?

• What will you do with your major after you finish college?

• Do you intend to find a job in this field?

• Attend graduate school in this field?

• Do you think that your gender, ethnicity, or social class will play a role in the job and career choices or opportunities you’ll have in the future?

• When you think back over the last 3 years since coming to UCSC, how much has your ethnicity played a role in your experiences?

• When you think back over the past three years since coming to UCSC, how much has your gender played a role in your experiences?

• When you think back over the past two years since coming to UCSC, how much has your social class (your family’s income, how far your parent went in college, or the kinds of jobs they have) played a role in your experiences? Your choices are:

• Did you get what you wanted out of coming to college?

• Do you plan to go back to live in your home community after you graduate?
Appendix B

Measure for Study 2 (will be completed online)

Background Information

1. Gender: _ Male _ Female

2. Age ___________________

3. What year are you at UCSC? _ First year _ Second year _ Third year _ Fourth year _ Fifth year or above

4. Are you a transfer student? _ Yes _ No

5. What is your race/ethnicity? (please list as many as you feel are important to who you are) ______________________________________________________________

5. Were you born in the U.S.? _ Yes _ No

6. If NO, what country were you born in? __________________

6. If NO, how long have you lived in the United States (in years)? __________________

7. Was your mother born in the U.S.? _ Yes _ No

8. What level of schooling did your mother complete?

_ No school _ Elementary school _ Middle school/Junior High
_ Some high school _ High school diploma _ Associates degree (2 year)
_ Bachelor’s degree (4 year) _ Master’s degree _ Doctorate or Professional Degree

9. Is your mother currently employed? _ Yes _ No _ Between jobs _ Retired _ Homemaker _ Other __________

10. How do you categorize your mother’s occupation? If your mother is not currently employed, please try to categorize her most recent occupation (if any).

_ Unskilled employee/Unemployed (laundry worker, farm worker, dishwasher, shoeshiner)
_ Semiskilled employee (bartender, bus/taxidriver, enlisted in military, housekeeper, hairdresser)
_ Skilled manual employee (baker, carpenter, mechanic, plumber, police officer, firefighter)
_ Clerical or sales worker, Technician, Owner of a little business (bank clerk, postal worker, military sergeant, dental technician, newsstand owner)
_ Administrative personnel, owner of a small business (insurance agent, store manager, master sergeant, oral hygienist, owner of a shoe store)
11. Was your father born in the U.S.   _ Yes   _ No

12. What level of schooling did your father complete?
   _ No school   _ Elementary school   _ Middle school/Junior High
   _ Some high school   _ High school diploma   _ Associates degree (2 year)
   _ Bachelor’s degree (4 year)   _ Master’s degree   _ Doctorate or Professional Degree

9. Is your father currently employed?   _ Yes   _ No   _ Between jobs
   _ Retired   _ Homemaker   _ Other ___________

14. How do you categorize your father’s occupation? If your father is not currently employed, please try to categorize his most recent occupation (if any).
   _ Unskilled employee/Unemployed (laundry worker, farm worker, dishwasher, shoeshiner)
   _ Semiskilled employee (bartender, bus/taxidriver, enlisted in military, housekeeper, hairdresser)
   _ Skilled manual employee (baker, carpenter, mechanic, plumber, police officer, firefighter)
   _ Clerical or sales worker, Technician, Owner of a little business (bank clerk, postal worker, military sergeant, dental technician, newsstand owner)
   _ Administrative personnel, owner of a small business (insurance agent, store manager, master sergeant, oral hygienist, owner of a shoe store)
   _ Business manager, proprietor of medium sized business (district manager, office manager, sheriff, school teacher, accountant, owner of a restaurant/bakery)
   _ Higher executive, major professional, proprietor of a large business (President/vice president, doctor, lawyer, professor, architect)

20. Did you belong to any racial/ethnic clubs or organizations in high school?
   _ Yes   _ No

21. If YES, which ones?_______________________________________________________

21. Did you or do you belong to any racial/ethnic clubs or organizations at UCSC?
   _ Yes   _ No

21. If YES, which ones?_______________________________________________________

22. What is your current academic major?________________________________________
23. Did you ever consider majoring in a different subject (but did not necessarily declare that major)?  _ Yes  _ No

24. If YES, which major(s) did you consider? ________________________________________

23. Have you ever declared a different major?  _ Yes  _ No

24. If YES, which major(s) did you declare? ________________________________________

25. Please write a summary of the path you took to your current major (e.g., what you wanted to major in when you came to college, whether you switched majors, etc.). Be as detailed as possible, including reasons for why you made your decisions.

The next section will ask you to describe in detail three memories related to experiences with your academic major. Please read the questions closely so that you are clear about what type of memory is being requested.

Please ask the research assistant if you have any questions or if you are having trouble thinking of a memory.
Memory #1: Race/Ethnicity and College

Please describe a memory about a particular time when you felt your race/ethnicity played a role in your classroom experiences. Tell us when this happened, where it happened, what happened, and how you reacted. Include details that would help us see and feel as you did.

What was your age at the time of the event?

Please describe the event in detail:

How did you react to this event?

What did you do to handle, resolve, or otherwise make sense of the event?

How did you feel when this event occurred?

In general, how would you characterize your feelings about this event at the time that it occurred?

very negative   negative   neither negative   positive   very positive

In general, how would you characterize your feelings about this event right now?

very negative   negative   neither negative   positive   very positive

Did this event affect what you think about or how you view your own race/ethnicity or race/ethnicity in general? Why or why not?

Memory #2: Positive College Memory

Please describe a memory about a particular time when you felt especially POSITIVE about your academic major or classroom experiences. Tell us when this happened, where it happened, what happened, and how you reacted. Include details that would help us see and feel as you did.

What was your age at the time of the event?

Please describe the event in detail:

How did you react to this event?

What did you do to handle, resolve, or otherwise make sense of the event?

How did you feel when this event occurred?
In general, how would you characterize your feelings about this event at the time that it occurred?

_ very negative _ negative _ neither negative _ positive _ very positive

In general, how would you characterize your feelings about this event right now?

_ very negative _ negative _ neither negative _ positive _ very positive

Did this event affect what you think about your major or field of study? Why or why not?

.Memory #3: Negative College Memory

Please describe a memory about a particular time when you felt especially NEGATIVE about your academic major or classroom experiences. Tell us when this happened, where it happened, what happened, and how you reacted. Include details that would help us see and feel as you did.

What was your age at the time of the event?

Please describe the event in detail:

How did you react to this event?

What did you do to handle, resolve, or otherwise make sense of the event?

How did you feel when this event occurred?

In general, how would you characterize your feelings about this event at the time that it occurred?

_ very negative _ negative _ neither negative _ positive _ very positive

In general, how would you characterize your feelings about this event right now?

_ very negative _ negative _ neither negative _ positive _ very positive

Did this event affect what you think about your major or field of study? Why or why not?
Table 1  
*Data Points by Analysis Group*

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a Two participants in this group did not have Winter data.
Table 2

Demographics by Analysis Group

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<th>Non-completers (n = 75)</th>
<th>Total (n = 165)</th>
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*Note.* Chi-square analyses indicated no significant differences in the distribution of ethnicity, gender, or social class by analysis group.

*These classifications are based on the Hollingshead and Redlich (1958) two-factor index of social position, which reflects a combination of education and occupation. They did not provide labels to accompany the numerical classifications, but lower numbers equal greater social status (e.g., I ≈ upper class, V ≈ low-income/poor).*