

The Role of Social Class Identity: Implications for African American and White College Students' Psychological and Academic Outcomes

by

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Dedication

To all those who have come before me

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Abstract

Social class plays an important role in the context of education. Divergent social class outcomes in higher education are often assumed to be a product of differences in access to material resources or academic preparation. However, social class can influence students' academic outcomes through psychological pathways. What is less clear from current literature is how the psychological experience of social class may vary among individuals within a particular social class background. The purpose of this dissertation was to 1) present a conceptual framework for studying social class identity within the context of higher education, 2) establish the factor structure of a measure based on the theorized dimensions, 3) examine how students' social class identity relates to variation in their psychological and academic experience of college, and 4) examine whether the relationship between social class identity and students' psychological and academic outcomes are moderated by race and self-identified social class.

Building from sociological and psychological literatures, the proposed multidimensional framework consists of three dimensions of social class identity: identification, centrality, and affect. The affective dimension was comprised of three sub-dimensions: pride, shame, and guilt. A survey was created to measure each dimension and was administered to a sample of 356 African American and White college students. The participants also completed measures of their academic and psychological adjustment outcomes. The factor structure of the measure was examined and found to be consistent with the theoretical framework. Using hierarchical OLS regressions, the relationship between social class identity beliefs and academic and psychological outcomes and the moderating effect of race and self-identified social class were examined.

Controlling for objective indicators of SES, the findings demonstrate variation in the dimensions of social class identity among individuals from similar socioeconomic backgrounds and that this variation is predictive of students' psychological and academic outcomes. The current study provides support for a multidimensional analysis of social class identity, and particularly the examination of different affective dimensions of collective identity. Additionally, this dissertation highlights the importance of examining how social class identity may differentially relate to students' psychological and academic outcomes as a function of race.

Chapter 1: Introduction

Significance of Social Class in Higher Education

Social class standing in society—defined in terms of education, income, or occupation—is one of the most powerful predictors of important life outcomes. In particular, lower socioeconomic status predicts poorer academic and occupational outcomes, greater occurrence of medical and psychological disorders, and higher morbidity and mortality rates (Adler & Coriell, 1997; Adler et al., 1994; Aikens & Barbarin, 2008; Regier et al., 1993). In addition to its importance in the broader society, social class plays an especially important role in the context of education. The value of a four-year degree is increasingly relevant for success in today's society. Moreover, education is the primary pathway to achieve upward social mobility. However, research has demonstrated that the American education system—from pre-school to university settings and beyond—has failed to harness the full potential of students from working-class and poor backgrounds. For example, research reveals striking social class differences in college enrollment. Specifically, 82% of students from high-income families enroll in college right after high school as compared to only 52% of students from low-income families (Aud et al., 2012). Similar results emerge when comparing students whose parents graduated from college with students whose parents only graduated from high school (National Center for Education Statistics, 2001).

Once students apply, are accepted, and ultimately enroll in college, social class differences still persist. First-generation college (FGC) students—students whose parents do not

have four-year degrees—generally have lower grades, take fewer credits, and have higher dropout rates than students who have at least one parent with a four-year degree (Bowen, Kurzweil, & Tobin, 2005; Housel & Harvey, 2009; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Sirin, 2005; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). For example, one study found that 41% of college students from the highest income quartile earn a bachelor's degree, as compared to only 6% of college students from the lowest income quartile (Heller, 2002).

These divergent social class outcomes in higher education are often assumed to be a product of structural factors, such as differences in access to material resources (e.g., money for books) or academic preparation (e.g., math skills) (Aikens & Barbarin, 2008). In addition, a large body of higher education scholarship draws on sociological frameworks to describe how structural factors relate to variation in access to social and cultural capital, defined as non-financial social assets (cultural knowledge, values, modes of social interaction) that would promote educational and occupational mobility (Johansson & Höjer, 2012; Ream & Palardy, 2008). This line of scholarship highlights a historical connection between the education system in America and the interests of the capitalist and middle classes (Bledstein, 1976). Universities—particularly selective institutions—tend to promote and reward upper and middle-class values and norms of social interaction such as competition and individualism (Bourdieu & Passeron, 1977; Demerath, Lynch, Milner IV, Peters, & Davidson, 2010; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). Moreover, the values within these educational institutions can be experienced as culturally incongruent for students from working-class backgrounds, creating increased psychological burden and poorer academic motivation and performance (Stephens, Fryberg, et al., 2012; Stephens, Townsend, Markus, & Phillips, 2012). In contrast, those with

privileged social class backgrounds more congruent with the institutional demographic profile and culture may experience less psychological burden and fewer motivational barriers to academic achievement. Thus, along with structural factors such as access to financial and academic resources, psychological processes can help explain social class variation in students' adaptation and success in higher education.

What is less clear from current literature is how the psychological experience of social class may vary among individuals within a particular social class background. For instance, do all working class students experience cultural incongruence between their social class backgrounds and the college context in ways that negatively influence their motivation and adjustment in college? Do all students from middle or upper middle class backgrounds experience their social class as fitting in with institutional norms and values? Or, do some experience conflict or ambivalence about their social class? Considering such questions could help explain why some students from lower class backgrounds show positive academic and personal adjustment in college, while others have shown negative adjustment. Considering these questions also can illuminate mechanisms through which students from more affluent backgrounds may benefit psychologically in the college context in ways that promote their academic achievement or experience challenges to their academic and psychological adjustment.

Given the importance of higher education as a primary mechanism for upward mobility (Torche, 2011), and the complex ways that individuals' social class and higher education interact in this society, I assert that the college context is an especially important space in which to examine the psychological experience of social class. Specifically, this dissertation will examine individual differences in students' social class identity—that is the significance and meaning that individuals attribute to their membership within their defined social class group. In addition, I

will explore how students' social class identities relate to their psychological and academic adjustment outcomes in college.

Social Class in the Social Sciences

Social class is a multifaceted system of stratification and meaning-making that takes into account socioeconomic status (SES), cultural capital, social networks, as well as beliefs, values, and behaviors associated with these material and social resources. Psychologists have largely left the study of social class to sociologists, typically controlling for the effects of social class membership on some other outcome of interest, if considering it at all (Ostrove & Cole, 2003). Nonetheless, social class has been a major area of inquiry within the field of sociology, although it has largely been examined as a structural or systemic variable (Marx, 1974; Weber, 1948). However, as European and North American societies have progressed into a post-industrial era and there have been subsequent declines to a collective sense of class consciousness (Beck, 1986), some class theorists rooted in a sociological tradition have argued for the expansion and transformation of class theory to better understand the lived experience of social class (Crompton & Scott, 2000; Devine & Savage, 2000; Reay, 2005; Savage, 2000). While some researchers rooted in a sociological tradition have argued for a theoretical perspective that takes into account the lived experiences of social class, it may be useful to consider the ways in which the field of psychology already employs that approach.

Within the field of psychology, research on collective identity has examined how membership within a social group impacts the way in which an individual thinks about themselves and others (e.g., Luhtanen & Crocker, 1992; Sellers, Smith, Shelton, Rowley, & Chavous, 1998). In a review of collective identity research, Ashmore, Deaux, and McLaughlin-Volpe (2004) present a conceptual framework for understanding collective identities. Building

from several theories of collective identity, the authors propose that collective identity is a multidimensional construct best assessed using multiple individual level variables. While Ashmore et al.'s review of collective identity literature focuses on the significance and evaluation of one's social group memberships, research also demonstrates that individuals experience collective emotions in relation to their social identities (Mackie, Smith, & Ray, 2008). Indeed, Intergroup Emotion Theory (IET; Mackie, Maitner, & Smith, 2009) was developed to explain how emotions can be experienced by individuals as a function of their social group memberships.

While collective identity and collective emotions literatures have largely examined the identity processes related to race/ethnicity and gender (Chavous et al., 2003; Kiang, Yip, Gonzales-Backen, Witkow, & Fuligni, 2006; Sellers, Chavous, & Cooke, 1998; Umaña-Taylor, Wong, Gonzales, & Dumka, 2012), there is a small but growing body of research that examines the psychological experience of social class (Bullock & Limbert, 2003; Kraus, Piff, & Keltner, 2011; Liu et al., 2004), and specifically within the educational context (Aries & Seider, 2007; Hurst, 2010; Ostrove & Cole, 2003; Ostrove & Long, 2007; Pascarella et al., 2004). In fact, researchers have acknowledged the need for psychological research that explicitly examines the lived experience of social class, calling for a critical psychology of social class, that is a “systematic research-based literature focused on the exploration of the *psychological* meaning of social class to diverse groups of people” (Ostrove & Cole, 2003, p. 680, emphasis in the original). To address this gap in the literature, this study will examine how social class operates as a social identity.

Social Class as a Social Identity. Examining how social class operates as an identity both independently and as it intersects with other identities is an important topic of research.

Similar to race and gender, social class standing is related to both experiences of disadvantage and privilege, and individuals can experience discrimination based on their perceived social class standing (Langhout, Rosselli, & Feinstein, 2007; Ostrove & Cole, 2003). However social class identity also differs from other social identities more often studied by researchers in a number of ways. In particular, social class is an identity that is both visible and invisible. There are a number of potential markers of social class that may or may not be misleading (e.g., clothing or material goods). Furthermore, valued markers of social class do not always align. For example, one individual may have a low to moderate income level but has earned a doctorate degree, as compared to a higher paid individual with relatively low educational attainment.

Another way that social class differs from other social identities such as race and gender is in the possibility for mobility. Unlike social class, there is no societal push to change one's race or gender; and it is relatively more difficult to do so. However, within American society, upward social mobility is encouraged. In fact, a desire to "improve" one's social class standing or "move up the ladder" is commendable and expected. The American Dream—the belief that anyone can achieve success and prosperity through hard work—is a common and accepted belief for many Americans. At the same time, middle class values are emphasized as the gold standard reflecting positive work ethos and values that are often framed more positively than both poorer and more affluent social classes (Hochschild, 1995). As such, how individuals come to understand themselves in terms of social class identity is complex, including how they might define themselves (as it could be based on SES background/history, current SES status, or aspirational social class). Further, pursuing upward social mobility likely elicits emotional responses, such as pride in one's background and associated struggles, or shame or

embarrassment about not reflecting societal valued status, or ambivalence or guilt about attaining a higher status when others in your group have not or benefiting from unearned privilege.

To address a gap in the literature and examine how social class may operate as a social identity, this paper will build from sociological literatures and psychological theories of collective identity and collective emotions to examine social class identity within the context of higher education. Specifically, the current study will examine the significance and meaning of social class among a racially and socioeconomically diverse sample of college students.

Social Class as a Lived Experience

As noted, although most studies utilize structural measures such as income, educational attainment, or occupation to capture social class, social class is more than a set of objective indicators of resources. Scholars do highlight how variation in access to structural resources can differentiate people's experiences and the way in which they view themselves and society (Johansson & Höjer, 2012). That said, social class does not only operate on a structural and systematic level, but it also operates in the lived experiences of individuals across and within groups that share similar structural/demographic background characteristics. The aforementioned theory and research help explain social class variation in students' psychological and academic engagement in higher education. However, a psychological approach would allow for consideration of individual differences among students within a particular social class background in the relevance of their social class to their lives, as well as in the positive and negative affective experiences they have in relation to their social class group. For instance, among working class college students, the extent to which individual students view their social class as an important personal identity should relate to the degree to which social class is relevant to them in their day-to-day college settings, as well as the extent that their social class beliefs and

attitudes influence their responses within these settings. Similarly, students' affective beliefs about their social class, for instance the extent that they believe that "someone like them" belongs in college, can undermine or facilitate their psychological well-being and academic success.

Below, I provide excerpts from scholarly analyses of college students from varying social class backgrounds that illustrate variation in the significance and affective meanings that social class plays in students' experience of college. For example, Orbe (2004) reports on an African American male college student who is first in his family to attend college as he describes the importance that social class plays in his college experience, saying:

It sits in my head every day. It's like I know that I'm the first one to get this far for my family...I know that my mom is depending on me to make a very good example for my little brother. So, I have to do my best at all times. (Orbe, 2004, p. 137)

However, other students from similar socioeconomic backgrounds may see their social class as less important to their personal identities. This is illustrated in Aries' and Seider's (2007) study of students at public and elite colleges, for instance, in the remarks of a student from a low-income background attending an elite liberal arts college:

I don't think that [social class] played a part in my life, that it's made me not be able to do things that I want. I don't think my life would have been significantly different if I had all the money in the world. (Aries & Seider, 2007, p. 144)

While these examples illustrate variation in the significance individuals from similar backgrounds place on their social class, other examples demonstrate variation in the meanings that social class plays in individuals' lives, and specifically in their experience of higher education. For example, Orbe (2004) describes a first-generation college (FGC) graduate reflecting back on her experience of college:

I definitely felt out of place. I'm looking around at all of the people in the classroom and thinking: "I bet all of their parents went to college." I don't want to tell them that mine

didn't ... I would not tell people ... I still haven't told people that my mom and dad didn't graduate from high school. I bet I've only told 2-3 people total ... I kinda wait to see what they are going to say. But, I don't know. I don't want to be the only one in the group whose parents didn't attend college (Orbe, 2004, p. 143).

While this student expressed shame or embarrassment about being the first in her family to go to college, other students from less privileged backgrounds may not view their social class background as a source of shame or embarrassment and, in fact, may experience pride in relation to their social class. For example, in Hurst's (2010) analysis of social class in higher education, a college student from a working class background described how he managed feelings of difference within the college context, declaring:

Yes, I come from a poor family; I'm not ashamed of that. I think it's cool. I mean, not cool, it's just who I am! I'm not going to try to hide it from anyone. Maybe when I was younger, maybe this is something I learned, because maybe when I was in high school I didn't want to be poor but I mean it just makes me see how much harder my mom had to work to get me to be a functioning person ... I would say that since [college] is supposed to be for everyone that it is for everybody and I'm not going to feel bad for being here (Hurst, 2010, p. 115).

The above examples emphasize students' feelings of shame, embarrassment, or pride around having a less privileged background relative to others. In addition, students could experience guilt related to their social class background and the opportunities that have been afforded to them relative to others. In fact, research suggests that guilt is a uniquely important affective experience to examine in the study of upward mobility. For example, in Aries' and Seider's (2007) study, a college student from a more affluent background describes his feelings of discomfort and ambivalence related to the advantages he has received, saying:

I mean I am so grateful for what I have. I'm so grateful to being born there. But I'm also on some level uncomfortable with it. Not like I want anything else, and not like I don't think everyone should be born at the same level, but there is definitely a discomfort zone. (Aries & Seider, 2007, p. 147)

These research excerpts illustrate the complexity of social class identity. It is more than one's socioeconomic status or family income, educational, or occupational background. For some it may be a privilege, for others it may be a burden, and yet for others it may be a badge. One's social class can operate as an identity. How an individual feels about herself and others are often influenced by her everyday experiences pertaining to social class. These quotes demonstrate that there is variation in the meaning and significance that individuals place on their social class, and illustrate the importance of understanding social class within the context of education.

In the development of this dissertation project on social class identity, I drew on social science scholarship as well as narratives and memoirs detailing individuals' lived experiences around social class and its meaning in their lives (Cary, 1991; Dews & Law, 1995; Fulwood, 1996; Graham, 1999; McDonald, 1999; Muzzatti & Samarco, 2006; Parker, 1997). These studies demonstrate diversity in the meaning and significance that social class plays in individuals' lives. Furthermore, they illustrate that an individual's experience of social class may vary along a number of dimensions, in particular importance and affective meaning. However, these studies do not distinguish these dimensions conceptually or empirically. The current study seeks to articulate and describe these dimensions, examine these dimensions across individuals and within and across social class groups, and consider how these dimensions relate to students' psychological and academic adjustment to college.

Race and Social Class

Understanding how social class may function differently among diverse racial/ethnic groups is critical for understanding the role that social class plays in contributing to disparities in educational outcomes, as well as understanding how to reduce them. A large portion of existing research evaluating psychological processes related to social class within the context of

education primarily utilizes majority White samples or views these processes as similar across different racial/ethnic groups (Aries & Seider, 2007; Ostrove & Long, 2007; Stephens, Fryberg, et al., 2012; Stephens, Townsend, et al., 2012). In an effort to not confound race and social class, such research fails to recognize or examine how race may be a foundational element to the experience of social class. To date, there are few studies that examine how the meaning and significance of social class within educational contexts may differ for students from different racial/ethnic backgrounds. Although researchers have examined social class variation in other social identities (e.g. racial identity) and find these identities can vary across social class groups (assessed using indicators of SES) (e.g., Byrd & Chavous, 2009; Chavous, Rivas, Green, & Helaire, 2002), these studies do not examine individuals' social class identity beliefs or attitudes.

In building a critical psychology of social class, it is essential to recognize that individuals have multiple social identities and that these identities are often experienced in combination (Ostrove & Cole, 2003). The concept of intersectionality highlights the importance of understanding how multiple social identities simultaneously impact an individual's values, beliefs, and life outcomes (Crenshaw, 1994; King, 1988). Intersectionality provides a useful framework for examining how race impacts the experience of social class. The implications associated with membership within a certain social class may not be equivalent for members of different racial/ethnic groups. For example, Orbe (2004) found that among a sample of first-generation college (FGC) students, social class seemed to be more salient among students who reported membership in another stigmatized group (e.g., race, gender). Orbe (2004) suggests that for students who maintain a more privileged position based on other social identities, FGC student status may be less important to their self-concept. This finding underscores the need for

further examination of how social class identity may vary as function of other social group memberships.

Additionally, research has demonstrated that one's race is associated with the likelihood one is enrolled in college and one's experience of college. For example, African American students are underrepresented among college students but overrepresented among college students from less affluent backgrounds (Hardaway & McLoyd, 2009). Additionally, African American college students are more likely to drop out of college, take longer to graduate, have lower grades (Mallinckrodt, 1988), and have a weaker sense of belonging to the college community (Walton & Cohen, 2007), as compared to White students. As such, it is important to examine whether the relationship between social class identity and students' psychological and academic adjustment to college varies as a function of one's race.

To address this issue, the present study will examine how the meaning and significance of social class relate to students' psychological and academic outcomes among a sample of African American and White college students, and specifically examine how these relationships may differ as a function of race and social class.

Dissertation Goals

The purpose of this dissertation research is to examine how students' social class identity relates to variation in their psychological and academic experience of college. The current study is an initial step in developing a multidimensional framework for examining social class identity. In this study, I draw on a variety of social science literatures to describe a framework for the psychological study of social class identity that includes consideration of the significance and meaning of social class to individuals. I apply my social class identity framework to a socioeconomically diverse sample of African American and White college students, and I

examine whether particular social class identity dimensions relate to their psychological and academic outcomes. Additionally, this study examines whether the relationships between social class identity dimensions and students' psychological and academic outcomes vary for students across racial and social class groups. The study has several specific aims.

First, I present a conceptual framework for studying social class identity within the context of higher education. Building from sociological and psychological literatures, the proposed multidimensional framework consists of three dimensions of social class identity: identification, centrality, and affect. *Identification* relates to how one defines one's social class. The *centrality* dimension relates to how important social class is to one's self-concept. Lastly, I examine the affective dimension of my social class identity framework through three collective emotions associated with social class: pride, shame, and guilt. *Pride* refers to the feelings of satisfaction and self-respect about being from a particular social class background, *shame* represents the extent to which an individual feels ashamed or embarrassed that s/he comes from a particular social class background, and *guilt* refers to feelings of discomfort or ambivalence associated with the opportunities that one has been afforded.

Second, in order to test construct validity, I seek to establish the factor structure of a newly developed measure of social class identity based on the scope and content of the theorized dimensions using confirmatory factor analyses. Additionally, I will examine whether the proposed dimensions of social class identity are conceptually similar across a racially and socioeconomically diverse sample of college students.

Third, I will examine whether there are differences in the social class identity dimensions based on race and social class group.

Fourth, I will examine the relationship between social class identity dimensions and students' psychological and academic outcomes.

Last, I will examine whether the relationship between social class identity dimensions and students' psychological and academic outcomes are moderated by race or social class group.

Chapter 2: Literature Review

In this chapter, I will review literature across different disciplines examining the meaning of social class and the role it plays in individuals' everyday lives. I will present a conceptual framework for studying social class identity within the context of higher education, including a discussion of the literatures and conceptual models I draw on in developing my framework. I conclude with an outline of my research questions and hypotheses.

Social Class Defined

Social class is defined and operationalized in various ways within the literature. Social class is a multifaceted construct that takes into account socioeconomic status (SES), cultural capital, social networks, as well as beliefs, values, and behaviors associated with these material and social resources. SES is one major indicator of social class, typically taking into account one's family income, educational attainment, and/or occupation level (Hauser, 1994). Because social class is such a complex, multifaceted, and context-dependent construct, there is little consensus on the theoretical definition of social class. Researchers often define social class through their operationalization of it. For example, a researcher may measure social class through occupational status. As such, their definition of social class will likely emphasize perceptions of power and prestige related to one's occupation as opposed to the impact of cultural capital or educational attainment. In fact, scholars across various disciplines, including psychology, sociology, and anthropology, acknowledge that "defining social class is a significant and unmet challenge and that different indices of social class often correlate poorly and do not provide the same patterns of results" (Markus & Fiske, 2012, p. 2). In a recent edited volume of

research examining how social class influences individuals' beliefs, feelings, actions, and interactions with others, Markus and Fiske (2012) argue that

Social class is not a fixed set of inherent attributes. Neither is it simply a rank or position in the social hierarchy, a marker of prestige or status, or an index of access to or control over material resources. It is all of these, but it is also a form of doing that can pervade thought and action, [...] and as such it can have a broad and diverse influence on one's way of being a person (that is, an agent, a self, an identity) in the world (p. 3).

Building from this conceptualization of social class, I argue that it is a multifaceted system of stratification and meaning-making. This dissertation is particularly focused on how social class operates as a social or collective identity. Social class identity is defined as the significance and meaning that individuals attribute to their membership within a particular social class group. In the following section, I will review sociological literatures on class theory illustrating different conceptualizations of social class. I will also discuss how these literatures inform my current thinking about social class identity.

Theories of Social Class. While social class is a multifaceted and complex construct that can be operationalized in various ways, there are three current schools of thought in examining what “class” means. Traditional class theorists examine the structural and systematic nature of social class, examining class stratification based on the division of labor, status, and power resources (Marx, 1974; Weber, 1948). This theoretical perspective was developed within a historical context of industrial societies. At the time, in much of Europe and America, the division of labor was organized around a professional or managerial class and an intermediate or working class (Nisbet, 1959). Traditional class theorists argued that occupational stratification and distribution of power led to a class consciousness, or a politicalized awareness of one's class position, that fueled a sense of class solidarity and collective action (e.g., labor unions). As Western societies moved into a post-industrial era, the division of labor no longer mapped onto

the same occupational classes and clear distributions of power. Furthermore, class consciousness and class identities became less salient, especially within the US context, such that individuals were less likely to report strong feelings of political solidarity to a particular social class group within a clearly defined hierarchical system of stratification (Devine & Savage, 2000; Wright, 1997). As such, a sense of class solidarity and collective action became a less central feature of contemporary class relations (Beck, 1986). This shift in the occupational relations and fragmentation of stratification led some sociologists to argue that class was no longer a meaningful organizing system, and proclaimed the “death of class” (Clark & Lipset, 1991; Crook, Pakulski, & Waters, 1992; Pakulski & Waters, 1996). Not all traditional class theorists agree. A second school of thought argues that class relations are still important to understanding social stratification, even though they do not generate similar levels of class consciousness and class identities. Furthermore, while class consciousness and class identities may have become less salient, these theorists argue that they are not necessary to understanding how social class operates as a system of stratification (Goldthorpe, 1996; Marshall, 1997). However, this school of thought still largely examines the structural and systematic nature of social class, based upon economic and occupational stratification.

A third school of thought also argues that social class is still relevant in today’s post-industrial society. However, some scholars disagree with the limited perspective of examining the structural nature of social class (Devine & Savage, 2000; Reay, 2005; Savage, 2000). Influenced by the work of Bourdieu (1986) and Veblen (1934), these researchers argue for the expansion and transformation of class theory to better understand the effect of less tangible factors related to social class, such as values, practices, and beliefs. Reay (2005) argues that “we

need understanding of how social class is actually lived, of how it informs our inner worlds to complement research on how it shapes our life chances in the outer world” (p. 913).

Whether class identities actually exist or are important is still central to debate among class theorists. Among those who argue for the transformation of class theory, some claim that thinking of social class as explicit collective groups is a remnant of traditional class theories that undermines the goals of transforming class theory (Bottero, 2004). While others argue that since there is little evidence of a collective class consciousness in this post-industrial era, the meaning and usefulness of class identities are unclear. Savage (2000) argues that “although people can identify as members of classes, this identification seems contextual and of limited significance, rather than being a major source of their identity and group belonging” (p. 40). However, other researchers argue that while it may not be fully clear what class identity means for individuals and how it operates in their everyday lives, the study of class identities is still important (Devine, 1998; SurrIDGE, 2007). When asked to identify to what social class they belong, 97% of respondents in a British sample and 99% in an American sample provided an answer (Hout, 2008). Furthermore, in both samples, their subjective social class identity largely mapped onto their “objective” social class category, based on objective measures of income, education, and occupation. Additionally, SurrIDGE (2007) found that “there are clear propensities of different social groups to claim a class identity” and argues that “this alone is evidence that something is at work even if we accept that the identity claimed is not ‘class-consciousness’” (p. 210).

It is beyond the scope of this dissertation to address the role of class identities within class theory. However, building from the transformational class theory approach (Devine & Savage, 2000; Reay, 2005; Savage, 2000), I will examine how social class identities relate to students’ psychological and academic outcomes within the context of higher education. I argue

that examining how social class operates as a social or collective identity may be especially useful in understanding how social class impacts individuals' everyday life outcomes. As such, I will build from social psychological theories of identity (Stryker & Serpe, 1994; Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) to examine the identity processes related to social class. In the next section, I will describe several theories of social identity, review relevant research examining other social and collective identities, and discuss how these theories of social identity can be applied to the study of social class identity.

Conceptualizing Social Class as a Collective Identity

The research reviewed in this section demonstrates that membership within a social group can become a part of one's self-concept, and that the meaning and significance of one's social group membership can impact ways of thinking, feeling, and acting. Additionally, there is individual variation in the meaning and significance of one's social group membership, and that this variation is important in understanding everyday life outcomes. Although research has focused primarily on racial/ethnic and gender identities, a small but growing body of literature suggests that social class identities are also critically important in shaping individuals' feelings about themselves and interactions with their environments (Aries & Seider, 2007; Hurst, 2010; Orbe, 2004; Ostrove & Long, 2007). Indeed, researchers have challenged the field of psychology to explicitly examine and better understand the psychological experience of social class, citing the need for a "critical psychology of social class [that pays] special attention to an individual's understanding of him or herself as occupying a classed location, and the values and attitudes associated with that location" (Ostrove & Cole, 2003, p. 680). As such, I have developed a multidimensional framework of social class identity. Building from social identity theory (SIT; Tajfel & Turner, 1986), social class identity is defined as the significance and meaning that

individuals attribute to their membership within a particular social class group, including the emotional experience related to their group membership. In the remainder of this section, I conceptually define each proposed dimension of social class identity, discuss relevant research related to other collective identities, discuss how the proposed dimensions of social class identity may relate to students' psychological and academic outcomes, and lastly, describe my working assumptions of the proposed conceptual framework of social class identity.

Multidimensional Nature of Collective Identity. In a review of collective identity research, Ashmore, Deaux, and McLaughlin-Volpe (2004) proposes a conceptual framework for understanding collective identities. They propose that collective identity is a multidimensional construct this is best assessed with multiple individual level variables. This model builds from several theories of collective identity including Tajfel's social identity theory (SIT; Hogg & Abrams, 1988; Tajfel & Turner, 1986), Turner's self-categorization theory (SCT; Turner et al., 1987; Turner, 1985), and Stryker's identity theory (IT; Stryker & Serpe, 1982, 1994). Social identity theory (SIT) examines how membership within a collective group impacts individuals' thoughts, feelings, and behaviors. This theory was designed to better understand the underlying processes of intergroup conflict and discrimination. Related to SIT, self-categorization theory (SCT) was developed to understand the socio-cognitive processes related to categorizing individuals into groups, and how those processes impact individuals' behavior as a group member. Conversely, identity theory (IT) was developed to understand how society impacts the self, proposing that the roles that individuals play when interacting with others impacts how the individuals sees themselves. Collective identity literature heavily builds from these three theories in conceptualizing and examining social and collective identities¹. However, building from SIT,

¹ For review and comparison of SIT, SCT, and IT, see Deaux and Martin (2003), Hogg, Terry, and White (1995), and Stets and Burke (2000).

social or collective identity is defined as “that part of an individual’s self-concept which derives from his knowledge of his membership of a social group together with the value and emotional significance attached to that membership” (Tajfel, 1978, p. 63).

While many have argued for a multidimensional approach to collective identity (e.g., Ashmore et al., 2004; Ellemers, Kortekaas, & Ouwerkerk, 1999; Jackson & Smith, 1999; Luhtanen & Crocker, 1992; Phinney & Ong, 2007; Phinney, 1992; Sellers, Smith, et al., 1998), there is less consensus on what dimensions are most important to understanding collective identity. I would argue that this depends on what particular identity you are trying to understand. The goal of this dissertation is to examine elements of collective identity that are particularly relevant in the study of social class identity. The significance and meaning of social class, and collective identities in general, are context dependent (Ashmore et al., 2004; Devine, 1992). As such, I am specifically interested in social class identity within the context of higher education. I will outline three dimensions that I think are important to understanding social class identity within the college context: *identification*, *centrality*, and *affect*.

Identification. The most basic element of collective identity is self-categorization (Ashmore et al., 2004). According to self-categorization theory (SCT; Turner et al., 1987), people have a tendency to categorize social stimuli (individuals) based on perceived similarities within groups and perceived differences across groups. These comparisons are based on the characteristics that an individual perceives to be most relevant to making distinctions between groups. Similarly, individuals are able to categorize themselves into groups based on perceived similarities and differences to others on relevant outcomes. SCT proposes that through the process of self-categorization, one’s group memberships become a part of the self, and when a particular collective group is salient, individuals act as a member of the group instead of as an

individual. This process is called deindividuation. Indeed, research has shown that the mere perception of two distinct groups is enough to trigger ingroup preference and intergroup discrimination (Diehl, 1988; Gagnon & Bourhis, 1996; Lemyre & Smith, 1985).

Within the proposed conceptual framework, *identification* is a dimension of social class identity that relates to how individuals define their own social class. According to social identity theory (Tajfel & Turner, 1986), identifying oneself as a member of a particular social group is an important component to understanding the experience of that particular social identity. An individual must first recognize themselves as a member of a particular social class group. This dimension is important to understanding the role social class plays in shaping emotions, cognitions, and behavior. Social class categories are often assessed based on objective indicators of SES (income, education, and occupation). However, subjective assessments of social class are also used and typically measure how an individual perceives their own standing within the social class hierarchy, often by prompting one to choose from a list of social class categories (e.g., lower class, working class, middle class, upper class; Centers, 1948; Hout, 2008; Jackman & Jackman, 1973, 1983). Research has shown that not only are individuals able to categorize themselves within a social class group, but that these categorizations are relatively “accurate” in that they reflect similar categorizations as would be made based on their objective indicators (Hout, 2008).

While many studies utilize objective measures of income, education, and occupation to indicate an individual’s social class, the objective indicators may not reflect an individual’s subjective social class identification. That is, an individual may not identify with the social class category in which the researcher places them (e.g., middle-class, working-class). For example, two individuals can have similar objective indicators of social class but can identify their social

class quite differently based on other life experiences related to social class (e.g., social and cultural capital). For example, Aries and Seider (2007) surveyed and interviewed 3 groups of college students: an affluent group of students from a highly selective liberal arts college (“Affluent Little Ivy”), a group of lower income students from the same highly selective liberal arts college (“Lower Income Little Ivy”), and a group of lower-income students from a state college (“Lower Income State College”). The authors assessed social class identification and found that while it positively correlated with objective measures of social class (i.e., parental income, parental education, and parental occupation), there was within-group variability in how the students identified their social class. For example, among the “Lower Income Little Ivy” students, 6 identified as middle class, 5 as lower middle class, 2 as working class, 1 as lower class, and 1 as upper middle class. This study demonstrates that there is variation in how students from similar socioeconomic backgrounds identify their social class group, even within the same educational institution.

The importance of assessing how an individual self-identifies their social group memberships has been demonstrated within the ethnic identity literature. For example, Phinney (1992) conceptually distinguished between ethnic identification and ethnicity. In particular, she found that how individuals label their ethnic identity can differ from their objectively assessed ethnicity (based on their parents’ ethnic heritage). Additionally, the identity label an individual chooses may not be stable across time and context (Phinney & Ong, 2007). However, by assessing how an individual identifies their social group membership, researchers can examine the implications of different self-labels. Proponents of self-categorization theory (SCT) argue that self-categorization is indeed fluid and variable, but not random (Turner, Oakes, Haslam, & McGarty, 1994). In fact, “self-categories are social comparative and are always relative to a

frame of reference” (Turner et al., 1994, p. 454). As such, assessing students’ social class identification may be especially useful is examining how social class impacts students’ adjustment to college.

While most studies examining how social class relates to students’ adjustment to college use objective indicators of SES (e.g., parental education, parental income, and/or parental occupation), research assessing students’ self-identified social class background demonstrate that not only is it distinct from objective indicators of SES, but that social class identification may be a better predictor of students’ psychological and academic outcomes. For example, Ostrove and Long (2007) examined the influence of social class identity on social and academic adjustment to college and academic performance. Specifically, they examined the relationship between social class identification and belonging, and how belonging relates to academic and social outcomes. They found that students who identified with a more affluent social class group reported a greater sense of belonging at college, which predicted social and academic adjustment to college, quality of experience at college, and academic performance (Ostrove & Long, 2007). While they found that objective indicators of SES were moderately correlated with self-identified social class and were similarly related to psychological and academic outcomes, Ostrove and Long (2007) also found that the correlations and path coefficients were stronger for self-identified social class as compared to objective indicators of SES. Additionally, students’ self-identified social class was directly related to social adjustment to college, whereas objective indicators of SES were not (Ostrove & Long, 2007). While the authors did not examine group-level variation in the relationship between social class identification and college adjustment outcomes, this study does demonstrate that students’ social class identification is related to their psychological

and academic adjustment to college, and may be more strongly related to students' adjustment outcomes.

Centrality. Another important element of collective identity is the extent to which an individual perceives that identity to be a defining part of their self-concept (Ashmore et al., 2004). According to Identity Theory (IT; Stryker & Serpe, 1994), the self is constructed of multiple identities that are hierarchically organized. That is, individuals have numerous identities that make up who they are (e.g., woman, parent, sister, student, African American, middle class). Furthermore, these identities are categorized in relation to one another such that one identity could be considered to have more (or less) of a given characteristic (Stryker & Serpe, 1994). The organization of identities is based on how central an individual perceives each identity to be to their self-concept. This element of collective identity, referred to as centrality, is the extent to which an individual considers a particular identity to be important to their self-concept.

Within the proposed conceptual framework, the *centrality* dimension of social class identity relates to how important social class is in defining oneself; how central this identity is to one's self-concept. The significance of one's membership within a particular social group is an important aspect of how that social identity impacts an individual's everyday life (Tajfel & Turner, 1986). Research has demonstrated that the significance one places on a particular social identity can vary across individuals (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). Individuals may identify with a particular social class but may not see this particular identity as important to how they think about themselves. Furthermore, the importance an individual places on a given social identity has been shown to moderate the impact of that identity on relevant psychological outcomes, such that the relationship between other identity dimensions and outcomes of interests are stronger for individuals who report greater identity centrality (e.g.,

Becker & Wagner, 2009; Chavous et al., 2003; Rowley, Sellers, Chavous, & Smith, 1998). As such, I propose that social class centrality may similarly moderate the relationship between other dimensions of social class identity and students' psychological and academic outcomes.

While there are few studies examining the centrality of social class identities, a plethora of studies have found individual variations in the centrality of other social identities (e.g., gender and race) to be associated with a number of different outcomes. Research examining the extent to which gender is a central part of one's self-concept has found that not only do individuals vary in their gender centrality, but that this variation is associated with identity-relevant attitudes and behavior. For example, Wilson and Liu (2003) examined gender differences in social dominance orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994), which is the extent to which individuals endorse anti-egalitarian beliefs and support hierarchical group-based inequality. While men tend to report greater levels of SDO than do women (Pratto, Stallworth, Sidanius, & Siers, 1997), Wilson and Liu (2003) found that this relationship is moderated by the strength of one's gender identification, or gender centrality, such that men for whom gender was a more central identity reported greater endorsement of social dominance orientation (SDO), whereas women who reported greater gender centrality reported less endorsement of SDO.

Research has also found that gender centrality moderates the relationship between gender role beliefs and women's endorsements of sexist beliefs (Becker & Wagner, 2009). Specifically, women who reported greater levels of gender centrality and endorsed more progressive gender roles (e.g., reject traditional definitions of femininity) were less likely to support sexist beliefs (e.g., "Women should be cherished and protected by men") and were more likely to participate in collective action to promote women's rights. However, among women who reported lower levels of gender centrality, gender role beliefs were not related to endorsement of sexist beliefs or

likelihood of participating in collective action (Becker & Wagner, 2009). Both these studies demonstrate that the extent to which an individual perceives a social or collective identity to be central to their self-concept, in this case one's gender identity, the more strongly beliefs related to that identity impact individuals' thoughts, feelings, and actions.

Research has also demonstrated that gender centrality moderates the impact of salient gender stereotypes on academic performance. The stereotype threat literature has demonstrated that when an individual is aware of negative stereotypes about their group's performance and these stereotypes are made salient within the testing situation, this can lead to underperformance in otherwise high achieving students (Steele & Aronson, 1995). For example, when women are aware of negative stereotypes about their math performance, and their gender identity is made salient within the testing situation, they perform worse on math tests than if those stereotypes were not made relevant to the testing situation (Spencer, Steele, & Quinn, 1999). However, Schmader (2002) found that gender centrality moderated the effects of stereotype threat among women, such that women who felt that their gender was more central to their identity demonstrated stereotype threat effects, thus performing worse than men on a math test. However, women who felt that gender was less central to their identity performed the same as men even when their gender identity was made relevant to the testing situation. Again this research demonstrates that how important a given social identity is to one's self-concept moderates the relationship between identity relevant beliefs and attitudes and psychological and academic outcomes.

Within the racial identity literature, the centrality of one's racial identity has also been shown to moderate the relationship between other identity dimensions and relevant psychological and academic outcomes. For example, African Americans who feel more

positively about their racial group tend to have higher personal self-esteem and lower depression; however this relationship is stronger for those individuals for whom race is a central part of their identity (Rowley et al., 1998; Settles, Navarrete, Pagano, Abdou, & Sidanius, 2010). Racial centrality has also been found to moderate the relationship between race-relevant beliefs and students' academic outcomes. For example, Okeke, Howard, Kurtz-Costes, and Rowley (2009) found that, among African American middle-school students, a greater endorsement of academic race stereotypes (e.g., Whites are smarter than Blacks) was associated with a lower sense of academic competence, but only among students who reported higher racial centrality. Again, we see the importance of assessing how central a particular identity is to one's self-concept, as well as the moderating effect of centrality.

Research demonstrates that, in general, as compared to dominant and majority group members, members of non-dominant or minority groups tend to perceive their group memberships as more salient and therefore more proximal to their interactions and outcomes (Lorenzi-Cioldi, 2006). For example, Phinney and Alipuria (1990) found that Whites participants rate their ethnic identity as significantly less important as compared to Asian American, Mexican American, and Black participants. Given that students from less affluent backgrounds are underrepresented within college (Walpole, 2003) and the historical connection between the education system in America and the interests of the capitalist and middle classes (Bledstein, 1976; Bourdieu & Passeron, 1977; Demerath et al., 2010; Stephens, Fryberg, et al., 2012), it is likely that within the college context, students from less affluent backgrounds will perceive social class as more central to their identity as compared to students from more privileged backgrounds.

Indeed, empirical research has examined social class centrality among college students. In a study of first-generation college (FGC) students, Orbe (2004) examined how important or central FGC student status was to their identity. While FGC student status is not the same as social class, they are related constructs in that parental educational attainment impacts one's social class level, not only through its relationship between parental occupation and parental income, but also through the social and cultural capital parents are able to provide to their children in their transition to college. Within this sample of FGC students, there was a great deal of variability in how central this identity was in how students thought about themselves. Specifically, students who held a minority status in relation to another identity (e.g. race, ethnicity, age), reported that FGC student status was more central to how they thought about themselves, and how they navigated the college context. On the other hand, Aries and Seider (2007) examined group differences in social class centrality and found that social class was more important to the identity of affluent students as compared to low-income college students. However, this study only surveyed White students in an effort to not confound race and class. While these two studies found contradictory results, they used different samples and examined slightly different constructs. Regardless, they demonstrate that there is variation in the centrality of social class among college students and that further research is needed to better understand how this variation relates to students experience of college.

Affect. The third proposed dimension of social class identity is *affect*. As described above, social identity theory posits that a social group membership becomes a part of one's self-concept and impacts beliefs, emotions, and behaviors. Ashmore et al. (2004) describe the affective aspects of collective identities in terms of favorable or unfavorable evaluation. Indeed, evaluation is involved in the proposed affective dimensions (pride, shame, and guilt). For

example, in order to derive feelings of pride in your group membership one likely has to evaluate the group positively. However the focus of the proposed affect dimensions is somewhat distinct in that they also consider the extent that individuals derive positive or negative affect/emotion from their group membership.

Research has examined how emotions may be experienced as a function of one's social group memberships. In fact, Intergroup Emotion Theory (IET; Mackie et al., 2009; Smith & Mackie, 2008; Smith, 1993) posits that intergroup emotions are generated when individuals identify with a collective group and derive meaning from that identity. IET builds from appraisals theory of emotion (Roseman, 1984), social identity theory (SIT; Tajfel & Turner, 1986), and self-categorization theory (SCT; Turner et al., 1987) in order to understand how emotions function on an intergroup level. As described above, SCT proposes that through the process of self-categorization and deindividuation, when a social identity is salient, individuals see themselves less as a unique individual and more as a member of a collective group. Identification with the group impacts individuals' thoughts, feelings, and actions. Intergroup Emotion Theory proposes that the process of self-categorization actually impacts individuals' emotional experience (Mackie et al., 2008). More specifically, when a particular social identity is salient a person's emotional experience is likely different than if they were thinking of themselves as a unique individual. Furthermore, the emotional experience related to one social identity is likely different than the emotional response related to a different social identity.

Indeed, empirical research supports this theoretical perspective. For example, Smith et al. (2007) found that when the same individuals reported the extent to which they felt 12 different emotions 1) as an individual, 2) as an American, 3) and as a member of a political party (Democrat vs. Republican), group-level reported emotions converged toward the group's profile

of emotions, whereas individual reported emotions did not. Additionally, the group's profile of emotions (American vs. political party) was distinct from each other, and associated with group-level attitudes and behaviors. For example, positive emotions toward the ingroup were associated with desires to approach and support the ingroup as well as to avoid the outgroup.

Intergroup Emotion Theory (IET) proposes that the process of self-categorization impacts what intergroup (group-level) emotions are experienced through one of two routes: emotional self-stereotyping or intergroup appraisal. According to IET, when individuals perceive themselves as members of a collective group, they also see themselves as having characteristics typical of that group, including emotional responses. This is characteristic of the emotional self-stereotyping route to intergroup emotions, which would suggest "it is as if a group member says: 'I am an American, Americans feel proud, and I feel proud too'" (Mackie et al., 2008, p. 1870).

The other proposed path in determining what group-level emotions are experienced is the intergroup appraisal route. Appraisals theory of emotions argues that the emotional response an individual experiences is based on their interpretations of events and objects, or cognitive appraisals (for review, see Roseman & Smith, 2001). Building from appraisals theory of emotions, IET proposes when individuals think of themselves as a member of a group, their cognitive appraisals are not based on the implications for themselves personally, but rather on the implications for their ingroup. As such, when an individual appraises a situation as having negative implications for their ingroup, they experience a negative emotional response. Conversely, when an individual appraises a situation as having positive implications for their ingroup, they experience a positive emotional response, regardless of the implications for them as a unique individual.

Building from Intergroup Emotions Theory, I propose that affective attitudes are an important dimension in understanding collective identity, and social class identity in particular. Intergroup Emotion Theory provides a useful framework for understanding how different emotions can be experienced as a function of one's social identities, but primarily focuses on affective experiences at the level of the situation. The current study, however, will examine the extent to which individuals generally experience distinct emotions related to a particular social identity, in this case, their social class group membership. Based on social science research as well as narratives and memoirs detailing individuals' lived experiences around social class (e.g., Aries & Seider, 2007; Dews & Law, 1995; Hurst, 2010; Lubrano, 2004; Orbe, 2004), I propose three sub-dimensions to examining social class identity affect: *pride*, *shame*, and *guilt*. Next, I will conceptually define the proposed sub-dimensions of social class identity affect, discuss relevant research related to collective emotions, and discuss how each proposed sub-dimension of social class identity affect may relate to students' psychological and academic outcomes.

Pride. Within the proposed conceptual framework, *pride* relates to feelings of satisfaction and self-respect around being from a particular social class background. This aspect of social class identity entails positive feelings associated with being a member of one's social class group. Biographies and qualitative studies examining narratives of individuals' experiences around social class demonstrate that some individuals feel a sense of pride about their social class background – be that the opportunities afforded to them, the lessons they learned, or even the struggles they experienced (Aries & Seider, 2007; Fulwood, 1996; Hurst, 2010; Lubrano, 2004; Nelson, Englar-Carlson, Tierney, & Hau, 2006). This sense of pride, feeling good about where you come from, the stock you are made of – these sentiments are present in narratives of individuals from both more affluent and less affluent backgrounds. Conversely, an individual can

lack a sense of pride about their social class. Pride is distinct from the significance of social class to one's self-concept (centrality). For example, an individual can feel that social class is important in how they define themselves, but not feel positively about that identity. This dimension of social class identity assesses the positive feelings associated with being a member of one's social class group.

Social Identity Theory argues that the knowledge of one's group membership and the emotional significance of the social group become a part of one's self-concept and thereby shape patterns of thinking, feeling, and acting (Tajfel & Turner, 1986). SIT also proposes that individuals strive to feel positively about themselves, and as such, positively about their social groups. One of the first measures developed to empirically test this claim, and as such, assess feelings and attitudes toward a collective or social identity is the Collective Self-Esteem Scale (CSES; Luhtanen & Crocker, 1992). The CSES is a scale developed to assess "individuals' levels of social identity based on their memberships in ascribed groups pertaining to gender, race, religion, ethnicity, and socioeconomic class" (Luhtanen & Crocker, 1992, p. 304)². One of the four types of self-esteem measured by the CSES is *private esteem*, which reflects the extent to which an individual feels positively toward the collective group and their membership within the group. Indeed, research has demonstrated that positive evaluations of one's group are associated with better psychological outcomes. For example, using the CSES, Luhtanen and Crocker (1992) found that participants who felt positively toward their collective group memberships (*private esteem*) reported better psychological well-being, higher personal self-esteem, fewer depressive symptoms, and fewer feelings of hopelessness.

² The CSES was developed to assess the significance and evaluation of a general sense of collective group membership, however, the measure can and has been adapted to assess collective self-esteem based on a specific social identity (e.g., race). However, to date, no published research has modified the measure to assess social class collective self-esteem.

The Multidimensional Model of Racial Identity (MMRI; Sellers, Smith, et al., 1998) is a conceptual model examining the meaning and significance of race among African Americans. One of the proposed dimensions of the MMRI, *private regard*, refers to the extent to which individuals feel positively or negatively towards African Americans and their membership in that group, and is conceptually consistent with the private esteem subscale of the CSES. Within the racial identity literature, private regard has been related to a number of psychological and academic outcomes. For example, African Americans who feel more positively about their racial group tend to have higher personal self-esteem and lower depression; however this relationship is stronger for those individuals for whom race is a central part of their identity (Rowley et al., 1998; Settles et al., 2010). Also, research has found that having a greater connectedness with and more positive feelings about one's racial or ethnic group predicts better academic performance, more adaptive academic attitudes, and better psychological well-being (Chavous et al., 2003; Kiang et al., 2006; Sellers, Chavous, et al., 1998). The proposed dimension of social class pride is conceptually similar to private esteem in the CSES (Luhtanen & Crocker, 1992) and private regard in the MMRI (Sellers, Smith, et al., 1998). However, it is also distinct in that it not only considers whether an individual evaluates their group positively but also includes the extent to which an individual derives a sense of pride from their social class group membership.

As discussed above, Social Identity Theory (SIT; Tajfel & Turner, 1986) proposes that individuals are motivated to feel positively about themselves as well as the groups to which they identify. Additionally, Identity Theory (IT) proposes that social identities that are viewed more positively are likely to be more central to an individual's self-concept (Stryker & Serpe, 1994). As such, one would expect that among college students, there would be a positive relationship between social class centrality and positive collective emotions (i.e., social class pride), and a

negative relationship between social class centrality and negative collective emotions (i.e., social class shame and guilt).

Empirical research examining collective emotions related to social class among college students provides some support for the theoretical assumptions of SIT and IT. For example, in a qualitative examination of college students, Aries and Seider (2007) found that when asked if they would change their social class background if given the opportunity, nearly all of the affluent students reported that they would choose the same social class. However, there was more variability among lower-income students. While there were some students from lower-income backgrounds who reported that they would rather have been born into a social class with more money and more opportunities, the majority of lower-income college students at both an elite private school and a less prestigious state institution, reported that if they had the opportunity to be born into a different social class, they would not do so. In fact, they expressed feelings of pride about their social class background and valued the character traits they had developed as a function of their family economic struggles. While this study did not examine associations between students' self-identified social class or social class centrality and their reports of pride related to their social class, it does demonstrate that the majority of students felt positively about their social class background.

Shame. Within the proposed conceptual framework, *shame* is an affective experience of social class involving negative feelings about one's social class identity. These negative feelings involve being ashamed or embarrassed that one comes from a particular social class background. Shame associated with one's social class is also a prevalent sentiment expressed in narratives about social class (e.g., Hurst, 2010; Lubrano, 2004). Shame may involve individuals wanting to hide information about their social class due to fear of humiliation, desire to maintain dignity, or

even feelings of unworthiness. Shame is not simply the opposite of pride; it is a distinct dimension. An individual can have relatively high levels of both pride and shame. For example, an individual can have feelings of pride and self-respect about their social class background, but also want to hide information about their social class for fear of humiliation.

Building from Intergroup Emotion Theory (IET), research demonstrates that collective shame is experienced when an individual perceives that their ingroup is shown to be weak or incompetent. Conceptualizations of collective shame propose that it is experienced when an individual perceives their ingroup as “being publically exposed as incompetent, not being in control, weak and potentially even disgusting *in the eyes of others*” (Branscombe, Slugoski, & Kappen, 2004, p. 29, emphasis in the original), or “that the actions of the ingroup confirm or reveal a flawed aspect of one’s social identity ... [and] ... implicate something about the very nature of who they are” (Lickel, Schmader, & Barquissau, 2004, pp. 42–43). When individuals experience collective shame, they are more likely to distance themselves from the ingroup and from situations that elicit this emotional experience (Lickel, Schmader, Curtis, Scarnier, & Ames, 2005). For example, Piff, Martinez, and Keltner (2012) examined whether perceiving one’s ingroup as having committed an immoral act would elicit feelings of collective shame. Participants (US citizens) who were reminded of American transgressions against foreign countries (through various experimental manipulations) reported higher levels of collective shame (as compared to the control condition). Additionally, greater reports of collective shame not only predicted distancing from the ingroup, but also subsequent ingroup hostility, including ingroup-directed punishment and derogation (Piff et al., 2012).

Much of the research on collective shame focuses on the experience of dominant groups in relation to past transgressions against an outgroup (e.g., Brown & Čehajić, 2008; Gunn &

Wilson, 2011; Harvey & Oswald, 2000; Lickel et al., 2005; Piff et al., 2012). Extending the previous research on collective shame to the study social class within the context of higher education, some individuals from more affluent backgrounds may be acutely aware of societal inequalities and discriminatory systems of stratification, and/or perceive social class discrimination within the context of higher education. As such, they could perceive ethical failings of their ingroup, which could elicit feelings of shame related to their social class identity. Conversely, given that within American society, the discourse around social class imbues moral connotations and devalues lower social class standing, individuals from less privileged backgrounds could perceive moral deficiencies of their ingroup, which could elicit feelings of collective shame. Furthermore, experiencing collective shame related to one's social class identity could have implications for students' psychological and academic adjustment to college. The tendency to avoid others and experiences that elicit collective shame in relation to their social class identity could lead students to be less socially integrated and less engaged in the academic context. As such, I argue that *shame* is an important affective experience to examine in understanding collective identity, and social class identity in particular, especially within the educational context.

Guilt. Within the proposed conceptual framework, *guilt* also entails negative feelings about one's social class but refers to the feelings of remorse associated with the opportunities that have been afforded to an individual in relation to her/his social class background. Students in higher education may experience feelings of guilt for having "succeeded" and having essentially "left behind" other members of one's family who did not have the same opportunities (Lubrano, 2004; Piorkowski, 1983). For instance, within literatures examining the experiences of upwardly mobile ethnic minorities and individuals from working-class and poor backgrounds, research has

used the term “survivor guilt” to describe this phenomenon. Conversely, some individuals from more affluent backgrounds may be acutely aware of societal inequalities or personal privilege, and subsequently, may feel a sense of guilt around their access to opportunities relative to less privileged others.

Guilt, also a negative emotion, is distinct from the experience of shame. Research on individual-level emotions demonstrates that guilt is experienced when an individual feels regret or remorse about a transgression they have committed against another (Tangney & Fischer, 1995). Guilt can also be experienced when an individual perceives positive inequity, meaning “the ratio between outcome and input is higher for them than it is for relevant others” (Brockner et al., 1986, p. 374). Building from Equity Theory (Adams, 1965), industrial and organizational psychologists have examined the impact of perceiving positive inequity within the workplace, for example examining the effect of layoffs on remaining employees, or “survivors.” According to Equity Theory, perceiving positive inequity “1) arouses guilt, and 2) motivates individuals to redress this guilt through behavioral or psychological means” (Brockner et al., 1986, p. 374). Indeed, empirical research supports this theoretical perspective. For example, using an experimental methodology, Brockner and colleagues manipulated the circumstances surrounding the dismissal of a “co-worker” and found that when the dismissal was perceived as random, “survivors” experienced guilt and worked harder on a subsequent evaluative task (Brockner et al., 1986; Brockner, Davy, & Carter, 1985).

While the literature discussed in relation to guilt has examined it at the individual level, recall that Intergroup Emotion Theory proposes that emotions can be experienced as a function of one’s group memberships (Mackie et al., 2008). Research examining collective guilt in response to the wrongdoings of one’s ingroup proposes that collective guilt “stems from the

distress that group members experience when they accept that their ingroup is responsible for immoral actions that harmed another group” (Branscombe & Doosje, 2004, p. 3). Additionally, research suggests that experiencing collective guilt is associated with less prejudice toward the victimized group and toward various forms of reparation (Doosje, Branscombe, Spears, & Manstead, 1998; McGarty et al., 2005; Powell, Branscombe, & Schmitt, 2005; Swim & Miller, 1999). For example, Swim and Miller (1999) found that while, on average, White participants reported relatively low levels of collective guilt associated with the experience of Blacks in America, or “White guilt,” collective guilt among White participants was associated with less prejudice toward African Americans and more supportive views toward affirmative action.

While much of the literature on collective guilt focuses on the experience of dominant groups in relation to past transgressions against an outgroup (e.g., Brown & Čehajić, 2008; Brown, González, Zagefka, Manzi, & Čehajić, 2008; Gunn & Wilson, 2011; Harvey & Oswald, 2000; McGarty et al., 2005; Swim & Miller, 1999), I argue that collective guilt can be experienced based on perceived positive inequity and can be experienced by members of non-dominant groups. For example, Piorkowski (1983) extended the concept of survivor guilt related to natural disasters and large-scale atrocities to the experience of upwardly mobile individuals within the university setting, defining survivor guilt as “guilt at having survived [or succeeded] when others who seem to be equally, if not more, deserving did not” (p. 620). Furthermore, it is argued that the experience of survivor guilt among “low-income, urban, first-generation college students” is associated with emotional and academic difficulties (Piorkowski, 1983). As it relates to social class identity, I argue individuals from both more privileged and less affluent backgrounds can experience collective guilt, which could have implications for their

psychological and academic outcomes. As such, I argue that guilt is an important emotion to assess in understanding social class identity, especially within the college context.

Assumptions of Multidimensional Framework of Social Class Identity. Drawing on psychological, sociological, and educational literatures, I have delineated three dimensions of social class identity: *identification*, *centrality*, and *affect*. The working assumptions of the proposed conceptual framework of social class identity are as follows:

1. Previous research has demonstrated that the meaning and significance of social class, in particular, is dependent on context (Devine, 1992). As such, the proposed conceptual framework was developed to assess social class identity in the context of higher education. While I focus on the context of higher education, I believe that social class is relevant in other contexts such as the work place or in a community context. Furthermore, I hold that this conceptual framework could be applied to the examination of social class identity within other contexts.
2. Consistent with Identity Theory, I posit that people have multiple identities that can be hierarchically organized (Markus & Sertis, 1982; McCall & Simmons, 1978; Rosenberg, 1979; Stryker & Serpe, 1982, 1994). The proposed conceptual framework focuses on the importance an individual places on a particular identity, similar to other collective identity models designed to examine a specific social identity (i.e., MMRI, Sellers, Smith, et al., 1998). By explicitly examining social class identity, I can also explore how social class identity operates in conjunction with other social identities, such as race and gender.
3. I make no a priori prescriptions as to what social class identity beliefs are good or bad. Assessing whether a particular social class identity belief is adaptive will be

based on the relationship between dimensions of social class identity and particular outcomes of interest.

One of the main goals in developing this conceptual framework of social class identity was to identify and articulate relevant aspects of the psychological experience of social class within the context of education. The proposed framework is not meant to be a comprehensive model of social class identity, but rather an initial organizing framework for understanding social class identity within the college context, based on my review of the literature. I have developed a multidimensional measure of social class identity that corresponds to the proposed conceptual framework. This measure will be discussed in greater detail in the next chapter. In the next section, I review research examining variation in social class identity within the context of higher education and further discuss how the proposed dimensions of social class identity may relate to students' psychological and academic adjustment to college.

Within-Group Variation in Social Class Identity among College Students

Recent research examining social class identity among working-class college students has found that there is within-group variation in how students think about their social class, the collective emotions experienced as a function of their social class, and their psychological and academic adjustment to college. In particular, Hurst (2010) examined social class identity among working-class college students and found three distinct groups differentiated in the ways that they thought about themselves in relation to their social class and educational aspirations: *Loyalists*, *Renegades*, and *Double Agents*. *Loyalists*, who identified with the working-class, sought to maintain connections with working-class family, friends, and communities, and they drew sharp lines between themselves and the middle-class world. While they expressed difficulties with fitting in at college, and a “discomfort with bourgeois values of competitive

individualism,” these students were highly motivated and did well academically. When describing working class people, Loyalists used positive descriptions and they expressed a sense of pride about their social class background. Moreover, they did not express feelings of shame or embarrassment about their working class background. While Loyalists tended to be older than Renegades, they were also more academically successful. Additionally, neither race nor gender seemed to play a role in distinguishing Loyalists from Renegades (Hurst, 2010).

Conversely, *Renegades* identified with the middle-class, and embraced middle-class norms and values. Renegades saw college as a way to change their social class (Hurst, 2010). They also expressed shame and embarrassment when identified as working-class or poor. When asked to describe working-class people, Renegades used negative adjectives such as “inferior” or “stupid.” However, when describing middle-class people, they used positive descriptions, and expressed a sense of identification with the middle class. While Renegades seemed to be very aware of social differences, they strived to distance themselves from being associated with the working-class (Hurst, 2010).

However, *Double Agents*, some of whom identified with the working-class and some of whom identified with the middle-class, were able to move between different social groups and settings more easily (Hurst, 2010). They did not perceive their working-class background as incompatible with their middle-class college context, and while they saw college as a way to achieve a new class position, Double Agents did not necessarily seek a new class identity. They did not draw sharp boundaries between the working-class and middle-class; however in general, social class did not seem to be as salient in their life stories as compared to Loyalists and Renegades. Double Agents saw value in both the middle-class and the working-class. They did not express shame or embarrassment about their working-class background, but instead had a

sense of pride about it. However, all but one of the students who were categorized as Double Agents were White females (the exception being a Latina). As such, Hurst (2010) suggests this may be an identity that may not be available for everyone.

Hurst (2010) demonstrates that students from similar social class backgrounds can experience social class very differently. While all of the students in the sample came from a working class background, they varied in how they identified their social class, in the perceived importance of social class, and in the collective emotions related to their social class. This study also demonstrates that these different profiles of social class identity related to differential psychological and academic adjustment to college. Additionally, this study suggests that further research should be done to examine the impact of collective emotions related to social class, particularly among college students.

Examining social class identity among college students is a relatively new, but growing literature. Indeed, there are few studies that examine identity processes related to social class and how they relate to students' academic and psychological adjustment to college, and even less that examine within-group variation in social class identity. Research has shown that students from less privileged backgrounds are less socially integrated and perceive cultural incongruence between their social class background and the college context, which is associated with poorer psychological and academic outcomes (Ostrove & Long, 2007; Stephens, Fryberg, et al., 2012). While research has demonstrated significant social class group differences in students' psychological and academic experience of college, what is less clear is how variation in the experience of social class may differentially predict students' adjustment to college.

Based on previously reviewed literature (e.g., Rowley et al., 1998; Schmader, 2002; Wilson & Liu, 2003), it is likely that the impact of social class on students' psychological and

academic outcomes is stronger among students who see their social class as more important to their self-concept (centrality). In addition to the centrality of social class, the affective meanings attached to one's social class group are likely associated with students' psychological and academic adjustment. Given the previously discussed research demonstrating that positive feelings towards one's social group membership relate to better psychological and academic outcomes (e.g., Chavous et al., 2003; Luhtanen & Crocker, 1992), it is likely that students who experience more pride related to their social class identity will have better psychological well-being and more academic motivation. Additionally, research examining negative feelings towards one's social group membership demonstrates that collective shame and collective guilt related to one's social class will likely be associated with students' adjustment to college. For example, research has demonstrated that experiencing collective shame is associated with social distancing from the ingroup (Lickel et al., 2005). As such, students who experience social class shame are likely to distance themselves from individuals they perceive to be a part of that particular social class group (e.g., family of origin, friends within and outside the college context) or from situations that might elicit more collective shame, which could negatively impact their psychological and academic adjustment. Conversely, experiencing collective guilt is associated with prosocial behavior and efforts to mitigate the damages of transgressions or inequality (Brockner et al., 1986; Doosje et al., 1998), which could relate to better social relations and more academic motivation, positively impacting students' psychological and academic outcomes.

Moreover, it is important to examine whether the relationship between social class identity and students' psychological and academic outcomes are similar for students with different social class identifications. For example, while literature examining collective emotions

would suggest positive social and motivational outcomes related to experiencing collective guilt, Piokowski (1983) suggests that students from less affluent backgrounds would likely experience poorer psychological and academic adjustment. As such, another important goal of this study is to examine whether social class identity differentially relates to students' psychological and academic outcomes as a function of students' social class identification. By examining the meaning and significance of social class among a socioeconomically diverse sample of college students, researchers may gain further insight in understanding the role that social class plays in contributing to disparities in educational outcomes, as well as understanding how to reduce them. The proposed conceptual framework may provide a useful tool in examining social class identity among college students. As such, this dissertation will add to the literature in understanding how variation in social class identity relates to students' psychological and academic adjustment to college.

Race and Social Class Identity

Although the psychological literature has moved toward considering the significance of social class identity in the context of education, the vast majority of studies either use predominately White samples or makes the assumption that these processes are similar across different racial/ethnic groups (Aries & Seider, 2007; Ostrove & Long, 2007; Stephens, Fryberg, et al., 2012; Stephens, Townsend, et al., 2012). However, in building a critical psychology of social class, it is important to acknowledge that social identities are often experienced in conjunction with one another (Ostrove & Cole, 2003). The concept of intersectionality highlights the importance of understanding how multiple social identities simultaneously impact an individual's values, beliefs, and life outcomes and emphasizes issues of marginality and

privilege as a function of interlocking identities (Crenshaw, 1994; King, 1988). Intersectionality provides a useful framework for examining how race impacts the experience of social class.

Sociologists have demonstrated how the impact of social class is fundamentally influenced by race. For example, middle-class Black families tend to have significantly less accumulated wealth as compared to middle-class White families, largely due to a history of discriminatory practices in mortgage lending (Conley, 1999). Additionally, Black middle-class communities are more likely to be surrounded by poor communities and higher levels of crime as compared to White middle-class communities, due to persistent residential racial segregation (Pattillo-McCoy, 1999). While these findings highlight differences in the experience of middle-class status, they also demonstrate how race is a foundational element to the experience of social class.

Research also suggests that social class identity may vary as a function of race. For example, research examining the relationship between objective indicators of SES (income, education, and occupation) and subjective assessments of social class identity have consistently found racial differences, such that among African American participants objective measures of SES are not as strongly related to their social class identification as compared to White participants (Hout, 2008; Jackman & Jackman, 1983; Jackman, 1979; Kluegel, Singleton, Jr., & Starnes, 1977). In particular, research suggests that African American participants tend to identify with a less affluent social class identity than their objective indicators of social class would suggest. Some researchers argue that these findings suggest African Americans may also consider their lower racial group status in their perceived social class standing (Jackman & Jackman, 1973; Jackman, 1979; Kluegel et al., 1977). While these relationships have not been examined in student populations, this research does suggest that social class identification may

vary as a function of race such that African American students may identify with less affluent social class groups than do White students with comparable SES indicators.

Additionally, within the context of higher education, Orbe (2004) found that first-generation college (FGC) students varied a great deal in how central FGC student status was to their identities. Specifically, students who held a minority status in relation to another identity (e.g., race, ethnicity, gender, age), reported that FGC student status was more central to how they thought about themselves. Orbe (2004) suggests that maintaining a more privileged position based on other social identities allows for FGC student status to remain on the periphery of students' self-concept. This research suggests that the importance of one's social class identity can vary as a function of other social identities. Although Orbe (2004) focuses on FGC student status, this research suggests that the social class identity may be less central among individuals who hold more privileged identities (e.g., White male students from more affluent backgrounds).

By taking an intersectional approach, the proposed study seeks to extend our understanding of how the meaning and significance of social class may vary across students' race and self-identified social class groups. To account for the heterogeneity of social class experiences of individuals from different racial groups, the current study uses a socioeconomically diverse sample of African American and White college students³. Of particular interest is to examine whether there are racial differences in social class identity, and whether the relationship between social class identity and psychological and academic outcomes varies by race. Do students from different racial backgrounds vary in their social class identity levels across the proposed identity dimensions? Do the associations among the social class

³ This study examines social class identity processes among African American and White college students. This is not to assume that the association between social class identity and students' psychological and academic outcomes would be similar for different ethnic and racial groups. Future research should examine whether social class identity processes operate similarly among different racial/ethnic groups. However, that is beyond the focus of this study.

identity dimensions with students' adjustment to college vary as a function of race? Additionally, the proposed study will also examine whether there are differences in the proposed social class identity beliefs based on social class identification, as well as whether the relationships among the social class identity beliefs and psychological and academic outcomes vary as a function of social class identification.

Study Questions and Hypotheses

In this dissertation, I attempt to introduce and establish a conceptually-grounded measure of social class identity, assessing dimensions of social class identification, centrality, and affect. The items were drawn from previous measures of social identity, and adapted from research examining the experience of social class within the educational context. Second, after establishing the measure, I will explore the relationship between different dimensions of social class identity and psychological and academic outcomes. My research questions are:

1. Are the factors identified consistent with the study's conceptual framework for social class identity? Does the measure of social class identity attitudes adequately capture the proposed dimensions of social class identity? Does the measure of social class identity operate consistently across groups of individuals who vary by race and self-identified social class?
 - a. Does the developed measure of social class identity demonstrate construct validity?
 - b. Does the measure of social class identity demonstrate measurement invariance/equivalence across racial and self-identified social class groups?
 - c. How reliable are the social class identity subscales?
 - d. How are the social class identity subscales related to each other?

- e. How are the social class identity subscales related to student background characteristics (race, gender, SES indicators, and self-identified social class)?
2. How are the proposed dimensions of social class identity related to students' academic outcomes—academic engagement, academic affect, academic satisfaction, and self-reported cumulative GPA?
 - a. Does social class centrality moderate the relationship between social class affect (pride, shame, and guilt) and academic outcomes?
3. How are different dimensions of social class identity related to students' psychological outcomes—psychological well-being and psychological distress?
 - a. Does social class centrality moderate the relationship between social class affect (pride, shame, and guilt) and psychological outcomes?
4. Is the relationship between social class identity dimensions and academic and psychological outcomes moderated by race and self-identified social class?

The first set of analyses will examine the appropriateness of the developed social class identity measure, by conducting Confirmatory Factor Analysis (CFA) in combination with theoretical and conceptual considerations to finalize the dimensions of the social class identity measure. I hypothesize that a four-factor model will fit the data (centrality, pride, shame, and guilt). I will also examine whether the finalized measure of social class identity assesses the same underlying construct and has the same psychological meaning for individuals who vary by race and self-identified social class. I expect that the measure of social class identity will operate consistently across racial and self-identified social class groups. I also expect that each subscale will be reliable and show discriminant validity, indicated by low to moderate correlations between each scale. While the importance social class plays in one's self concept (centrality) and

how positively one feels about their membership within a social class group (pride) are conceptually distinct, previous research has shown that conceptually similar dimensions (centrality and private regard) are highly correlated (Sellers et al., 1997).

Given previous research demonstrating a positive relationship between objective and subjective assessments of social class (Hout, 2008), I expect a moderate positive relationship between social class identification and objective SES indicators. I also hypothesize that African Americans will be more likely to report a less affluent social class identification as compared to White students. Additionally, previous research has demonstrated that students who have membership in other marginalized social groups (e.g., ethnic/racial minorities, women, and students from less affluent background) report social class as more salient (Orbe, 2004). As such, I expect that African American students will report higher levels of social class centrality as compared to White students, and students from less affluent backgrounds will report higher levels of social class centrality as compared to students from more affluent backgrounds. However, few studies have examined the meaning and significance of social class in a racially and economically diverse sample. Thus, this study will expand the literature by examining multiple dimensions of social class identity in a racially and socioeconomically diverse sample.

The second set of analyses will examine how social class identity dimensions relate to psychological and academic outcomes. I expect that higher social class pride will be related to better psychological and academic outcomes, and that higher social class shame will be related to poorer psychological and academic outcomes. I also expect higher levels of social class guilt to be related to poorer psychological outcomes. However, while Piorkowski (1983) suggests that students who experience “survivor guilt” within the college context tend to struggle academically, Brocker and colleagues (1985, 1986) found that experiencing collective guilt was

associated with working harder on a subsequent evaluative task. As such, it will be interesting to see whether social class guilt would have a positive or negative relationship with academic outcomes. Additionally, social class centrality may have a direct relationship with psychological and academic outcomes. However, similar to previous research examining racial and gender identity (e.g., Rowley et al., 1998; Schmader, 2002; Seaton, 2009; Settles et al., 2010; Wilson & Liu, 2003), I expect that centrality will moderate the relationship between social class affect (pride, shame, and guilt) and psychological and academic outcomes, such that students who report higher levels of centrality will have a stronger relationship between social class affect and psychological and academic outcomes. Additionally, the current conceptualization will allow for the examination of how positive affective experiences work in conjunction with negative affect related to one's social class to predict psychological and academic outcomes.

The third set of analyses will examine whether the relationship between social class identity and students' psychological and academic outcomes is moderated by race and social class identification. Previous research demonstrates that social class is more salient among racial/ethnic minorities and students from less affluent backgrounds (Orbe, 2004). Additionally, selective institutions tend to promote and reward upper and middle class values that can be experienced as culturally incongruent for students from less affluent backgrounds and can impact their psychological and academic outcomes (Stephens, Fryberg, et al., 2012; Stephens, Townsend, et al., 2012). As such, given the socioeconomic characteristics of the highly selective sample university, I expect that the relationship between social class identity and psychological and academic outcomes will be stronger for African American students as compared to White students and for students who report a less affluent social class identification as compared to students who report a more affluent social class identification.

Chapter 3: Method

In this chapter, I will describe the method of data collection and analysis.

Participants

The final sample included 353 participants from a large, selective Midwestern university, of which 208 (58.9%) identified as female and 145 (41.1%) identified as male⁴. Of the total sample, 155 (43.9%) identified as African American/Black and 198 (56.1%) identified as European American/White. The sample was socioeconomically diverse with a median reported family income between \$75,000 and \$84,999. Twenty-five percent of the sample reported a family income below \$35,000 and 25% reported a family income above \$115,000. The mean age of the sample was 20.77 ($SD=2.88$, Range=18-54).

Procedures

The current study utilizes student data from one university site within a multi-site, multi-method project focused on underrepresented minority students' experience of racial and gender stigma in Science, Technology, Engineering, and Mathematics (STEM) fields and implications for academic identity development. The larger dataset was derived from a cross-sectional survey of college students across all class year levels from 5 different Midwestern universities. One university represented 89.2% of participants' responses. As such we included only participants who attended this institution as we lacked enough power to examine university-level differences,

⁴ Participants were asked to report their "gender identity" (1=male, 2=female, 3=other). Participants who selected 3 (other) were prompted to enter a text response describing their gender identity. One hundred and forty-five participants selected 1 (male), 207 participants selected 2 (female), and 1 participant selected 3 (other). The 1 participant who selected 3 (other) entered "My sex is female" as their text response and was recoded as 2 (female). As such 208 participants were coded as female and 145 were coded as male.

and previous research has demonstrated university differences in the psychological experience of social class (Aries & Seider, 2005, 2007). The selected university is a large, Midwestern predominately White institution (PWI). It is a highly selective, public university. In the year of data collection, 69% of enrolled students were White and 25% of students were racial/ethnic minorities (about 5% of which were Black). Also in the year of data collection, 25.1% of the student population had a parental income of less than \$75,000, 42.9% had a parental income between \$75,000 and \$200,000, and 31.8% had a parental income of \$200,000 or more (parent-reported data from the registrar). In terms of parental educational attainment, university-wide statistics demonstrate that 20.3% of fathers and 20.5% of mothers had earned less than a college degree, 31.9% of fathers and 44.5% of mothers had earned at least a college degree but had not earned a graduate degree, and 47.8% of fathers and 35.0% of mothers had earned a graduate degree (also parent-reported data from the registrar).

Recruitment. Participants were recruited through a multi-university initiative focused on underrepresented minority retention in STEM areas. In addition to recruitment through the retention in STEM initiative, participants were also recruited through the registrar. A random sample of the European American/White student population and the complete population of African American/Black students were sent a recruitment email from the registrar. The email included a link to an online survey which was administered through Qualtrics. All participants consented before taking the survey and were compensated \$25 for their participation.

Measures

Social Class Identity. The social class identity questionnaire consisted of 18 items designed to assess the dimensions described above based on previous measures of collective identity and qualitative research on the experience of social class within higher education. Some

items were adapted from other measures of conceptually similar constructs of collective identity (Luhtanen & Crocker, 1992; Sellers et al., 1997), and other items were created for this measure. Items were reviewed by experienced survey researchers for fit with the desired construct, and piloted with a racially diverse convenience sample of about 150 undergraduate students. No items were dropped or added after pilot testing, but one item was reworded due to low response variance. Specifically, “I am not happy that I come from my social class background” was changed to “I am unhappy that I come from my social class background.”

Identification was assessed using 1 item. Participants were asked “If you had to describe your social class background, you would describe it as,” and were provided 6 choice options: poor, working class, lower middle class, middle class, upper middle class, and upper class. This operationalization is consistent with previous research assessing social class identification within a college sample (Ostrove & Long, 2007).

Centrality was assessed using 7 items measuring the extent to which social class is an important part of one’s self-concept on a scale of 1 (strongly disagree) to 7 (strongly agree). Two of the items were adapted from the Collective Self-Esteem Scale—Identity Subscale (CSES; Luhtanen & Crocker, 1992), 1 item was adapted from the Multidimensional Inventory of Black Identity—Centrality Subscale (MIBI; Sellers et al., 1997), 1 item was adapted from the MIBI-Teen—Centrality Subscale (Scottham, Sellers, & Nguyễn, 2008) and the other 3 items were created for this measure. Higher scores indicate that social class is more important in defining oneself. Example items include “Coming from a(n) [*selected social class group*] background is important to my sense of what kind of person I am” and “I have a lot in common with other [*selected social class group*] students.”

Affect was assessed using 3 subscales: pride, shame, and guilt.

Pride was assessed using 3 items measuring the extent to which individuals feel positively about their social class background on a scale of 1 (strongly disagree) to 7 (strongly agree). One of the items were adapted from the CSES—Private Esteem Subscale (Luhtanen & Crocker, 1992) and the MIBI—Private Regard Subscale (Sellers et al., 1997), and the other 2 items were created for this measure. Higher scores indicate a greater feeling of pride related to one’s social class. Example items include “I feel a sense of pride because of my [*selected social class group*] background” and “I feel good about my [*selected social class group*] background.”

Shame was assessed using 4 items measuring the extent to which individuals feel ashamed or embarrassed about their social class background on a scale of 1 (strongly disagree) to 7 (strongly agree). All 4 items were created for this measure. Higher scores indicate greater feelings of shame. Example items include “At times, I try to hide the fact that I am [*selected social class group*]” and “I sometimes feel embarrassed that I come from a(n) [*selected social class group*] background.”

Guilt was assessed using 3 items measuring the extent to which individuals feel remorse associated with the opportunities they have been afforded on a scale of 1 (strongly disagree) to 7 (strongly agree). All 3 items were created for this measure. Higher scores indicate greater feelings of guilt. Example items include “Sometimes, I feel guilty that others have not been as fortunate as I have been” and “I fear that others may perceive me as ‘thinking I am better.’” (See Appendix A for complete measure).

Student-reported Socioeconomic Status (SES) Indicators

Mother’s Education was assessed by asking participants to select the highest level of education attained by their mother, and was reported by students. Options were 1 = Junior high

school or less, 2 = Some high school, 3 = High school diploma, 4 = Some college, 5 = 2 yr college degree, 6 = 4 yr college degree, 7 = Master's degree, 8 = PhD/MD/JD, 9 = Don't know.

Father's Education was assessed by asking participants to select the highest level of education attained by their father, and was reported by students. Again, options were 1 = Junior high school or less, 2 = Some high school, 3 = High school diploma, 4 = Some college, 5 = 2 yr college degree, 6 = 4 yr college degree, 7 = Master's degree, 8 = PhD/MD/JD, 9 = Don't know.

Family Income was assessed by asking participants to select their estimate of their family's household income in 2011, and was reported by students. There were 23 options (1 = Below \$4,999, 2 = \$5,000-\$14,999, 3 = \$15,000-\$24,999, 4 = \$25,000-\$34,999, 5 = \$35,000-\$44,999, 6 = \$45,000-\$54,999, 7 = \$55,000-\$64,999, 8 = \$65,000-\$74,999, 9 = \$75,000-\$84,999, 10 = \$85,000-\$94,999, 11 = \$95,000-\$104,999, 12 = \$105,000-\$114,999, 13 = \$115,000-\$124,999, 14 = \$125,000-\$134,999, 15 = \$135,000-\$144,999, 16 = \$145,000-\$154,999, 17 = \$155,000-\$164,999, 18 = \$165,000-\$174,999, 19 = \$175,000 - \$184,999, 20 = \$185,000 - \$194,999, 21 = \$195,000 - \$204,999, 22 = \$205,000 or more, 23 = Don't Know).

Academic Outcomes

Academic Engagement was assessed using items adapted from the Scale of Academic Engagement (Skinner & Belmont, 1993) and the Motivated Strategies of Learning Questionnaire (MSLQ; Pintrich, Smith, Garcia, & McKeachie, 1991). The 14-item questionnaire that was administered to participants consisted of 3 subscales assessing students' level of interaction and engagement with their academic materials: curiosity, cognitive engagement, and persistence. The *curiosity* subscale ($\alpha = .67$) consists of 4 items that assess the extent to which students are engaged when new academic materials are introduced on a scale of 1 (not at all true of me) to 5 (very true of me). An example item is "The first time my professors talk about a new topic, I

listen very carefully.” Higher scores indicate greater levels of academic curiosity. The *cognitive engagement* subscale ($\alpha = .70$) consists of 6 items that assess the extent to which students are thoughtfully engaged with academic content on a scale of 1 (not at all true of me) to 5 (very true of me). An example item is “When reading for class, I ask myself questions to make sure I understand what it is about.” Higher scores indicate greater levels of cognitive engagement. The *persistence* subscale ($\alpha = .78$) consists of 4 items that assess the extent to which students persist after academic difficulties or failures on a scale of 1 (not at all true of me) to 5 (very true of me). An example item is “If I can’t get a problem right the first time, I just keep trying.” Higher scores indicate greater levels of academic persistence. All subscales were mean-scored. (See Appendix B for complete measure).

Academic Affect was assessed using a 10-item questionnaire adapted for this study. The questionnaire consisted of 3 subscales assessing students’ affective feelings related to their academics: Positive Affect, Negative—Uncertainty about Persisting, and Negative—Doubts around Ability. The *Positive Affect* subscale ($\alpha = .82$) consists of 5 items that assess how often students feel positively about their experience with academic materials on a scale of 1 (almost never) to 5 (very often). Example items include “How often did you feel excited about what you were learning?” and “How often did you feel pride in your academic performance?” Higher scores indicate more positive academic affect. The *Uncertainty about Persisting* subscale ($\alpha = .71$) consists of 3 items that assess how often students feel a sense of uncertainty around their academic goals on a scale of 1 (almost never) to 5 (very often). An example item is “How often did you feel uncertainty about continuing your college education?” Higher scores indicate more feelings of uncertainty. The *Doubts around ability* subscale ($r = .44$) consists of 2 items that assess how often students feel doubt about their academic abilities on a scale of 1 (almost never)

to 5 (very often). An example item is “How often did you feel apprehensive about taking certain courses because they were too difficult?” Higher scores indicate more doubts around ability. All subscales were mean-scored (see Appendix B for complete measure).

Academic Satisfaction was measured using 6 items adapted for this study that assessed the extent to which students feel satisfied with their college experience. Each item included the stem “Overall, how satisfied are you with...” Items include “your academic performance,” “the courses you have taken,” “your interactions with professors,” “your social life at your university,” “your interactions with other students,” and “your overall college experience.” Items were mean scored and demonstrated high internal consistency ($\alpha = .83$).

Cumulative Grade Point Average (GPA) was assessed using 1 open-ended item that asked participants to report their current cumulative college GPA on a 4-point scale.

High School Grade Point Average (GPA) was included as a covariate in some analyses and was assessed using 1 open-ended item that asked participants to report their high school GPA on a 4-point scale.

Psychological Outcomes

Psychological Well-Being was assessed using 5 subscales of the Ryff Psychological Well-Being Scale (Ryff & Keyes, 1995) that measures positive psychological functioning: Positive Relations with Others, Autonomy, Environmental Mastery, Self-Acceptance, and Purpose in Life.

The *Positive Relations with Others* subscale ($\alpha = .61$) consists of 3 items that assess the extent to which individuals feel they have warm, satisfying, and trusting relationships with others. Participants use a rating scale from 1 (strongly disagree) to 6 (strongly agree). An

example item is “I feel like I get a lot out of my friendships.” Higher scores indicate more positive relations with others.

The *Autonomy* subscale ($\alpha = .52$) consists of 4 items that assess the extent to which individuals evaluate themselves by personal standards on a scale of 1 (strongly disagree) to 6 (strongly agree). An example item is “My decisions are not usually influenced by what everyone else is doing.” Higher scores indicate a greater sense of self-determination and independence.

The *Environmental Mastery* subscale ($\alpha = .65$) consists of 4 items that assess the extent to which individuals feel a sense of mastery and competence in managing their environment on a scale of 1 (strongly disagree) to 6 (strongly agree). An example item is “I am quite good at managing the responsibilities of my daily life.” Higher scores indicate a greater environmental mastery.

The *Self-Acceptance* subscale ($\alpha = .82$) consists of 4 items that assess the extent to which individuals hold a positive attitude toward the self on a scale of 1 (strongly disagree) to 6 (strongly agree). An example item is “For the most part, I am proud of who I am.” Higher scores indicate greater levels of self-acceptance.

The *Purpose in Life* subscale ($\alpha = .72$) consists of 3 items that assess the extent to which individuals feel that they have a sense of meaning and purpose in life on a scale of 1 (strongly disagree) to 6 (strongly agree). An example item is “I have a sense of direction and purpose in life.” Higher scores indicate a greater sense of purpose in life. All subscales were mean-scored (see Appendix B for complete measure).

Psychological Distress was assessed using the K10 screening scale for psychological distress (Kessler et al., 2002). This measure consists of 10 items that assesses how often individuals experience symptoms of non-specific psychological distress over the last 30 days.

The K10 uses a scale of 1 (None of the time) to 5 (all of the time). Example items include “During the last 30 days, about how often did you feel hopeless?” and “During the last 30 days, about how often did you feel that everything was an effort?” Items were mean-scored. The measure demonstrated high internal consistency ($\alpha = .92$), with higher scores indicating greater occurrence of psychological distress (see Appendix B for complete measure).

Analysis Plan

To establish the social class identity measure and test whether the social class identity dimensions are consistent with my conceptualization of the dimension constructs, I will conduct confirmatory factor analysis (CFA). A CFA approach allows for testing the correlational structure of the items against my hypothesized structure and rating the "goodness of fit."

Additionally, I will use CFA to test for measurement invariance across groups based on race and social class identification. Next, using the factors from the best fitting confirmatory model, I will examine whether the internal consistency of the items making up each factor are adequate (by calculating Cronbach's alpha for each subscale). After establishing internal consistency of items within each factor, the items in each factor will be averaged together to create individual subscale scores and variables representing each social class identity dimension.

Preliminary descriptive analyses with the created social class identity variables include reporting variable means and standard deviations, as well as correlations among social class identity variables. Additionally, other descriptive analyses (analysis of variance, chi-square) will include examinations of associations of social class identity subscales with individual student characteristics, i.e., demographic background variables. Finally, I will use a series of hierarchical ordinary least squares (OLS) regressions to examine the hypothesized relationships between social class identity variables and academic and psychological outcome variables, and to

examine whether these relationships are moderated by race and self-identified social class. In all regression models, I will control for the effect of objective SES indicators.

Chapter 4: Results

This chapter presents results from analyses performed to examine the factor structure of the developed multidimensional measure of social class identity, as well as analyses of how social class identity relates to students' psychological and academic outcomes. The survey measure was developed to assess social class identity within the context of higher education. The means and standard deviations for each individual social class identity item are presented in Table 1 for the full sample, by race, and by self-identified social class.

Question 1: Factor Analyses of Social Class Identity Measure

Confirmatory Factor Analyses. The first research question examines whether the proposed measure of social class identity attitudes adequately captures the proposed dimensions of social class identity and whether the social class identity factors identified are consistent with the study's conceptual framework for social class identity. To examine this question, a confirmatory factor analyses (CFA) was performed using IBM SPSS AMOS graphical program version 20.0 (Arbuckle, 2011) on the full sample of participants with complete data on the social class identity items (N= 319). A CFA allows a researcher to statistically test a hypothesized factor structure based upon knowledge of the theory and/or empirical research (Byrne, 2001). Since this is a newly developed measure, in addition to conducting a CFA on the full social class identity model, I opted to use a specific set of tests to achieve better model fit. Using methods suggested by Jöreskog (1993), each factor (i.e., centrality, pride, shame, and guilt) was run in a separate CFA model and modified based upon statistical and theoretical considerations to

achieve the best fit to the data. Factors were then run in pairs (e.g., centrality with pride, centrality with shame, etc.). All factors were allowed to correlate with each other but no cross-loadings were allowed. Model adjustments were made after examining factor loadings, residual variance, modification indices, and standardized residuals. I allowed correlated errors between items on the same scale but not across scales. The primary model adjustments included dropping four items, and moving one item from the pride factor to the shame factor (“I am unhappy that I come from a(n) [*selected social class group*] background”). The item was originally proposed as a negatively worded pride item but had a higher loading on the shame factor.

The goodness of fit for the models was determined by assessing multiple indices: the Comparative Fit Index (CFI; Bentler, 1990), the Root Mean-Square Error of Approximation (RMSEA; Steiger & Lind, 1980), and the Standardized Root Mean Square Residual (SRMR). The CFI is a commonly used incremental index of fit that measures the proportionate improvement in model fit between the hypothesized model and a less restricted nested baseline model (Byrne, 2012). CFI values range from zero to 1.00, with values of .95 and above indicating a well-fitting model (Hu & Bentler, 1999). The RMSEA is an absolute index of fit in that it assesses how well the hypothesized model fits the sample data, and takes into account the error of approximation in the population (Byrne, 2012). An RMSEA value of 0.05 or less is indicative of a good model fit, a value between 0.05 and 0.08 is indicative of a reasonable model fit, and values greater than 0.10 are indicative of poor model fit (Browne & Cudeck, 1993). The SRMR, also an absolute index of fit, is the average standardized residual value derived from fitting the variance-covariance matrix of the hypothesized model to that of the sample data (Byrne, 2012). SRMR values range from zero to 1.00, with a value less than 0.80 indicating a well-fitting model (Hu & Bentler, 1999).

A 4-factor CFA model (see Figure 4.1) was run using maximum likelihood estimation and was found to have poor fit: $\chi^2(60, N = 319) = 386.561, p < .001$; CFI = .786, RMSEA = .131, SRMR = .1076. In order to test the measurement of the constructs, I examined each factor in separate, one-factor CFA models, to more precisely examine the fit of each identity construct. A good model fit was found for the centrality (see Figure 4.2) and shame (see Figure 4.3) factor models—centrality: $\chi^2(5, N = 319) = 7.694, ns$; CFI = .993, RMSEA = .041, SRMR = .0275, and shame: $\chi^2(1, N = 319) = 3.289, ns$; CFI = .995, RMSEA = .085, SRMR = .0220. However, since one item was dropped from both the pride and guilt factors, leaving each factor with 2 indicators, a one-factor model could not be run for either dimension (Kline, 2011). As such, the pride and guilt factors were examined in a single two-factor CFA model (see Figure 4.4) which was found to have adequate fit: $\chi^2(3, N = 319) = 21.234, p < .001$; CFI = .905, RMSEA = .138, SRMR = .0696. The fit indices for all CFA models are shown in Table 4.2, and the factors and loadings are shown in Table 4.3. Because it was proposed that the social class identity dimensions would be related to one another, it is not surprising that some of the factors would not run in a single CFA model. The revised social class identity scales/subscales based upon these CFAs are presented in the next section.

Revised Social Class Identity Measure. As previously described, the social class identity questionnaire was designed to assess social class identity among college students. Each scale uses a 7-point Likert scale with respect to the extent to which participants agree or disagree with 13 items related to their social class identity attitudes representing 4 subscales (centrality, pride, shame, and guilt).

The Centrality scale ($\alpha = .75$) consists of 5 items measuring the extent to which social class is an important part of one's self-concept (e.g., Coming from a(n) [*selected social class*

group] background is important to my sense of what kind of person I am). Higher scores indicate that social class is more important in defining oneself. The Affect dimension is comprised of 3 subscales: pride, shame, and guilt. The Pride subscale ($r = .51$) consists of 2 items assessing the extent to which individuals feel positively about their social class background (e.g., I feel a sense of pride because of my [*selected social class group*] background). Higher scores indicate a greater feeling of pride related to one's social class. The Shame subscale ($\alpha = .77$) consists of 4 items assessing the extent to which individuals feel ashamed or embarrassed about their social class background (e.g., At times, I try to hide the fact that I am [*selected social class group*]). Higher scores indicate greater feelings of shame. The Guilt subscale ($r = .44$) consists of 2 items assessing the extent to which individuals feel remorse associated with the opportunities they have been afforded (e.g., Sometimes, I feel guilty that others have not been as fortunate as I have been). Higher scores indicate greater feelings of guilt.

Correlations across social class identity dimensions. As expected, the social class centrality and pride dimensions had a moderate positive relationship ($r = .58, p < .001$). However, the centrality dimension was weakly associated with the social class shame and guilt dimensions ($r = .14, p < .05$ and $r = .16, p < .01$, respectively). Social class shame had a weak to moderate negative relationship to the pride dimension ($r = -.29, p < .001$), and a weak to moderate positive relationship to the guilt dimension ($r = .24, p < .001$). Whereas, social class pride was weakly, but positively, related to social class guilt ($r = .15, p < .01$).

Testing for Multigroup Measurement Invariance. In order to examine whether the factor structure of the social class identity measure is consistent across groups of individuals who vary by race and social class identification, tests of multigroup measurement invariance were performed. In much of research that focuses on multigroup comparisons, it is often assumed that

a measurement instrument works the same across different groups of interest—that is, the measure assesses the same underlying theoretical construct and that the psychological meaning is the same across different groups (Byrne, 2004, 2008). However, this assumption is rarely statistically tested (Byrne, 2004, 2008). Thus an important goal of this project is to test whether the developed measure of social class identity is measurement invariant/equivalent across groups of race and self-identified social class. Measurement invariance is concerned with the relationship between the observed variables (i.e., social class identity items) and the underlying latent constructs (i.e., centrality, pride, shame, and guilt) (Byrne, 2004, 2008). Thus, I will examine whether the social class identity items mean the same thing for: a) African American and White participants, and b) participants who differ in their social class identification. In order to examine multigroup measurement invariance, a series of multigroup confirmatory factor analyses were performed across racial groups and social class groups following a prescribed order of steps.

In order to test for measurement invariance across groups, equality constraints must be imposed on particular parameters, as such, all groups must be analyzed simultaneously. However, first a baseline model must be fit for each group separately, representing the best fit for each group based on parsimony and meaningful interpretation (Byrne, 2004). Based on the fit of the baseline models for each group, a configural model is established. It is widely recommended that each group have the same number of factors, however no equality constraints are imposed in the configural model (Byrne, Shavelson, & Muthen, 1989; Byrne, 2004). By evaluating the goodness of fit of the configural model, configural invariance is established—a prerequisite for further testing of measurement invariance. If configural invariance is established, it means that similar, but not identical, factors are present across the different groups (e.g., centrality, pride,

shame, and guilt). Furthermore, the configural model serves as a baseline model against which subsequent invariance models are compared (Byrne, 2004, 2008). Subsequent models will involve specification of equality constraints of particular parameters across groups and will test for measurement invariance/equivalence across the outlined groups. If measurement invariance is established, it means that the item loadings for a single factor are the same across groups, and as such, the scale is measuring the same underlying construct across the different groups (e.g., centrality, pride, shame, and guilt). In assessing models for tests of invariance, the change in chi-square (χ^2) is evaluated. Specifically, the difference in χ^2 between two nested models is evaluated using the chi-square distribution with the degrees of freedom (df) equal to the difference in degrees of freedom (df) between the two nested models. A non-significant change in χ^2 indicates that the parameters constrained to be equal across groups in the more restrictive model are invariant/equivalent across the specified groups, whereas a significant change in χ^2 indicates that the parameters are not invariant/equivalent across the groups.

Testing for Measurement Invariance across Racial Groups. In order to test for measurement invariance by race, the sample was split into two groups: African American (N = 130) and White (N = 189). The centrality and shame factors were run in separate 1-factor models. However, as previously explained, given that the pride and guilt factors both had only 2 indicators, these factors were analyzed in one 2-factor model.

Centrality. First, I established a baseline model of the centrality factor for both the African American sample and the White sample (see Table 4.4, entry 1a and 2a). Next, I examined the baseline (configural) model between the African American and White samples. This model was found to have good fit (see Table 4.4, entry 3a), thus establishing configural invariance of the centrality factor across racial groups. Next, I tested for the invariance of the

centrality factor loadings across racial groups. I began with a global test of equivalent factor loadings, as recommended by Byrne (2004, 2008). As compared to the baseline (configural) model (Table 4.4, entry 3a), the model with all factor loadings constrained equal across racial groups (Table 4.4, entry 4a) was not significantly different. From this finding, I conclude that the centrality factor loadings are invariant across racial groups.

Shame. First, I established a baseline model of the shame factor for both the African American sample and the White sample (see Table 4.4, entry 1b and 2b). Next, I examined the baseline (configural) model between the African American and White samples. This model was found to have good fit (see Table 4.4, entry 3b), thus establishing configural invariance of the shame factor across racial groups. Next, I tested for the invariance of shame factor loadings across racial groups. I began with a global test of equivalent factor loadings, as recommended by Byrne (2004, 2008). As compared to the baseline (configural) model (Table 4.4, entry 3b), the model with all factor loadings constrained equal across racial groups (Table 4.4, entry 4b) was significantly different. From this finding, I conclude that not all of the shame factor loadings are invariant across racial groups.

To pinpoint the source of non-invariance, I constrained one factor loading at a time, and compared that model to the baseline (configural) model. If the factor loading was found to be invariant across racial groups, the equality constraint was retained and an additional factor loading was constrained equal across groups and examined for invariance. If a factor loading was found to be non-invariant, the equality constraint was removed and testing continued until all factor loadings were examined individually. Results for these analyses are presented in Table 4.4, entry 5b – 8b. Three of the four shame factor loadings were found to be invariant across racial groups (Items 3, 5, and 12). Item 13 (“I sometimes feel embarrassed that I come from a(n)

[*selected social class group*] background”) was found to vary across racial groups, with a higher loading for the African American sample (standardized regression weight = .93) as compared to the White sample (standardized regression weight = .63). These findings indicate that there is partial measurement invariance of the shame factor across racial groups.

Pride and Guilt. First, I established a baseline model of the pride and guilt factors for both the African American sample and the White sample (see Table 4.4, entry 1c and 2c). Next, I examined the baseline (configural) model between the African American and White samples. This model was found to have good fit (see Table 4.4, entry 3c), thus establishing configural invariance of the pride and guilt factors across racial groups. Next, I tested for the invariance of pride and guilt factor loadings across racial groups. I began with a global test of equivalent factor loadings, as recommended by Byrne (2004, 2008). As compared to the baseline (configural) model (Table 4.4, entry 3c), the model with all factor loadings constrained equal across racial groups (Table 4.4, entry 4c) was significantly different. From this finding, I conclude that not all of the pride and guilt factor loadings are invariant across racial groups.

To pinpoint the source of non-invariance, I constrained one factor loading at a time, and compared that model to the baseline (configural) model. If the factor loading was found to be invariant across racial groups, the equality constraint was retained and an additional factor loading was constrained equal across groups and examined for invariance. If a factor loading was found to be non-invariant, the equality constraint was removed and testing continued until all factor loadings were examined individually. Results for these analyses are presented in Table 4.4, entry 5c – 8c. One of the two pride factor loadings and one of the two guilt factor loadings were found to be invariant across racial groups (Items 2 and 8). Item 9 (Pride item: “I feel good about my [*selected social class group*] background”) and Item 15 (Guilt item: “I fear that others

may perceive me as ‘thinking I am better’”) were found to be non-invariant across racial groups. Item 9 had a higher loading for the African American sample (standardized regression weight = .76) as compared to the White sample (standardized regression weight = .61), whereas Item 15 had a higher loading for the White sample (standardized regression weight = .64) as compared to the African American sample (standardized regression weight = .36). These findings indicate that there is partial measurement invariance of the pride and guilt factors across racial groups.

Testing for Measurement Invariance across Self-Identified Social Class. As mentioned in the method section, students identified as one of six social class groups: poor (N = 23), working class (N = 43), lower middle class (N = 48), middle class (N = 100), upper middle class (N = 97), and upper class (N = 8). In order to test for measurement invariance by self-identified social class, the sample was organized into three groups in an effort to achieve adequate sample size and meaningful interpretation. Group 1 was comprised of individuals who identified their social class as poor, working class, or lower middle class: Below Middle Class (N = 114). Group 2 was comprised of individuals who identified their social class as middle class: Middle Class (N = 100). Group 3 was comprised of individuals who identified their social class as upper middle class or upper class: Above Middle Class (N = 105). Again, the centrality and shame factors were run in separate 1-factor models. However, as previously explained, given that the pride and guilt factors both had only 2 indicators, these factors were analyzed in one 2-factor model.

Centrality. First, I established a baseline model of the centrality factor for the Below Middle Class group, the Middle Class group, and the Above Middle Class group (see Table 4.5, entry 1a, 2a, and 3a). Next, I examined the baseline (configural) model between all three social class identification groups. This model was found to have good fit (see Table 4.5, entry 4a), thus establishing configural invariance of the centrality factor across all three social class

identification groups. Next, I tested for the invariance of the centrality factor loadings across all three groups. I began with a global test of equivalent factor loadings, as recommended by Byrne (2004, 2008). As compared to the baseline (configural) model (Table 4.5, entry 4a), the model with all factor loadings constrained equal across social class identification groups (Table 4.5, entry 5a) was not significantly different. From this finding, I conclude that the centrality factor loadings are invariant across social class identification groups.

Shame. First, I established a baseline model of the shame factor for the Below Middle Class group, the Middle Class group, and the Above Middle Class group (see Table 4.5, entry 1b, 2b, and 3b). Next, I examined the baseline (configural) model between all three social class identification groups. This model was found to have good fit (see Table 4.5, entry 4b), thus establishing configural invariance of the shame factor across all three social class identification groups. Next, I tested for the invariance of the shame factor loadings across all three groups. I began with a global test of equivalent factor loadings, as recommended by Byrne (2004, 2008). As compared to the baseline (configural) model (Table 4.5, entry 4b), the model with all factor loadings constrained equal across social class identification groups (Table 4.5, entry 5b) was significantly different. From this finding, I conclude that not all of the shame factor loadings are invariant across all three social class identification groups.

Given that there are three social class identification groups, I examined whether the constrained model was invariant across two of the social class identification groups, following the recommendations of Byrne (2004). After reviewing the factor loadings, I tested whether the shame factor loadings were invariant across the Below Middle Class group (Below MC) and the Middle Class group. As compared to the baseline (configural) model between the Below MC and Middle Class groups (Table 4.5, entry 6b), the model with all factor loadings constrained equal

across these two groups (Table 4.5, entry 7b) was not significantly different. From this finding, I conclude that the shame factor loadings are invariant across the Below MC and Middle Class social class identification groups, and any invariance in the shame factor loadings are between the Above Middle Class group (Above MC) as compared to the Below MC and Middle Class groups. As such, the Below MC and the Middle Class groups were combined into one group (Middle Class and Below, N = 214) for subsequent analyses examining invariance for the shame factor.

Next, I examined whether the shame factor loadings were invariant across the Middle Class and Below group and the Above MC group. As compared to the baseline (configural) model between the Middle Class and Below and Above MC groups (Table 4.5, entry 8b), the model with all factor loadings constrained equal across these two groups (Table 4.5, entry 9b) was significantly different. From this finding, I conclude that not all of the shame factor loadings are invariant across Middle Class and Below and Above MC social class identification groups.

To pinpoint the source of non-invariance, I constrained one factor loading at a time, and compared that model to the baseline (configural) model. If the factor loading was found to be invariant across the two social class identification groups, the equality constraint was retained and an additional factor loading was constrained equal across the groups and examined for invariance. If a factor loading was found to be non-invariant, the equality constraint was removed and testing continued until all factor loadings were examined individually. Results for these analyses are presented in Table 4.5, entry 10b – 13b. Two of the four shame factor loadings were found to be invariant across all social class identification groups (Items 3 and 13), whereas Item 5 and Item 12 were found to be non-invariant across the Middle Class and Below and Above MC groups. Item 5 (“I wish I was from a different social class background”) had a higher

loading for the Middle Class and Below group (standardized regression weight = .67) as compared to the Above MC group (standardized regression weight = .25). Item 12 (“I am unhappy that I come from a(n) [*selected social class group*] background) also had a higher loading for the Middle Class and Below group (standardized regression weight = .89) as compared to the Above MC group (standardized regression weight = .55). These findings indicate that there is partial measurement invariance of the shame factor across the three social class identification groups.

Pride and Guilt. First, I established a baseline model of the pride and guilt factors for the Below Middle Class group, the Middle Class group, and the Above Middle Class group (see Table 4.5, entry 1c, 2c, and 3c). Next, I examined the baseline (configural) model between all three social class identification groups. This model was found to have good fit (see Table 4.5, entry 4c), thus establishing configural invariance of the pride and guilt factors across all three social class identification groups. Next, I tested for the invariance of the pride and guilt factor loadings across all three groups. I began with a global test of equivalent factor loadings, as recommended by Byrne (2004, 2008). As compared to the baseline (configural) model (Table 4.5, entry 4c), the model with all factor loadings constrained equal across social class identification groups (Table 4.5, entry 5c) was significantly different. From this finding, I conclude that not all of the pride and guilt factor loadings are invariant across all three social class identification groups.

Given that there are three social class identification groups, I examined whether the constrained model was invariant across two of the social class identification groups, following the recommendations of Byrne (2004). After reviewing the factor loadings, I tested whether the pride and guilt factor loadings were invariant across the Middle Class group and the Above

Middle Class group (Above MC). As compared to the baseline (configural) model between the Middle Class and Above MC groups (Table 4.5, entry 6c), the model with all factor loadings constrained equal across these two groups (Table 4.5, entry 7c) was not significantly different. From this finding, I conclude that the pride and guilt factor loadings are invariant across the Middle Class and Above MC social class identification groups, and any invariance in the pride and guilt factor loadings are between the Below Middle Class group (Below MC) as compared to the Middle Class and Above MC groups. As such, the Middle Class and Above MC groups were combined into one group (Middle Class and Above, $N = 205$) for subsequent analyses examining invariance for the pride and guilt factors.

Next, I examined whether the pride and guilt factor loadings were invariant across the Below MC group and the Middle Class and Above group. As compared to the baseline (configural) model between the Below MC and Middle Class and Above groups (Table 4.5, entry 8c), the model with all factor loadings constrained equal across these two groups (Table 4.5, entry 9c) was significantly different. From this finding, I conclude that not all of the pride and guilt factor loadings are invariant across Below MC and Middle Class and Above social class identification groups.

To pinpoint the source of non-invariance, I constrained one factor loading at a time, and compared that model to the baseline (configural) model. If the factor loading was found to be invariant across the two social class identification groups, the equality constraint was retained and an additional factor loading was constrained equal across the groups and examined for invariance. If a factor loading was found to be non-invariant, the equality constraint was removed and testing continued until all factor loadings were examined individually. Results for these analyses are presented in Table 4.5, entry 10c – 13c. One of the two pride factor loadings

and one of the two guilt factor loadings were found to be invariant across all social class identification groups (Items 2 and 8). Item 9 (Pride item: “I feel good about my [*selected social class group*] background”) and Item 15 (Guilt item: “I fear that others may perceive me as ‘thinking I am better’”) were found to be non-invariant across the Below MC and Middle Class and Above social class identification groups. Item 9 had a higher loading for the Below MC group (standardized regression weight = .77) as compared to the Middle Class and Above group (standardized regression weight = .54), whereas Item 15 had a higher loading for the Middle Class and Above group (standardized regression weight = .62) as compared to the Below MC group (standardized regression weight = .35). These findings indicate that there is partial measurement invariance of the pride and guilt factors across the three social class identification groups.

Preliminary Descriptive Analyses

In this section I examined and summarized the descriptive characteristics of the social class identity subscales. I also examined how social class identity attitudes relate to students demographic variables and their psychological and academic outcomes. These descriptive statistics are listed in Tables 4.6 and 4.7.

Social Class Identification. Of the 353 participants, 27 (7.6%) identified their social class background as poor, 51 (14.4%) identified as working class, 55 (15.6%) identified as lower middle class, 108 (30.6%) identified as middle class, 103 (29.2%) identified as upper middle class, and 9 (2.5%) identified as upper class. There were no gender differences in students’ self-identified social class, $\chi^2(5, N = 352) = 1.797, ns$. However, there were racial differences in students’ self-identified social class, $\chi^2(5, N = 353) = 87.571, p < .001$. Specifically, 61.3% ($N = 95$) of African American participants identified their social class as poor, working class, or lower

middle class as compared to 19.2% ($N = 38$) of White participants. With respect to middle class, 28.4% ($N = 44$) of African Americans and 32.3% ($N = 64$) of White participants identified with that social class identification. Finally, 48.4% ($N = 96$) of White participants identified as upper middle class or upper class. In contrast, only 10.3% ($N = 16$) of African American participants identified as upper middle class and none identified as upper class (see Table 4.8 for all counts and percentages). While the sample is relatively diverse in self-identified social class, most African American participants identified their social class background as middle class or below whereas most White participants identified as middle class or above.

Participants were also asked to report their mother's and father's education level and their family income. On average, African American students reported a family income between \$45,000 and \$54,999 ($M = 6.16$, $SD = 4.43$) and parental educational attainment of some college but not having earned a college degree for both mother's ($M = 4.78$, $SD = 1.53$) and father's ($M = 4.49$, $SD = 1.59$) education. In contrast, White students reported an average family income between \$105,000 and \$114,999 ($M = 11.96$, $SD = 6.18$) and parental educational attainment of having earned a college degree for both mother's ($M = 5.60$, $SD = 1.45$) and father's ($M = 5.72$, $SD = 1.61$) education. In general, student-reported family income had a strong positive relationship with students' self-identified social class ($r = .77$, $p < .001$), while mother's and father's education both had a moderate positive relationship with students' self-identified social class ($r = .53$, $p < .001$ and $.56$, $p < .001$, respectively). I also examined the relationship between objective SES indicators and self-identified social class for African American and White participants separately. These analyses demonstrated that while mother's education has a similar association to self-identified social class among African American and White participants ($r = .49$, $p < .001$ and $r = .45$, $p < .001$, respectively), father's education had a stronger association

among White participants ($r = .60, p < .001$) as compared to African American participants ($r = .40, p < .001$). Additionally, student-reported family income had a strong positive relationship with self-identified social class among both African American ($r = .72, p < .001$) and White participants ($r = .70, p < .001$).

Social Class Identity Dimensions. In general, participants were relatively neutral in their endorsement of social class centrality items ($M = 3.99, SD = 1.15$), social class pride items ($M = 4.46, SD = 1.23$), social class shame items ($M = 3.10, SD = 1.26$), and social class guilt items ($M = 3.82, SD = 1.50$). There were no gender differences in reported social class centrality [$t(344) = -1.41, ns$], pride [$t(342) = -0.59, ns$], or shame [$t(343) = -0.69, ns$]. However, there was a significant gender difference in reported social class guilt [$t(338) = -2.42, p < .05$], with female students ($M = 3.99, SD = 1.47$) reporting greater endorsement of guilt items than male students ($M = 3.59, SD = 1.53$). While there were no racial differences in reported social class pride [$t(343) = -0.42, ns$] or shame [$t(344) = 0.47, ns$], there was a significant difference between African American and White participants in their reported social class centrality [$t(345) = 3.03, p < .01$] and guilt [$t(339) = -5.02, p < .001$]. Specifically, African American participants ($M = 4.20, SD = 1.13$) reported greater endorsement of centrality items as compared to White participants ($M = 3.83, SD = 1.13$). White participants ($M = 4.16, SD = 1.49$) reported greater endorsement of social class guilt items as compared to African American participants ($M = 3.36, SD = 1.39$).

I also performed Analysis of Variance (ANOVA) to examine whether there were mean differences in students' reported social class identity attitudes as a function of their self-identified social class. Self-identified social class significantly predicted social class centrality [$F(5, 341) = 8.07, p < .001$], pride [$F(5, 339) = 7.47, p < .001$], shame [$F(5, 340) = 13.99, p < .001$], and guilt [$F(5, 335) = 23.99, p < .001$]. Post hoc analyses using the Tukey post hoc

criterion for significance indicated that social class centrality was higher among students who identified their social class as poor ($M = 4.43, SD = 1.27$) as compared to students who identified as upper middle class ($M = 3.66, SD = 1.21$). Social class centrality was also higher among students who identified as working class ($M = 4.63, SD = 1.11$) as compared to students who identified as lower middle class ($M = 3.94, SD = 0.90$), middle class ($M = 3.98, SD = 1.04$), upper middle class ($M = 3.66, SD = 1.21$), and upper class ($M = 3.99, SD = 1.26$).

Post hoc analyses also indicated that social class pride was lower among students who identified as lower middle class ($M = 3.86, SD = 1.13$) as compared to students who identified as working class ($M = 4.91, SD = 1.25$), middle class ($M = 4.58, SD = 1.09$), and upper middle class ($M = 4.57, SD = 1.24$). However, social class shame was higher among students who identified as poor ($M = 3.70, SD = 1.46$) as compared to students who identified as middle class ($M = 2.75, SD = 1.19$) and upper middle class ($M = 2.84, SD = 1.07$). Social class shame was also higher among students who identified as lower middle class ($M = 3.96, SD = 1.24$) as compared to students who identified as working class ($M = 3.15, SD = 1.30$), middle class ($M = 2.75, SD = 1.19$), and upper middle class ($M = 2.84, SD = 1.07$). Lastly, post hoc analyses indicated that social class guilt was higher among students who identified as upper middle class ($M = 4.68, SD = 1.49$) as compared to students who identified as poor ($M = 3.29, SD = 1.69$), working class ($M = 3.17, SD = 1.22$), lower middle class ($M = 3.51, SD = 1.26$), and middle class ($M = 3.52, SD = 1.28$). See Tables 4.9 and 4.10 for social class identity means and standard deviations for the full sample, by race, and by self-identified social class.

I also performed a series of Analysis of Variance (ANOVA) to examine whether race and self-identified social class interacted to predict students' social class identity attitudes. There was

not a significant interaction effect in predicting centrality [$F(4, 347) = 0.42, ns$], pride [$F(4, 345) = 0.77, ns$], shame [$F(4, 346) = 1.60, ns$], or guilt [$F(4, 341) = 0.32, ns$].

Question 2: Social Class Identity Predicting Academic Outcomes

To examine the second research question of whether social class identity attitudes are related to students' academic outcomes, I ran a series of hierarchical ordinary least squares (OLS) regressions. I ran separate regressions for each dependent variable. In the first block of each regression model, I included gender, race, mother's education, father's education, family income, and self-identified social class dummy variables as control variables. Also in the first block of each regression model were the independent variables (IVs) of interest: social class centrality, pride, shame, and guilt. To test the moderating effect of social class centrality, three Centrality X Affect (pride, shame, and guilt) interaction terms were included in the second block of the regression models. For each model, all two-way interaction terms (Centrality X Pride, Centrality X Shame, and Centrality X Guilt) were initially included. All non-significant interaction terms were then removed and the model was rerun. Thus, only significant interaction terms were included in the reported findings. In all the models, I used procedures outlined by Aiken and West (1991) to probe higher order interaction models. Specifically, all continuous predictor variables were centered and categorical variables were dummy coded before entering into models. For the self-identified social class dummy variables, the middle class was coded as the reference group. I plotted all significant interactions and tested the significance of simple slopes to examine the nature of the interaction. For each significant Centrality X Affect interaction, a plot illustrates the simple slopes of the dependent variable at selected conditional values ($M + 1 SD$ and $M - 1 SD$) of social class centrality and affect.

Academic Engagement. Results for each regression model predicting academic

engagement are presented in Table 4.11. The model predicting academic curiosity was marginally significant, $F(14, 272) = 1.72, p < .10$, and the first block accounted for 3.4% of the variance in academic curiosity. Social class shame ($\beta = -.16, p < .05$) was negatively related to academic curiosity, whereas social class centrality, pride and guilt did not significantly predict academic curiosity. Adding the interaction variable block (Centrality X Shame) increased the variance explained by 0.7%, [$F(15, 271) = 1.81, p < .05$]. The Centrality X Shame coefficient was marginally significant ($\beta = -.10, p < .10$). A plot of the interaction indicated that social class shame was negatively related to academic curiosity among individuals who reported higher levels of social class centrality, whereas social class shame was not related to academic curiosity among individuals who reported lower levels of social class centrality. Figure 4.5 summarizes the interaction effects. Neither the model predicting cognitive engagement $F(14, 272) = 0.78, ns$, nor the model predicting academic persistence $F(14, 272) = 0.97, ns$ was significant.

Academic Affect. Results for each regression model predicting academic affect are presented in Table 4.12. In the model predicting positive academic affect, $F(14, 272) = 1.33, ns$, the first block was not significant and only accounted for 1.6% of the variance in positive academic affect. Social class shame ($\beta = -.13, p < .10$) had a marginally negative association to positive academic affect, whereas social class centrality, pride and guilt did not significantly predict positive academic affect. Adding the interaction variable block (Centrality X Pride) increased the variance explained by 1.8%. This model was marginally significant, $F(15, 271) = 1.67, p < .10$. The Centrality X Pride coefficient was significant ($\beta = .15, p < .05$). A plot of the interaction indicated that social class pride was positively related to positive academic affect among individuals who reported higher levels of social class centrality. Whereas, social class

pride was not related to positive academic affect among individuals who reported lower levels of social class centrality. Figure 4.6 summarizes the interaction effects.

In the model predicting uncertainty about persisting, $F(14, 272) = 2.05, p < .05$, the first block accounted for 4.9% of the variance in uncertainty about persisting. Social class shame ($\beta = .20, p < .01$) was positively related to uncertainty about persisting, whereas social class centrality, pride and guilt did not significantly predict uncertainty about persisting. Adding the interaction variable block (Centrality X Shame) increased the variance explained by 1.9%, [$F(15, 27) = 2.40, p < .01$]. The Centrality X Shame coefficient was significant ($\beta = .15, p < .05$). A plot of the interaction indicated that social class shame was positively related to uncertainty about persisting among individuals who reported higher levels of social class centrality. Whereas, social class shame was not related to uncertainty about persisting among individuals who reported lower levels of social class centrality. Figure 4.7 summarizes the interaction effects.

In the model predicting doubts around ability, $F(14, 272) = 2.28, p < .01$, the first block accounted for 5.9% of the variance in doubts around ability. Social class shame ($\beta = .19, p < .01$) was positively related to doubts around ability, whereas social class centrality, pride and guilt did not significantly predict doubts around ability. Adding the interaction variable block did not increase the variance explained.

Academic Satisfaction. Results for this regression model predicting academic satisfaction are presented in Table 4.13. In the model predicting academic satisfaction, $F(14, 272) = 5.84, p < .001$, the first block accounted for 19.2% of the variance in academic satisfaction. Social class pride ($\beta = .36, p < .001$) was positively related to academic satisfaction, and social class shame ($\beta = -.18, p < .01$) was negatively related to academic satisfaction. Social

class centrality and guilt did not significantly predict academic satisfaction. Adding the interaction variable block did not increase the variance explained.

Cumulative Grade Point Average. In the model predicting cumulative grade point average (GPA), I followed the same procedures previously outlined with the addition of high school GPA in first block of the regression as a control variable. Results for this regression model are presented in Table 4.13. In the model predicting cumulative grade point average (GPA), $F(15, 260) = 9.53, p < .001$, the first block accounted for 31.7% of the variance in GPA. Social class guilt ($\beta = .18, p < .01$) was positively related to GPA, whereas social class centrality, pride and shame did not significantly predict GPA. Adding the interaction variable block (Centrality X Pride) increased the variance explained by 1.3%, [$F(16, 259) = 9.46, p < .001$]. The Centrality X Pride coefficient was significant ($\beta = .04, p < .05$). A plot of the interaction indicated that social class pride was negatively related to GPA among individuals who reported lower levels of social class centrality, whereas social class pride was not related to GPA among individuals who reported higher levels of social class centrality. Figure 4.8 summarizes the interaction effects.

Question 3: Social Class Identity Predicting Psychological Outcomes

To examine the third research question of whether social class identity attitudes are related to students' psychological outcomes, I again ran a series of hierarchical ordinary least squares (OLS) regressions, and followed the same procedures as previously outlined.

Psychological Distress. Results for this regression model predicting psychological distress are presented in Table 4.13. In the model predicting psychological distress, $F(14, 271) = 2.46, p < .001$, the first block accounted for 6.7% of the variance in psychological distress. Social class shame ($\beta = .19, p < .01$) was positively related to psychological distress, whereas social

class pride ($\beta = -.15, p < .10$) had a marginal negative association with psychological distress. Social class centrality and guilt did not significantly predict psychological distress. Adding the interaction variable block (Centrality X Shame) increased the variance explained by 2.6%, [$F(15, 27) = 2.94, p < .001$]. The Centrality X Shame coefficient was significant ($\beta = .17, p < .01$). A plot of the interaction indicated that social class shame was positively related to psychological distress among individuals who reported higher levels of social class centrality, whereas social class shame was not related to psychological distress among individuals who reported lower levels of social class centrality. Figure 4.9 summarizes the interaction effects.

Psychological Well-Being. Results for each regression model predicting psychological well-being are presented in Table 4.14. In the model predicting positive relations with others, $F(14, 272) = 4.04, p < .001$, the first block accounted for 13.0% of the variance in positive relations with others. Social class shame ($\beta = -.27, p < .001$) was negatively related to positive relations with others, whereas social class centrality, pride and guilt did not significantly predict positive relations with others. Adding the interaction variable block did not increase the variance explained.

In the model predicting autonomy, $F(14, 272) = 6.25, p < .001$, the first block accounted for 20.4% of the variance in autonomy. Social class shame ($\beta = -.22, p < .01$) and social class guilt ($\beta = -.27, p < .001$) were negatively related to autonomy, whereas social class pride ($\beta = .13, p < .10$) had a marginal positive association with autonomy. Social class centrality did not significantly predict autonomy. Adding the interaction variable block did not increase the variance explained.

In the model predicting environmental mastery, $F(14, 272) = 4.42, p < .001$, the first block accounted for 14.3% of the variance in environmental mastery. Social class pride ($\beta = .18,$

$p < .05$) was positively related to environmental mastery, whereas social class shame ($\beta = -.28, p < .001$) and social class guilt ($\beta = -.15, p < .05$) were negatively related to environmental mastery. Social class centrality did not significantly predict environmental mastery. Adding the interaction variable block (Centrality X Pride) increased the variance explained by 1.3%, $F(15, 271) = 4.53, p < .001$. The Centrality X Pride coefficient was significant ($\beta = .13, p < .05$). A plot of the interaction indicated that social class pride was positively related to environmental mastery among individuals who reported higher levels of social class centrality. Whereas, social class pride was not related to environmental mastery among individuals who reported lower levels of social class centrality. Figure 4.10 summarizes the interaction effects.

In the model predicting self-acceptance, $F(14, 272) = 5.75, p < .001$, the first block accounted for 18.9% of the variance in self-acceptance. Social class pride ($\beta = .23, p < .01$) was positively related to self-acceptance, whereas social class shame ($\beta = -.23, p < .01$) and social class guilt ($\beta = -.15, p < .05$) were negatively related to self-acceptance. Social class centrality did not significantly predict self-acceptance. Adding the interaction variable block did not increase the variance explained.

In the model predicting purpose in life, $F(14, 272) = 3.73, p < .001$, the first block accounted for 11.8% of the variance in purpose in life. Social class pride ($\beta = .19, p < .05$) was positively related to purpose in life, whereas social class shame ($\beta = -.18, p < .05$) was negatively related to purpose in life. Social class centrality and guilt did not significantly predict self-acceptance. Adding the interaction variable block did not increase the variance explained.

Question 4: Moderating Role of Race and Self-Identified Social Class

Race as a Moderator. To examine whether the relationship between social class identity attitudes and students' academic and psychological outcomes are moderated by race, I ran a

series of ordinary least squares (OLS) regressions. I ran separate regressions for each dependent variable. In the first block of each regression model, I included gender, mother's education, father's education, family income, and self-identified social class dummy variables as control variables, as well as the main effects of race, and social class identity centrality, pride, shame, and guilt. To test the moderating effect of race, Race X Social Class Identity Dimension (centrality, pride, shame, and guilt) interaction terms were included in the second block of each regression model. For each model, all two-way interaction terms (Race X Centrality, Race X Pride, Race X Shame, and Race X Guilt) were initially included. All non-significant interaction terms were then removed and the model was rerun. Thus, only significant interaction terms were included in the reported findings.

In all the models, I used procedures outlined by Aiken and West (1991) to probe the interaction models. Specifically, all continuous predictor variables were centered and categorical variables were dummy coded before entering into models. Again, for the self-identified social class dummy variables, the middle class was coded as the reference group. I plotted all significant interactions and tested the significance of simple slopes to examine the nature of the interaction. For each significant Race X Social Class Identity Dimension interaction, a plot illustrates the simple slopes of the dependent variable at selected conditional values ($M + 1 SD$ and $M - 1 SD$) of social class identity for African American and White participants. Given that the first block of each regression model is identical to analyses discussed in questions 2 and 3, only the second block of each regression model will be reported in both text and tables.

Academic Engagement. Results for each regression model predicting academic engagement are presented in Table 4.15. The model predicting academic curiosity (including interaction terms) was marginally significant $F(18, 268) = 1.55, p < .10$; however adding the

interaction terms did not increase the variance explained. The model predicting cognitive engagement (including interaction terms) was not significant $F(18, 268) = 0.82, ns$. The model predicting academic persistence (including interaction terms) was not significant $F(18, 268) = 1.15, ns$.

Academic Affect. Results for each regression model predicting academic affect are presented in Table 4.16. The model predicting uncertainty about persisting (including interaction terms), $F(15, 271) = 2.29, p < .01$, accounted for 6.3% of the variance in uncertainty about persisting. The Race X Guilt coefficient was significant ($\beta = .17, p < .05$). A plot of the interaction indicated that social class guilt was positively related to uncertainty about persisting among African American participants, whereas social class guilt was not related to uncertainty about persisting among White participants. Figure 4.11 summarizes the interaction effects.

The model predicting positive academic affect (including interaction terms) was not significant $F(18, 268) = 1.14, ns$. The model predicting doubts around ability (including interaction terms) was significant $F(18, 268) = 2.10, p < .01$; however adding the interaction terms did not increase the variance explained.

Academic Satisfaction. Results for this regression model predicting academic satisfaction are presented in Table 4.17. The model predicting academic satisfaction (including interaction terms) was significant $F(18, 268) = 4.69, p < .001$, however adding the interaction terms did not increase the variance explained.

Cumulative Grade Point Average. In the model predicting cumulative grade point average (GPA), I followed the same procedures previously outlined in this section with the addition of high school GPA as a control variable. Results for this regression model are presented in Table 4.17. The model predicting GPA (including interaction terms) was significant

$F(19, 256) = 7.92, p < .001$; however adding the interaction terms did not increase the variance explained.

Psychological Distress. Results for this regression model predicting psychological distress are presented in Table 4.17. The model predicting psychological distress (including interaction terms) was significant $F(18, 267) = 2.06, p < .01$; however adding the interaction terms did not increase the variance explained.

Psychological Well-Being. Results for each regression model predicting psychological well-being are presented in Table 4.18. The model predicting positive relations with others (including interaction terms), $F(16, 270) = 4.71, p < .001$, accounted for 17.2% of the variance in positive relations with others. The Race X Shame coefficient ($\beta = .26, p < .01$) and the Race X Guilt coefficient ($\beta = -.20, p < .01$) were both significant. A plot of the Race X Shame interaction indicated that social class shame was negatively related to positive relations with others among White participants, whereas social class shame was not related to positive relations with others among African American participants. Figure 4.12 summarizes the interaction effects. A plot of the Race X Guilt interaction indicated that social class guilt was negatively related to positive relations with others among African American participants, whereas social class guilt was not related to positive relations with others among White participants. Figure 4.13 summarizes the interaction effects.

The model predicting autonomy (including interaction terms), $F(15, 271) = 6.52, p < .001$, accounted for 22.4% of the variance in autonomy. The Race X Guilt coefficient was significant ($\beta = -.20, p < .01$). A plot of the interaction indicated that social class guilt was negatively related to autonomy among African American participants, whereas social class guilt

was not related to autonomy among White participants. Figure 4.14 summarizes the interaction effects.

The model predicting environmental mastery (including interaction terms), $F(15, 271) = 4.66, p < .001$, accounted for 16.1% of the variance in environmental mastery. The Race X Guilt coefficient was significant ($\beta = -.19, p < .01$). A plot of the interaction indicated that social class guilt was negatively related to environmental mastery among African American participants, whereas social class guilt was not related to environmental mastery among White participants. Figure 4.15 summarizes the interaction effects.

The model predicting self-acceptance (including interaction terms), $F(15, 271) = 5.96, p < .001$, accounted for 20.6% of the variance in self-acceptance. The Race X Guilt coefficient was significant ($\beta = -.19, p < .01$). A plot of the interaction indicated that social class guilt was negatively related to self-acceptance among African American participants, whereas social class guilt was not related to self-acceptance among White participants. Figure 4.16 summarizes the interaction effects.

The model predicting purpose in life, $F(15, 271) = 4.03, p < .001$, accounted for 13.7% of the variance in purpose in life. The Race X Guilt coefficient was significant ($\beta = -.20, p < .01$). A plot of the interaction indicated that social class guilt was negatively related to purpose in life among African American participants, whereas social class guilt was not related to purpose in life among White participants. Figure 4.17 summarizes the interaction effects.

Self-Identified Social Class as a Moderator. To examine whether the relationship between social class identity attitudes and students' academic and psychological outcomes are moderated by self-identified social class, I ran a series of ordinary least squares (OLS) regressions. I ran separate regressions for each dependent variable. In all the models, I used

procedures outlined by Aiken and West (1991) to probe the interaction models. Specifically, all continuous predictor variables were centered and categorical variables were dummy coded before entering into models. For the self-identified social class dummy variables, the middle class was coded as the reference group, with a total of five dummy variables to account for the six categories. In the first block of each regression model, I included gender, mother's education, father's education, family income, and race as control variables, as well as the main effects of self-identified social class dummy variables and social class identity centrality, pride, shame, and guilt. To test the moderating effect of self-identified social class, interaction terms for each self-identified social class dummy variable by social class identity dimension (centrality, pride, shame, and guilt) were included in the second block of each regression model.

For each model, all two-way interaction terms (Centrality X Social Class Dummy Variable 1, Centrality X Social Class Dummy Variable 2, etc.) were initially included. All non-significant interaction groups (e.g., Centrality X Dummy 1, Centrality X Dummy 2, Centrality X Dummy 3, Centrality X Dummy 4, and Centrality X Dummy 5) were then removed and the model was rerun. Thus, only significant interaction groups were included in the reported findings. I plotted all significant interactions to examine the nature of the interaction. For each significant Self-Identified Social Class X Social Class Identity Dimension interaction, a plot illustrates the simple slopes of the dependent variable at selected conditional values ($M + 1 SD$ and $M - 1 SD$) of social class identity for each self-identified social class group. Given that the first block of each regression model is identical to analyses discussed in questions 2 and 3, only the second block of each regression model will be reported in both text and tables.

Academic Engagement. Results for each regression model predicting academic engagement are presented in Table 4.19. The model predicting academic curiosity (including

interaction terms) was significant $F(34, 252) = 1.63, p < .05$; however adding the interaction terms did not increase the variance explained. The model predicting cognitive engagement (including interaction terms) was not significant $F(34, 252) = 0.85, ns$. The model predicting academic persistence (including interaction terms) was not significant $F(34, 252) = 0.84, ns$.

Academic Affect. Results for each regression model predicting academic affect are presented in Table 4.20. The model predicting positive academic affect (including interaction terms) was not significant $F(34, 252) = 1.16, ns$. The model predicting uncertainty about persisting (including interaction terms) was significant $F(34, 252) = 1.65, p < .05$; however adding the interaction terms did not increase the variance explained. The model predicting doubts around ability (including interaction terms), $F(19, 267) = 2.21, p < .01$, accounted for 7.4% of the variance in doubts around ability, although the increase in variance explained was marginally significant ($p < .10$). The Guilt X Social Class Dummy 4 coefficient was significant ($\beta = -.23, p < .05$), and the Guilt X Social Class Dummy 5 coefficient was marginally significant ($\beta = -.16, p < .10$). A plot of the interaction indicated that social class guilt was negatively related to doubts around ability among students who identified as upper middle class, whereas social class guilt was not related to doubts around ability among students who identified as poor, working class, lower middle class, middle class, and upper class. Figure 4.18 summarizes the interaction effects.

Academic Satisfaction. Results for this regression model predicting academic satisfaction are presented in Table 4.21. The model predicting academic satisfaction (including interaction terms) was significant, $F(34, 252) = 2.76, p < .001$; however adding the interaction terms did not increase the variance explained.

Cumulative Grade Point Average. In the model predicting cumulative grade point average (GPA), I followed the same procedures previously outlined in this section with the addition of high school GPA as a control variable. Results for this regression model are presented in Table 4.21. The model predicting GPA (including interaction terms) was significant $F(35, 240) = 4.31, p < .001$, however adding the interaction terms did not increase the variance explained.

Psychological Distress. Results for this regression model predicting psychological distress are presented in Table 4.21. The model predicting psychological distress (including interaction terms) was significant $F(35, 240) = 1.57, p < .05$, however adding the interaction terms did not increase the variance explained.

Psychological Well-Being. Results for each regression model predicting psychological well-being are presented in Table 4.22. The model predicting positive relations with others (including interaction terms) was significant $F(34, 252) = 2.41, p < .001$, however adding the interaction terms did not increase the variance explained. The model predicting autonomy (including interaction terms) was also significant $F(34, 252) = 2.91, p < .001$, however adding the interaction terms did not increase the variance explained.

The model predicting environmental mastery (including interaction terms), $F(24, 262) = 3.67, p < .001$, accounted for 18.3% of the variance in environmental mastery. The Shame X Social Class Dummy 1 coefficient was significant ($\beta = -.14, p < .05$). A plot of the interaction indicated that social class shame was negatively related to environmental mastery among students who identified as poor or lower middle class. Social class shame had a marginal negative association with environmental mastery among students who identified as middle class or upper class, whereas social class shame was not related to environmental mastery among

students who identified as working class, or upper middle class. Figure 4.19 summarizes the interaction effects. The Guilt X Social Class Dummy 4 coefficient was significant ($\beta = .30, p < .01$). A plot of the interaction indicated that social class guilt was negatively related to environmental mastery among students who identified as middle class, whereas social class guilt was not related to environmental mastery among students who identified as poor, working class, lower middle class, upper middle class and upper class. Figure 4.20 summarizes the interaction effects.

The model predicting self-acceptance (including interaction terms), $F(19, 267) = 4.85, p < .001$, accounted for 20.3% of the variance in self-acceptance, although the increase in variance explained was marginal ($p < .10$). The Centrality X Social Class Dummy 2 coefficient was significant ($\beta = .22, p < .01$). A plot of the interaction indicated that social class centrality was positively related to self-acceptance among students who identified as working class, whereas social class centrality was not related to self-acceptance among students who identified as poor, lower middle class, middle class, upper middle class and upper class. Figure 4.21 summarizes the interaction effects.

The model predicting purpose in life (including interaction terms), $F(24, 262) = 3.22, p < .001$, accounted for 15.7% of the variance in purpose in life. The Centrality X Social Class Dummy 2 coefficient was significant ($\beta = .19, p < .05$). A plot of the interaction indicated that social class centrality was positively related to purpose in life among students who identified as working class, whereas social class centrality had a marginal negative association with purpose in life among students who identified as lower middle class. Social class centrality was not related to purpose in life among students who identified as poor, middle class, upper middle class or upper class. Figure 4.22 summarizes the interaction effects. The Guilt X Social Class Dummy

5 coefficient was significant ($\beta = -.18, p < .05$). A plot of the interaction indicated that social class guilt was negatively related to purpose in life among students who identified as upper class, whereas social class guilt was not related to purpose in life among students who identified as poor, working class, lower middle class, middle class, or upper middle class. Figure 4.23 summarizes the interaction effects.

Table 4.1. Means and Standard Deviations of Social Class Identity Items for Full Sample, Grouped By Race, and Grouped by Self-Identified Social Class.

Social Class Identity Items		Full Sample		Grouped by Race			
Item Name	Item Text	M	SD	Whites		Blacks	
				M	SD	M	SD
	Original Centrality Items						
MMSCI01	I have a lot in common with other [<i>selected social class group</i>] students.	4.86	1.36	4.82	1.42	4.91	1.29
MMSCI04	Coming from a(n) [<i>selected social class group</i>] background is important to my sense of what kind of person I am.	4.23	1.67	3.96	1.64	4.57	1.66
MMSCI06	Whenever possible, I prefer to hang out with other students from a(n) [<i>selected social class group</i>] background.	3.26	1.51	3.11	1.48	3.48	1.52
MMSCI07	If I were to describe myself to someone, I would probably say that I'm from a(n) [<i>selected social class group</i>] background.	3.60	1.88	3.51	1.89	3.72	1.86
MMSCI10	I don't feel connected to other students with a(n) [<i>selected social class group</i>] background.*	3.13	1.51	3.18	1.57	3.06	1.44
MMSCI14	Overall, being [<i>selected social class group</i>] has very little to do with how I feel about myself.*	4.32	1.73	4.39	1.62	4.21	1.88
MMSCI17	In general, coming from a(n) [<i>selected social class group</i>] background is an important part of my self-image.	3.97	1.64	3.73	1.51	4.28	1.76
	Original Pride Items						
MMSCI02	I feel a sense of pride because of my [<i>selected social class group</i>] background.	4.32	1.52	4.20	1.53	4.49	1.50
MMSCI09	I feel good about my [<i>selected social class group</i>] background.	4.59	1.36	4.76	1.23	4.36	1.50
MMSCI12	I am unhappy that I come from a(n) [<i>selected social class group</i>] background.+	2.61	1.48	2.45	1.37	2.82	1.60
	Original Shame Items						
MMSCI03	At times, I try to hide the fact that I am [<i>selected social class group</i>].	3.65	1.69	3.92	1.66	3.30	1.66
MMSCI05	I wish I was from a different social class background.	3.23	1.75	2.92	1.63	3.64	1.83
MMSCI13	I sometimes feel embarrassed that I come from a(n) [<i>selected social class group</i>] background.	2.92	1.66	3.00	1.65	2.81	1.66
MMSCI16	I am not ashamed of my social class background.*	5.06	1.43	5.03	1.32	5.09	1.57
	Original Guilt Items						
MMSCI08	Sometimes, I feel guilty that others have not been as fortunate as I have been.	4.22	1.76	4.58	1.66	3.74	1.77
MMSCI11	I rarely feel guilty for the opportunities I have had.*	4.16	1.69	4.04	1.67	4.33	1.69
MMSCI15	I fear that others may perceive me as "thinking I am better."	3.41	1.77	3.74	1.75	2.97	1.71

Note. * These items were ultimately dropped from analyses.

+ This item was ultimately scored as a shame item.

Table 4.1 (cont'd). Means and Standard Deviations of Social Class Identity Items for Full Sample, Grouped By Race, and Grouped by Self-Identified Social Class.

Item Name	Grouped By Self-Identified Social Class											
	Poor		Working Class		Lower Middle Class		Middle Class		Upper Middle Class		Upper Class	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Centrality Items												
MMSCI01	4.88	1.61	4.91	1.41	4.76	1.23	4.87	1.19	4.92	1.49	4.22	1.79
MMSCI04	5.15	1.62	5.02	1.44	4.24	1.66	4.20	1.53	3.71	1.71	3.33	1.73
MMSCI06	3.58	1.60	4.08	1.22	3.26	1.35	3.28	1.43	2.83	1.58	2.67	1.87
MMSCI07	3.62	1.98	4.23	1.87	3.28	1.76	3.92	1.76	3.20	1.90	2.78	2.28
MMSCI10*	2.96	1.59	3.02	1.36	3.53	1.42	2.80	1.40	3.23	1.57	4.56	2.07
MMSCI14*	4.15	1.85	3.56	1.73	4.28	1.74	4.50	1.55	4.46	1.81	5.33	1.73
MMSCI17	5.00	1.63	4.83	1.46	4.19	1.44	3.66	1.59	3.55	1.63	3.56	1.59
Pride Items												
MMSCI02	4.56	1.73	5.06	1.30	3.85	1.45	4.37	1.43	4.20	1.57	3.56	1.51
MMSCI09	3.73	1.82	4.74	1.47	3.87	1.29	4.78	1.12	4.96	1.16	4.22	1.99
MMSCI12 ⁺	3.50	1.73	2.85	1.60	3.57	1.41	2.39	1.30	2.04	1.20	2.00	1.50
Shame Items												
MMSCI03	3.27	1.78	3.33	1.66	4.06	1.69	3.07	1.48	4.21	1.62	4.75	1.91
MMSCI05	4.16	1.95	3.60	1.80	4.42	1.59	3.18	1.60	2.27	1.29	2.89	2.26
MMSCI13	3.88	1.80	2.71	1.52	3.75	1.69	2.42	1.43	2.84	1.63	3.11	2.09
MMSCI16*	4.68	1.82	5.09	1.50	4.81	1.28	5.31	1.30	5.01	1.48	4.89	1.45
Guilt Items												
MMSCI08	3.62	2.19	3.58	1.61	3.79	1.61	4.14	1.63	4.95	1.66	4.78	1.79
MMSCI11*	4.31	2.13	4.53	1.61	4.43	1.55	4.20	1.49	3.73	1.79	4.56	1.81
MMSCI15	2.96	1.80	2.72	1.39	3.20	1.73	2.91	1.55	4.41	1.73	4.11	2.03

Note. * These items were ultimately dropped from analyses.

+ This item was ultimately scored as a shame item.

Figure 4.1. Final CFA Model Specification for Full 4-Factor Model of Social Class Identity.

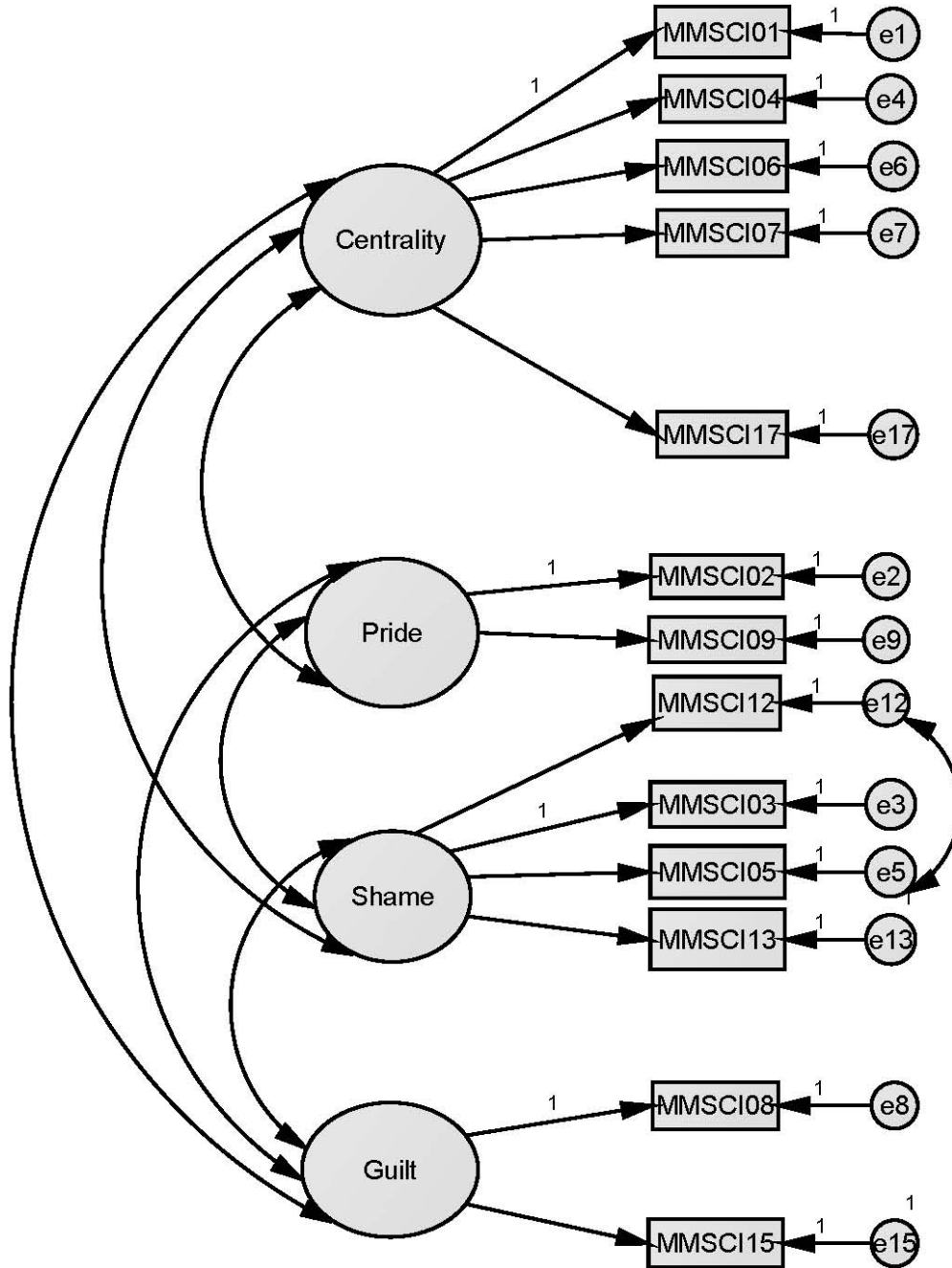


Figure 4.2. Final CFA Model Specification for Single-Factor Model of Social Class Centrality.

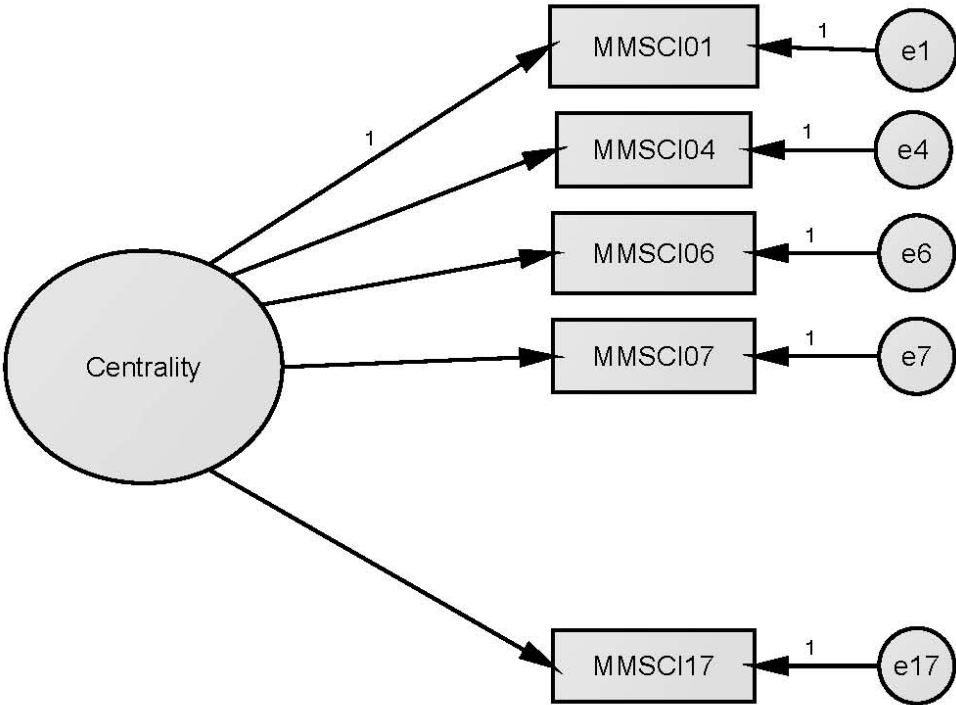


Figure 4.3. Final CFA Model Specification for Single-Factor Model of Social Class Shame.

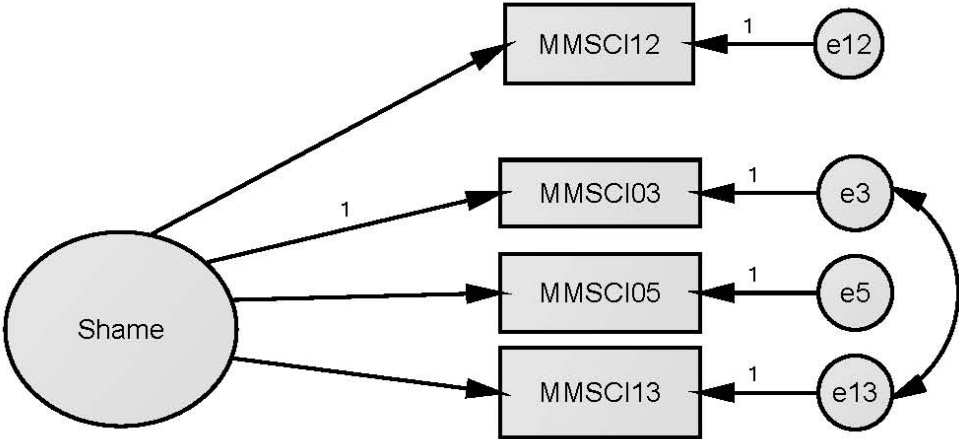


Figure 4.4. Final CFA Model Specification for 2-Factor Model of Social Class Pride and Guilt.

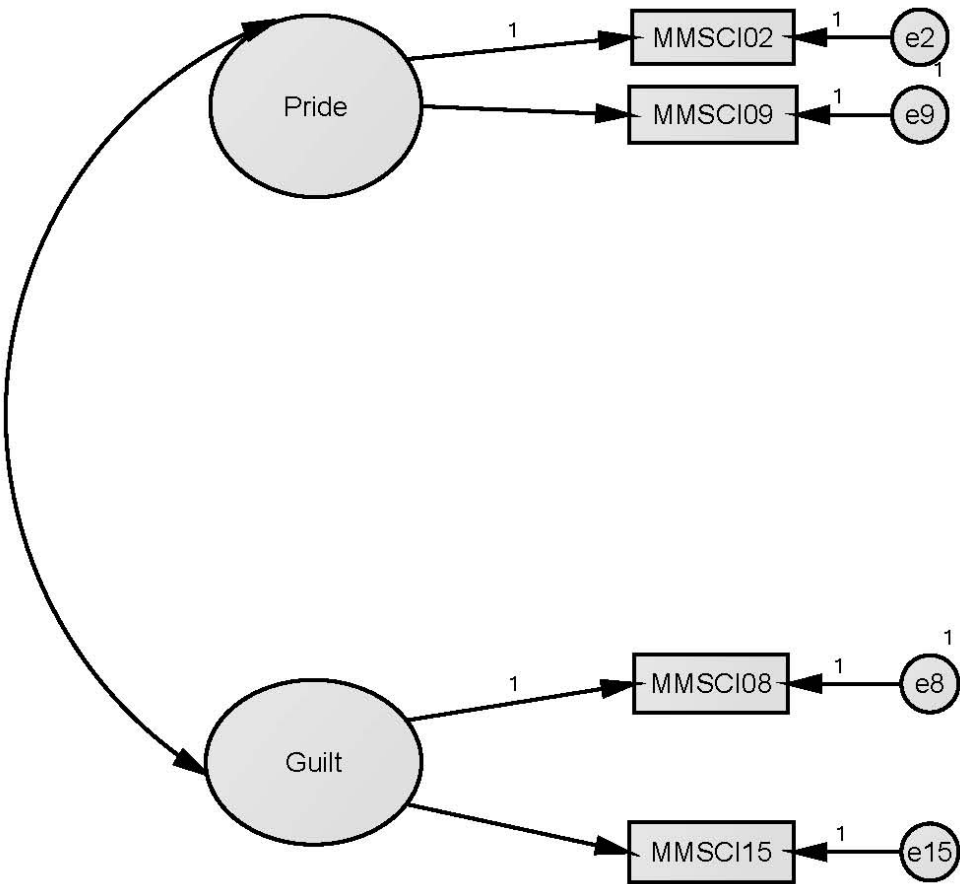


Table 4.2. Goodness of Fit Statistics for Social Class Identity Scales.

CFA Model	χ^2	<i>df</i>	CFI	RMSEA	SRMR
Centrality	7.69	5	.99	.04	0.03
Shame	3.29	1	.99	.09	0.02
Pride and Guilt	21.23	3	.91	.14	0.07
Centrality and Shame	77.43	25	.94	.08	0.07
Centrality and Pride	66.76	13	.92	.11	0.06
Centrality and Guilt	29.54	14	.97	.06	0.05
Shame and Pride	61.01	8	.91	.14	0.08
Shame and Guilt	55.88	8	.92	.14	0.09
Pride, Shame, and Guilt	148.53	17	.84	.16	0.11
Full Model	386.56	60	.79	.13	0.11

Table 4.3. Factor Loadings and Reliabilities for Social Class Identity Scales.

Item No.	Item Name	Item Text	Single-Factor CFA Loadings*	Affect Model ⁺ CFA Loadings	Full Factor CFA Loadings
Centrality ($\alpha = .75$)					
1	MMSCI01	I have a lot in common with other [<i>selected social class group</i>] students.	.45	--	.51
4	MMSCI04	Coming from a(n) [<i>selected social class group</i>] background is important to my sense of what kind of person I am.	.78	--	.78
6	MMSCI06	Whenever possible, I prefer to hang out with other students from a(n) [<i>selected social class group</i>] background.	.56	--	.59
7	MMSCI07	If I were to describe myself to someone, I would probably say that I'm from a(n) [<i>selected social class group</i>] background.	.43	--	.44
17	MMSCI17	In general, coming from a(n) [<i>selected social class group</i>] background is an important part of my self-image.	.86	--	.81
Shame ($\alpha = .77$)					
3	MMSCI03	At times, I try to hide the fact that I am [<i>selected social class group</i>].	.30	.67	.57
5	MMSCI05	I wish I was from a different social class background.	.64	.47	.52
12	MMSCI12	I am unhappy that I come from a(n) [<i>selected social class group</i>] background.	.95	.48	.70
13	MMSCI13	I sometimes feel embarrassed that I come from a(n) [<i>selected social class group</i>] background.	.69	.80	.81
Pride ($r = .51$)					
2	MMSCI02	I feel a sense of pride because of my [<i>selected social class group</i>] background	.67	.55	.76
9	MMSCI09	I feel good about my [<i>selected social class group</i>] background.	.69	.71	.64
Guilt ($r = .44$)					
8	MMSCI08	Sometimes, I feel guilty that others have not been as fortunate as I have been.	.82	.58	.55
15	MMSCI15	I fear that others may perceive me as "thinking I am better."	.55	.81	.83

Note: *Reported pride and guilt single-factor CFA loadings are from the two-factor model of pride and guilt.

⁺The Affect Model was a 3-factor model including Pride, Shame, and Guilt.

Table 4.4. Goodness of Fit Statistics of Tests of Invariance across Racial Groups.

Model Description	CFI	RMSEA	SRMR	χ^2	df	$\Delta\chi^2$	Δdf	Sig.
Social Class Centrality								
1a. Single group: African Americans	1.00	.01	.04	5.11	5	--	--	--
2a. Single group: Whites	1.00	.00	.02	3.76	5	--	--	--
3a. Baseline Model for African Americans and Whites	1.00	.00	.04	8.88	10	--	--	--
4a. Factor loadings constrained equal across race groups	.99	.03	.05	19.68	15	10.80	5	<i>ns</i>
Social Class Shame								
1b. Single group: African Americans	.99	.09	.03	3.99	2	--	--	--
2b. Single group: Whites	.99	.12	.03	3.87	1	--	--	--
3b. Baseline Model for African Americans and Whites	.99	.07	.03	7.86	3	--	--	--
4b. Factor loadings constrained equal across race groups	.97	.07	.04	18.91	7	11.04	4	<i>p</i> < .05
5b. Loading of Item 12 constrained equal across race groups	.99	.06	.03	7.86	4	0.001	1	<i>ns</i>
6b. Loadings of Items 12 and 5 constrained equal across race groups	.99	.04	.03	7.99	5	0.12	2	<i>ns</i>
7b. Loadings of Items 12, 5, and 13 constrained equal across race groups	.97	.08	.04	18.87	6	11.01	3	<i>p</i> < .05
8b. Loadings of Items 12, 5, and 3 constrained equal across race groups	.99	.05	.04	10.35	6	2.49	3	<i>ns</i>
Social Class Pride and Guilt								
1c. Single group: African Americans	.92	.11	.07	7.93	3	--	--	--
2c. Single group: Whites	.96	.09	.05	7.41	3	--	--	--
3c. Baseline Model for African Americans and Whites	.95	.07	.07	15.342	6	--	--	--
4c. Factor loadings constrained equal across race groups	.89	.08	.09	29.948	10	14.61	4	<i>p</i> < .01
5c. Loading of Item 2 constrained equal across race groups	.94	.07	.08	17.901	7	2.56	1	<i>ns</i>
6c. Loadings of Items 2 and 9 constrained equal across race groups	.92	.08	.08	23.702	8	8.36	2	<i>p</i> < .05
7c. Loadings of Items 2 and 8 constrained equal across race groups	.95	.06	.08	18.229	8	2.89	2	<i>ns</i>
8c. Loadings of Items 2, 8, and 15 constrained equal across race groups	.92	.07	.10	24.181	9	8.84	3	<i>p</i> < .05

Table 4.5. Goodness of Fit Statistics of Tests of Invariance across Self-Identified Social Class Groups.

Model Description	CM	CFI	RMSEA	SRMR	χ^2	df	$\Delta\chi^2$	Δdf	Sig.
Social Class Centrality									
1a. Single group: Below Middle Class	--	.97	.09	.05	9.39	5	--	--	--
2a. Single group: Middle Class Only	--	.92	.12	.05	12.30	5	--	--	--
3a. Single group: Above Middle Class	--	.99	.06	.04	6.86	5	--	--	--
4a. Baseline Model for All 3 Class Groups	--	.97	.05	.05	28.54	15	--	--	--
5a. Factor loadings constrained equal across class groups	4a	.95	.05	.06	42.93	25	14.39	10	<i>ns</i>
Social Class Shame									
1b. Single group: Below Middle Class	--	.99	.08	.03	3.59	2	--	--	--
2b. Single group: Middle Class Only	--	1.00	.00	.00	0.02	1	--	--	--
3b. Single group: Above Middle Class	--	1.00	.00	.01	0.33	1	--	--	--
4b. Baseline Model for All 3 Class Groups	--	1.00	.00	.03	3.94	4	--	--	--
5b. Factor loadings constrained equal across class groups	4b	.95	.08	.06	34.98	12	31.04	8	<i>p</i> < .001
6b. Baseline Model for “Below MC” and “Middle Class” groups	--	1.00	.03	.03	3.61	3	--	--	--
7b. Factor loadings constrained equal across “Below MC” and “Middle Class” groups	6b	.99	.04	.04	9.51	9	5.91	6	<i>ns</i>
8b. Baseline Model for “Middle Class and Below” and “Above MC” groups	--	1.00	.00	.01	1.72	1	--	--	--
9b. Factor loadings constrained equal across “Middle Class and Below” and “Above MC” groups	8b	.95	.11	.04	30.06	6	28.34	5	<i>p</i> < .001
10b. Loading of Item 3 constrained equal across “Middle Class and Below” and “Above MC” groups	8b	1.00	.00	.02	2.53	3	0.80	2	<i>ns</i>
11b. Loading of Items 3 and 13 constrained equal across “Middle Class and Below” and “Above MC” groups	8b	1.00	.00	.01	3.57	4	1.84	3	<i>ns</i>
12b. Loading of Items 3, 13, and 12 constrained equal across “Middle Class and Below” and “Above MC” groups	8b	.97	.10	.02	21.81	5	20.09	4	<i>p</i> < .001
13b. Loading of Items 3, 13, and 5 constrained equal across “Middle Class and Below” and “Above MC” groups	8b	.96	.11	.05	22.55	5	20.83	4	<i>p</i> < .001

Note. CM = Comparative Model – the baseline (configural) model against which the current model is compared.

Table 4.5 (cont'd). Goodness of Fit Statistics of Tests of Invariance across Self-Identified Social Class Groups.

Model Description	CM	CFI	RMSEA	SRMR	χ^2	df	$\Delta\chi^2$	Δdf	Sig.
Social Class Pride and Guilt									
1c. Single group: Below Middle Class	--	.91	.12	.08	7.91	3	--	--	--
2c. Single group: Middle Class Only	--	1.00	.00	.02	0.52	2	--	--	--
3c. Single group: Above Middle Class	--	.97	.10	.05	5.87	3	--	--	--
4c. Baseline Model for All 3 Class Groups	--	.97	.05	.08	14.291	8	--	--	--
5c. Factor loadings constrained equal across class groups	4c	.89	.06	.10	35.703	16	21.412	8	<i>p</i> < .001
6c. Baseline Model for and “Middle Class” and “Above MC” groups	--	.99	.04	.02	6.384	5	--	--	--
7c. Factor loadings constrained equal across “Middle Class” and “Above MC” groups	6c	.98	.04	.05	11.831	9	5.447	4	<i>ns</i>
8c. Baseline Model for “Below MC” and “Middle Class and Above” groups	--	.96	.06	.04	13.105	6	--	--	--
9c. Factor loadings constrained equal across “Below MC” and “Middle Class and Above” groups	8c	.88	.09	.05	33.424	10	20.319	4	<i>p</i> < .001
10c. Loading of Item 2 constrained equal across “Below MC” and “Middle Class and Above” groups	8c	.96	.06	.04	13.773	7	0.668	1	<i>ns</i>
11c. Loading of Items 2 and 9 constrained equal “Below MC” and “Middle Class and Above” groups	8c	.91	.09	.04	26.128	8	13.023	2	<i>p</i> < .01
12c. Loading of Items 2 and 8 constrained equal across “Below MC” and “Middle Class and Above” groups	8c	.97	.05	.04	13.883	8	0.778	2	<i>ns</i>
13c. Loading of Items 2, 8, and 15 constrained equal across “Below MC” and “Middle Class and Above” groups	8c	.94	.07	.05	21.077	9	7.972	3	<i>p</i> < .05

Note. CM = Comparative Model – the baseline (configural) model against which the current model is compared.

Table 4.6. Means, standard deviations, minimum, maximum, and range of study variables.

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	Min.	Max.	Range
1. Gender ^a	352	41.1%				
2. Race ^b	353	43.9%				
3. School Year	353	2.70	1.11	1.00	6.00	5.00
4. Mother's Education	350	5.25	1.54	1.00	8.00	7.00
5. Father's Education	334	5.21	1.72	1.00	8.00	7.00
6. Family Income	314	9.36	6.17	1.00	22.00	21.00
7. Social Class Identification	353	3.67	1.31	1.00	6.00	5.00
8. Social Class Centrality	347	3.99	1.15	1.00	7.00	6.00
9. Social Class Pride	345	4.46	1.25	1.00	7.00	6.00
10. Social Class Shame	346	3.10	1.28	1.00	6.75	5.75
11. Social Class Guilt	341	3.82	1.50	1.00	7.00	6.00
12. Academic Engagement – Curiosity	352	3.76	0.72	1.00	5.00	4.00
13. Academic Engagement – Cognitive Engagement	352	3.32	0.66	1.00	5.00	4.00
14. Academic Engagement – Persistence	352	3.87	0.71	1.00	5.00	4.00
15. Academic Affect – Positive	351	3.90	0.70	1.80	5.00	3.20
16. Academic Affect – Uncertainty about Persisting	351	1.76	0.88	1.00	5.00	4.00
17. Academic Affect - Doubts around Ability	350	3.01	0.99	1.00	5.00	4.00
18. Academic Satisfaction	346	3.52	0.76	1.00	5.00	4.00
19. Cumulative Grade Point Average (GPA)	344	3.08	0.51	1.73	4.00	2.27
20. Psychological Distress	347	2.06	0.81	1.00	5.00	4.00
21. Psych. Well-Being – Positive Relationships	346	4.12	1.12	1.00	6.00	5.00
22. Psych. Well-Being – Autonomy	346	4.03	0.85	1.75	6.00	4.25
23. Psych. Well-Being – Environmental Mastery	347	4.10	0.90	1.50	6.00	4.50
24. Psych. Well-Being – Self-Acceptance	346	4.68	1.00	1.25	6.00	4.75
25. Psych. Well-Being – Purpose in Life	347	4.83	1.02	1.67	6.00	4.33
Valid <i>N</i> (listwise)	280					

Note: ^a Percent Male, Male = 0, Female = 1

^b Percent African American, African American = 0, White = 1

Table 4.7. Bivariate correlations of study variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	1											
2. Race	-.16**	1										
3. School Year	-.07	.02	1									
4. Mother's Educ.	-.09	.27**	-.10	1								
5. Father's Educ.	-.09	.36**	-.17**	.56**	1							
6. Family Income	.01	.47**	-.13*	.51**	.57**	1						
7. Social Class Identification	-.01	.49**	-.16**	.53**	.58**	.77**	1					
8. Social Class Centrality	.08	-.16**	.08	-.16**	-.11*	-.12*	-.27**	1				
9. Social Class Pride	.03	.02	-.07	.05	.07	.13*	.03	.58**	1			
10. Social Class Shame	.04	-.03	-.01	-.01	-.04	-.14*	-.21**	.14*	-.29**	1		
11. Social Class Guilt	.13*	.26**	-.13*	.30**	.34**	.42**	.33**	.15**	.15**	.24**	1	
12. Acad. Eng. – Curiosity	.07	-.06	.02	-.03	-.10 ⁺	-.02	.002	-.04	.06	-.20**	-.14**	1
13. Acad. Eng. – Cognitive	.01	.07	-.04	.04	.10 ⁺	.03	.04	-.02	.07	-.09 ⁺	.04	.40**
14. Acad. Eng. – Persistence	-.01	.04	.06	.002	-.003	-.004	.02	.002	.04	-.16**	-.11*	.42**
15. Acad. Affect – Positive	.10 ⁺	.06	.03	-.03	.06	.06	.04	.07	.14*	-.15**	.003	.46**
16. Acad. Affect – Unc. Persisting	-.05	-.15**	-.14*	-.03	-.04	-.14*	-.17**	.02	-.08	.23**	.07	-.24**
17. Acad. Affect – Dbts. Ability	.18**	-.13*	-.05	-.04	-.03	-.08	-.08	.01	-.06	.19**	.03	-.28**
18. Acad. Satisfaction	-.07	.19**	-.07	.14*	.20**	.26**	.26**	.02	.29**	-.30**	.12*	.25**
19. Cum. GPA	.04	.50**	-.13*	.25**	.39**	.39**	.34**	-.03	.05	.004	.36**	.10 ⁺
20. Psych. Distress	.06	-.02	.003	.05	.05	.03	-.01	-.02	-.15**	.29**	.18**	-.29**
21. PWB – Pos. Relations	-.11*	.13*	-.003	.06	.12*	.14*	.21**	.03	.17**	-.353**	-.05	.19**
22. PWB –Autonomy	-.13*	-.20**	.07	-.10 ⁺	-.10 ⁺	-.10 ⁺	-.07	-.08	.06	-.32**	-.35**	.20**
23. PWB – Env. Mastery	-.08	.07	.001	-.02	.01	.08	.08	.04	.21**	-.37**	-.17**	.25**
24. PWB – Self-Acceptance	-.04	-.16**	.04	-.06	-.07	.02	.01	.12*	.25**	-.37**	-.19**	.26**
25. PWB – Purpose In Life	.12*	-.17**	.02	-.05	-.05	-.03	-.02	.09	.20**	-.30**	-.14**	.31**

Note: ** $p < .01$, * $p < .05$, + $p < .10$.

Table 4.7 (cont'd). Bivariate correlations of study variables.

Variable	13	14	15	16	17	18	19	20	21	22	23	24	25
1. Gender													
2. Race													
3. School Year													
4. Mother's Educ.													
5. Father's Educ.													
6. Family Income													
7. Social Class Identification													
8. Social Class Centrality													
9. Social Class Pride													
10. Social Class Shame													
11. Social Class Guilt													
12. Acad. Eng. – Curiosity													
13. Acad. Eng. – Cognitive	1												
14. Acad. Eng. – Persistence	.46**	1											
15. Acad. Affect – Positive	.43**	.52**	1										
16. Acad. Affect – Unc. Persisting	.02	-.29**	-.26**	1									
17. Acad. Affect – Dbts. Ability	-.21**	-.38**	-.45**	.39**	1								
18. Acad. Satisfaction	.24**	.30**	.49**	-.23**	-.42**	1							
19. Cum. GPA	.21**	.18**	.35**	-.15**	-.26**	.31**	1						
20. Psych. Distress	.05	-.22**	-.27**	.39**	.37**	-.36**	-.02	1					
21. PWB – Pos. Relations	.11*	.18**	.14**	-.24**	-.29**	.51**	.07	-.43**	1				
22. PWB –Autonomy	.07	.21**	.17**	-.15**	-.24**	.23**	-.15**	-.25**	.27**	1			
23. PWB – Env. Mastery	.16**	.30**	.35**	-.31**	-.45**	.49**	.10 ⁺	-.60**	.54**	.40**	1		
24. PWB – Self-Acceptance	.13*	.26**	.34**	-.19**	-.28**	.49**	-.06	-.51**	.48**	.51**	.64**	1	
25. PWB – Purpose In Life	.20**	.29**	.36**	-.29**	-.20**	.39**	-.05	-.38**	.43**	.35**	.48**	.57**	1

Note: ** $p < .01$, * $p < .05$, + $p < .10$.

Table 4.8. Crosstabulations of Race and Self-Identified Social Class.

Self-Identified Social Class		Race		Total
		African American participants	White participants	
Poor	<i>N</i>	23	4	27
	% within Class	85.2%	14.8%	100.0%
	% within Race	14.8%	2.0%	7.6%
	% of Total	6.5%	1.1%	7.6%
Working Class	<i>N</i>	39	12	51
	% within Class	76.5%	23.5%	100.0%
	% within Race	25.2%	6.1%	14.4%
	% of Total	11.0%	3.4%	14.4%
Lower Middle Class	<i>N</i>	33	22	55
	% within Class	60.0%	40.0%	100.0%
	% within Race	21.3%	11.1%	15.6%
	% of Total	9.3%	6.2%	15.6%
Middle Class	<i>N</i>	44	64	108
	% within Class	40.7%	59.3%	100.0%
	% within Race	28.4%	32.3%	30.6%
	% of Total	12.5%	18.1%	30.6%
Upper Middle Class	<i>N</i>	16	87	103
	% within Class	15.5%	84.5%	100.0%
	% within Race	10.3%	43.9%	29.2%
	% of Total	4.5%	24.6%	29.2%
Upper Class	<i>N</i>	0	9	9
	% within Class	0.0%	100.0%	100.0%
	% within Race	0.0%	4.5%	2.5%
	% of Total	0.0%	2.5%	2.5%
Total	<i>N</i>	155	198	353
	% within Class	43.9%	56.1%	100.0%
	% within Race	100.0%	100.0%	100.0%
	% of Total	43.9%	56.1%	100.0%

Table 4.9. Means and Standard Deviations of Social Class Identity Dimensions for Full Sample and Grouped By Race.

Social Class Identity Dimension	Full Sample			Grouped By Race					
				Whites			Blacks		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
Centrality	347	3.99	1.15	197	3.83	1.14	150	4.20	1.13
Pride	345	4.46	1.24	197	4.48	1.21	148	4.43	1.30
Shame	346	3.10	1.28	197	3.07	1.22	149	3.14	1.35
Guilt	341	3.82	1.50	196	4.16	1.49	145	3.36	1.39

Table 4.10. Means and Standard Deviations of Social Class Identity Dimensions Grouped By Self-Identified Social Class.

Social Class Identity Dimension	Grouped By Self-Identified Social Class																	
	Poor			Working Class			Lower Middle Class			Middle Class			Upper Middle Class			Upper Class		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
Centrality	26	4.43	1.27	48	4.63	1.12	54	3.94	0.90	108	3.99	1.04	102	3.66	1.21	9	3.31	1.26
Pride	26	4.13	1.49	48	4.91	1.25	54	3.86	1.13	106	4.58	1.09	102	4.57	1.24	9	3.89	1.64
Shame	26	3.70	1.46	48	3.15	1.30	54	3.96	1.24	107	2.75	1.19	102	2.84	1.07	9	3.19	1.28
Guilt	26	3.29	1.69	48	3.17	1.22	54	3.51	1.26	103	3.52	1.28	101	4.68	1.49	9	4.44	1.81

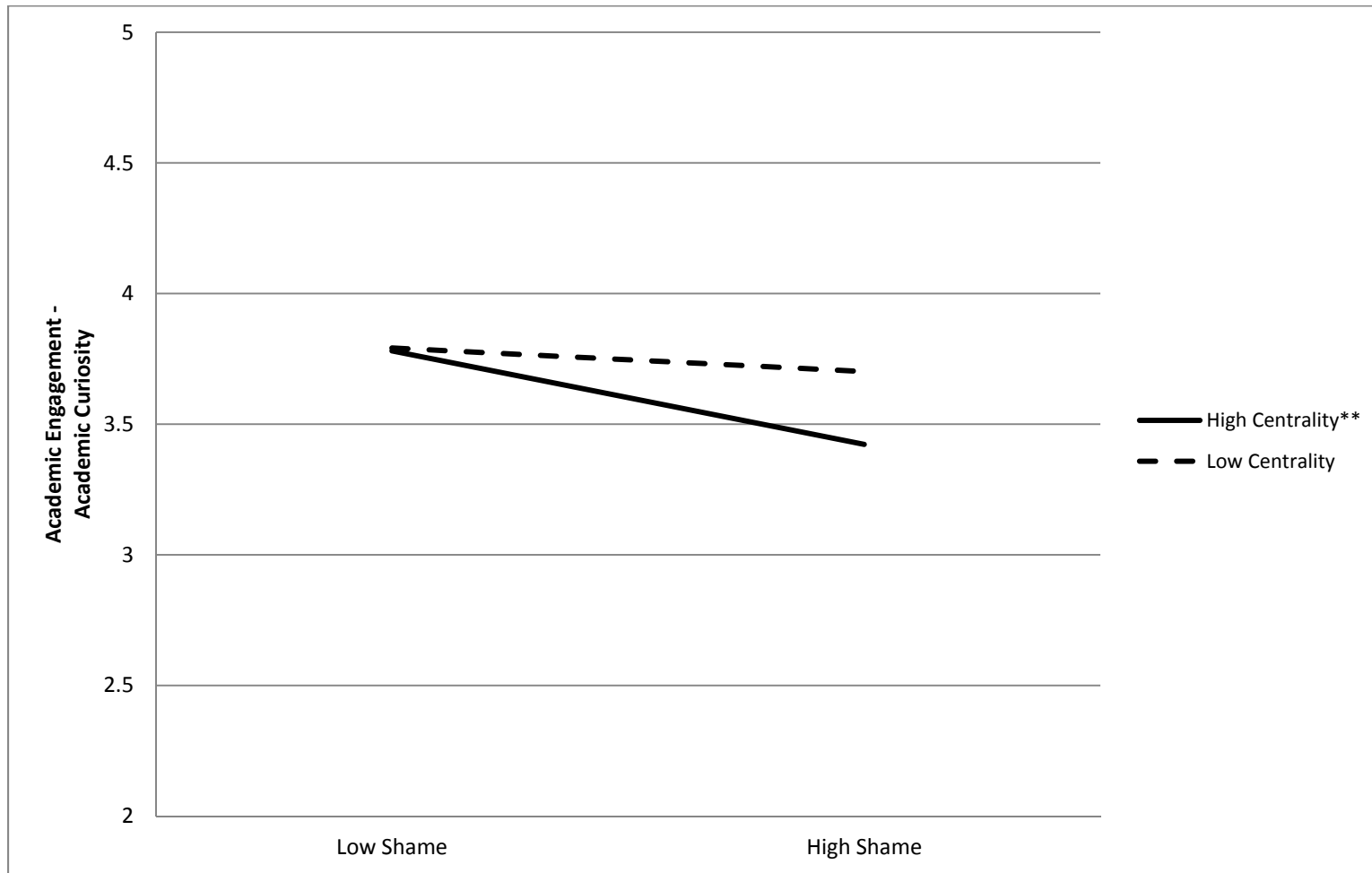
Table 4.11. Summary of Hierarchical Regression Analyses for Social Class Identity Predicting Academic Engagement (N = 287).

Variable	Academic Curiosity			Cognitive Engagement			Persistence		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
1. Race (0=White)	.11	.10	.08	-.08	.10	-.06	-.04	.10	-.02
Gender (0=Male)	.04	.09	.03	.03	.08	.02	.01	.09	.01
Mother's Education	-.02	.04	-.03	-.004	.03	-.01	-.001	.04	-.002
Father's Education	-.04	.03	-.09	.04	.03	.10	.02	.03	.05
Family Income	.01	.01	.07	-.001	.01	-.01	.01	.01	.07
Social Class Dummy 1 ^a	-.06	.20	-.02	.20	.19	.08	-.02	.20	-.01
Social Class Dummy 2 ^b	.09	.16	.04	.04	.15	.02	.01	.16	.01
Social Class Dummy 3 ^c	.17	.14	.09	.06	.14	.03	.00	.15	.00
Social Class Dummy 4 ^d	.002	.14	.001	-.21	.13	-.15	-.32	.14	-.20*
Social Class Dummy 5 ^e	-.02	.33	-.004	-.26	.31	-.06	-.07	.33	-.01
Social Class Centrality	-.06	.05	-.09	-.07	.05	-.12	.001	.05	.001
Social Class Pride	.04	.05	.07	.07	.05	.14	-.002	.05	-.003
Social Class Shame	-.09	.04	-.16*	-.02	.04	-.04	-.09	.04	-.16*
Social Class Guilt	-.04	.03	-.09	.05	.03	.12	-.02	.03	-.04
2. Race (0=White)	.11	.10	.08	-.08	.10	-.06	-.03	.10	-.02
Gender (0=Male)	.04	.09	.02	.03	.08	.02	.003	.09	.002
Mother's Education	-.01	.04	-.03	-.004	.03	-.01	-.001	.04	-.002
Father's Education	-.04	.03	-.09	.04	.03	.09	.02	.03	.04
Family Income	.01	.01	.05	.00	.01	.004	.01	.01	.06
Social Class Dummy 1 ^a	-.08	.20	-.03	.22	.19	.09	-.06	.20	-.02
Social Class Dummy 2 ^b	.08	.15	.04	.06	.15	.03	-.01	.16	-.004
Social Class Dummy 3 ^c	.16	.14	.08	.06	.14	.03	-.01	.15	-.01
Social Class Dummy 4 ^d	.01	.14	.01	-.22	.13	-.15	-.31	.14	-.20*
Social Class Dummy 5 ^e	-.01	.33	-.001	-.26	.31	-.06	-.06	.33	-.01
Social Class Centrality	-.06	.05	-.10	-.06	.05	-.11	-.004	.05	-.01
Social Class Pride	.04	.05	.07	.07	.05	.14	.000	.05	.000
Social Class Shame	-.09	.04	-.16*	-.02	.04	-.05	-.08	.04	-.14 ⁺
Social Class Guilt	-.04	.03	-.09	.05	.03	.12 ⁺	-.02	.04	-.04
Centrality X Pride	--	--	--	-.002	.03	-.01	.02	.03	.05
Centrality X Shame	-.05	.03	-.10 ⁺	.03	.03	.08	-.03	.03	-.07
Centrality X Guilt	--	--	--	.02	.02	.07	-.01	.03	-.03

Note: In academic curiosity model, adjusted $R^2 = .03$ for Step 1; $\Delta R^2 = .01$. In cognitive engagement model, adjusted $R^2 = -.01$ for Step 1; $\Delta R^2 = .01$. In persistence model, adjusted $R^2 = -.002$ for Step 1; $\Delta R^2 = .000$. * $p < .05$, ⁺ $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Figure 4.5. Social Class Centrality moderates the relationship between Social Class Shame and Academic Engagement – Academic Curiosity.



Note: ** $p < .01$.

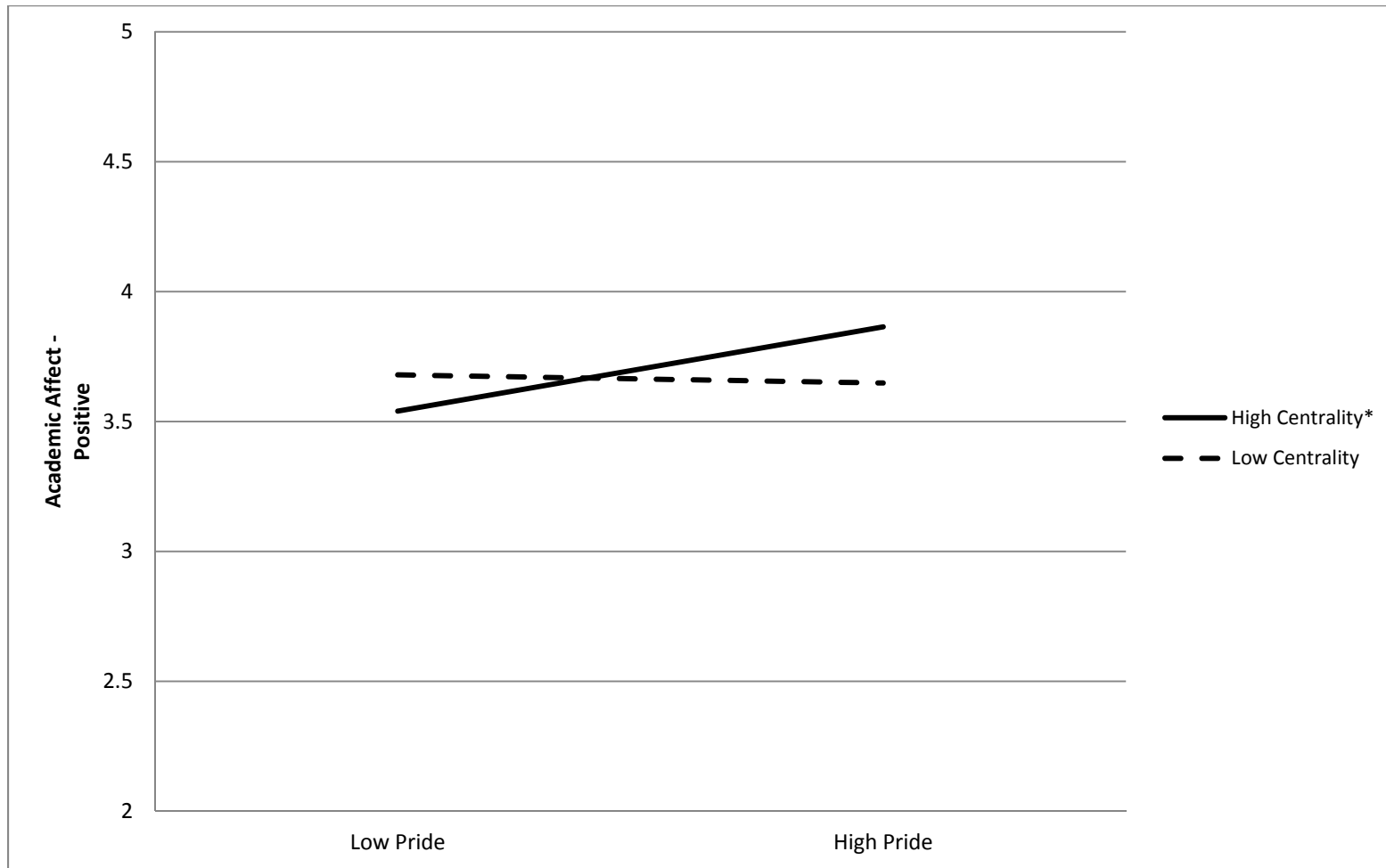
Table 4.12. Summary of Hierarchical Regression Analyses for Social Class Identity Predicting Academic Affect (N = 287).

Variable	Positive Academic Affect			Uncertainty about Persisting			Doubts around Ability		
	<i>b</i>	<i>SE_b</i>	β	<i>b</i>	<i>SE_b</i>	β	<i>b</i>	<i>SE_b</i>	β
1. Race (0=White)	-.07	.10	-.05	.14	.13	.08	.14	.14	.07
Gender (0=Male)	.14	.09	.10 ⁺	-.07	.11	-.04	.43	.12	.21***
Mother's Education	-.04	.04	-.08	.05	.04	.09	-.01	.05	-.01
Father's Education	.04	.03	.09	-.01	.04	-.02	.02	.05	.03
Family Income	.01	.01	.06	-.02	.01	-.12	-.01	.02	-.05
Social Class Dummy 1 ^a	.18	.20	.07	.35	.24	.11	.07	.27	.02
Social Class Dummy 2 ^b	.23	.15	.12	.12	.20	.05	-.21	.21	-.08
Social Class Dummy 3 ^c	.33	.14	.17*	.04	.18	.02	-.33	.20	-.12 ⁺
Social Class Dummy 4 ^d	.09	.14	.06	.11	.17	.06	-.09	.19	-.04
Social Class Dummy 5 ^e	-.10	.32	-.02	.18	.40	.03	.28	.45	.04
Social Class Centrality	.01	.05	.02	-.02	.06	-.03	-.02	.07	-.02
Social Class Pride	.054	.05	.10	-.01	.06	-.01	-.01	.07	-.01
Social Class Shame	-.07	.04	-.13 ⁺	.14	.05	.20**	.15	.06	.19**
Social Class Guilt	-.002	.03	-.004	.05	.04	.09	-.02	.05	-.03
2. Race (0=White)	-.04	.10	-.03	.14	.12	.08	.13	.14	.06
Gender (0=Male)	.14	.09	.10	-.06	.11	-.03	.43	.12	.21***
Mother's Education	-.04	.04	-.08	.05	.04	.08	-.01	.05	-.02
Father's Education	.03	.03	.07	-.01	.04	-.02	.02	.05	.03
Family Income	.01	.01	.06	-.01	.01	-.10	-.01	.02	-.04
Social Class Dummy 1 ^a	.11	.20	.04	.39	.24	.12	.11	.28	.03
Social Class Dummy 2 ^b	.19	.15	.10	.13	.19	.05	-.20	.22	-.07
Social Class Dummy 3 ^c	.30	.14	.16*	.06	.17	.03	-.31	.20	-.11
Social Class Dummy 4 ^d	.10	.14	.06	.09	.17	.05	-.11	.19	-.05
Social Class Dummy 5 ^e	-.07	.32	-.01	.16	.40	.03	.26	.45	.04
Social Class Centrality	.02	.05	.03	-.003	.06	-.004	-.01	.07	-.01
Social Class Pride	.06	.05	.11	-.01	.06	-.01	-.01	.07	-.01
Social Class Shame	-.06	.04	-.11	.13	.05	.19**	.14	.06	.18*
Social Class Guilt	-.01	.03	-.01	.05	.04	.09	-.02	.05	-.03
Centrality X Pride	.06	.03	.15*	--	--	--	-.01	.04	-.02
Centrality X Shame	--	--	--	.08	.03	.15*	.06	.04	.09
Centrality X Guilt	--	--	--	--	--	--	-.01	.03	-.01

Note: In positive academic affect model, adjusted $R^2 = .02$ for Step 1; $\Delta R^2 = .02$. In uncertainty about persisting model, adjusted $R^2 = -.05$ for Step 1; $\Delta R^2 = .02$. In doubts around ability model, adjusted $R^2 = .06$ for Step 1; $\Delta R^2 = .00$. *** $p < .001$, ** $p < .01$, * $p < .05$, ⁺ $p < .10$.

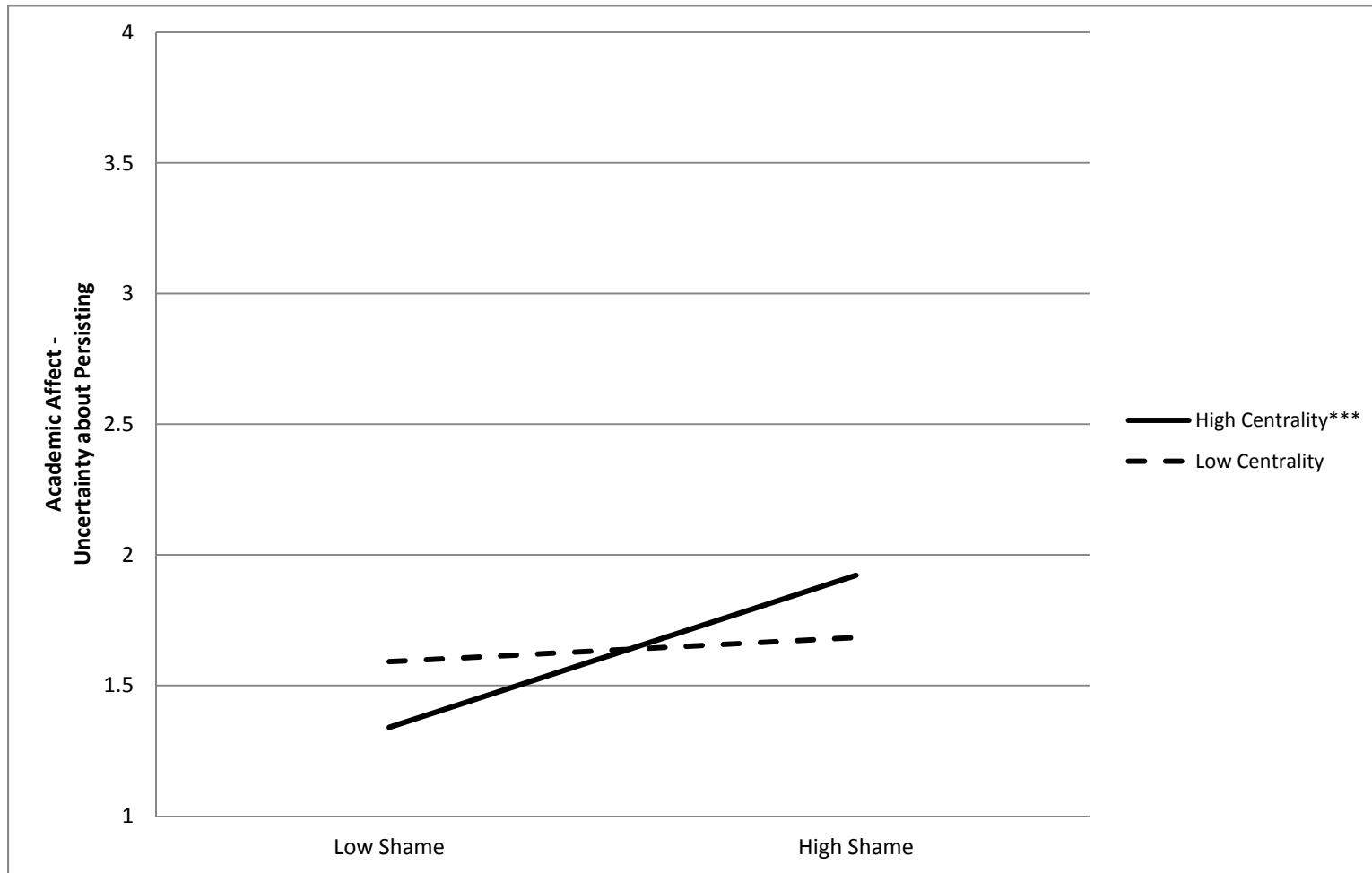
^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Figure 4.6. Social Class Centrality moderates the relationship between Social Class Pride and Academic Affect - Positive.



Note: * $p < .05$.

Figure 4.7. Social Class Centrality moderates the relationship between Social Class Shame and Academic Affect – Uncertainty about Persisting.



Note: *** $p < .001$.

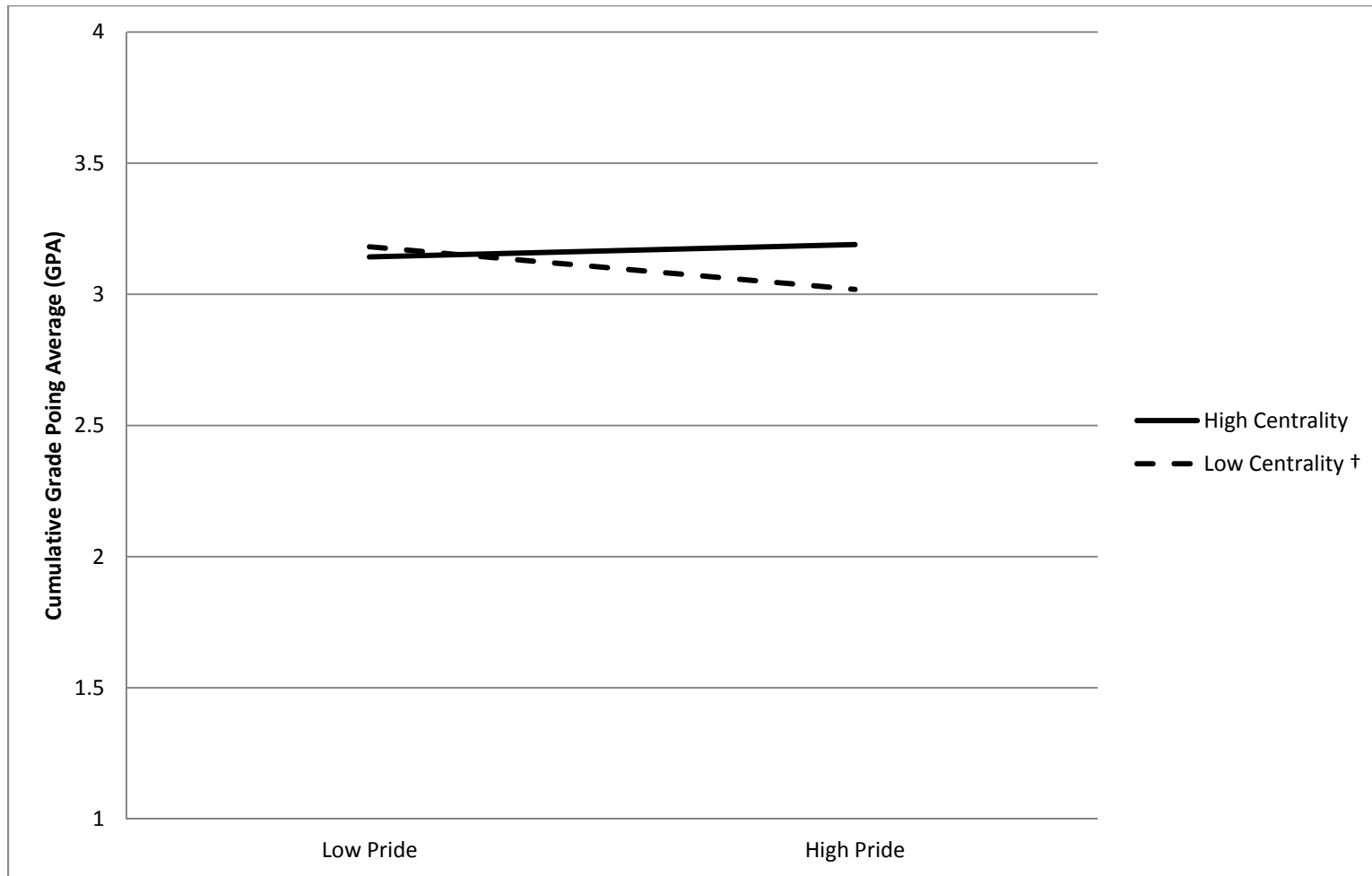
Table 4.13. Summary of Hierarchical Regression Analyses for Social Class Identity Predicting Academic Satisfaction (N = 287), Grade Point Average (N = 276), and Psychological Distress (N = 286).

Variable	Academic Satisfaction			GPA			Psychological Distress		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
1. Race (0=White)	.01	.10	.01	-.42	.07	-.40***	-.01	.11	-.01
Gender (0=Male)	-.13	.09	-.09	.10	.05	.10 ⁺	.04	.10	.02
Mother's Education	-.01	.04	-.01	-.001	.02	-.003	.03	.04	.05
Father's Education	.04	.03	.09	.06	.02	.21**	.02	.04	.05
Family Income	.01	.01	.08	-.001	.01	-.02	.01	.01	.04
Social Class Dummy 1 ^a	.05	.19	.02	.01	.12	.003	.19	.22	.06
Social Class Dummy 2 ^b	-.07	.15	-.03	.12	.09	.09	.01	.17	.002
Social Class Dummy 3 ^c	.10	.14	.05	.05	.09	.04	.02	.16	.01
Social Class Dummy 4 ^d	-.02	.14	-.01	.10	.08	.09	-.02	.15	-.01
Social Class Dummy 5 ^e	-.11	.32	-.02	.06	.19	.02	-.06	.36	-.01
HS GPA	--	--	--	-.02	.08	-.01	--	--	--
Social Class Centrality	-.06	.05	-.08	.03	.03	.07	.05	.06	.07
Social Class Pride	.22	.05	.36***	-.03	.03	-.06	-.09	.05	-.15 ⁺
Social Class Shame	-.11	.04	-.18**	-.02	.03	-.06	.12	.04	.19**
Social Class Guilt	.05	.03	.11	.06	.02	.18**	.06	.04	.11
2. Race (0=White)	.04	.10	.02	-.40	.06	-.39***	-.02	.11	-.01
Gender (0=Male)	-.13	.09	-.09	.09	.05	.09 ⁺	.05	.10	.03
Mother's Education	-.003	.04	-.01	-.002	.02	-.01	.03	.04	.05
Father's Education	.03	.03	.07	.06	.02	.19**	.02	.04	.04
Family Income	.01	.01	.09	-.001	.01	-.01	.01	.01	.06
Social Class Dummy 1 ^a	.03	.20	.01	-.04	.12	-.02	.23	.21	.08
Social Class Dummy 2 ^b	-.07	.15	-.03	.10	.09	.07	.01	.17	.01
Social Class Dummy 3 ^c	.08	.14	.04	.04	.09	.03	.03	.16	.02
Social Class Dummy 4 ^d	-.01	.14	-.01	.11	.08	.10	-.04	.15	-.03
Social Class Dummy 5 ^e	-.09	.32	-.02	.07	.19	.02	-.08	.35	-.01
HS GPA	--	--	--	-.003	.08	-.002	--	--	--
Social Class Centrality	-.06	.05	-.08	.03	.03	.07	.07	.06	.09
Social Class Pride	.22	.05	.36***	-.02	.03	-.06	-.10	.05	-.15 ⁺
Social Class Shame	-.10	.04	-.17*	-.01	.03	-.03	.11	.04	.18*
Social Class Guilt	.06	.03	.11 ⁺	.06	.02	.18**	.06	.04	.11
Centrality X Pride	.02	.03	.04	.04	.02	.12*	--	--	--
Centrality X Shame	.01	.03	.02	--	--	--	.08	.03	.17**
Centrality X Guilt	.04	.02	.09	--	--	--	--	--	--

Note: In academic satisfaction model, adjusted $R^2 = .19$ for Step 1; $\Delta R^2 = .004$. In GPA model, adjusted $R^2 = .32$ for Step 1; $\Delta R^2 = .01$. In psychological distress model, adjusted $R^2 = .07$ for Step 1; $\Delta R^2 = .03$. *** $p < .001$, ** $p < .01$, * $p < .05$, ⁺ $p < .10$.

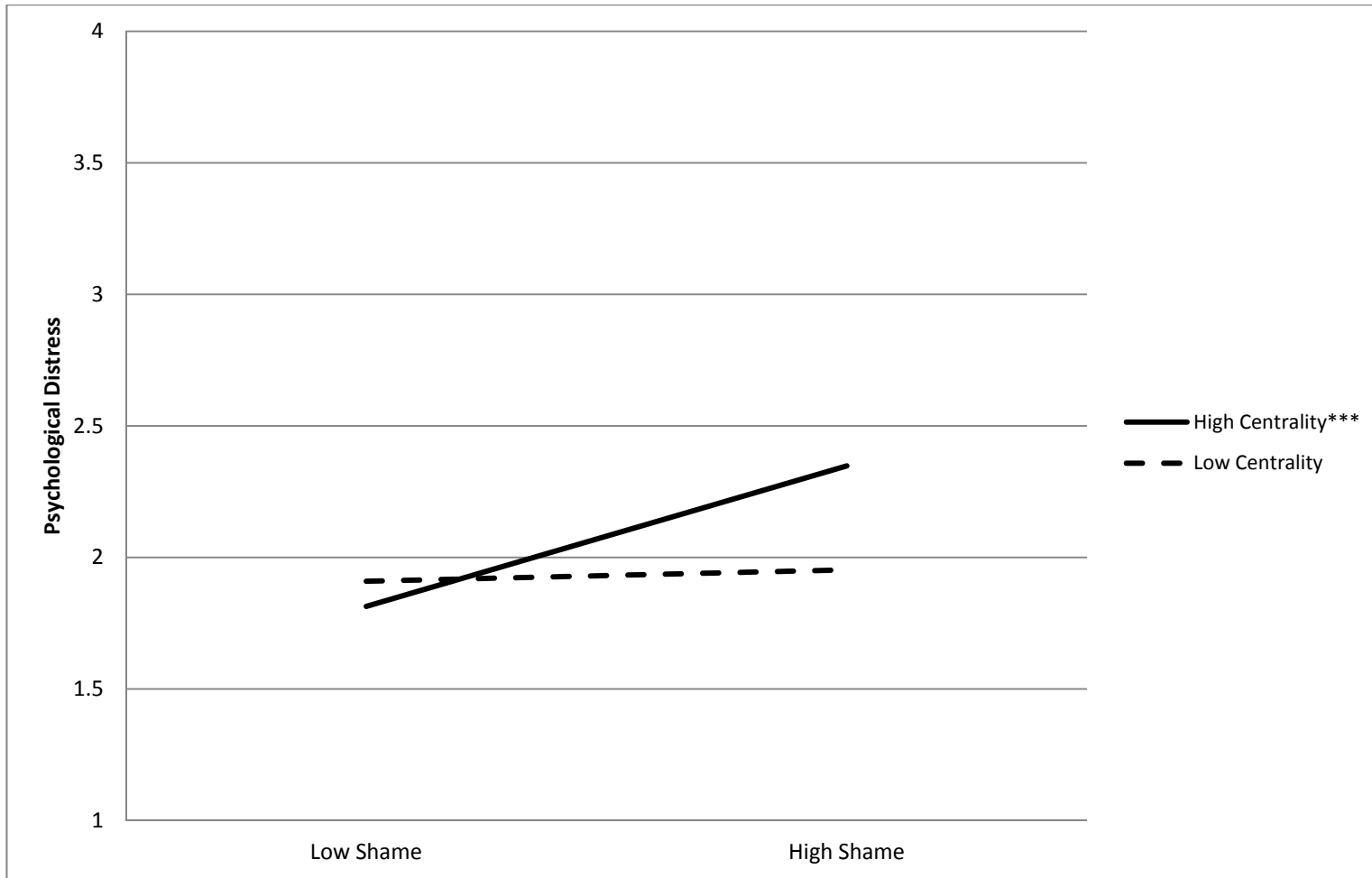
^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Figure 4.8. Social Class Centrality moderates the relationship between Social Class Pride and Cumulative Grade Point Average.



Note: ⁺ $p < .10$.

Figure 4.9. Social Class Centrality moderates the relationship between Social Class Shame and Psychological Distress.



Note: *** $p < .001$.

Table 4.14. Summary of Hierarchical Regression Analyses for Social Class Identity Predicting Psychological Well-Being (N = 287).

Variable	Positive Relations with Others			Autonomy			Environmental Mastery		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
1. Race (0=White)	-.02	.15	-.01	.31	.11	.18**	-.07	.12	-.04
Gender (0=Male)	-.20	.13	-.09	-.21	.10	-.12*	-.11	.10	-.06
Mother's Education	-.04	.05	-.06	-.03	.04	-.05	-.03	.04	-.05
Father's Education	.01	.05	.02	-.01	.04	-.02	-.03	.04	-.05
Family Income	-.01	.02	-.05	-.002	.01	-.01	.02	.01	.10
Social Class Dummy 1 ^a	-.31	.30	-.07	.12	.21	.04	.06	.24	.02
Social Class Dummy 2 ^b	-.32	.23	-.10	-.14	.17	-.06	-.06	.18	-.02
Social Class Dummy 3 ^c	-.32	.21	-.10	-.11	.16	-.05	.21	.17	.08
Social Class Dummy 4 ^d	.29	.21	.12	.11	.15	.06	.06	.17	.03
Social Class Dummy 5 ^e	.21	.49	.03	.61	.35	.10 ⁺	.32	.39	.05
Social Class Centrality	.05	.08	.05	-.08	.06	-.11	-.02	.06	-.03
Social Class Pride	.08	.07	.10	.09	.05	.13 ⁺	.13	.06	.18*
Social Class Shame	-.23	.06	-.27***	-.14	.04	-.22**	-.20	.05	-.28***
Social Class Guilt	-.04	.05	-.05	-.15	.04	-.27***	-.09	.04	-.15*
2. Race (0=White)	-.04	.15	-.02	.33	.11	.19**	-.04	.12	-.02
Gender (0=Male)	-.20	.13	-.09	-.21	.10	-.12*	-.12	.10	-.07
Mother's Education	-.04	.05	-.05	-.03	.04	-.05	-.03	.04	-.05
Father's Education	.02	.05	.03	-.02	.04	-.03	-.04	.04	-.08
Family Income	-.01	.02	-.06	-.001	.01	-.01	.02	.01	.11
Social Class Dummy 1 ^a	-.28	.30	-.07	.09	.22	.03	-.03	.24	-.01
Social Class Dummy 2 ^b	-.29	.23	-.09	-.14	.17	-.06	-.11	.18	-.04
Social Class Dummy 3 ^c	-.31	.22	-.10	-.12	.16	-.05	.17	.17	.07
Social Class Dummy 4 ^d	.30	.21	.12	.12	.15	.07	.07	.17	.04
Social Class Dummy 5 ^e	.21	.49	.03	.63	.35	.11 ⁺	.35	.38	.06
Social Class Centrality	.03	.08	.03	-.08	.06	-.11	-.02	.06	-.02
Social Class Pride	.08	.07	.09	.09	.05	.13 ⁺	.14	.06	.19*
Social Class Shame	-.24	.06	-.27***	-.14	.04	-.21**	-.18	.05	-.26***
Social Class Guilt	-.03	.05	-.05	-.15	.04	-.26***	-.09	.04	-.16*
Centrality X Pride	-.04	.04	-.06	.02	.03	.03	.07	.03	.13*
Centrality X Shame	-.05	.05	-.07	-.01	.03	-.01	--	--	--
Centrality X Guilt	.01	.04	.01	.02	.03	.05	--	--	--

Note: In positive relations with others model, adjusted $R^2 = .13$ for Step 1; $\Delta R^2 = -.004$. In autonomy model, adjusted $R^2 = .20$ for Step 1; $\Delta R^2 = -.004$. In environmental mastery model, adjusted $R^2 = .14$ for Step 1; $\Delta R^2 = .01$. In self-acceptance model, adjusted $R^2 = .19$ for Step 1; $\Delta R^2 = -.01$. In purpose in life model, adjusted $R^2 = .12$ for Step 1; $\Delta R^2 = .003$. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

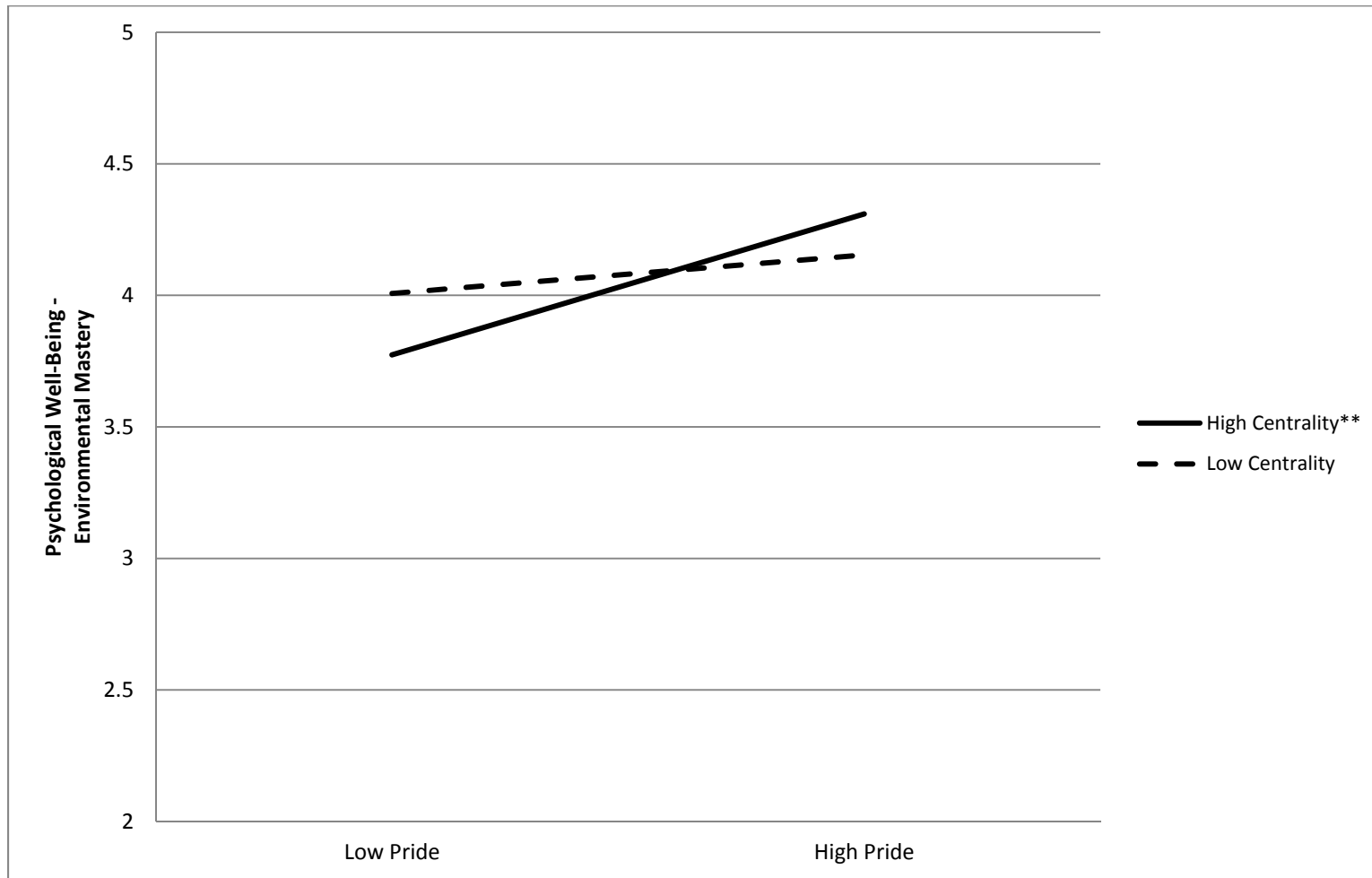
Table 4.14 (cont'd). Summary of Hierarchical Regression Analyses for Social Class Identity Predicting Psychological Well-Being (N = 287)

Variable	Self-Acceptance			Purpose in Life		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
1. Race (0=White)	.46	.13	.23***	.40	.14	.19**
Gender (0=Male)	-.09	.11	-.05	.21	.12	.10 ⁺
Mother's Education	-.05	.05	-.07	.01	.05	.01
Father's Education	-.02	.04	-.04	-.004	.05	-.01
Family Income	.02	.02	.11	.001	.02	.01
Social Class Dummy 1 ^a	-.01	.25	-.003	.16	.27	.04
Social Class Dummy 2 ^b	-.16	.20	-.06	.07	.21	.03
Social Class Dummy 3 ^c	-.01	.18	-.003	-.06	.20	-.02
Social Class Dummy 4 ^d	.13	.18	.06	.12	.19	.05
Social Class Dummy 5 ^e	-.04	.41	-.01	-.02	.44	-.003
Social Class Centrality	.03	.07	.04	-.02	.07	-.02
Social Class Pride	.18	.06	.23**	.16	.07	.19*
Social Class Shame	-.17	.05	-.23**	-.14	.06	-.18*
Social Class Guilt	-.09	.04	-.15*	-.07	.05	-.11
2. Race (0=White)	.47	.13	.23***	.43	.14	.21**
Gender (0=Male)	-.10	.11	-.05	.21	.12	.10 ⁺
Mother's Education	-.04	.05	-.07	.01	.05	.02
Father's Education	-.03	.04	-.04	-.02	.05	-.03
Family Income	.02	.02	.10	.002	.02	.02
Social Class Dummy 1 ^a	-.04	.26	-.01	.10	.27	.03
Social Class Dummy 2 ^b	-.15	.20	-.06	.06	.21	.02
Social Class Dummy 3 ^c	-.02	.18	-.01	-.09	.20	-.03
Social Class Dummy 4 ^d	.15	.18	.07	.14	.19	.06
Social Class Dummy 5 ^e	-.01	.41	-.002	.01	.44	.002
Social Class Centrality	.03	.07	.03	-.02	.07	-.02
Social Class Pride	.18	.06	.23**	.16	.07	.20*
Social Class Shame	-.17	.05	-.22**	-.13	.06	-.17*
Social Class Guilt	-.09	.04	-.14*	-.07	.05	-.11
Centrality X Pride	.01	.04	.02	.05	.04	.08
Centrality X Shame	-.03	.04	-.04	.01	.04	.01
Centrality X Guilt	.02	.03	.04	.04	.03	.07

Note: In positive relations with others model, adjusted $R^2 = .13$ for Step 1; $\Delta R^2 = -.004$. In autonomy model, adjusted $R^2 = .20$ for Step 1; $\Delta R^2 = -.004$. In environmental mastery model, adjusted $R^2 = .14$ for Step 1; $\Delta R^2 = .01$. In self-acceptance model, adjusted $R^2 = .19$ for Step 1; $\Delta R^2 = -.01$. In purpose in life model, adjusted $R^2 = .12$ for Step 1; $\Delta R^2 = .003$. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Figure 4.10. Social Class Centrality moderates the relationship between Social Class Pride and Psychological Well-Being – Environmental Mastery.



Note: ** $p < .01$.

Table 4.15. Summary of Regression Analyses for Race Moderating Relationship between Social Class Identity and Academic Engagement (N = 287).

Variable	Academic Curiosity			Cognitive Engagement			Persistence		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
2. Race (0=White)	.09	.10	.06	-.09	.10	-.07	-.06	.11	-.04
Gender (0=Male)	.04	.09	.03	.02	.08	.02	.01	.09	.004
Mother's Education	-.01	.04	-.03	-.01	.03	-.02	.002	.04	.004
Father's Education	-.05	.03	-.12	.03	.03	.09	.01	.03	.03
Family Income	.01	.01	.07	-.00	.01	.00	.01	.01	.05
Social Class Dummy 1 ^a	-.11	.20	-.04	.16	.19	.07	-.05	.20	-.02
Social Class Dummy 2 ^b	.06	.16	.03	.05	.15	.02	-.01	.16	-.004
Social Class Dummy 3 ^c	.15	.15	.08	.02	.14	.01	-.01	.15	-.01
Social Class Dummy 4 ^d	-.04	.14	-.02	-.24	.13	-.17 ⁺	-.34	.14	-.21*
Social Class Dummy 5 ^e	-.04	.33	-.01	-.24	.31	-.05	-.10	.33	-.02
Social Class Centrality	-.09	.07	-.14	-.10	.07	-.16	.003	.07	.004
Social Class Pride	.04	.07	.07	.11	.06	.22 ⁺	.03	.07	.04
Social Class Shame	-.14	.05	-.25**	-.06	.05	-.11	-.12	.05	-.21*
Social Class Guilt	-.01	.04	-.02	.06	.04	.13	.04	.04	.09
Race X Centrality	.07	.10	.07	.05	.10	.05	-.03	.10	-.03
Race X Pride	.02	.10	.03	-.08	.09	-.10	-.04	.10	-.05
Race X Shame	.12	.08	.14	.08	.08	.10	.06	.08	.07
Race X Guilt	-.07	.06	-.09	.01	.06	.01	-.14	.06	-.18*

Note: In academic curiosity model, adjusted $R^2 = .03$ for Step 1 (not reported above); $\Delta R^2 = .00$. In cognitive engagement model, adjusted $R^2 = -.01$ for Step 1 (not reported above); $\Delta R^2 = .00$. In persistence model, adjusted $R^2 = -.002$ for Step 1 (not reported above); $\Delta R^2 = .01$. ** $p < .01$, * $p < .05$, ⁺ $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

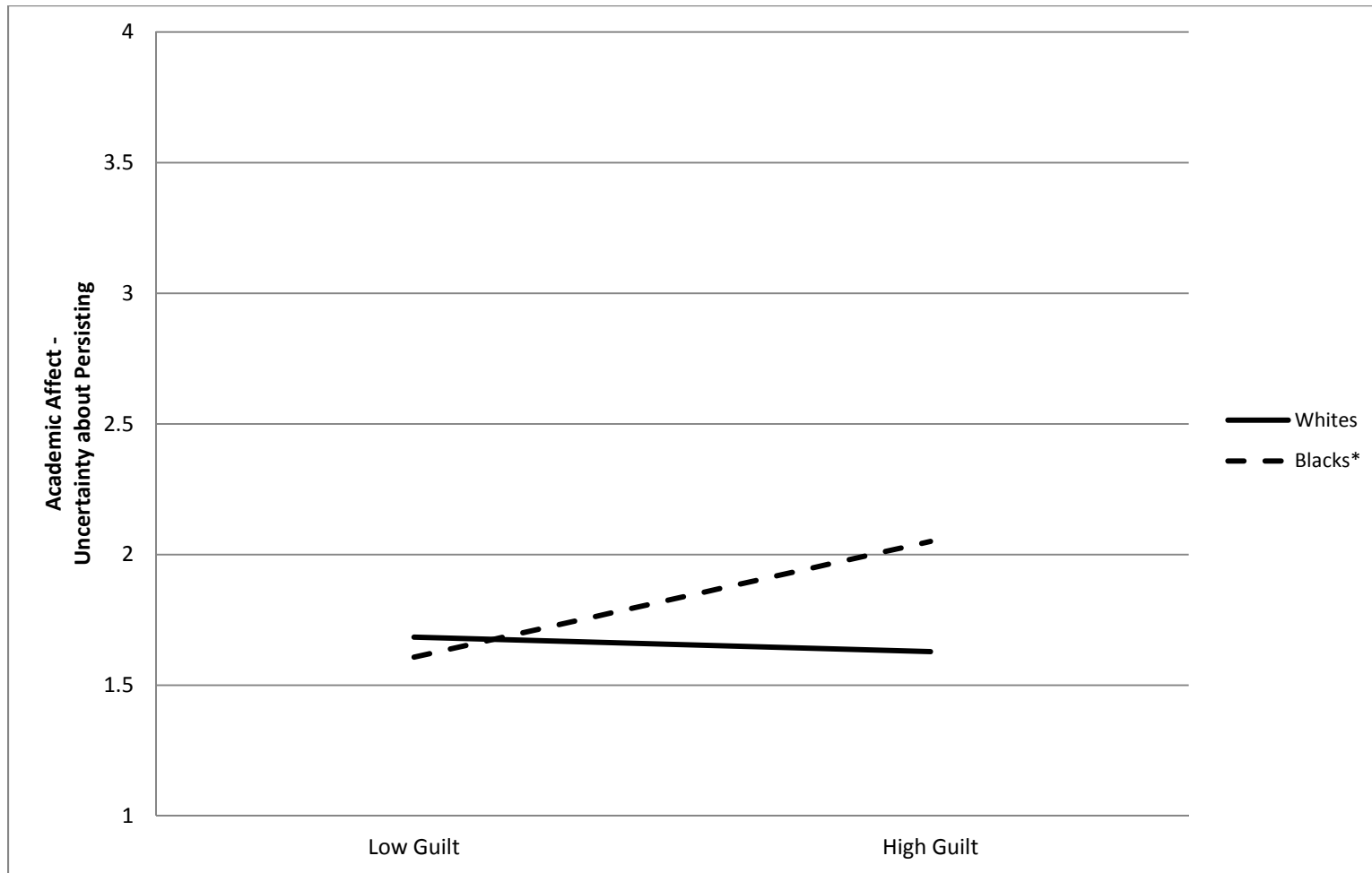
Table 4.16. Summary of Regression Analyses for Race Moderating Relationship between Social Class Identity and Academic Affect (N = 287).

Variable	Positive Academic Affect			Uncertainty about Persisting			Doubts around Ability		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
2. Race (0=White)	-.08	.10	-.06	.17	.13	.10	.18	.14	.09
Gender (0=Male)	.14	.09	.10	-.07	.11	-.04	.43	.12	.21***
Mother's Education	-.03	.04	-.07	.05	.04	.08	-.02	.05	-.02
Father's Education	.03	.03	.08	-.003	.04	-.01	.03	.05	.05
Family Income	.01	.01	.06	-.01	.01	-.10	-.01	.02	-.05
Social Class Dummy 1 ^a	.18	.20	.07	.38	.24	.12	.13	.28	.03
Social Class Dummy 2 ^b	.22	.15	.11	.16	.19	.07	-.15	.21	-.06
Social Class Dummy 3 ^c	.34	.14	.18*	.04	.18	.02	-.34	.20	-.12 ⁺
Social Class Dummy 4 ^d	.08	.14	.05	.12	.17	.06	-.05	.20	-.02
Social Class Dummy 5 ^e	-.13	.32	-.03	.23	.40	.04	.35	.45	.05
Social Class Centrality	.03	.07	.05	-.01	.06	-.02	-.01	.10	-.02
Social Class Pride	.01	.06	.02	-.02	.06	-.02	.04	.09	.05
Social Class Shame	-.10	.05	-.18 ⁺	.14	.05	.21**	.22	.07	.28**
Social Class Guilt	.02	.04	.05	-.02	.05	-.03	-.10	.06	-.15
Race X Centrality	-.03	.10	-.03	--	--	--	-.01	.14	-.01
Race X Pride	.11	.09	.13	--	--	--	-.14	.13	-.12
Race X Shame	.07	.08	.08	--	--	--	-.16	.11	-.14
Race X Guilt	-.06	.06	-.08	.16	.07	.17*	.18	.09	.17*

Note: In positive academic affect model, adjusted $R^2 = .02$ for Step 1 (not reported above); $\Delta R^2 = -.01$. In uncertainty about persisting model, adjusted $R^2 = .05$ for Step 1 (not reported above); $\Delta R^2 = .014$. In doubts around ability model, adjusted $R^2 = .06$ for Step 1 (not reported above); $\Delta R^2 = .01$. *** $p < .001$, ** $p < .01$, * $p < .05$, ⁺ $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Figure 4.11. Race moderates the relationship between Social Class Guilt and Academic Affect – Uncertainty about Persisting.



Note: * $p < .05$.

Table 4.17. Summary of Regression Analyses for Race Moderating Relationship between Social Class Identity and Academic Satisfaction (N = 287), Grade Point Average (N = 276), and Psychological Distress (N = 286).

Variable	Academic Satisfaction			GPA			Psychological Distress		
	<i>b</i>	SE _{<i>b</i>}	β	<i>B</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
2. Race (0=White)	.01	.10	.01	-.43	.06	-.42***	.001	.11	.001
Gender (0=Male)	-.14	.09	-.09	.10	.05	.10 ⁺	.04	.10	.02
Mother's Education	-.002	.04	-.004	.001	.02	.004	.02	.04	.04
Father's Education	.04	.03	.08	.06	.02	.20**	.03	.04	.05
Family Income	.01	.01	.08	-.002	.01	-.02	.01	.01	.04
Social Class Dummy 1 ^a	.08	.20	.03	-.02	.12	-.01	.18	.22	.06
Social Class Dummy 2 ^b	-.07	.15	-.04	.09	.10	.06	.03	.17	.01
Social Class Dummy 3 ^c	.12	.14	.06	.07	.09	.05	-.01	.16	-.01
Social Class Dummy 4 ^d	-.02	.14	-.01	.09	.08	.08	-.03	.16	-.01
Social Class Dummy 5 ^e	-.13	.32	-.03	.02	.19	.01	-.01	.36	-.002
HS GPA	--	--	--	-.01	.08	-.004	--	--	--
Social Class Centrality	-.001	.07	-.001	.02	.04	.04	.03	.08	.04
Social Class Pride	.16	.06	.27*	-.05	.04	-.12	-.04	.07	-.07
Social Class Shame	-.14	.05	-.23**	-.03	.03	-.08	.13	.06	.21*
Social Class Guilt	.08	.04	.15 ⁺	.09	.03	.27**	.03	.05	.05
Race X Centrality	-.13	.10	-.12	.03	.06	.04	.04	.11	.04
Race X Pride	.13	.09	.14	.07	.06	.11	-.12	.11	-.13
Race X Shame	.07	.08	.08	.03	.05	.04	-.02	.09	-.02
Race X Guilt	-.06	.06	-.08	-.07	.04	-.14*	.08	.07	.10

Note: In academic satisfaction model, adjusted $R^2 = .19$ for Step 1 (not reported above); $\Delta R^2 = -.003$. In GPA model, adjusted $R^2 = .32$ for Step 1 (not reported above); $\Delta R^2 = .01$. In psychological distress model, adjusted $R^2 = .07$ for Step 1 (not reported above); $\Delta R^2 = -.004$. *** $p < .001$, ** $p < .01$, * $p < .05$, ⁺ $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Table 4.18. Summary of Regression Analyses for Race Moderating Relationship between Social Class Identity and Psychological Well-Being (N = 287).

Variable	Positive Relations with Others			Autonomy			Environmental Mastery		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
2. Race (0=White)	-.08	.15	-.03	.28	.11	.16*	-.10	.12	-.06
Gender (0=Male)	-.22	.13	-.10 ⁺	-.21	.09	-.12*	-.11	.10	-.06
Mother's Education	-.04	.05	-.05	-.02	.04	-.04	-.03	.04	-.05
Father's Education	-.01	.05	-.02	-.02	.04	-.03	-.03	.04	-.06
Family Income	-.01	.02	-.04	-.01	.01	-.04	.01	.01	.08
Social Class Dummy 1 ^a	-.43	.29	-.10	.09	.21	.03	.03	.23	.01
Social Class Dummy 2 ^b	-.37	.23	-.12	-.19	.17	-.08	-.10	.18	-.04
Social Class Dummy 3 ^c	-.37	.21	-.12 ⁺	-.10	.15	-.04	.21	.17	.09
Social Class Dummy 4 ^d	.20	.21	.08	.10	.15	.05	.04	.17	.02
Social Class Dummy 5 ^e	.17	.48	.02	.55	.35	.09	.26	.38	.04
Social Class Centrality	.03	.08	.03	-.09	.06	-.12	-.06	.06	-.03
Social Class Pride	.11	.07	.13	.10	.05	.14 ⁺	.14	.06	.20*
Social Class Shame	-.39	.07	-.45***	-.15	.05	-.23**	-.20	.05	-.29***
Social Class Guilt	.08	.06	.11	-.07	.05	-.13	-.01	.05	-.02
Race X Centrality	--	--	--	--	--	--	--	--	--
Race X Pride	--	--	--	--	--	--	--	--	--
Race X Shame	.34	.10	.26**	--	--	--	--	--	--
Race X Guilt	-.24	.09	-.20**	-.18	.06	-.20**	-.18	.07	-.19**

Note: In positive relations with others model, adjusted $R^2 = .13$ for Step 1 (not reported above); $\Delta R^2 = .04$. In autonomy model, adjusted $R^2 = .20$ for Step 1 (not reported above); $\Delta R^2 = .02$. In environmental mastery model, adjusted $R^2 = .14$ for Step 1 (not reported above); $\Delta R^2 = .02$. In self-acceptance model, adjusted $R^2 = .19$ for Step 1 (not reported above); $\Delta R^2 = .02$. In purpose in life model, adjusted $R^2 = .12$ for Step 1 (not reported above); $\Delta R^2 = .02$. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

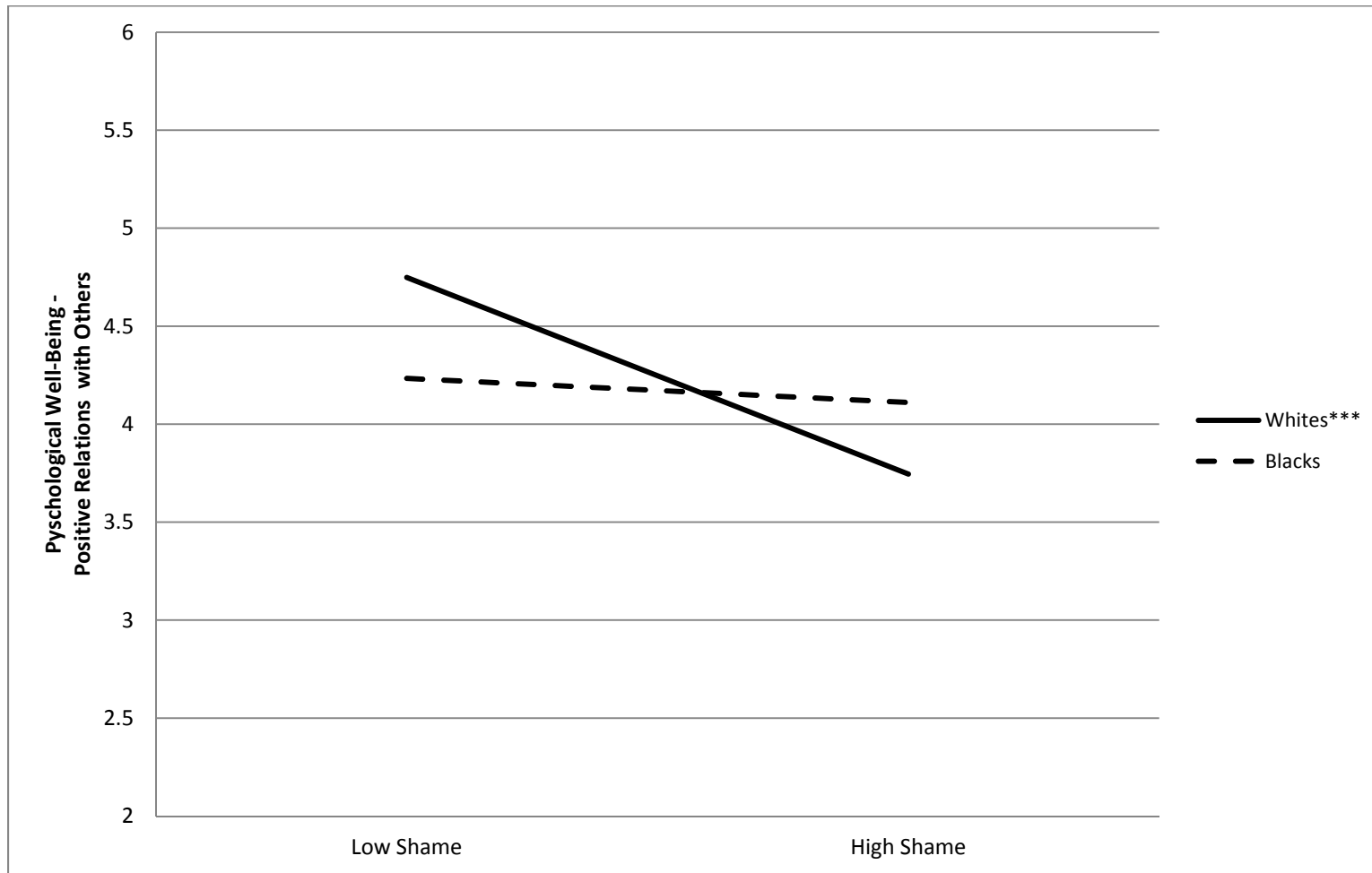
Table 4.18 (cont'd). Summary of Regression Analyses for Race Moderating Relationship between Social Class Identity and Psychological Well-Being (N = 287).

Variable	Self-Acceptance			Purpose in Life		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
2. Race (0=White)	.42	.13	.21**	.36	.14	.17*
Gender (0=Male)	-.09	.11	-.05	.21	.12	.10 ⁺
Mother's Education	-.04	.05	-.06	.02	.05	.02
Father's Education	-.03	.04	-.05	-.01	.05	-.02
Family Income	.01	.02	.08	-.003	.02	-.02
Social Class Dummy 1 ^a	-.04	.25	-.01	.12	.27	.03
Social Class Dummy 2 ^b	-.20	.19	-.07	.02	.21	.01
Social Class Dummy 3 ^c	-.00	.18	.00	-.06	.19	-.02
Social Class Dummy 4 ^d	.12	.18	.05	.10	.19	.05
Social Class Dummy 5 ^e	-.11	.41	-.02	-.10	.44	-.01
Social Class Centrality	.02	.07	.03	-.03	.07	-.03
Social Class Pride	.19	.06	.24**	.17	.06	.21*
Social Class Shame	-.18	.05	-.23***	-.15	.06	-.19**
Social Class Guilt	-.01	.05	-.02	.02	.06	.02
Race X Centrality	--	--	--	--	--	--
Race X Pride	--	--	--	--	--	--
Race X Shame	--	--	--	--	--	--
Race X Guilt	-.20	.07	-.19**	-.21	.08	-.20**

Note: In positive relations with others model, adjusted $R^2 = .13$ for Step 1 (not reported above); $\Delta R^2 = .04$. In autonomy model, adjusted $R^2 = .20$ for Step 1 (not reported above); $\Delta R^2 = .02$. In environmental mastery model, adjusted $R^2 = .14$ for Step 1 (not reported above); $\Delta R^2 = .02$. In self-acceptance model, adjusted $R^2 = .19$ for Step 1 (not reported above); $\Delta R^2 = .02$. In purpose in life model, adjusted $R^2 = .12$ for Step 1 (not reported above); $\Delta R^2 = .02$. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$.

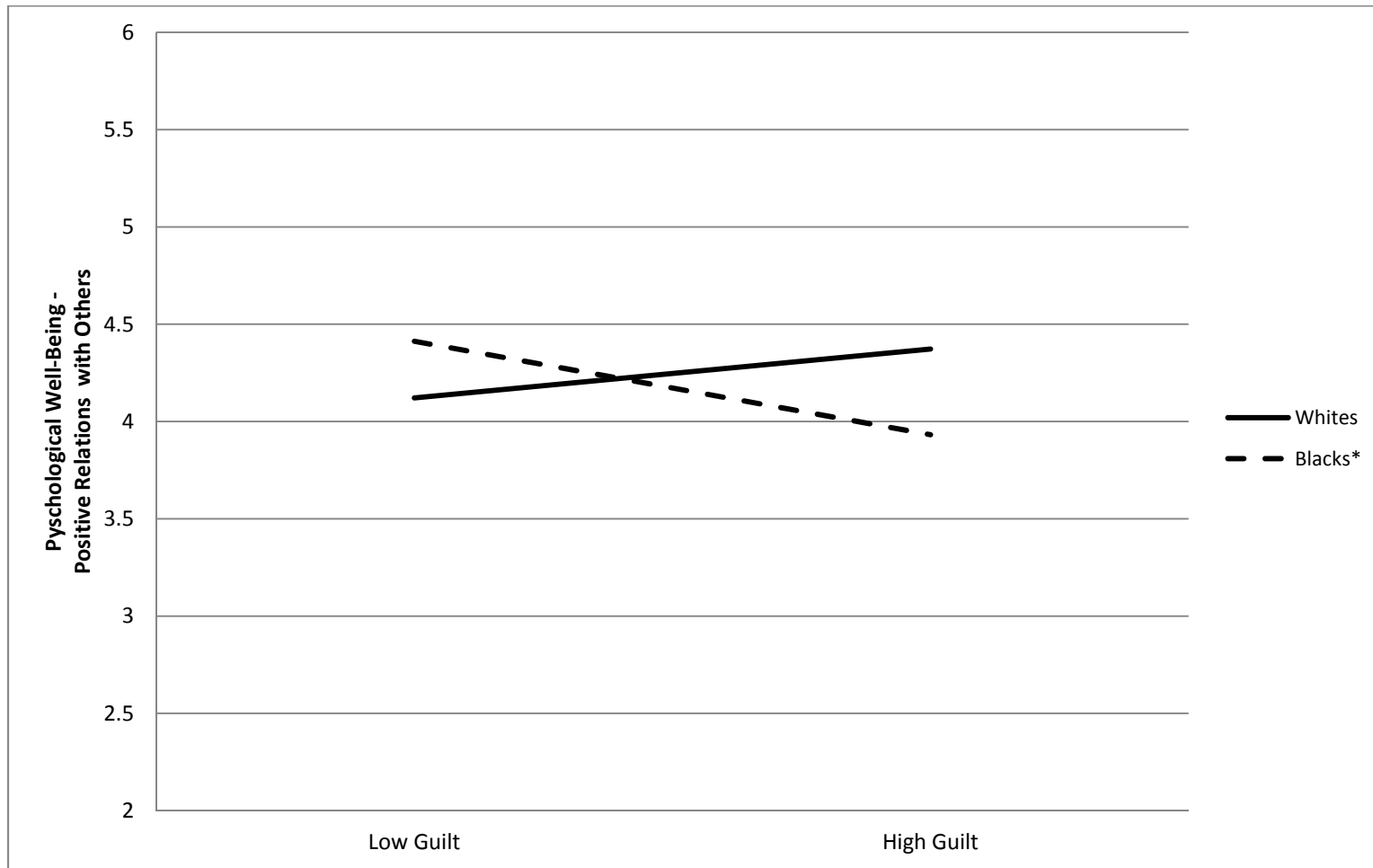
^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Figure 4.12. Race moderates the relationship between Social Class Shame and Psychological Well-Being – Positive Relations with Others.



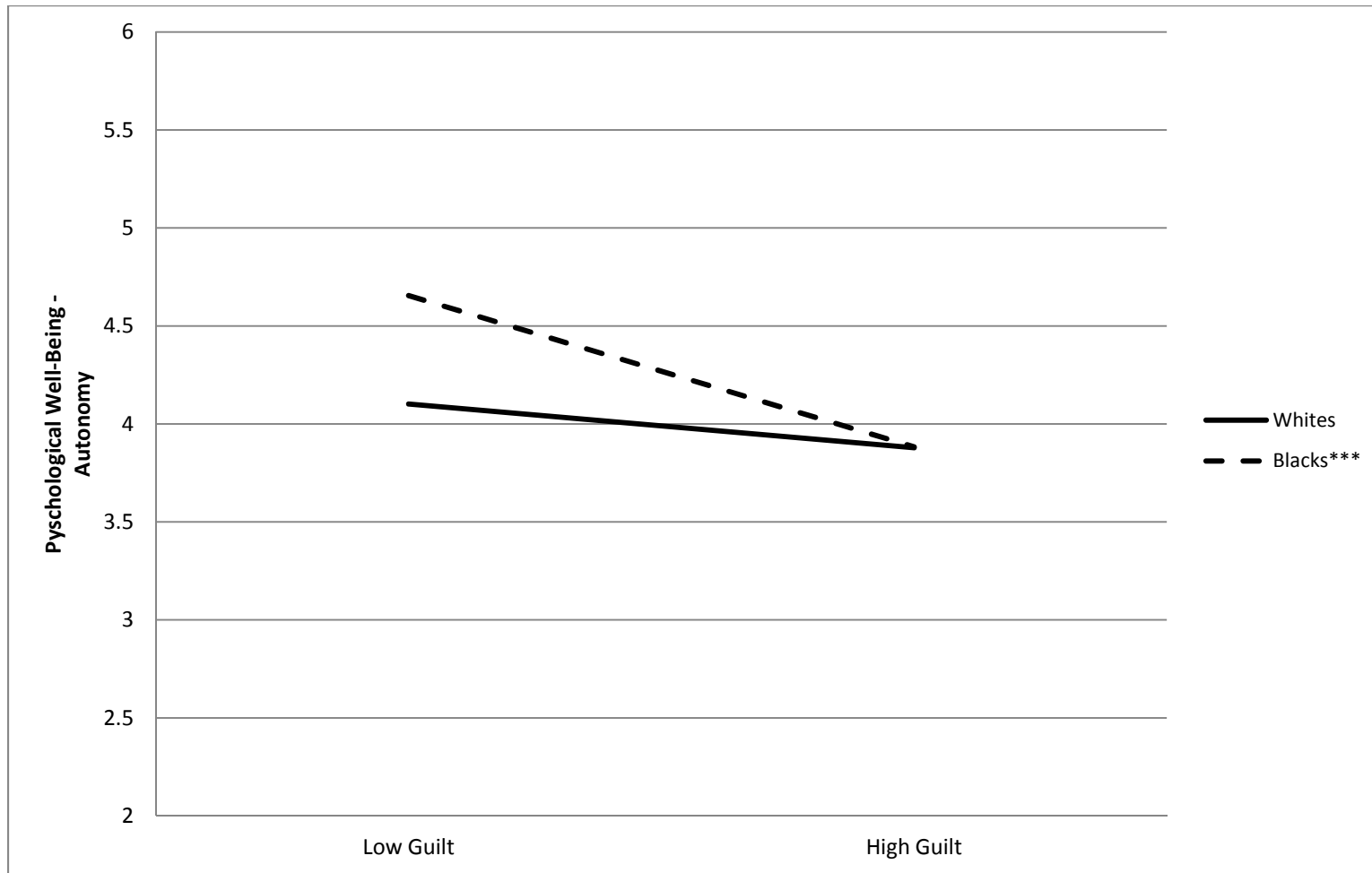
Note: *** $p < .001$.

Figure 4.13. Race moderates the relationship between Social Class Guilt and Psychological Well-Being – Positive Relations with Others.



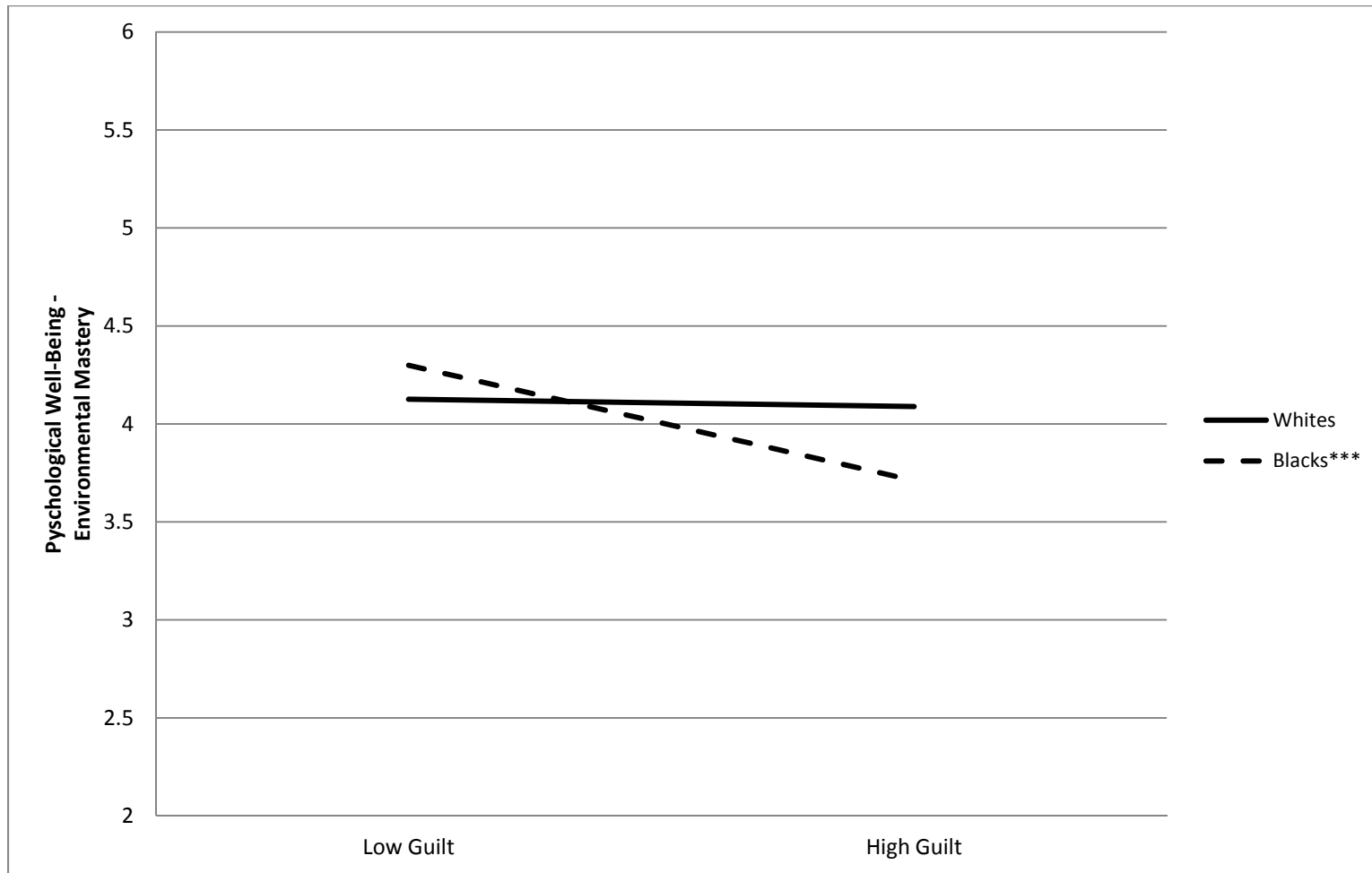
Note: * $p < .05$.

Figure 4.14. Race moderates the relationship between Social Class Guilt and Psychological Well-Being – Autonomy.



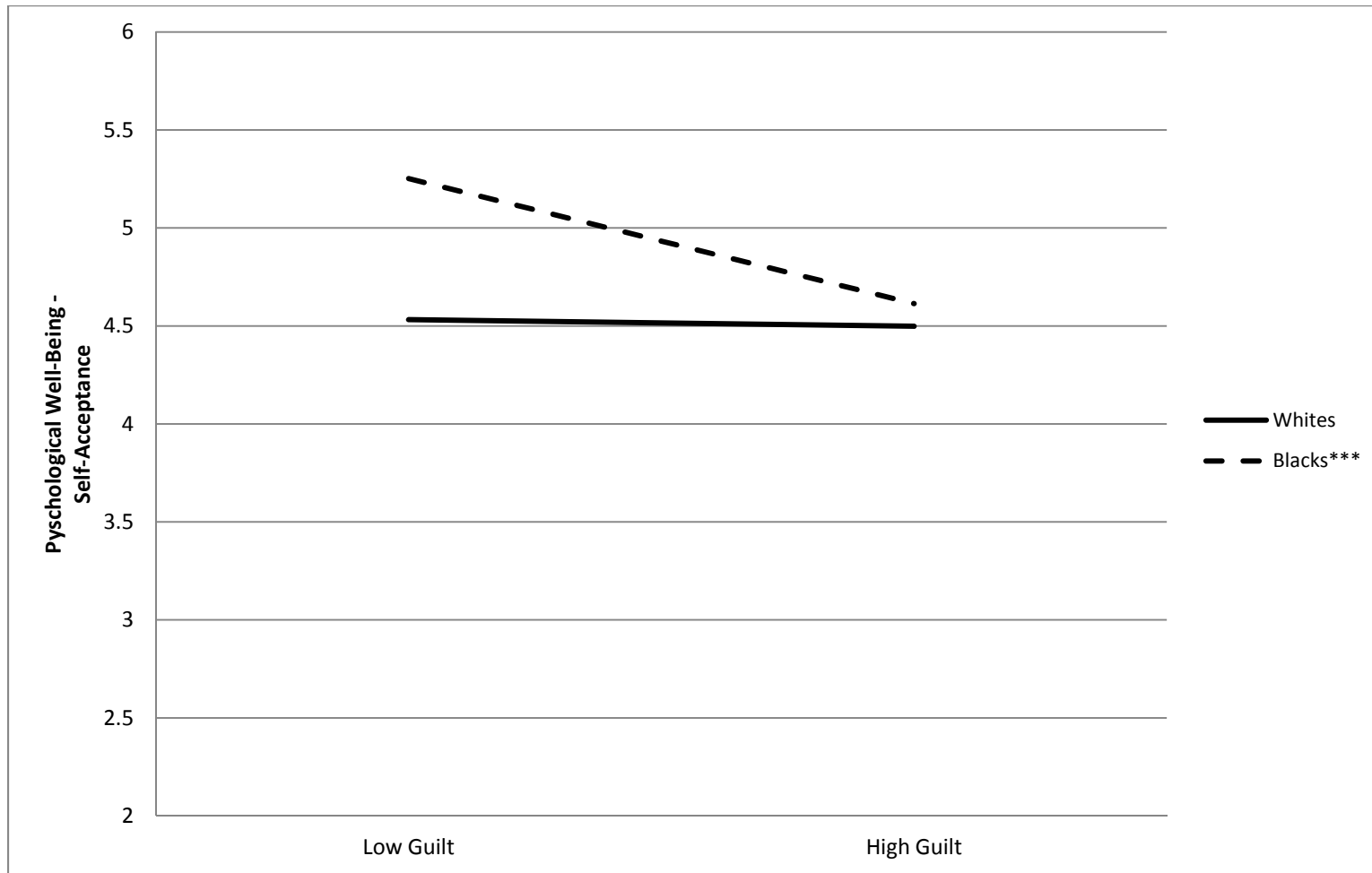
Note: *** $p < .001$.

Figure 4.15. Race moderates the relationship between Social Class Guilt and Psychological Well-Being – Environmental Mastery.



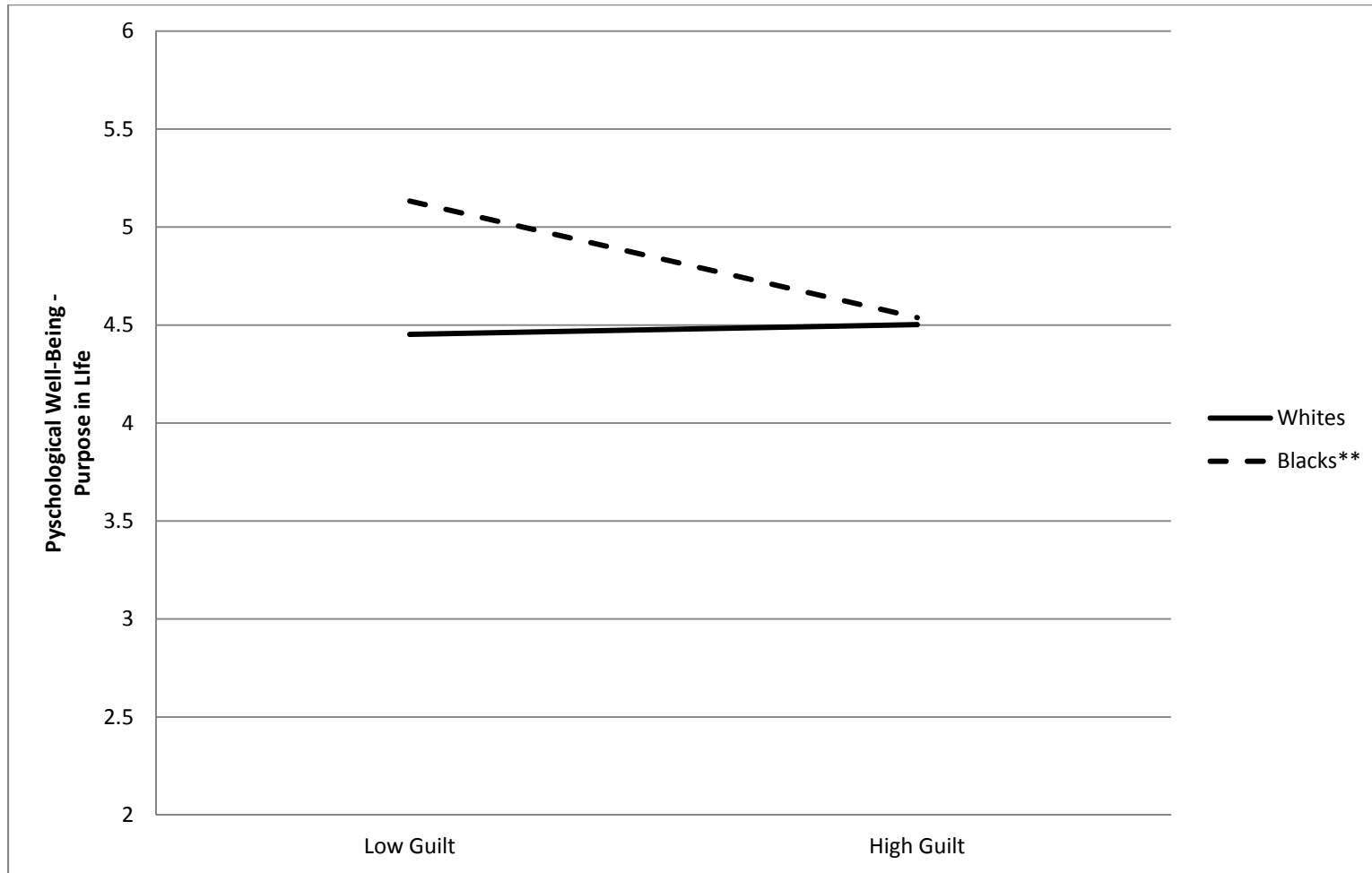
Note: *** $p < .001$.

Figure 4.16. Race moderates the relationship between Social Class Guilt and Psychological Well-Being – Self-Acceptance.



Note: *** $p < .001$.

Figure 4.17. Race moderates the relationship between Social Class Guilt and Psychological Well-Being – Purpose in Life.



Note: ** $p < .01$.

Table 4.19. Summary of Regression Analyses for Self-Identified Social Class Moderating Relationship between Social Class Identity and Academic Engagement (N = 287).

Variable	Academic Curiosity			Cognitive Engagement			Persistence		
	<i>b</i>	<i>SE_b</i>	β	<i>b</i>	<i>SE_b</i>	B	<i>b</i>	<i>SE_b</i>	β
2. Race (0=White)	.06	.10	.04	-.13	.10	-.10	-.06	.11	-.04
Gender (0=Male)	.05	.09	.03	.02	.09	.02	-.03	.09	-.02
Mother's Education	-.02	.04	-.04	.001	.04	.003	-.01	.04	-.02
Father's Education	-.03	.03	-.06	.04	.03	.10	.03	.04	.07
Family Income	-.001	.01	-.01	-.01	.01	-.05	.01	.01	.06
Social Class Dummy 1 ^a	-.11	.27	-.04	.10	.26	.04	-.27	.28	-.10
Social Class Dummy 2 ^b	.00	.18	.00	-.05	.17	-.02	-.04	.19	-.02
Social Class Dummy 3 ^c	.12	.16	.06	-.04	.16	-.02	-.09	.17	-.05
Social Class Dummy 4 ^d	-.11	.15	-.07	-.29	.15	-.20 ⁺	-.38	.16	-.24 [*]
Social Class Dummy 5 ^e	.55	.58	.11	-.12	.55	-.03	-.09	.60	-.02
Social Class Centrality	-.23	.10	-.36 [*]	-.26	.10	-.44 ^{**}	-.12	.11	-.19
Social Class Pride	.21	.10	.38 [*]	.22	.10	.42 [*]	.14	.10	.24
Social Class Shame	.003	.08	.01	.07	.07	.13	-.03	.08	-.05
Social Class Guilt	-.08	.07	-.18	.12	.06	.28 ⁺	.003	.07	.01
Centrality X SC Dummy1 ^a	.20	.22	.11	.24	.21	.14	.31	.23	.17
Centrality X SC Dummy2 ^b	.43	.16	.28 ^{**}	.30	.16	.21 ⁺	.31	.17	.20 ⁺
Centrality X SC Dummy3 ^c	.38	.18	.20 [*]	.52	.18	.30 ^{**}	.23	.19	.12
Centrality X SC Dummy4 ^d	.06	.13	.05	.17	.13	.17	.08	.14	.07
Centrality X SC Dummy5 ^e	.04	.40	.01	-.33	.39	-.08	-.53	.42	-.11
Pride X SC Dummy1 ^a	-.29	.20	-.18	-.21	.19	-.14	-.20	.20	-.13
Pride X SC Dummy2 ^b	-.37	.15	-.25 [*]	-.28	.15	-.21 ⁺	-.18	.16	-.13
Pride X SC Dummy3 ^c	-.34	.16	-.25 [*]	-.35	.15	-.28 [*]	-.29	.17	-.22 ⁺
Pride X SC Dummy4 ^d	.01	.13	.01	-.07	.13	-.07	-.16	.14	-.15
Pride X SC Dummy5 ^e	-.11	.36	-.03	.21	.34	.07	.46	.37	.13
Shame X SC Dummy1 ^a	-.25	.14	-.16 ⁺	-.13	.13	-.09	-.04	.14	-.03
Shame X SC Dummy2 ^b	-.19	.12	-.13	-.17	.12	-.13	-.09	.13	-.07
Shame X SC Dummy3 ^c	-.16	.12	-.14	-.17	.11	-.16	-.06	.12	-.05
Shame X SC Dummy4 ^d	.06	.12	.04	-.06	.12	-.05	-.10	.13	-.08
Shame X SC Dummy5 ^e	-.09	.43	-.02	.35	.41	.09	.57	.44	.14
Guilt X SC Dummy1 ^a	-.05	.12	-.04	-.12	.12	-.10	-.19	.13	-.14
Guilt X SC Dummy2 ^b	.03	.11	.02	-.14	.11	-.11	.02	.12	.02
Guilt X SC Dummy3 ^c	.02	.11	.01	-.14	.11	-.11	-.02	.12	-.01
Guilt X SC Dummy4 ^d	.15	.09	.19 ⁺	-.03	.09	-.04	.01	.09	.01
Guilt X SC Dummy5 ^e	-.33	.36	-.12	-.38	.35	-.15	-.26	.38	-.10

Note: In academic curiosity model, adjusted $R^2 = .03$ for Step 1 (not reported above); $\Delta R^2 = .04$. In cognitive engagement model, adjusted $R^2 = -.01$ for Step 1 (not reported above); $\Delta R^2 = -.01$. In persistence model, adjusted $R^2 = -.002$ for Step 1 (not reported above); $\Delta R^2 = -.02$. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

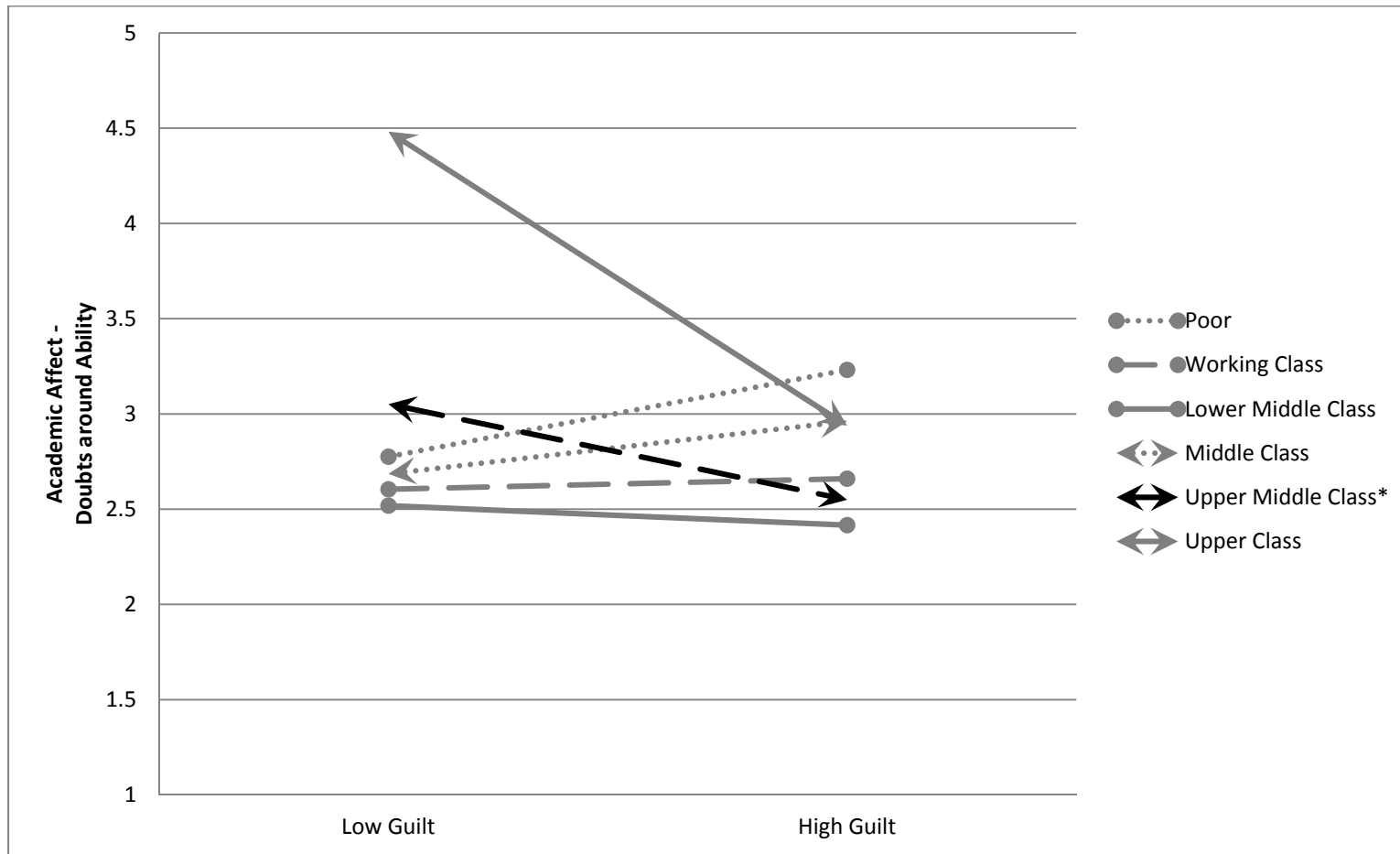
Table 4.20. Summary of Regression Analyses for Self-Identified Social Class Moderating Relationship between Social Class Identity and Academic Affect (N = 287).

Variable	Positive Academic Affect			Uncertainty about Persisting			Doubts around Ability		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
2. Race (0=White)	-.08	.10	-.05	.19	.13	.10	.18	.14	.09
Gender (0=Male)	.12	.09	.09	-.03	.11	-.02	.45	.12	.22***
Mother's Education	-.03	.04	-.06	.04	.05	.07	-.01	.05	-.02
Father's Education	.05	.03	.11	-.01	.04	-.03	.01	.05	.02
Family Income	.004	.01	.04	-.01	.02	-.10	-.001	.02	-.01
Social Class Dummy 1 ^a	.35	.27	.14	.25	.33	.08	.18	.29	.05
Social Class Dummy 2 ^b	.15	.18	.08	.40	.22	.16 ⁺	-.19	.23	-.07
Social Class Dummy 3 ^c	.37	.16	.20*	.09	.20	.04	-.36	.20	-.13 ⁺
Social Class Dummy 4 ^d	.002	.15	.001	.33	.19	.17 ⁺	-.02	.20	-.01
Social Class Dummy 5 ^e	-.13	.57	-.03	-.01	.71	-.002	.89	.65	.13
Social Class Centrality	-.07	.10	-.11	-.07	.13	-.10	-.04	.07	-.04
Social Class Pride	.14	.10	.26	-.10	.12	-.14	-.01	.07	-.01
Social Class Shame	.01	.08	.01	.04	.10	.06	.15	.06	.20**
Social Class Guilt	-.11	.07	-.25 ⁺	.12	.08	.22	.09	.09	.14
Centrality X SC Dummy1 ^a	.06	.22	.03	.19	.27	.09	--	--	--
Centrality X SC Dummy2 ^b	.33	.16	.22*	-.16	.20	-.08	--	--	--
Centrality X SC Dummy3 ^c	.06	.18	.03	.12	.23	.05	--	--	--
Centrality X SC Dummy4 ^d	.04	.13	.04	.06	.16	.04	--	--	--
Centrality X SC Dummy5 ^e	-.30	.40	-.07	.69	.50	.12	--	--	--
Pride X SC Dummy1 ^a	-.20	.20	-.13	.11	.24	.053	--	--	--
Pride X SC Dummy2 ^b	-.16	.15	-.11	.05	.19	.03	--	--	--
Pride X SC Dummy3 ^c	-.04	.16	-.03	.31	.20	.18	--	--	--
Pride X SC Dummy4 ^d	-.09	.13	-.08	.12	.16	.09	--	--	--
Pride X SC Dummy5 ^e	.32	.36	.09	-.43	.44	-.10	--	--	--
Shame X SC Dummy1 ^a	-.24	.14	-.16 ⁺	.17	.17	.09	--	--	--
Shame X SC Dummy2 ^b	-.15	.12	-.11	-.04	.15	-.02	--	--	--
Shame X SC Dummy3 ^c	-.09	.12	-.08	.16	.14	.11	--	--	--
Shame X SC Dummy4 ^d	-.06	.12	-.05	.29	.15	.18 ⁺	--	--	--
Shame X SC Dummy5 ^e	.86	.42	.21*	-.11	.53	-.02	--	--	--
Guilt X SC Dummy1 ^a	.22	.12	.16 ⁺	-.02	.15	-.01	.06	.14	.03
Guilt X SC Dummy2 ^b	.10	.11	.08	.15	.14	.09	-.07	.14	-.04
Guilt X SC Dummy3 ^c	.04	.11	.04	-.18	.14	-.11	-.12	.14	-.07
Guilt X SC Dummy4 ^d	.20	.09	.27*	-.26	.11	-.27*	-.25	.11	-.23*
Guilt X SC Dummy5 ^e	-.26	.36	-.10	.13	.45	.04	-.59	.35	-.16 ⁺

Note: In positive academic affect model, adjusted $R^2 = .02$ for Step 1 (not reported above); $\Delta R^2 = .003$. In uncertainty about persisting model, adjusted $R^2 = .05$ for Step 1 (not reported above); $\Delta R^2 = .02$. In doubts around ability model, adjusted $R^2 = .06$ for Step 1 (not reported above); $\Delta R^2 = .02$. *** $p < .001$, ** $p < .01$, * $p < .05$, ⁺ $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Figure 4.18. Self-identified Social Class moderates the relationship between Social Class Guilt and Academic Affect – Doubts around Ability.



Note: * $p < .05$.

Table 4.21. Summary of Regression Analyses for Self-Identified Social Class Moderating Relationship between Social Class Identity and Academic Satisfaction (N = 287), Grade Point Average (N = 287), Psychological Distress (N = 286).

Variable	Academic Satisfaction			GPA			Psychological Distress		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
2. Race (0=White)	.02	.11	.02	-.40	.07	-.38***	-.05	.12	-.03
Gender (0=Male)	-.12	.09	-.08	.08	.06	.07	.08	.10	.05
Mother's Education	-.01	.04	-.02	.004	.02	.01	.02	.04	.04
Father's Education	.05	.03	.10	.06	.02	.21**	.02	.04	.04
Family Income	.01	.01	.06	-.003	.01	-.03	.01	.01	.05
Social Class Dummy 1 ^a	.23	.27	.08	.02	.17	.01	.33	.30	.11
Social Class Dummy 2 ^b	.01	.18	.01	.08	.11	.06	.04	.20	.02
Social Class Dummy 3 ^c	.15	.16	.07	.07	.10	.05	-.12	.18	-.05
Social Class Dummy 4 ^d	.06	.15	.04	.11	.10	.10	.06	.17	.03
Social Class Dummy 5 ^e	.39	.58	.07	.22	.35	.06	-.76	.64	-.14
Social Class Centrality	-.16	.10	-.24	-.04	.09	-.02	.08	.11	.11
Social Class Pride	.26	.10	.44**	.001	.06	.002	-.13	.11	-.21
Social Class Shame	-.07	.08	-.13	-.02	.07	-.04	.07	.09	.11
Social Class Guilt	-.03	.07	-.06	-.03	.05	-.08	.13	.07	.25 ⁺
Centrality X SC Dummy1 ^a	-.09	.22	-.05	.06	.04	.19	-.18	.25	-.09
Centrality X SC Dummy2 ^b	.09	.16	.05	.01	.14	.01	-.08	.18	-.04
Centrality X SC Dummy3 ^c	.12	.18	.06	.16	.10	.14	.23	.20	.11
Centrality X SC Dummy4 ^d	.19	.13	.16	-.05	.12	-.03	-.10	.15	-.08
Centrality X SC Dummy5 ^e	-.10	.40	-.02	.03	.08	.04	.03	.45	.01
Pride X SC Dummy1 ^a	.04	.20	.02	-.22	.25	-.07	.31	.22	.17
Pride X SC Dummy2 ^b	.07	.15	.05	-.05	.12	-.05	-.07	.17	-.05
Pride X SC Dummy3 ^c	-.06	.16	-.04	-.07	.10	-.07	-.22	.18	-.15
Pride X SC Dummy4 ^d	-.10	.13	-.09	.16	.10	.15	.13	.15	.11
Pride X SC Dummy5 ^e	.24	.36	.06	-.03	.08	-.03	-.47	.40	-.12
Shame X SC Dummy1 ^a	-.10	.14	-.06	.15	.22	.06	.15	.15	.09
Shame X SC Dummy2 ^b	-.04	.12	-.03	-.03	.09	-.03	-.07	.14	-.04
Shame X SC Dummy3 ^c	-.07	.12	-.05	-.05	.08	-.05	.04	.13	.03
Shame X SC Dummy4 ^d	.03	.12	.02	.06	.07	.07	.18	.14	.12
Shame X SC Dummy5 ^e	.30	.43	.07	.02	.08	.02	-.30	.47	-.06
Guilt X SC Dummy1 ^a	.11	.12	.07	.27	.26	.09	-.04	.14	-.02
Guilt X SC Dummy2 ^b	.23	.11	.16*	.02	.08	.02	-.11	.12	-.08
Guilt X SC Dummy3 ^c	.12	.11	.09	.02	.07	.03	-.02	.13	-.01
Guilt X SC Dummy4 ^d	.08	.09	.09	-.10	.07	-.10	-.19	.10	-.21 ⁺
Guilt X SC Dummy5 ^e	-.35	.36	-.12	.02	.06	.03	.45	.40	.15

Note: In academic satisfaction model, adjusted $R^2 = .19$ for Step 1 (not reported above); $\Delta R^2 = -.02$. In GPA model, adjusted $R^2 = .32$ for Step 1 (not reported above); $\Delta R^2 = -.02$. In psychological distress model, adjusted $R^2 = .07$ for Step 1 (not reported above); $\Delta R^2 = -.004$. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Table 4.22. Summary of Regression Analyses for Self-Identified Social Class Moderating Relationship between Social Class Identity and Psychological Well-Being (N = 287).

Variable	Positive Relations with Others			Autonomy			Environmental Mastery		
	<i>b</i>	SE _{<i>b</i>}	B	<i>b</i>	SE _{<i>b</i>}	β	<i>B</i>	SE _{<i>b</i>}	β
2. Race (0=White)	-.06	.16	-.03	.31	.12	.18**	-.09	.12	-.05
Gender (0=Male)	-.22	.14	-.10	-.22	.10	-.13*	-.09	.10	-.05
Mother's Education	-.06	.06	-.08	-.03	.04	-.05	-.03	.04	-.05
Father's Education	.03	.05	.05	-.02	.04	-.04	-.02	.04	-.05
Family Income	-.01	.02	-.06	-.004	.01	-.03	.003	.01	.02
Social Class Dummy 1 ^a	-.80	.40	-.19*	.001	.30	.00	.17	.26	.05
Social Class Dummy 2 ^b	-.39	.27	-.12	-.24	.20	-.10	-.07	.20	-.03
Social Class Dummy 3 ^c	-.38	.24	-.12	-.07	.18	-.03	.27	.19	.11
Social Class Dummy 4 ^d	.14	.23	.06	.12	.17	.07	.04	.18	.02
Social Class Dummy 5 ^e	.86	.87	.11	.04	.64	.01	.86	.57	.14
Social Class Centrality	-.14	.15	-.14	-.16	.11	-.24	-.04	.06	-.05
Social Class Pride	.33	.15	.37*	.16	.11	.24	.16	.06	.23**
Social Class Shame	-.09	.12	-.11	-.11	.09	-.17	-.15	.08	-.22 ⁺
Social Class Guilt	-.09	.10	-.13	-.16	.07	-.28*	-.25	.08	-.42**
Centrality X SC Dummy1 ^a	.48	.33	.17	.24	.25	.12	--	--	--
Centrality X SC Dummy2 ^b	.49	.25	.20*	.18	.18	.10	--	--	--
Centrality X SC Dummy3 ^c	.10	.28	.03	-.01	.20	-.002	--	--	--
Centrality X SC Dummy4 ^d	.11	.20	.06	.05	.15	.04	--	--	--
Centrality X SC Dummy5 ^e	.15	.61	.02	-.20	.45	-.03	--	--	--
Pride X SC Dummy1 ^a	-.37	.30	-.15	-.02	.22	-.01	--	--	--
Pride X SC Dummy2 ^b	-.19	.23	-.08	-.12	.17	-.07	--	--	--
Pride X SC Dummy3 ^c	-.45	.24	-.21 ⁺	-.06	.18	-.04	--	--	--
Pride X SC Dummy4 ^d	-.21	.20	-.12	-.08	.15	-.06	--	--	--
Pride X SC Dummy5 ^e	-.31	.54	-.06	-.10	.40	-.02	--	--	--
Shame X SC Dummy1 ^a	-.06	.21	-.02	-.05	.15	-.03	-.28	.14	-.14*
Shame X SC Dummy2 ^b	-.22	.18	-.10	-.03	.14	-.02	.06	.13	.03
Shame X SC Dummy3 ^c	-.18	.17	-.10	-.13	.13	-.09	-.11	.12	-.07
Shame X SC Dummy4 ^d	-.12	.19	-.06	.09	.14	.06	.10	.13	.06
Shame X SC Dummy5 ^e	-.37	.64	-.06	.33	.47	.07	-.45	.37	-.08
Guilt X SC Dummy1 ^a	-.30	.18	-.14	-.04	.14	-.02	.13	.13	.08
Guilt X SC Dummy2 ^b	.20	.17	.10	-.02	.12	-.02	.16	.13	.10
Guilt X SC Dummy3 ^c	.14	.17	.07	-.09	.13	-.06	.12	.12	.07
Guilt X SC Dummy4 ^d	.19	.13	.15	.05	.10	.05	.30	.10	.30**
Guilt X SC Dummy5 ^e	-.31	.55	-.07	.23	.40	.07	.06	.31	.02

Note: In positive relations with others model, adjusted $R^2 = .13$ for Step 1 (not reported above); $\Delta R^2 = .01$. In autonomy model, adjusted $R^2 = .20$ for Step 1 (not reported above); $\Delta R^2 = -.02$. In environmental mastery model, adjusted $R^2 = .14$ for Step 1 (not reported above); $\Delta R^2 = .04$. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .10$.

^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

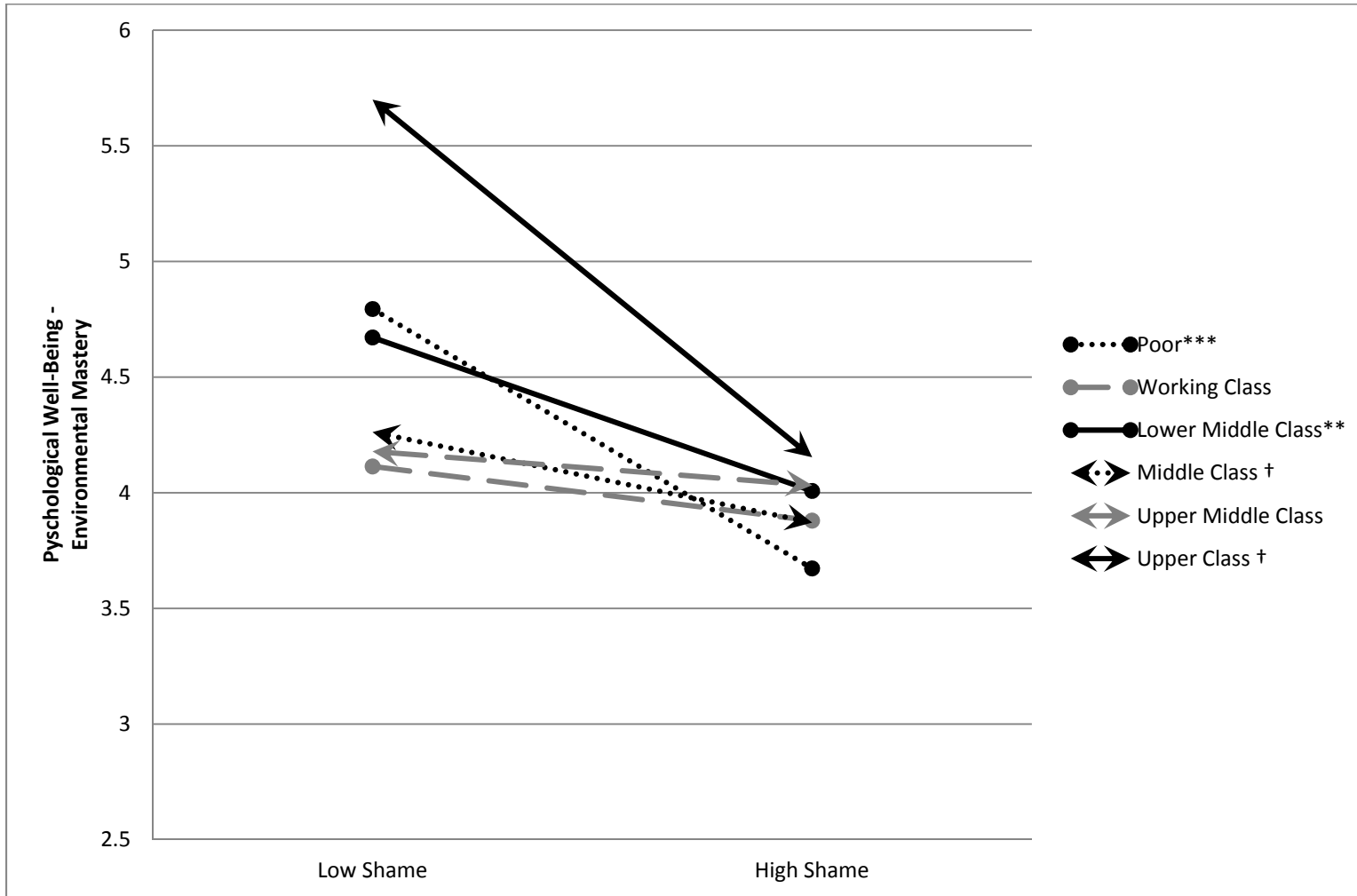
Table 4.22 (cont'd). Summary of Regression Analyses for Self-Identified Social Class Moderating Relationship between Social Class Identity and Psychological Well-Being (N = 287).

Variable	Self-Acceptance			Purpose in Life		
	<i>b</i>	SE _{<i>b</i>}	β	<i>b</i>	SE _{<i>b</i>}	β
2. Race (0=White)	.47	.13	.23***	.39	.14	.19**
Gender (0=Male)	-.12	.11	-.06	.20	.12	.09
Mother's Education	-.04	.05	-.07	.01	.05	.02
Father's Education	-.02	.04	-.04	-.01	.05	-.01
Family Income	.02	.02	.11	-.002	.02	-.01
Social Class Dummy 1 ^a	.07	.26	.02	.17	.31	.04
Social Class Dummy 2 ^b	-.33	.20	-.12	-.14	.24	-.05
Social Class Dummy 3 ^c	-.004	.18	-.001	-.07	.20	-.03
Social Class Dummy 4 ^d	.11	.18	.05	-.02	.19	-.01
Social Class Dummy 5 ^e	-.03	.42	-.004	1.09	.64	.15 ⁺
Social Class Centrality	-.13	.10	-.14	-.13	.11	-.14
Social Class Pride	.19	.06	.24***	.20	.07	.25**
Social Class Shame	-.18	.05	-.23**	-.14	.06	-.17*
Social Class Guilt	-.08	.04	-.13 ⁺	-.10	.09	-.15
Centrality X SC Dummy1 ^a	.04	.17	.02	-.02	.20	-.01
Centrality X SC Dummy2 ^b	.47	.16	.22**	.41	.17	.19*
Centrality X SC Dummy3 ^c	.09	.17	.04	-.20	.19	-.08
Centrality X SC Dummy4 ^d	.18	.13	.12	.10	.14	.07
Centrality X SC Dummy5 ^e	.29	.37	.04	.38	.40	.06
Pride X SC Dummy1 ^a	--	--	--	--	--	--
Pride X SC Dummy2 ^b	--	--	--	--	--	--
Pride X SC Dummy3 ^c	--	--	--	--	--	--
Pride X SC Dummy4 ^d	--	--	--	--	--	--
Pride X SC Dummy5 ^e	--	--	--	--	--	--
Shame X SC Dummy1 ^a	--	--	--	--	--	--
Shame X SC Dummy2 ^b	--	--	--	--	--	--
Shame X SC Dummy3 ^c	--	--	--	--	--	--
Shame X SC Dummy4 ^d	--	--	--	--	--	--
Shame X SC Dummy5 ^e	--	--	--	--	--	--
Guilt X SC Dummy1 ^a	--	--	--	-.07	.15	-.03
Guilt X SC Dummy2 ^b	--	--	--	-.001	.14	-.001
Guilt X SC Dummy3 ^c	--	--	--	-.01	.14	-.01
Guilt X SC Dummy4 ^d	--	--	--	.18	.11	.16
Guilt X SC Dummy5 ^e	--	--	--	-.68	.34	-.18*

Note: In self-acceptance model, adjusted $R^2 = .19$ for Step 1 (not reported above); $\Delta R^2 = .01$. In purpose in life model, adjusted $R^2 = .12$ for Step 1 (not reported above); $\Delta R^2 = .04$. *** $p < .001$, ** $p < .01$, * $p < .05$, ⁺ $p < .10$.

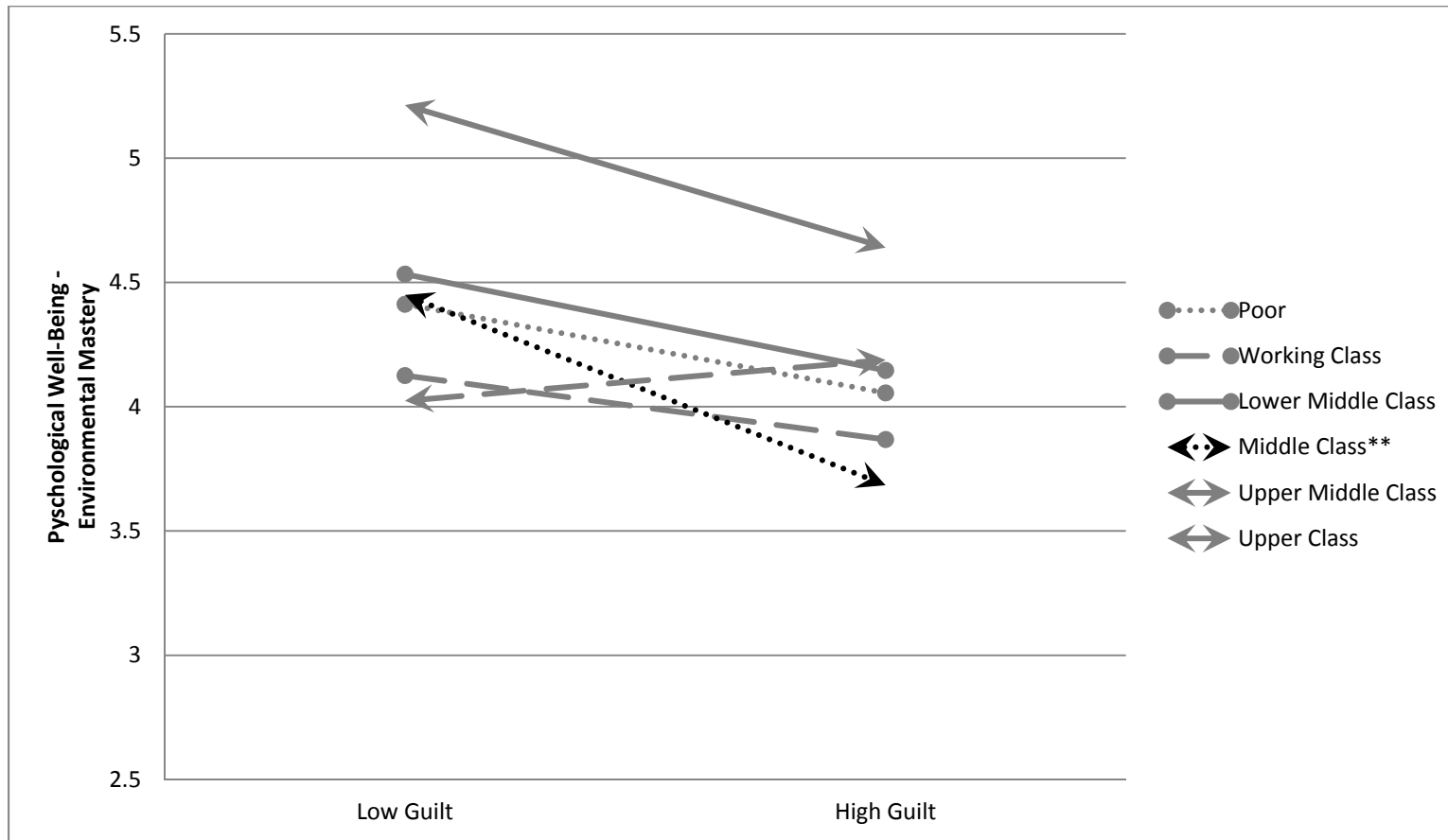
^a Poor Dummy (Referent group = Middle Class), ^b Working Class Dummy (Referent group = Middle Class), ^c Lower Middle Class Dummy (Referent group = Middle Class), ^d Upper Middle Class Dummy (Referent group = Middle Class), ^e Upper Class Dummy (Referent group = Middle Class)

Figure 4.19. Self-identified Social Class moderates the relationship between Social Class Shame and Psychological Well-Being – Environmental Mastery.



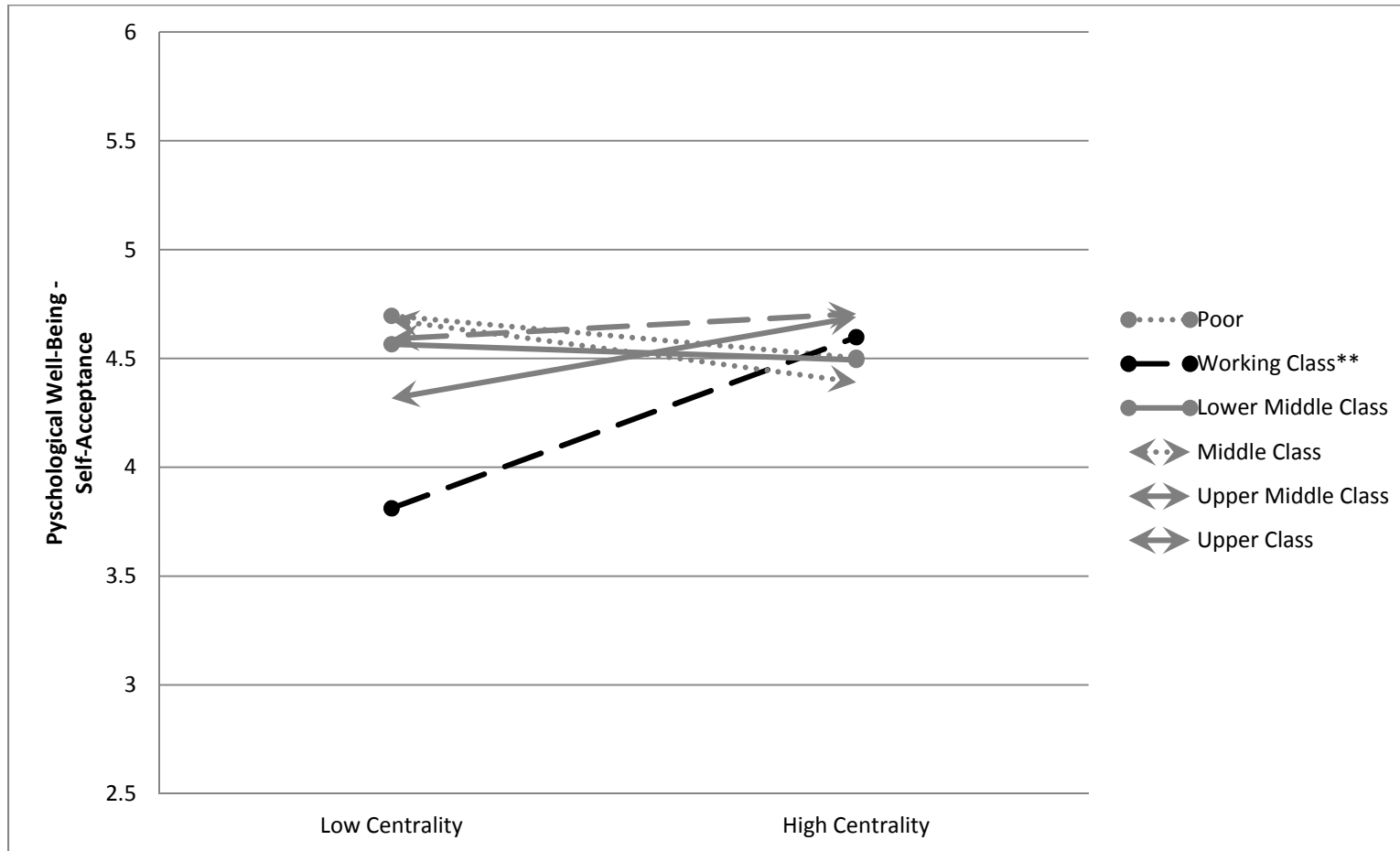
Note: *** $p < .001$, ** $p < .01$, + $p < .10$.

Figure 4.20. Self-identified Social Class moderates the relationship between Social Class Guilt and Psychological Well-Being – Environmental Mastery.



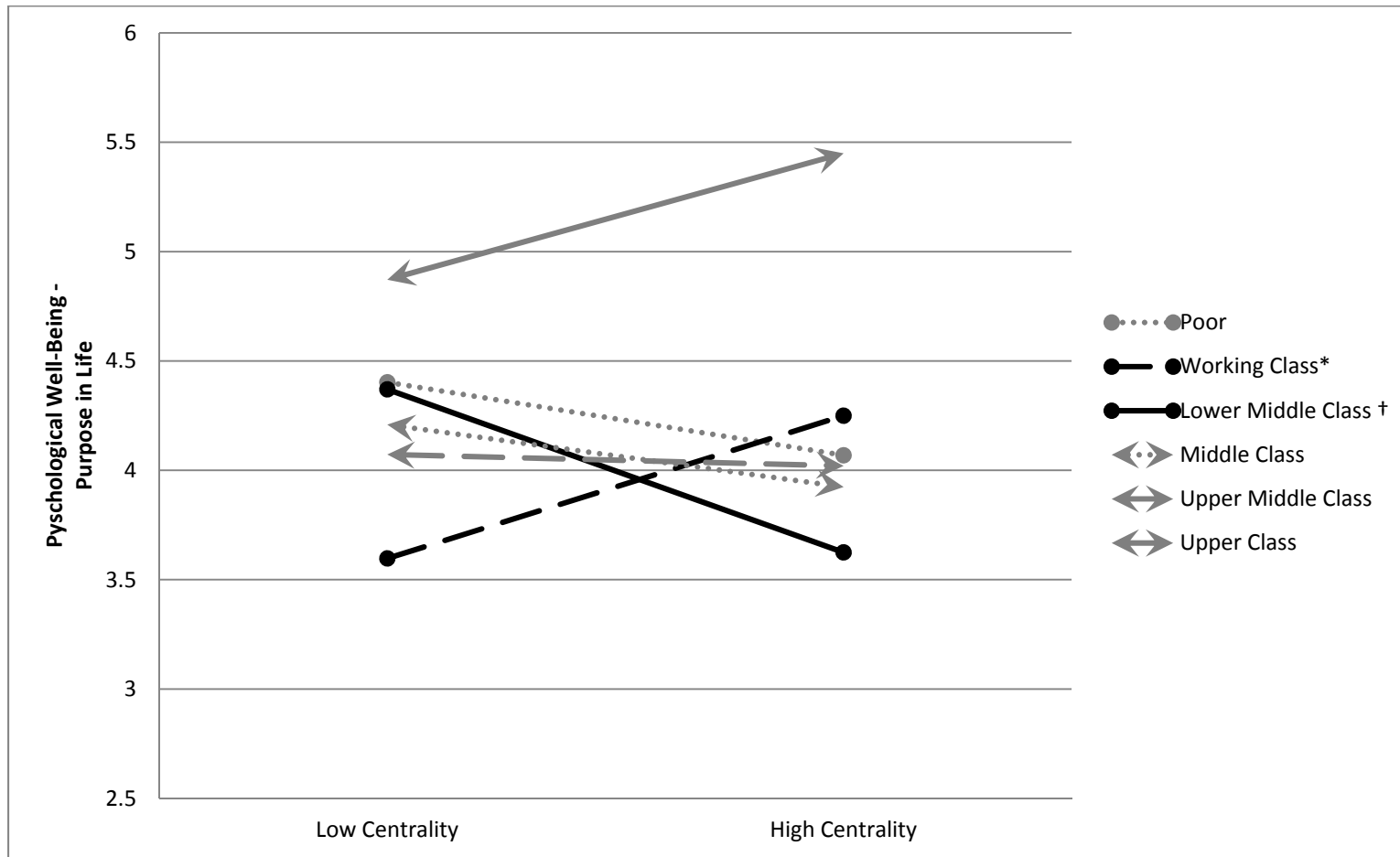
Note: ** $p < .01$.

Figure 4.21. Self-identified Social Class moderates the relationship between Social Class Centrality and Psychological Well-Being – Self-Acceptance.



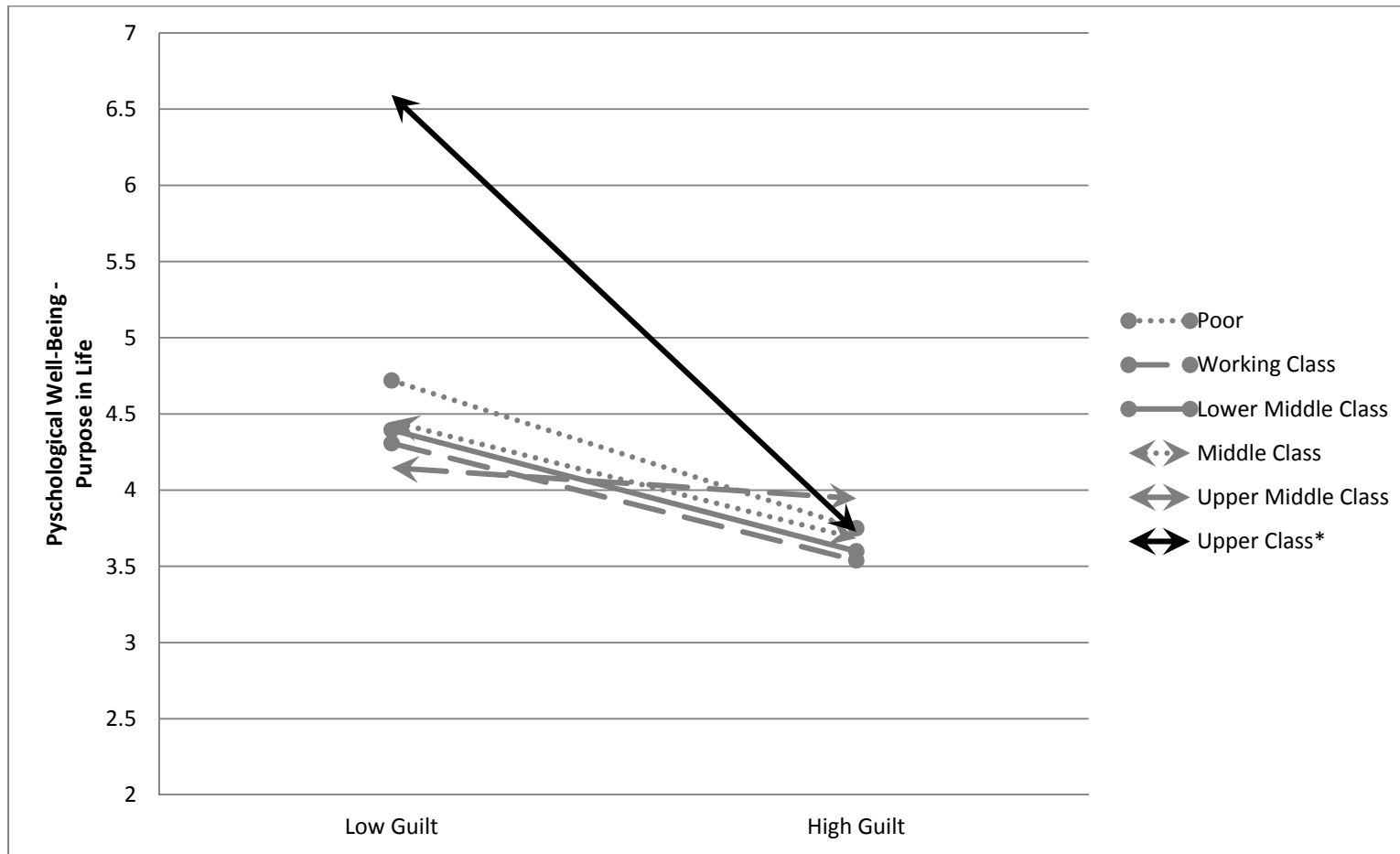
Note: ** $p < .01$.

Figure 4.22. Self-identified Social Class moderates the relationship between Social Class Centrality and Psychological Well-Being – Purpose in Life.



Note: * $p < .05$, † $p < .10$.

Figure 4.23. Self-identified Social Class moderates the relationship between Social Class Guilt and Psychological Well-Being – Purpose in Life.



Note: * $p < .05$.

Chapter 5: Discussion

Summary

The purpose of this dissertation was to examine how students' social class identity relates to their psychological and academic experience of college. I described a multidimensional framework for examining social class identity among college students, explored the statistical properties of a measure based on that framework, and then examined the relationship between social class identity beliefs and students' psychological and academic outcomes. Overall, the findings illustrate the validity and utility of a multidimensional analysis of students' social class identity, and the importance of assessing the psychological experience of social class when predicting students' college adjustment outcomes.

Conceptual Framework

In the literature review, I proposed a conceptual framework for examining social class as a collective identity. This framework was based on social identity literatures (Stryker & Serpe, 1994; Tajfel & Turner, 1986; Turner et al., 1987), as well as research examining the experience of social class within the college context (e.g., Aries & Seider, 2007; Hurst, 2010; Orbe, 2004; Ostrove & Long, 2007). I delineated three dimensions of social class identity: identification, centrality, and affect. The social class identification dimension drew from self-categorization theory (Turner et al., 1994) and research on social class self-categorization (Hout, 2008). The review highlighted the importance of understanding how an individual identifies her/his own social class position. As such, the developed social class identity measure assessed students' self-identified social class position.

The social class centrality dimension drew on Identity Theory (Stryker & Serpe, 1982, 1994), Social Identity Theory (Hogg & Abrams, 1988; Tajfel & Turner, 1986), and social and collective identity research (e.g., Ashmore et al., 2004) to demonstrate the importance of understanding how central a particular social identity is for one's self-concept. The review also highlighted the moderating effect of identity centrality on the relationship between identity-relevant beliefs and outcomes of interest. The centrality subscale of the developed social class identity measure was adapted from conceptually similar measures of collective identity to assess the extent to which social class is an important part of an individual's self-concept.

The social class affect dimension drew upon Social Identity Theory (Tajfel & Turner, 1986), emotion literature (Mackie et al., 2009; Smith & Mackie, 2008; Smith, 1993), and research examining the lived experience of social class (e.g., Aries & Seider, 2007; Dews & Law, 1995; Hurst, 2010; Lubrano, 2004; Orbe, 2004) to demonstrate the importance of affective beliefs related to one's social class. The review also highlighted three relevant affective experiences related to one's social class, specifically within the college context: pride, shame, and guilt. The pride sub-dimension related to feelings of satisfaction and self-respect around being from a particular social class background, the shame sub-dimension related to feelings of embarrassment and discomfort that one comes from a particular social class background, and the guilt sub-dimension related to feelings of remorse associated with opportunities afforded to an individual in relation to his/her social class background.

While social class identification was assessed using one item, social class centrality, pride, shame, and guilt were assessed as separate subscales of the developed social class identity measure. The centrality, pride, shame, and guilt sub-dimensions were conceptualized as distinct but related constructs.

Question 1: The Structure of Social Class Identity

The first research question set out to examine whether the developed social class identity measure was consistent with the proposed conceptual framework of social class identity. It was hypothesized that a four-factor model would fit the data well. The full four-factor model did not demonstrate adequate fit. However, it was proposed that the social class identity dimensions would be related to one another. As such, it may be that since the constructs are highly related conceptually, the statistical analysis used could not distinguish between the factors resulting in a poorly fitting full model. However, each single-factor model demonstrated adequate to good fit, and the factor loadings for each subscale were moderate to high. As such, the measure demonstrates convergent validity in that the items for each subscale are related to the same underlying constructs. The highest interscale correlation was between social class centrality and pride ($r = .58, p < .001$). While statistically correlated, these dimensions are conceptually distinct. Furthermore, this finding was hypothesized and is consistent with previous research on conceptually similar dimensions of racial identity (Sellers et al., 1997). The social class affect dimensions (pride, shame, and guilt) demonstrated divergent validity evidenced by low to moderate interscale correlations. Additionally, each social class identity subscale demonstrated adequate to high internal consistency.

Another important goal was to examine whether the measurement structure of the social class identity dimensions were invariant by race and self-identified social class, thus examining whether the social class identity items assessed the same psychological meaning for different racial and social class groups. The social class centrality dimension was found to be invariant across racial and social class groups, meaning that the centrality dimension was measuring the

same underlying construct and that the psychological meaning was similar for the various racial and self-identified social class groups.

Partial measurement invariance was established for each social class identity affect dimensions (pride, shame, and guilt) across racial and social class groups, evidenced by at least one invariant factor loading across groups (Byrne et al., 1989). Given only partial measurement invariance, the source of non-invariance was pinpointed across racial and social class groups for each social class identity affect dimension. Of the four social class shame items, one item was non-invariant across racial groups. Item 13 (“I sometimes feel embarrassed that I come from a(n) [*selected social class group*] background”) had a higher loading among African American students as compared to White students. It is important to note that this item had a strong loading on the shame factor for both the White (standardized regression weight = .63) and African American (standardized regression weight = .93) sample. As such, the finding suggests that feeling embarrassed about one’s social class background is central to the experience of social class shame for both African American and White participants, but more strongly related to the experience of social class shame among African American participants. Given that embarrassment can stem from being the object of undesired social attention (Keltner & Buswell, 1996; Miller & Tangney, 1994), this finding may be in part due to the visibility of race for African Americans and the greater likelihood that they could be perceived as lower class within the college context. However, feelings of dissatisfaction and a desire to conceal one’s social class were similarly related to the psychological experience of social class shame for both African American and White participants.

Of the four social class shame items, two items were non-invariant across social class groups. Item 5 (“I wish I was from a different social class background”) and Item 12 (“I am

unhappy that I come from a(n) [*selected social class group*] background) both had a higher loading among students who identified as middle class or below as compared to those who identified their social class as above middle class. This finding is conceptually reasonable. The experience of shame related to one's social class is less likely to encompass feelings of dissatisfaction among individuals who identify with a more affluent social class background. However, feeling embarrassed and wanting to conceal one's social class is a part of the experience of social class shame for individuals who identify with various social class groups. Given that partial measurement invariance was established for the social class shame dimension across racial and social class groups, as well as the conceptual consideration of the sources of non-invariance, it is reasonable to conclude that the revised social class shame subscale is assessing very similar underlying constructs of social class shame (if not the same) across racial and social class groups. However, creating and testing a larger bank of social class shame items is likely necessary to establish full measurement invariance in that it would allow for the retention of only those items that have similar loadings across racial and social class groups.

Of the two social class pride items, one item was non-invariant across racial and social class groups. Item 9 ("I feel good about my [*selected social class group*] background.") had a higher loading among African American students as compared to White students and among students who identified their social class as below middle class (lower middle, working class or poor) as compared to those who identified as middle class or above. It may be that having a general positive evaluation of one's social class group is more strongly related to experiencing social class pride among those who hold a devalued identity, specifically African American students and students who identify with a less affluent social class background. However, the revised social class pride subscale consisted of only two items. While partial measurement

invariance of the social class pride dimension was established across racial and social class groups, creating and testing more social class pride items will be essential to establishing full measurement invariance.

Of the two social class guilt items, one item was non-invariant across racial and social class groups. Item 15 (“I fear that others may perceive me as ‘thinking I am better’”) had a higher loading among White students as compared to African American students and among students who identified their social class as middle class or above as compared to those who identified as below middle class (lower middle class, working class, or poor). This finding is conceptually reasonable. While an apprehension about others perceiving you as pretentious or superior was less related to the experience of social class guilt among lower status groups (African American participants and those who identified as below middle class), feeling remorseful about perceived privilege was similarly related to the psychological experience of social class guilt for African American and White participants and among participants who identified with various social class groups. While partial measurement invariance was established, the revised social class guilt dimension consisted of only two items. As such, it is likely necessary to create and test additional social class guilt items in order to establish full measurement invariance.

Overall, these findings provide empirical evidence that the social class identity subscales are consistent with the conceptualization of social class identity and operate similarly across racial and social class groups. However, given the small number of items for each social class identity subscale, it is likely necessary to create and test more items in order to establish full measurement invariance and a well-fitting full factor model. While these results may highlight

concerns with the operationalization of the items and subscales, they do not represent problems with the conceptual constructs themselves.

Preliminary Analyses

Preliminary analyses demonstrate diversity in students' self-identified social class. Given the socioeconomic characteristics of the university, it is not surprising that nearly two-thirds of the sample identified as middle class or above. However, a significant portion of the sample identified their social class as lower middle class, working class, or poor (37.6%). Additionally, in terms of objective indicators of SES, the sample characteristics did not reflect the broader SES characteristics of the university, with lower reported family income and parental education.

Findings indicated no gender differences in students' self-identified social class. However, as hypothesized, African American participants were more likely to report a less affluent social class identification as compared to White participants. As illustrated in Table 4.8, even though there was greater variability in the distribution of self-identified social class among African American students as compared to White students, there was still a greater representation of African American students as middle class or below and of White students as middle class and above. Previous research using adult, non-college populations suggests that African Americans may also consider their lower racial group status in their perceived social class standing, evidenced by a weaker relationship between objective indicators of SES and African Americans' subjective assessments of social class as compared to Whites (Hout, 2008; Jackman & Jackman, 1973; Jackman, 1979; Kluegel et al., 1977). However, using a college sample, the current findings did not follow the same pattern. Among the objective indicators of SES, family income had the strongest association with self-identified social class, and this relationship was similar among African American and White participants. As such, the observed differences in social

class identification are likely due to racial differences in socioeconomic resources as opposed to a racialized social class identification.

I also examined the relationship between objective indicators of social class (i.e., family income and parental education) and self-identified social class. Each objective indicator had a moderate to strong positive association with student's self-identified social class, with family income having the strongest association. Consistent with previous research (Aries & Seider, 2007; Ostrove & Long, 2007), these findings demonstrate that while objective and subjective assessments of social class are positively related, they are not identical. Additionally, while students likely consider objective indicators of socioeconomic status (SES), they may also take into account other relevant factors and/or experiences in identifying their social class position (e.g., social or cultural capital, relative status or prestige, or aspirational class position).

In general, participants were relatively neutral in their endorsement of social class identity beliefs (centrality, pride, shame, and guilt); however, differences emerge when these beliefs were examined by race and self-identified social class. In the case of social class centrality, African American participants reported that social class was more central to their identity as compared to White participants. Social class centrality was also higher among students who identified as poor and working class as compared to students who identified a more affluent social class background. These findings are consistent with previous research demonstrating that racial/ethnic minorities and students from less affluent backgrounds report that social class is more salient within the college context (Langhout et al., 2007; Orbe, 2004). African American students and students from poor and working class backgrounds tend to be underrepresented on college campuses (Hardaway & McLoyd, 2009; Walpole, 2003). Given their minority status within the college context, these students are more likely to perceive their

group memberships as more salient and therefore more proximal to their interactions and outcomes. As such, given their higher levels of social class centrality, the relationship between social class identity beliefs and students' adjustment outcomes is likely stronger among African American students and students from less affluent backgrounds.

Racial and self-identified social class differences also emerged in examining social class affect dimensions (pride, shame, and guilt). For example, White participants reported greater levels of guilt as compared to African American participants, and students who identified as upper middle class reported higher levels of guilt as compared to students who identified a less affluent social class background. It may be that White students and students who identified as upper middle class are aware of societal inequalities or personal privilege and as such experience a greater sense of guilt related to their social class position. Additionally, the relatively low levels of social class guilt among students from less affluent backgrounds within this sample does not support Piorkowski's (1983) extension of survivor guilt to upwardly mobile college students. However, the current version of social class guilt items did not distinguish the referent group (i.e., others within the college community, others from your home community). As such, it is not clear who or what is the point of reference for students, especially those from less affluent backgrounds. This is an important distinction given that Piorkowski (1983) posits that survivor guilt may be experienced by upwardly mobile students in relation to others from a similar social class background who have not had similar opportunities to attend college.

While there were no racial differences in social class pride or shame, it is important to note the variability in social class pride and shame among students from less affluent backgrounds. Students who identified as poor and lower middle class had relatively lower levels of social class pride and higher levels of social class shame, whereas students who identified as

working class reported relatively higher levels of social class pride and lower levels of social class shame. While students may be aware of negative perceptions about people from less affluent backgrounds, there is also discourse around positive qualities of people who are less privileged—such as hardworking, down-to-earth, and self-sufficient (Lamont, 2000; Lehmann, 2009; Stuber, 2006). Interestingly, in the current survey, “working class” was second in ascending order of social class identification options, between “poor” and “lower middle class.” However, students who identified as working class reported relatively higher levels of social class pride and lower levels of social class shame, suggesting that there may be specific meanings attached to the label of working class that have positive implications for these students’ social class identity beliefs.

Question 2: Social Class Identity Beliefs Predicting Academic Outcomes

The second research question examined whether the social class identity attitudes were associated with students’ academic outcomes (academic engagement, academic affect, academic satisfaction, and GPA). I hypothesized that social class pride would be positively related to academic outcomes, whereas social class shame would be negatively related to academic outcomes. I also expected that these associations would be moderated by social class centrality, such that for individuals for whom social class was more central to their identity the association between social class identity affect dimensions and academic outcomes would be stronger. I found some support for these hypotheses.

While there was no direct relationship between social class shame and cognitive engagement and persistence, social class shame was negatively related to academic curiosity, which is the extent to which students are engaged when new academic material is introduced. This relationship was moderated by social class centrality such that for student who perceived

social class as more central to their identity and experienced more shame related to their social class also reported being less engaged when new academic material was introduced. Previous research on the consequences of experiencing shame (both personally and collectively) demonstrates that individuals are more likely to disengage and try to avoid situations that elicit shame (Lickel et al., 2005). According to Lewis (2008), shame is “a highly negative and painful state that also results in the disruption of ongoing behavior, confusion in thought, and an inability to speak” (p. 748). Students who perceive social class as central to their identity and are ashamed of their social class background may be less likely to participate or engage within the classroom context for fear of humiliation. Qualitative research has documented similar experiences among students from less affluent backgrounds (e.g., Aries & Seider, 2007; Orbe, 2004). These findings suggest that experiencing shame related to one’s social class position may be particularly problematic for academic engagement within the classroom setting. The findings that social class shame was unrelated to students reports of cognitive engagement and persistence, which related to academic engagement largely outside of the classroom context, suggests that the impact of experiencing social class shame may depend in part on the situational context.

Social class shame was also related to students’ academic satisfaction and academic affect. Specifically, social class shame was negatively associated with academic satisfaction—the extent to which students were satisfied with their overall college experience, and positive academic affect—the frequency with which students felt positively about their academic experiences. Additionally, students who reported a greater sense of shame related to their social class background experienced more doubts around their ability and more often felt uncertain about persisting. Additionally, the relationship between social class shame and uncertainty about persisting was moderated by social class centrality, such that social class shame was positively

related to uncertainty about persisting only among students for whom social class was a central part of their identity. Perceiving that one's identity is devalued within a given context can undermine one's sense of belonging (Walton & Cohen, 2007). Belonging uncertainty has been shown to be related to greater concern among students about their academic and social adjustment to college, a lower sense of efficacy within the college context, and less positive evaluations of their overall college experience (Ostrove & Long, 2007). Students who are ashamed and embarrassed about their social class background are likely to feel that "students like them" don't belong, and as such feel less positive about their collegiate experiences and feel a greater sense of uncertainty and doubt related to their academic success. Additionally, these findings suggest that students who are ashamed of their social class background may be at greater risk for poorer academic adjustment.

The results also demonstrate that social class pride was positively related to academic satisfaction. Additionally, social class pride was found to have a positive relationship with positive academic affect, but only among students who reported that social class was central to their identity. Students who feel positively about their social class background are likely to be more comfortable with themselves and within the college community. As such, they are likely to be more engaged academically and socially within the college context, and therefore more satisfied with their collegiate and academic experiences.

However, social class pride had an unexpected relationship with grade point average (GPA). In particular, social class pride was negatively related to GPA, but only among individuals who reported lower levels of social class centrality. However, this slope was only marginal. Given that this finding is not consistent with the hypotheses or previous research, and

that the simple slopes for social class pride were non-significant, I am hesitant to interpret this finding as a meaningful representation of the relationship between social class pride and GPA.

Two competing hypotheses were proposed in examining the relationship between social class guilt and academic outcomes. Research examining the consequences of experiencing guilt (as a function of a past transgression or through perceived positive inequity) suggests that individuals are motivated to correct the injustice (i.e., working harder on subsequent tasks, support for reparative efforts) (Brockner et al., 1986; Swim & Miller, 1999). Consistent with this research, one hypothesis was that experiencing guilt related to one's social class would be associated with better academic outcomes. Alternatively, Piorkowski (1983) posits that at least among "low-income, urban, first-generational college students" experiencing guilt is associated with poorer academic outcomes. Although, social class guilt was found to be unrelated to academic engagement, academic affect, and academic satisfaction, results show that social class guilt was positively related to grade point average (GPA). This finding is consistent with the first hypothesis. As such, individuals who are aware of societal inequalities or their own personal privilege and experience guilt related to their social class may be motivated to work harder and earn higher grades. However, social class guilt was not directly related to any other academic outcomes. As such, future work should seek to replicate this finding.

Question 3: Social Class Identity Beliefs Predicting Psychological Outcomes

The third research question sought to examine whether social class identity attitudes were related to students' psychological outcomes (psychological distress and psychological well-being). I hypothesized that social class pride would be positively related to psychological outcomes, whereas social class shame and guilt would both be negatively related to psychological outcomes. I also expected that these associations would be moderated by social

class centrality, such that for individuals for whom social class was more central to their identity the association between social class identity affect dimensions and psychological outcomes would be stronger. I found some support for these hypotheses.

Feeling positively about one's social and collective identities has been associated with better psychological functioning (Crocker, Luhtanen, Blaine, & Broadnax, 1994; Kiang et al., 2006; Rowley et al., 1998). Consistent with previous research, the results demonstrate that social class pride was positively related to psychological well-being. Students who felt a sense of pride related to their social class background also felt positively about themselves and their ability to manage their surroundings and felt that their life had meaning and purpose.

Also consistent with the hypotheses, experiencing shame related to one's social class position was associated with poorer psychological functioning. Students who felt a greater sense of shame related to their social class experienced psychological distress more often. However, this was true only for students who felt that social class was central to their identity. Shame is a rather distressing negative emotion. Students who experience a greater sense of shame related to their social class background and perceive social class as central to their identity are likely to experience a greater sense of distress.

Additionally, social class shame was negatively associated with every subscale of psychological well-being (positive relations with others, autonomy, environmental mastery, self-acceptance, and purpose in life). Students who reported greater levels of social class shame had lower quality relationships and were less able to manage their life and surroundings.

Experiencing shame can be rather distressing, and a consequence of shame is a greater likelihood that an individual will disengage (Lewis, 2008). As such, students who experience shame related to their social class may be less likely to engage within the college context and as such may have

lower quality relationships and feel less able to manage their environment. Additionally, experiencing shame related to one's social class is related to a lower sense of autonomy. Students who feel ashamed or embarrassed about their social class background are likely to attach importance to the opinions and evaluations of others, and consider those opinions and evaluations in regulating their own behavior. In fact, research has found that experiencing embarrassment is related to an acute awareness of others' evaluations (Miller, 1995). Students who reported greater levels of social class shame also felt less positively about themselves (self-acceptance) and had a lower sense of meaning and purpose in their lives. Feeling negatively about one's in-group would likely lead to less positive feelings toward the self. Furthermore, students who are ashamed and embarrassed of their social class background likely feel less comfortable and confident in themselves and their ability to navigate the college context. This is likely to lead to uncertainty about their future and life goals.

Social class guilt was not related to psychological distress. However, consistent with the hypotheses, social class guilt was negatively associated with psychological well-being. In particular, experiencing social class guilt related to a lower sense of autonomy, environmental mastery, and self-acceptance. While, in general, we see that social class guilt is related to poorer psychological well-being, the next set of analyses provide a more detailed understanding of the relationship between social class guilt and students' adjustment to college by examining how these relationships differ as a function of race and self-identified social class.

Question 4: The Moderating Effect of Race and Self-Identified Social Class

The fourth research question sought to examine whether the relationship between social class identity dimensions and students' academic and psychological outcomes varied as a function of race and self-identified social class. Previous research has demonstrated that social

class is more salient among racial/ethnic minorities and among students from less affluent backgrounds. As such, I hypothesized that the relationship between social class identity dimensions and students' adjustment outcomes would be stronger for African American students and students who identified with a less affluent social class background. I found some support for these hypotheses.

Moderating Effect of Race. First, I examined the moderating effect of race on the relationship between social class identity attitudes and students psychological outcomes. Race did not moderate the relationship between social class centrality or pride and students' psychological outcomes. However, race did moderate the relationship between social class guilt and psychological well-being. As previously described, in general, social class guilt was negatively associated with three of the five psychological well-being subscales (autonomy, environmental mastery, and self-acceptance). However, the relationship between social class guilt and psychological well-being differed as a function of race. Specifically, social class guilt was not related to psychological well-being among White students. However, among African American students, experiencing social class guilt was related to less positive relations with others, a lower sense of autonomy, a lower sense of environmental mastery, a lower sense of self-acceptance, and a lower sense of purpose in life. These findings are consistent with research examining survivor guilt.

Guilt is an interpersonal emotion that serves to maintain attachments (O'Connor, Berry, Weiss, Bush, & Sampson, 1997). According to O'Connor and colleagues, interpersonal guilt derives from an altruistic desire not to cause harm to others and the need to maintain attachments. They emphasize two types of interpersonal guilt: survivor/outdoing guilt and separation guilt. Survivor guilt is an apprehension about being in a better position or having

succeeded as compared to others, particularly family and friends (O'Connor et al., 1997; O'Connor, Berry, Weiss, Schweitzer, & Sevier, 2000), whereas separation guilt is guilt arising from “the belief that one is harming one’s parents or other loved ones by separating from them or by differing from them and thereby being disloyal” (O'Connor et al., 1997, p. 76). Furthermore, experiencing survivor guilt or separation guilt has been related to greater anxiety and depression and poorer psychological well-being (O'Connor, Berry, & Weiss, 1999; O'Connor et al., 1997).

Within the current sample, social class guilt is related to poorer psychological well-being among African American students, but not among White students. It may be that African American students are more likely to experience social class guilt as an interpersonal guilt (similar to that of survivor or separation guilt) within the college context, whereas White students are more likely to experience social class guilt as positive inequity. Indeed, research suggests that, as compared to Whites, African Americans are higher in collectivism—a cultural orientation that emphasizes relationships with others and one’s responsibilities to the in-group (Coon & Kemmelmeier, 2001). Additionally, research has demonstrated that African Americans and other ethnic/racial minorities report a greater attachment to their ethnic/racial group as compared to Whites (Crocker et al., 1994; Phinney & Alipuria, 1990).

Race also moderated the relationship between social class shame and psychological well-being. As previously described, social class shame was negatively associated with all five psychological well-being subscales (positive relations with others, autonomy, environmental mastery, self-acceptance, and purpose in life). However, race moderated the relationship between social class shame and positive relations with others. Specifically, social class shame was not associated with students’ quality of social relationships among African American students. However, shame was associated with less positive relations with others among White students.

This finding suggests that African American students may be buffered against the negative impact of social class shame on their quality of social relationships.

Research has shown that informal social supports may be especially useful among racial/ethnic minorities in coping with psychological stressors experienced within a predominately White college context (Chiang, Hunter, & Yeh, 2004; Constantine, Wiiton, & Caldwell, 2003; Grier-Reed, 2013; Jones, 2004; Watts-Jones, 2002). These informal social supports may include family and friends, but also Black student professional and social organizations (i.e., Black Student Union, National Society for Black Engineers, historically Black sororities and fraternities) that provide African American students an opportunity to network with other African American members of the campus community (both peers and faculty members). Furthermore, research suggests that, among African American students, more frequent contact with Black faculty and other Black students are associated with higher levels of social support and social integration within the academic environment (DeFour & Hirsch, 1990). Thus, as a part of their racial experiences, Black students have likely developed coping strategies that may also serve as a buffer in relation to their social class identity. On the other hand, White students may be less likely to have developed relevant coping skills in relation to a devalued identity. Although experiencing social class shame was not related to African American students' quality of social relationships, social class shame was negative associated with every other subscale of psychological well-being for both African American and White participants.

Race also moderated the relationship between social class identity attitudes and students' academic outcomes. While race did not moderate the relationship between social class centrality, pride, or shame and students' academic outcomes, the relationship between social class guilt and students' academic outcomes was moderated by race. Specifically, race moderated the

relationship between social class guilt and students' uncertainty about persisting. Among African American students, social class guilt was associated with a greater sense of uncertainty around their academic goals, whereas social class guilt was not related to uncertainty about persisting among White students. As described above, social class guilt may be experienced as survivor or separation guilt, especially among African Americans. Research suggests that survivor guilt is experienced as an internal conflict between one's past and future and can hinder successful academic adjustment (O'Connor et al., 1997; Piorkowski, 1983; Tate, Williams III, & Harden, 2013). For example, Piorkowski (1983) found that experiencing survivor guilt was associated with greater difficulty concentrating and less productive use of time, resulting in poorer academic and psychological outcomes. As such, among African American students, experiencing social class guilt may be related to more experiences of academic difficulties or greater perceived obstacles to academic success, resulting in more anxiety and fear around their academic goals.

Moderating Effect of Self-Identified Social Class. Self-identified social class was also found to moderate the relationship between social class identity attitudes and students' academic and psychological outcomes. Self-identified social class did not moderate the relationship between social class centrality, pride, or shame and students' academic outcomes. However, the relationship between social class guilt and students' academic outcomes was moderated by self-identified social class. Specifically, self-identified social class moderated the relationship between social class guilt and students' doubts around their academic ability. Among students who identified as upper middle class, social class guilt was associated with fewer doubts around their academic ability, whereas social class guilt was unrelated to doubts around ability among all other self-identified social class groups. While the overall interaction effect was marginal, this finding is conceptually reasonable. It may be that students who identify with a more affluent

social class group and recognize the opportunities and privileges afforded to them in relation to their social class are likely to feel more confident in their academic preparedness and abilities. However, future research should seek to replicate this finding.

While self-identified social class did not moderate the relationship between pride and psychological outcomes, self-identified social class did moderate the relationship between all other social class identity dimensions (guilt, shame, and centrality) and students' psychological outcomes. Self-identified social class moderated the relationship between social class guilt and psychological well-being, specifically purpose in life and environmental mastery. Generally, social class guilt was found to be unrelated to students' sense of purpose in life. However, self-identified social class was found to moderate this relationship. Specifically, social class guilt was negatively related to purpose in life, but only among students who identified as upper class. While this interaction was significant, there were only nine students who identified as upper class. As such, I am hesitant to interpret this finding as a meaningful representation of the relationship between social class guilt and students' sense of purpose in life, especially among those who identify as upper class. However, an examination of the interaction plot (Figure 4.23) suggests that students who identify as upper class and experience lower levels of social class guilt are likely to have a greater sense of meaning and purpose in life. However, further research is needed to replicate these findings.

As previously described, social class guilt was generally related to a lower sense of environmental mastery. However, the interaction demonstrated that social class guilt was related to a lower sense of environmental mastery only among students who identified as middle class. This is also an interesting finding to interpret. In examining the interaction plot (Figure 4.20), the relationship between social class guilt and environmental mastery follows a negative direction

for each social class group (except for upper middle class); however, only the middle class slope reaches significance. It may be that students who identify as middle class and experience social class guilt are particularly at risk for feeling overwhelmed or less able to manage within the college context. However, future research is needed to replicate these findings.

Self-identified social class was also found to moderate the relationship between social class shame and students' psychological well-being, specifically environmental mastery. As described above, social class shame was generally related to a lower sense of environmental mastery. However, this relationship was moderated by self-identified social class. Specifically, social class shame was related to lower environmental mastery among students who identified as poor or lower middle class, whereas social class shame had a marginal negative relationship to environmental mastery among students who identified as middle class or upper class. However, social class shame was not related to environmental mastery among students who identified as working class or upper middle class. While students who identified as poor and lower middle class reported the highest levels of social class shame, a plot of the interaction (Figure 4.19) suggests that having lower levels of social class shame is especially important for these students, particularly as it relates to their sense of efficacy around managing their daily responsibilities. However, it is interesting that social class shame was not predictive of environmental mastery among students who identified as working class or upper middle class. Future research is needed to replicate these findings.

Self-identified social class also moderated the relationship between social class centrality and students' psychological well-being, specifically self-acceptance and purpose in life. While in general, social class centrality was not directly related to either self-acceptance or purpose in life; both relationships were moderated by self-identified social class. Specifically, social class

centrality was related to a greater sense of self-acceptance, but only among students who identified as working class. However the overall interaction effect was marginal. Social class centrality was also positively related to sense of purpose in life among working class students, but had a marginal negative relationship with purpose in life among students who identified as lower middle class. Research suggests that individuals from working class backgrounds draw class boundaries that emphasize positive working class qualities such as hardworking or self-sufficient (Lamont, 2000; Lehmann, 2009; Stuber, 2006). It may be that, particularly among students who identify as working class, these prescribed traits come to represent what it means to be working class. As a result, the more central this identity is to one's self-concept, the greater sense of dignity one feels. Conversely, the label of lower middle class may not have the same dignifying connotations. In fact, it may elicit feelings of inferiority as compared to the normalized condition of being middle class. As such, seeing this identity as central to one's self-concept may be related to a lower sense of meaning and purpose in life. However, future research is needed to replicate these findings.

General Discussion

The current study illustrates the importance of understanding the psychological experience of social class. The findings demonstrate that there is variation in the dimensions of social class identity among individuals from similar socioeconomic backgrounds and that this variation is predictive of students' psychological and academic outcomes. This work expands on the growing literature examining the relationship between subjective experiences of social class and students' psychological and academic adjustment to college (Hurst, 2010; Ostrove & Long, 2007; Stephens, Fryberg, et al., 2012). Indeed, many studies utilize objective measures of social class to examine how social class status relates to students' psychological and academic

outcomes (e.g., Pascarella et al., 2004; Sirin, 2005; Walpole, 2003). While objective measures are sufficient as a proxy for potential sociocultural and economic resources, they are not sufficient for examining how individuals may place themselves within a socioeconomic hierarchy or examining the psychological experience of their perceived socioeconomic position. The current findings demonstrate that after accounting for the effect of objective measures of socioeconomic status, social class identity beliefs are predictive of students' psychological and academic adjustment to college.

Another contribution of the current study is the multidimensional analysis of social class identity, and particularly the examination of different affective dimensions of collective identity. While most research on collective identity examines evaluations of the in-group as positive or negative (Ashmore et al., 2004), the current study conceptually and empirically distinguished between different affective beliefs in relation to one's social class group membership, and found that they were differentially predictive of students' psychological and academic outcomes⁵. For example, while social class shame and social class guilt are both negative affective experiences, they were differentially associated with students' college adjustment outcomes. Social class shame was related to poorer academic and psychological outcomes, whereas social class guilt had a more complex relationship to students' academic and psychological outcomes. Social class guilt seems to operate differently among individuals who occupy a privileged identity (i.e., White participants and upper middle class participants), as compared to those who occupy a potentially devalued identity within the college context (i.e., African American participants and students from less affluent backgrounds). Social class guilt, while higher among White students and students who identified as upper middle class, related to higher GPA among these students.

⁵ Intergroup Emotion Theory (Mackie et al., 2009; Smith & Mackie, 2008; Smith, 1993) also examines several affective experiences related to a collective identity. However, this research is conceptually different in that it focuses on situational affect when a given collective identity is made salient.

While African American students and students who identified as middle class or below on average had lower levels of social class guilt, among these students social class guilt was related to poorer psychological well-being and greater uncertainty about persisting.

These findings also highlight another contribution of the current study—the examination of racial differences in the association between social class identity and students’ adjustment outcomes. Most studies examining psychological processes related to social class, especially within the college context, use majority White samples or assume that the processes are similar across different racial/ethnic groups (Aries & Seider, 2007; Ostrove & Long, 2007; Stephens, Fryberg, et al., 2012; Stephens, Townsend, et al., 2012). However, the current study adds to research examining how the psychological experience of social class varies as a function of race.

This study found that, in general, social class centrality was higher among African American students whereas social class guilt was higher among White students. Additionally, social class identity beliefs were, generally, more strongly related to the academic and psychological outcomes of African American students, as compared to Whites students. Furthermore, the association between social class guilt and students’ psychological and academic outcomes suggests that social class guilt is experienced as positive inequity (Brockner et al., 1986) among White students and students from more privileged social class backgrounds, whereas social class guilt is more likely to be experienced as survivor or separation guilt (O’Connor et al., 1997; Piorkowski, 1983) among African American students and students from less affluent social class backgrounds.

Limitations. While my study findings made several contributions, I also note several considerations and study limitations. The primary limitation of this study is the small number of scale items. The final version of each social class identity scale was comprised of 2-5 items. A

greater number of items per factor is related to more proper solutions, greater reliability, and more accurate and stable parameter estimates (Marsh, Hau, Balla, & Grayson, 1998).

Additionally, in exploratory studies and measurement development it is important to include a large number of items to ensure that a sufficient number of high quality indicators are retained (Marsh et al., 1998). Indeed, the current analyses presented concerns with model fit and stability of factor loadings that could likely be improved by using a larger bank of items. However, it is important to note that these concerns with the operationalization of the items and subscales do not represent problems with the conceptual constructs themselves.

A second limitation is that the current sample included students from only one university. The sample university was a highly selective, public four-year institution with a fairly wealthy and predominately White student body. Indeed, institutions of higher education differ in their prestige and selectivity, as well as the social demographics of their student body. These factors have been found to impact the economic and sociocultural climate of the education context, as well as the significance and meaning of social class within these spaces (e.g., Aries & Seider, 2005, 2007). As such, my results may not be generalized to other collegiate settings and I am not able to establish measurement invariance across different types of settings. Nevertheless, as I was interested in the individual level of analysis rather than comparisons between schools, my results still provide useful information about the significance of social class identity beliefs.

The ecological validity of the sample was a strength of the study. However, given that most African American students identified as middle class or below and most White students identified as middle class or above, it is difficult to distinguish whether the findings are a function of racial differences, social class differences, or some combination of both. Therefore, future research should conduct targeted sampling of African Americans students from more

affluent backgrounds and White students from less affluent backgrounds to better understand how both race and social class impact students' adjustment to college.

A final limitation was that the study was cross-sectional, and therefore I am not able to determine causality. The cross-sectional nature of this study means that I cannot rule out that students may experience academic and psychological difficulties within the college context which then leads to less social class pride and more social class shame and guilt. While it is likely a reciprocal process, longitudinal studies would allow for the examination of how students' social class identity beliefs upon entering college predict subsequent psychological and academic outcomes, as well as how students' social class identity may change during their college career.

Future Research Directions. More research is needed to further develop a framework for understanding social class identity within the college context and to validate measures. The framework should include individuals' perception of their own social class status as well as the significance and meaning attached to their social class group membership. The framework should be able to describe the relationships between dimensions and how the dimensions interact to impact students' psychological and academic outcomes. The framework also should be able to explain outcomes for individuals from varying racial and socioeconomic backgrounds. The current dissertation was a step toward developing such a framework. The next steps in developing the framework include further examining the content of students' social class identity. Work is needed to develop dimensions that are not currently represented in the model. For example, individuals' beliefs around others' perceptions about their social class group is likely an important aspect of social class identity as well as the perceived traits and characteristics associated with one's self-identified social class group.

As the framework develops, the measure should also continue to develop and be validated. As previously noted, the current version of social class guilt items did not distinguish the referent group (i.e., others within the college community, others from your home community). As such, it is not clear who or what is the point of reference for students' feelings of social class guilt. This distinction is conceptually important in understanding how and why social class guilt relates to students' college adjustment outcomes. In addition to refining social class identity guilt items, additional items are needed for each social class identity dimension, in order to create a more valid and reliable measure of social class identity.

This study has confirmed that multiple dimensions of social class identity were associated with psychological and academic outcomes. Longitudinal research is needed to determine the directionality of effects and the strength of effects over time. Finally, my work focused on particular psychological and academic outcomes. However, future work might consider other outcomes, such as student engagement or perceptions of the college environment, or other processes.

Conclusion

This dissertation highlighted the importance of examining the psychological experience of social class in predicting students' psychological and academic outcomes. This dissertation also supported a multidimensional framework for examining social class identity within the college context. While the findings are in-line with existing research examining the impact of social class on students' adjustment to college, this work provides a useful framework and measure for assessing social class identity among college students. Furthermore, this work demonstrates that students from similar socioeconomic backgrounds can vary in their social class identity, and that this variation is predictive of students' psychological and academic outcomes.

Additionally, this work highlights the importance of examining how different aspects of social class identity may differentially relate to students' psychological and academic outcomes as a function of race. Understanding the meaning and significance of social class to an individual provides a better understanding of how social class impacts individual's life outcomes.

Appendix A

Social Class Identity Measure

IDENTIFICATION ITEM:

If you had to describe your social class background, you would describe it as:

- poor
- working class
- lower middle class
- middle class
- upper middle class
- upper class

Please consider your social class background. Please read each statement carefully, and respond by using the following scale from 1 (strongly disagree) to 7 (strongly agree).

Centrality Items

1. I have a lot in common with other [*selected social class group*] students.
2. Coming from a(n) [*selected social class group*] background is important to my sense of what kind of person I am.
3. Whenever possible, I prefer to hang out with other students from a(n) [*selected social class group*] background.
4. If I were to describe myself to someone, I would probably say that I'm from a(n) [*selected social class group*] background.
5. I don't feel connected to other students with a(n) [*selected social class group*] background.*#
6. Overall, being [*selected social class group*] has very little to do with how I feel about myself.*#
7. In general, coming from a(n) [*selected social class group*] background is an important part of my self-image.

Pride Items

1. I feel a sense of pride because of my [*selected social class group*] background.
2. I feel good about my [*selected social class group*] background.
3. I am unhappy that I come from a(n) [*selected social class group*] background.*^

Shame Items

1. At times, I try to hide the fact that I am [*selected social class group*].

2. I wish I was from a different social class background.
3. I sometimes feel embarrassed that I come from a(n) [*selected social class group*] background.
4. I am not ashamed of my social class background.*

Guilt Items

1. Sometimes, I feel guilty that others have not been as fortunate as I have been.
2. I rarely feel guilty for the opportunities I have had.*#
3. I fear that others may perceive me as “thinking I am better.”

Note: Items marked with an asterisk (*) were reversed coded. Items marked with a pound sign (#) were not included in analyses after conducting confirmatory factor analyses. The item marked with a circumflex accent (^) was ultimately scored as a shame item.

Appendix B
Measures of Academic and Psychological Outcomes

Academic Satisfaction

Scale of 1 (Very unsatisfied) to 5 (Very Satisfied)

1. Overall, how satisfied are you with your academic performance so far?
2. Overall, how satisfied are you with the courses you have taken so far?
3. Overall, how satisfied are you with your interactions with professors, in and out of class?
4. Overall, how satisfied are you with your social life at your university?
5. Overall, how satisfied are you with your interactions with other students at your university?
6. Overall, how satisfied are you with your overall college experience?

Academic Engagement Measure

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

Scale of 1 (Not True of Me at All) to 5 (Very True of Me)

Curiosity Subscale:

1. I participate when we discuss new material.
2. The first time my professors talk about a new topic, I listen very carefully.
3. My mind wanders when my professor starts a new topic.*
4. I never seem to pay attention when we begin a new subject.*

Cognitive Engagement Subscale:

1. I work hard when we start something new in class.
2. If I don't understand something I read for class, I go back and read it over again.
3. When reading for class, I ask myself questions to make sure I understand what it is about.
4. I study at home even when I don't have a test.
5. I talk with people outside of class about what I am learning in my classes.
6. I often read or do work beyond required assignments to learn more about topics from my classes.

Persistence Subscale:

1. When I run into a difficult question, I try even harder.

2. If I do badly on a test or assignment, I work harder next time.
3. When I come to a problem that I can't solve right away, I tend to give up.*
4. If I can't get a problem right the first time, I just keep trying.

Note: Items marked with an asterisk (*) were reversed coded.

Academic Affect Measure

In your college experience over the past year, how often did you feel:

Scale of 1 (Almost Never) to 5 (Very Often)

Positive Academic Affect Subscale:

1. Interested in your academic subjects?
2. Confident you could master the material in your courses?
3. Excited about what you were learning?
4. Pride in your academic performance?
5. Committed to your academic goals?

Uncertainty about Persisting Subscale:

1. Uncertainty about continuing your college education?
2. Like changing your major or intended major?
3. Like dropping out of college?

Doubts around Ability Subscale:

1. Apprehensive about taking certain courses because they were too difficult?
2. Discouraged about your academic performance?

Ryff Psychological Well-Being Measure (PWB)

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

Scale of 1 (Strongly Disagree) to 6 (Strongly Agree)

Positive Relations with Others Subscale:

1. I often feel lonely because I have few close friends.*
2. I feel like I get a lot out of my friendships.
3. I find it difficult to really open up when I talk with others.*

Autonomy Subscale:

1. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.
2. My decisions are not usually influenced by what everyone else is doing.
3. I tend to worry about what other people think of me.*

4. I often change my mind about decisions if my friends or family disagree.*

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.*

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.

Purpose in Life Subscale:

1. I have a sense of direction and purpose in life.
2. I don't have a good sense of what I'm trying to accomplish in life.*
3. I enjoy making plans for the future and working to make them happen.

Note: Items marked with an asterisk (*) were reversed coded.

Kessler Psychological Distress Scale

Scale of 1 (None of the time) to 5 (All of the time)

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?

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