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The Relationship between Racial Identity and the Socialization of Black Ph.D. Students at Predominantly White Institutions

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To the Graduate Council:

I am submitting herewith a dissertation written by Ferlin Garbe McGaskey entitled "The Relationship between Racial Identity and the Socialization of Black Ph.D. Students at Predominantly White Institutions." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Higher Education Administration.

Margaret W. Sallee, Major Professor

We have read this dissertation and recommend its acceptance:

Norma T. Mertz, J. Camille Hall, Rob Hardin

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

To the Graduate Council:

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The Relationship between Racial Identity and the Socialization of Black Ph.D. Students at Predominantly White Institutions

A Dissertation Presented for
the Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Ferlin Garbe McGaskey
August 2011

Dedication

To my dear, sweet, grandparents, Atlas Helaire, Lucinda Helaire, Dennis McGaskey, and Dorothy McGaskey and my surrogate grandmother, Estella Sams: Each of you, in your own special way have had and will continue to have an impact on my life. You were not here physically throughout the entire journey, but I felt your presence with me when I needed you. I aspire to live as you did: with humility, faith, charity, and dignity. I will always cherish you.

To my loving parents, Willie McGaskey and Essie McGaskey: There are no words to express my love and gratitude for you. I did not necessary followed the prescribed path to get here. There have been a number of detours. I cannot imagine how much worry that might have caused and how many prayers you prayed for me. It is a testament to your faithfulness to God that He has always answered your prayers and has kept me through this process. Thank you for never giving up on me.

To my sister, Sylvia Benson: I don't know what to say except thank you for letting me be me. I know it has not been easy having a brother like me, yet you always come through when I needed you. I want you to know that whatever you want in your life, you can have it. Dream the big dream and believe it can come true. It is yours to have if you want it.

To my nieces, Brittany Clay and Brooke Smith and my nephew, Christopher Benson: You did not have the uncle you should have had. I was always away doing my own thing. Yet you have always shown great love and care for me. It means the world. I love you so much and pray all God's blessings upon you. Thank you for your patience and tolerance.

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As with all things in life, so many individuals contribute in great and small ways. I am so grateful to everyone for whatever you have done. I am here because of you. If your name was not mentioned here, charge it to my head and not my heart. To all of you, a big THANK YOU!

Abstract

Successful graduate student socialization has been characterized as the acceptance and adoption of disciplinary values and beliefs into the students' identity (Bragg, 1976; Weidman, Twale, & Stein, 2001). Some scholars assert that assimilating the values and beliefs of the discipline may be difficult for Blacks students as their cultural beliefs and values may be incongruent (Antony, 2002; Tierney & Rhoads, 1994). Surprisingly, there appears to be no empirical studies exploring this assertion for Black Ph.D. students. The purpose of this study was to determine if cultural beliefs and values influence the socialization experiences of Black Ph.D. students. Specifically, using racial identity as a theoretical framework, hierarchical regression analysis was used to examine the relationship between racial identity and socialization (as measured by faculty-student interactions, peer-peer interactions, and student's perceptions of faculty) of Black Ph.D. students at predominantly White institutions (PWIs).

Data were collected from 389 current Ph.D. students and recent completers. Racial identity was assessed using the Multidimensional Inventory of Black Identity (Sellers, Smith, Shelton, Rowley, & Chavous, 1998). After controlling for key demographic variables, results indicated racial identity influenced some aspects of socialization. Specifically, public regard was positively related to faculty-student interaction as well as students' perception of faculty. Racial centrality and ascribing to a humanist ideology were also positively related to students' perception of faculty. Finally, ascribing to a nationalist ideology was inversely related to peer-peer interactions.

The findings indicate that cultural beliefs and values do influence the socialization experience. Moreover, the results reveal a potential rationale for the possible differences in

socialization among Black Ph.D. students. Specifically, differences in racial identity attitudes and beliefs influence the behavior of students and thus their socialization experience. Overall, the findings suggest that faculty and students in Ph.D. programs at PWI institutions might develop socialization practices that take into consideration cultural differences. Specific recommendations include: forming a mentoring/advising partnership with student to determine the most relevant plan for socialization into the student's desired roles and using pedagogies and practices such as collaborative learning and wise schooling that are culturally relevant and supportive.

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Chapter 1: Introduction

Since the passage of Title VI of the Civil Rights Act of 1964, which prohibited

discrimination based on race, color, or national origin for any institution that received federal

financial assistance, tremendous progress has been made in Black student participation in

doctoral education. For example, in the academic year 1976 -77, 1253 Blacks received doctoral

degrees. By the academic year 2005-06, 3122 Blacks received doctoral degrees (National Center

for Educational Statistics [NCES], 2007). In addition, Blacks are receiving an increasing share of

the doctoral degrees conferred each year. In 1977, Blacks received 3.8% of the total doctoral

degrees conferred in the United States. By 2006, Blacks received 5.6% of the total doctoral

degrees awarded (NCES, 2007).

Despite these noteworthy accomplishments, Black doctoral students, including Ph.D.

students still face a number of challenges. Black Ph.D.s are still underrepresented in the overall

Black population in comparison to White Ph.D.s and their corresponding population (United

States Census, 2004). In 2000, the proportion of Blacks Ph.D.s relative to the Black population in

the United States was .276% while the proportion of White Ph.D.s relative to the total White

population in the United States was .863%. This means there are proportionally fewer Black

Ph.D.s in the Black population than White Ph.D.s in the White population. Additionally, on

average, it takes Black Ph.D. students longer to graduate than most other ethnic groups in the

United States (Nettles & Millett, 2006). The average Black Ph.D. student takes 9.5 years to

complete the doctoral degree while White and Asian American doctoral students average 7.7

years to completion. Finally, Black Ph.D. students have a lower completion rate than other

groups (Nettles & Millett, 2006). Only 47% of Black Ph.D. students who began their program in

the academic year 1992-1993 had completed their degree by 2002 –2003 (NCES, 2005). In contrast, 51% of Hispanic Ph.D. students and 55% of White students had completed their degree over the same period (Nettles & Millett, 2006). It is because of these relatively dismal statistics that scholars continue to be concerned about Black Ph.D. students.

Researchers have proposed a number of explanations for the comparative differences in Black doctoral students' academic success. Scholars suggest factors hindering Black doctoral student progress include deficiencies in academic skills or preparedness (Council of Graduate Schools [CGS], 2004; Debord & Millner, 1990; Hall & Allen, 1983; Lovitts, 2001; Nettles, 1990), limited financial opportunities and resources (CGS, 2004; Glasnow, 2004; Lovitts, 2001; Nettles, 1990), as well as perceptions of campus climate (Allen, 1982; Ellis, 2001; Shears, Lewis & Furman, 2008). An additional explanation that has been posited by has been scholars is that the poor academic outcomes may be associated with the ineffective or unsuccessful socialization of students into their respective doctoral programs (CGS, 2004; Gardner, 2008; Golde, 2000). Moreover, a small number of researchers assert that the ineffective socialization that some students experience may be associated with their racial or ethnic identity (Antony, 2002). However, it does not appear that any researchers have sought to examine the specific role of racial identity in the socialization of Black Ph.D. students.

The theories of socialization and racial identity are integral in shaping and informing my study and research questions. Although I will provide a more detailed discussion of both theories in Chapter 2, I believe it is important to provide an overview of both theories at this time to create a roadmap for the study. Consequently, I will now outline the theory of socialization, paying particular attention to the role of values and beliefs in the process. I will then explore the

literature on Black doctoral student socialization and the possible effects of racially-related beliefs on the experience. I will then present racial identity as the theoretical framework guiding my study. Finally, I will offer the purpose, significance, and organization of the study.

Socialization and Racial Identity in Context

Researchers from multiple disciplines have used socialization to explain the process by which new members of societies, organizations, and social systems learn to assume various roles (Becker & Carper, 1956; Merton, Reader, & Kendall, 1957; Schein, 1978; Van Maanen & Schein, 1979). Socialization theorists contend every organization has its own culture with patterns of expected behavior, interactions, rules, and values that have developed over time. New members are provided with opportunities to learn the particular skills, values, norms, beliefs, and expectations associated with the organization as a whole and their role in the organization specifically as they interact with and learn from current members.

Since the mid-20th century, researchers have used theories of socialization to develop models to explain how graduate and professional students learn about and assume their roles as students and professionals (Antony, 2002; Bragg, 1976; Rosen & Bates, 1967; Weidman, Twale, & Stein, 2001). Researchers have found that there are common interactions through which doctoral students are socialized. They are faculty-student interactions, peer-peer interactions, interactions with faculty advisor, and mentor-mentee interactions. Furthermore, scholars believe there are two forces that shape the aforementioned interactions: departmental and student forces (Antony, 2002; Lindsay, 1988; Weidman et al., 2001). Departmental forces are influenced by aspects of the institution, discipline, and department. Institutional influences include historical ethnic makeup, Carnegie classification, the mission of the institution, and traditional practices

(Tierney & Rhoads, 1994). Discipline-specific influences include the discipline's values, traditions, beliefs, and practices (Tierney & Rhoads, 1994). Finally, departmental influences such as racial/ethnic/gender makeup of faculty, racial/ethnic/gender makeup of students, ideological and philosophical foundations, and the practices of the department also shape student socialization (Turner & Thompson, 1993). Student forces that influence socialization include the student's cultural values, beliefs, and practices, prior experiences, support networks, and personality (Turner & Thompson, 1993). Thus, a student from China, due to the cultural norm of deference to elders and authority figures might feel uncomfortable challenging older peers and professors in classroom discussions.

Scholars have suggested that the greater the similarities between the values and beliefs of the discipline and those of the student, the greater the potential for successful socialization; conversely, the greater the degree of incongruence between the norms of the discipline and the values and beliefs of the student, the more difficult the socialization process (Bragg, 1976; Rosen & Bates, 1967). Antony (2002) and Tierney and Rhoads (1994) have suggested that underrepresented groups such as Blacks may be more likely to experience incongruence between their personal values and beliefs and those of their academic discipline. The scholars assert that Blacks might hold culturally-related values that differ from those espoused and rewarded by their discipline. Researchers contend that often the values and beliefs of the discipline are based on the norms of the dominant culture (Tierney, 1999; Turner & Thompson, 1993). It has been suggested that when models of doctoral student socialization do not take into consideration the diversity of experiences and backgrounds of doctoral students and requires students to assume and adopt the

values and practices of the discipline, students with the greatest level of value incongruity will experience the most difficulty in the socialization process (Antony, 2002).

Although the research on the socialization of Black doctoral students is limited, existing research has yielded mixed results on the effect of race on socialization (Ellis, 2001; Nettles, 1990; Nettles & Millett, 2006). Using survey data based on the responses of (N= 9036) Ph.D. students from 21 geographically diverse institutions, Nettles and Millett (2006) discovered Black Ph.D. students reported lower rates of social interaction with faculty than all other groups including international students. The authors also found that Black Ph.D. students had more difficulty finding a mentor (particularly students in the sciences, technology, and engineering and math fields). However, they determined that there was no difference in peer interaction, academic interaction, and interaction with advisor for Black Ph.D. students in comparison to other groups. In a ethnographic study comparing the socialization experiences of African American and Caucasian doctoral students (N=60), Glasgow (2004), Black students reported lower levels of academic and social interaction with faculty and peers than White students did. Finally, in her mixed methods study of Black and White doctoral students and graduates (N=67), Ellis (2001) discovered that Black women had the greatest difficulty in several areas of adjustment including mentoring and advising, departmental climate, and satisfaction with the doctoral process. In contrast, Black males in Ellis's study had the highest level of satisfaction in all areas of adjustment of the groups studied.

In the aforementioned socialization studies, race was used as the distinguishing variable. There are a number of scholars who assert that using race, as a proxy for culturally-based beliefs is incorrect (Carter & Goodwin, 1994; Chavous, 2000; Chavous, Rivas, Green, & Helaire, 2002;

Helms, 1990). Carter and Goodwin (1994) stated, although "a person's race is commonly thought to be equivalent to racial identity… the assumption that racial identity is synonymous with one's race does not consider within group psychological variation as it relates to the psychological implication of race" (p. 292). In other words, using race as a proxy for race-based beliefs ignores the diversity of cultural experiences among Blacks and the varying importance and thus, influence of race in their lives. The aforementioned socialization studies, while examining the differences between Blacks and other racial groups, treat Black doctoral students as undifferentiated in cultural background, thereby failing to address the within group variation that may account for differences in the educational experiences of Black doctoral students. Chavous (2000) posited that a more relevant and useful approach to understanding the role of race in explaining educational outcomes for Black students is to examine racial identity attitudes.

There is a well-established body of literature regarding the effects of racial identity on the educational outcomes of Black students. The educational outcomes examined include: student involvement (Chavous, 2000), academic adjustment (Chavous et al., 2002), academic performance (Byrd & Chavous, 2009; Harper & Tuckman, 2006; Sellers, Chavous, & Cooke, 1998), academic engagement (Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008; Smalls, White, Chavous, & Sellers, 2007), and academic attainment (Chavous, Bernat, Schmeelk-Cone, Caldwell, Kohn-Wood, & Zimmerman, 2003). Findings from these studies indicate that a relationship exists between racial identity attitudes and several educational outcomes. For example, a study of (N=215) African American undergraduates attending a predominantly White institution (PWI), Chavous et al., (2002) found that the significance of race in a student's self-concept was related to students' academic satisfaction with in-class teacher interactions, peer

group experiences, grade performance, formal contact with teachers, study groups, and contact with teachers outside of class. Thus, the importance of race to the student's overall self-concept affected the-previously mentioned educational interactions and outcomes.

Although the previously indicated research provides evidence of relationships between racial identity attitudes and various educational outcomes, it is important to note that the samples for these studies were drawn from middle school, high school, or undergraduate students. Thus, no definitive evidence exists that these relationships hold true for graduate students, specifically Ph.D. students. Moreover, there has been no research on the possible influence of racial identity attitudes on the socialization of Ph.D. students. As noted earlier, Tierney and Rhoads (1994) hypothesized that the greater the degree of cultural incongruity between the beliefs, values and norms of the organization and the individual who seeks to enter it, the greater the difficulty in socializing the individual to the organization. This supposition makes intuitive sense as related to the experiences of Black Ph.D. students, but there appears to be a lack of research in this area.

Theoretical Framework

The Multidimensional Model of Racial Identity (MMRI) provides the framework for this study (Sellers et al., 1997, 1998). The model's design allows researchers to examine two important aspects of Black racial identity: the importance of being Black and the meaning of being Black (Sellers et al.1998). In addition, the model is designed to explain how these two aspects ultimately affect the behavior of Blacks in given situations. The scholars who created the model assert that there are four distinct dimensions to Black racial identity: racial centrality, racial salience, racial regard, and racial ideology. *Racial centrality* is defined as the relevance of race in one's definition of self. An example of racial centrality is a Black gay disabled male

Ph.D. student who ranks his race first when asked to rank his identities in hierarchical order. Racial centrality is considered a stable construct. Hence, it is considered relatively constant across various situations and over time although it may change over the course of an individual's life.

Racial salience is the degree to which race may be an important identity in the individual's self-concept at a particular moment of time or in a given situation (Sellers et al., 1998). For example, while being Black may not be particularly salient for an individual sitting alone at home, if the individual was in the room full of Ku Klux Klan members, race might become salient. Both racial centrality and racial salience are measures of racial identity associated with the importance of race to an individual's self-concept (Seller et al., 1998).

Racial regard has two components: private regard and public regard. Private regard refers to the extent to which an individual feels positively or negatively about being a member of the Black race. Public regard refers to how the individual believes members of other races feel about the Black race. For many Black Ph.D. students who have some understanding of the history of race in the United States, the accomplishments of the Black race might make them proud (high private regard); however, they might not think other racial groups have positive feelings about the Black race (low public regard).

Racial ideology is defined as how an individual believes the race should act in terms of political and economic development, social and cultural activities, and interpersonal relations. Sellers et al. (1998) indicated there are four ideological philosophies an individual might hold: *nationalist, oppressed minority, assimilationist, and humanist*. A Black Ph.D. student holding a nationalist ideology believes that Blacks in the United States have a unique experience from

other groups. Furthermore, given this distinctive experience, nationalists assert that Blacks should create an insular community; controlling their political and social institutions with little interference from outside groups (Sellers, et al., 1998). A Black Ph.D. student holding strong nationalist beliefs might feel that only Blacks should conduct research related to Blacks and thus would be reluctant to work with or socialize regularly with any group other than Blacks. In contrast, a Black assimilationist is defined by his or her national identity (Seller et al., 1998). Such an individual aspires to be associated with activities valued by the dominant national culture. Thus, a Black Ph.D. student, who is an assimilationist, might shy away from situations where racial differences are highlighted. Hence, such an individual may well be more comfortable with those who hold the beliefs and values of the dominant culture. An assimilationist in contrast with a nationalist is more likely to socialize formally and informally with Whites.

Those ascribing to an oppressed minority ideology believe that all people who have been oppressed by the dominant culture have a common experience. Therefore, it is the belief of an individual with this ideological point of view that people from oppressed groups can and should work together. Thus, a Black Ph.D. student who has adopted an oppressed minority ideology might be interested in working with others minorities on issues related to oppressed people.

Finally, the humanist sees similarities in all people. The Black Ph.D. student who espouses humanist beliefs might seeks to work on research that addresses issues that affect all people regardless of cultural background and would be willing to work with individuals across all racial categories. Both racial regard and ideology are dimensions that reflect the individual's conceptualization of what membership in the Black race means.

Sellers et al. (1998) indicated that these four components of racial identity interact in very specific ways to affect an individual's behavior. Racial centrality will have an effect on racial regard and ideology to the degree that race is central to the individual's self-concept. According to Sellers et al. (1998), when race is central and thus important to an individual's self-concept racial identity attitudes and beliefs become relevant. The individual will use his or her racial identity attitudes to understand the world. For example, if a Black Ph.D. student for whom race is central is not recognized by a White professor in class, the student's attitudes, and beliefs with respect to racial regard and racial ideology will be drawn upon to understand the reason for not being recognized. If the student believes that other races view the Black race negatively, then the situation may be perceived as being racially motivated.

Racial salience as a dimension becomes relevant when a situation causes race to become important. Sellers et al. (1998) asserted that there can be situation and occurrences that will cause race to become a salient and important identity for an individual who previous did not perceive race. Therefore, race may become salient to a Black doctoral student working with a team of White students who shares an idea that is ultimately credited to a White student. Once race is salient, attitudes associated with the individual's personal understanding of what being Black means in society becomes relevant. Thus, for example, if the student believes that others do not value members of the Black race, the incident might be viewed as an act of racism.

The MMRI is the first model of racial identity that specifically explains how the racial beliefs of the individual impacts behavior in a given situation. Such a model allows researchers to explicitly examine the role racial beliefs and attitudes have on various outcomes including those related to academia (Byrd & Chavous, 2009; Chavous, 2000; Chavous et al., 2003;

Chavous et al., 2002; Chavous et al., 2008; Harper & Tuckman, 2006; Sellers et al., 1998; Smalls et al., 2007). Thus, the MMRI would appear to be a useful framework to examine the validity of the claim by of scholars who suggest that cultural beliefs and values may influence the academic socialization of Blacks (Antony, 2002; Tierney & Rhoads 1994).

Problem Statement

Scholars have established that socialization is vital for doctoral students, providing them with the necessary skills associated with an advanced degree and conveying the mores, values, beliefs, and expectations of the discipline (Antony, 2002; Bragg, 1976; Rosen & Bates, 1967; Weidman et al., 2001). Furthermore, research indicates Black doctoral students have a number of academically related challenges that appear closely linked to poor socialization (NCES, 2005; Nettles & Millett, 2006; United States Census Bureau, 2004). Research on the socialization of Black doctoral students has generally treated Blacks as an undifferentiated group, ignoring variation in racial beliefs and values within the group that may contribute to differences in the individual's experience and level of success (Ellis, 2001 Glasgow, 2005; Nettles, 1990; Nettles & Millett, 2006). The MMRI allows for the examination of within-group differences in racial identity. There is evidence that racial identity attitudes matter in the educational outcomes of high school and undergraduate Black students (Byrd & Chavous, 2009; Chavous, 2000; Chavous et al., 2003; Chavous et al., 2002; Chavous et al., 2008; Harper & Tuckman, 2006; Sellers et al., 1998; Smalls et al., 2007). However, there appears to be no research examining the possible effects of racial identity on the socialization of Black Ph.D. students.

Purpose of Study and Research Questions

The literature on graduate student socialization, the postsecondary educational experiences of Black students, and the theory of racial identity suggests the existence of a relationship between the racial identity of Black Ph.D. students attending PWIs and their socialization. The purpose of this study is to determine whether this relationship exists. The following research questions will be addressed:

1. What are the socialization experiences of Black Ph.D. students attending PWIs?

2. What are the racial identity attitudes and beliefs of Black Ph.D. students attending PWIs?

3. What is the relationship between the racial identity and the socialization experiences of Black Ph.D. students attending PWIs?

Significance of Study

Although there has been a significant increase in the number of Black students pursuing doctoral degrees, a number of significant gaps in achievement exist in comparison to other ethnic racial groups (NCES, 2005; Nettles & Millett, 2006; United States Census Bureau, 2004). While researchers have examined a number of factors that might contribute to the challenges faced by Black doctoral students (Allen, 1982; CGS), 2004; Debord & Millner, 1990; Ellis, 2001; Glasgow, 2004; Hall & Allen, 1983; Lovitts, 2001; Nettles, 1990; Shears et al., 2008), few researchers have examined the challenges Black doctoral students face related to being socialized into their programs and disciplines (Ellis, 2001; Taylor & Antony, 2000). Moreover, researchers have generally failed to make any distinction among Blacks and their experience. Hence, in most cases with the exception of gender (Ellis, 2001) or discipline (Nettles & Millett, 2006); Black doctoral students are treated as a monolithic whole. There appears to be no study that examines

the within-group differences among Blacks doctoral students concerning their racial identity and the possible relationship with socialization.

A study investigating the possible relationship between racial identity and the socialization experience of Black Ph.D. students could potentially reveal an additional factor that affects the Ph.D. experiences of Black students. This information could then be used to aid institutions and departments in the development of culturally sensitive and relevant programs, procedures, and processes that might lead to socialization that is more effective. This would undoubtedly contribute to increased retention and graduation of Black students. In addition, the results of this study will help Black Ph.D. students to understand how their racial identity affects their educational outcomes, thus providing students with additional information to consider when deciding on a Ph.D. program.

This study adds to both the graduate student socialization literature and the racial identity literature. Researchers have not examined the relationship between racial identity attitudes and socialization into an academic discipline. In fact, there does not appear to be any literature on the relationship between racial identity attitudes as defined by the MMRI and socialization into any organization.

Using racial identity rather than race as the explanatory variable allows for the examination of within group differences between Black Ph.D. students based on the significance and meaning an individual places on race. Thus, Black students are no longer treated as a unitary group. Race may be central to some Black Ph.D. students' identity and thus influence their perceptions of situations and their behavior. For other Black students, however, another identity may be central to their self-concept and thus will inform their perceptions and behaviors. Each

contribution will only enhance scholars' understanding of the Ph.D. experience for Black students.

Organization of Study

The study is organized into five chapters. Chapter 1 was an introduction of the study. In Chapter 2, I will review the relevant literature as well discuss the theoretical framework in more detail. I will discuss the methodological approach and procedures used to investigate the central problem of the study and to answer the research questions in Chapter 3. In Chapter 4, I will present the findings of the study. Finally, in Chapter 5, I will conclude by analyzing and discussing the findings of the study and making appropriate policy recommendations. In addition, Chapter 5 will include suggestions for future areas of research.

Chapter 2: Review of Literature

How is a Black Ph.D. student's racial identity related to socialization? As posited by Antony (2002), Taylor and Antony (2000), and Tierney and Rhoads (1994), when a student's cultural values and beliefs do not align with those of the discipline, socialization may be more difficult. In order to address the question, I consider two bodies of literature. First, I begin with a discussion of the socialization literature with a particular focus on graduate student socialization. The goal is to present the scholars' view of the process and purpose of socialization, and how students with incongruent beliefs might experience socialization. I then present an overview of the literature on racial identity discussing how scholars define racial identity, comparing theories of racial identity, and reviewing the research on the effects of racial identity on academic outcomes.

Definition of Socialization

A review of the literature reveals that scholars differ in their conceptualization of socialization of doctoral students. Although some theorists assume that students enter doctoral studies with a willingness to learn, accept, and adopt the existing beliefs and practices of the discipline (Bragg, 1976; Rosen & Bates, 1967; Weidman, Twale, & Stein., 2001), other theorists believe that students and those within the discipline together define the relevant beliefs and values that will inform how the student will practice a given role in the discipline (Antony, 2002). In the following section, I will provide the general definition of socialization. Then I will explore the conceptual differences in socialization posited by theorists of graduate student socialization. The discussion concludes by reviewing criticism scholars have levied against socialization.

Scholars define socialization as the acquisition of the knowledge, skills, values, attitudes, beliefs, and habits necessary to fill a particular role in a specific organizational culture (Bess, 1978; Bragg, 1976; Merton, Reader, & Kendall, 1957; Van Maanen & Schein, 1979). Within an organization, there are patterns of action, behaviors, and values that are perceived as fundamental to its effective functioning. As new members join the organization, incumbent members transmit these shared norms in formal and informal ways (Antony, 2002; Baird, 1992; Bragg, 1976; Tierney & Rhoads, 1994; Van Maanen & Schein, 1979; Weidman et al., 2001). So, a new employee of one corporation might formally learn about the dress code by reading about it in the employee's handbook, while a newcomer in another organization might informally learn the appropriate way to dress by observing senior employees.

Throughout the 20th century, scholars have developed a number of socialization models. Although many are general models of organizational socialization (Feldman, 1976; Schein, 1978; Van Maanen, 1976), researchers from various organizational types have developed frameworks specific to their concern. For example, higher education scholars have constructed models to address the unique experience of graduate students and faculty in academe (Baird, 1992; Bragg, 1976; Tierney & Rhoads, 1994; Weidman et al., 2001). An analysis of academic socialization models reveals differences in how theorists conceptualize socialization, interactions between the actors involved, and the goal of socialization.

Early models of doctoral student socialization characterized the process as unidirectional and linear (Baird, 1992; Bragg, 1976; Rosen & Bates, 1967). Derived from the work of Durkheim (1984), Merton, (1957), and Parsons (1954), an underlying assumption of such models is that the culture of the discipline is relatively fixed, stable, and efficient (Tierney, 1997). In

addition, theorists posit that students enter their program ready to learn and accept the guiding principles and practices of the discipline (Bragg 1976; Rosen & Bates, 1967). Socializing agents such as faculty and other students are able to communicate to new students the specific norms, practices, and values associated with the field of study. The means by which these agents convey the norms of the discipline include classroom and laboratory instruction and assignments, formal and informal meetings, and a systematic increase in discipline-related tasks and responsibilities (Bragg). In addition, new students are expected to assimilate into the field, adopting the norms as their own in order to be successful. Consequently, the discipline, through its members in academic departments can apply a relatively standardized socialization process that ostensibly prepares students to fill roles in the discipline (Bragg 1976; Rosen & Bates, 1967).

Contemporary scholars of academic socialization (Antony, 2002; Tierney, 1997; Tierney & Rhoads, 1994) have raised questions regarding three assumptions of the previously discussed models. According to Tierney (1997), it is incorrect to assume "(a) … socialization is a process where people acquire knowledge, (b) socialization is viewed as a one-way process in which the initiate learns how the organization works, and (c) socialization is little more than a series of planned learning activities" (p. 5). Antony (2002), Tierney (1997), and others have asserted that the culture of the discipline is not as static as posited by the early scholars of academic socialization. They contend that individuals are not empty vessel waiting to be filled with the knowledge of their field of study and that socialization is a flexible process that not only is informed by the norms and practices of the discipline, but also is dependent upon the particular background, experiences, and values of the student.

Both Antony (2002) and Tierney (1997) have suggested that though those in academia must learn about the values and practices of the discipline, they also enter their programs with knowledge, ideas, and values of their own that they wish to contribute to the culture of the discipline. As students and faculty come together, they mutual share their respective knowledge. The interaction between the knowledge that currently exists in the organization and the knowledge the student brings can foster the creation of new knowledge. The process changes the organizational culture and thus makes room for individuals to create a role in the discipline that is personally meaningful and relevant.

Antony (2002) and Tierney (1997) suggest that in graduate student socialization, both the student and incumbent members of the program have knowledge to contribute. For new knowledge to be created, the parties must interact. So rather than socialization being thought of as unidirectional process, socialization may best be thought of as a bi-directional interaction between the new entrant and the incumbent members acting as socializing agents (Tierney, 1997). Socializing agents do not simply transmit immutable knowledge, but participate in a process where knowledge flows between the new entrant and the socializing agent such that new knowledge and understanding is mutually built (Tierney, 1997).

Finally, the unique backgrounds and experiences students bring to their graduate programs, the varying goals they wish to attain, and the different roles they wish to fill, make a uniform approach towards socialization an ineffective approach (Tierney, 1997). In any given Ph.D. program, students will have a range of previous experiences, cultural backgrounds, goals, values, and beliefs. Studies suggests that when faculty and advisors take such factors into consideration when socializing students into the discipline, students feel a greater sense of

connection to the field and report more positive outcomes. For example, Taylor and Antony, (2000) in their qualitative study of (N=12) Black doctoral students in education found that when faculty cultivated supportive relationships and created an environment where multiple perspectives were respected and valued, students reported being satisfied with their doctoral experience and indicated that the aforementioned actions contributed to their identification with role of faculty member. Gonzalez (2006) discovered that Latina doctoral students who were socialized in environments that supported their cultural identities felt less conflict and cited having a positive graduate experience. These two studies suggest that the model of socialization posited by Tierney (1997) and Tierney and Rhoads (1994) would allow students of color to identify with both their current role as student and future role as a professional in the discipline while maintaining important cultural values and beliefs.

The previous section reveals that there are two schools of thought regarding the doctoral student socialization process. Aspects of both schools of thought are reflected in the models of graduate student socialization. A detailed discussion of representative models of socialization is necessary to demonstrate how the assumptions related to the two schools of thought are incorporated into a specific model of socialization. This is likely to reveal the points at which certain assumptions become problematic to Black Ph.D. students. I will now proceed with an examination of three representative models and discuss various points of comparison.

Models of Graduate Student Socialization

As mentioned in the previous section, scholars differ in their conceptualization of academic socialization. Early theorists viewed socialization as a static process while later scholars see it an adaptive. However, a common characteristic of all socialization models is that

socialization occurs in stages. In this section, I will analyze three models of graduate and professional student socialization: Bragg's (1976), Baird's (1992) and Weidman's et al. (2001). A summary of the stages of these models and the tasks that the individual must accomplish during each stage are reflected in Table 1. A detailed discussion of the differences and similarities between these models and the points at which Black students might experience value and belief incongruence follows.

Table 1: Three Models of Doctoral & Professional Student Socialization

Authors	Pre-Entry	Entry	Ongoing	Commitment
Bragg (1976)	Selection: Students are judged by faculty to determine if they have the perceived requisite characteristics and motivations necessary to be successful.	Entry: Upon entry, students are subjected to a weeding out process, engaging in various tasks to ascertain their competence and attitude. Students also begin to assess commitment and ability. Additional responsibilities are given as students prove themselves		Assimilation: Students are to adopt and integrate the norms of the field into their self-image.
Baird (1992)		Beginning: Students enter with a feeling of incompetence in comparison to idealized perception of faculty.	Mid-course: Growing sense of mastery of skills and knowledge necessary for success. Increasingly gain new knowledge through informal sources	Advanced: Students are encouraged to adopt the academic values of the discipline. In addition, there is an increased focus on research related task and acting autonomously.
Weidman, Twale, and Stein (2001)	Anticipatory: Student learns what it means to be a student in the discipline.	Formal: Begins upon entry into program. Student begin to receives instruction required for future role and a more realistic view of what is required to be both a student and future faculty. Informal: Individual Learns about the informal norms and practices associated with faculty life.		Personal: Any incompatibility between personally held beliefs and those associated with the professional role must be resolved. This resolution requires giving up personal values and adopting those of the field.

Pre-Entry Stage

There is an ongoing debate regarding when socialization begins for doctoral students. Although Weidman et al. (2001) stated socialization begins when graduate study becomes a viable option for a student, others would argue socialization begins when a student is selected and admitted into a program (Bragg, 1976) or as a student begins graduate studies (Baird, 1992). In anticipatory socialization, before students enters a specific program, they will draw on a number of sources to develop an idea of the knowledge, skills, values, and attitudes that are necessary to perform the role to which they aspire before they enter a specific program (Weidman et al., 2001).

Students often base their understanding of what is required of them in graduate school on interactions with former professors as well as former and current graduate students. In addition, students may also based their assumption regarding graduate school on media sources such as books, television, or any printed material from a given program. (Bess, 1975; Tierney & Rhoads, 1994). Finally, interactions with the faculty and students in the prospective program can also contribute to expectations of the student role in the discipline.

Depending on the source of information, students may form inaccurate expectations about the graduate student experience and their role as a student. For example, students frequently acquire information about graduate school from indirect sources. This increases the potential that expectations will be incongruent with the realities of the given role. A current professor, who finished a program even a decade ago, may not have accurate information about

the current expectation of graduate students. Graduate students in different programs or from different institutions also may not be able to prepare a student for a particular program.

In addition, institutional experience prior to entering a doctoral program may create an expectation that is incongruent with the particular program. For example, faculty at Historically Black Colleges and Universities (HBCUs) and small liberal arts institutions traditionally focus their attention on teaching and service. Students who attended such institutions may find the primary emphasis on research in most doctoral programs to be inconsistent with their expectations, values, and goals. This incongruence in expectations at the beginning of graduate studies might be the first of many to come as the student proceeds through the program.

Entry Stage

At the entry stage of socialization, the student has been admitted to the program. Instead of relying on indirect sources of information such as the media or former instructors, students may now directly interact and observe both faculty and other students. This provides the student the opportunity to ascertain what is expected of a successful student more accurately.

According to scholars, during the entry stage, students will experience both formal and informal socialization (Baird, 1992; Bragg, 1976; Weidman et al., 2001). Formal socialization is characterized by official and structured interactions with faculty and advanced students. Classroom instruction is an example of formal socialization. These interactions with those in the discipline are relatively fixed and prescribed and provide limited insight into the variety of aspects associated with a professional role.

With informal socialization, students interact in more unstructured and casual ways with faculty and fellow students and are able to develop interpersonal relationships with peers,

advanced students, and faculty in the program (Weidman et al., 2001). Such relationships yield information on informal expectations and values associated with the discipline. Informal socialization allows students to gain a more complete picture of the role of a faculty member as they "receive behavioral clues, observe acceptable behavior, and, it is hoped, respond and react accordingly" (Weidman et al., 2001, p. 14).

Both formal and informal socialization cause students to become increasing aware of the discrepancies between their pre-entry ideas of the requirements necessary to be a successful in the discipline and the realities that exist. The degree to which incongruencies exists are likely to affect a student's perceived fit in the organization and may cause a reevaluation of commitment in the program (Weidman et al, 2001). A student may decide to modify his or her values and beliefs to align with those of the discipline; however, some students may determine that the incongruence is too great and decide to leave the program.

Commitment Stage

Debate continues regarding the definition of commitment to the organization. Bragg (1976), Rosen and Bates (1967), and Weidman et al., (2001) have asserted that students must resolve lingering conflicts between personal beliefs and values and those that are essential to the discipline. Specifically, success depends upon the assimilation of the discipline's values and norms into the professional identity of the student. Bragg (1976) indicated that future professionals cannot simply act as though they accept the values of the discipline, but must internalize them. Those who do not accept the values cannot be relied on to act in the best interest of the public or the discipline (Bragg, 1976).

Scholars have suggested that commitment may be troublesome for individuals of color if successful socialization is defined as assimilation (Antony, 2002; Tierney & Rhoads, 1994). Tierney (1999) stated that the assimilation approach to socialization forces some students to commit "cultural suicide" in order to fill the given role. In other words, students must give up cultural beliefs and values and adopt those of the discipline in order to be successful. In contrast, Antony (2002) and Tierney and Rhoads (1994) argued students need not abandon personal values and beliefs. They argue that culture is not static or fixed, but is evolving and mutually adaptive. The mutually adaptive nature of culture allows the individual to negotiate how a particular role in the discipline will be performed, taking into account both personal and discipline related values, beliefs, and practices. In addition, Antony (2002) stated that while there may be some practices and norms that must be accepted by individuals if they are to continue with the discipline, there are others that are not essential and therefore students should not be required to adopt. For instance, all disciplines require research to be conducted in a rigorous and ethical manner. If individuals wish to be successful researchers, they must accept and adopt this practice. However, while a given discipline may have traditionally valued a particular method or subject matter, a student should not be required to engage in traditional research in order to be successful. A Black, gay male student should be able to conduct research on Black gay males without being discourage from doing so. Scholars argue the failure to make explicit the difference between essential and nonessential norms and practices have adversely affected the doctoral experience of both women and students of color (Antony, 2002).

Although the aforementioned discussion gives a general picture of how students come to know the organization's values, I have yet to discuss the specifics mechanisms that facilitate the

identification with these values. Van Maanen and Schein (1979) determined that organizations employ several methods to socialize their new members. In addition, Weidman et al. (2001) indicate that there are three means by which the student contributes to the socialization experience. The discussion will now turn to the particular methods of socialization.

Methods of Socialization

In the previous section, I discussed the stages of doctoral socialization. Although understanding the general process by which a student comes to identify with relevant academic roles is important, it is also important to know the methods organizations use to socialize students and how students contribute to their own socialization. Van Maanen and Schein (1979) detailed six dimensions or tactics of organizational socialization used by organizations to facilitate newcomer's identification with a given role. The dimensional tactics are collective versus individual, formal versus informal, random versus sequential, fixed versus variable, serial versus disjunctive, and investiture versus divestiture. In addition, Weidman et al. (2001) asserted that there are three core elements in the process of student identification and commitment to a role: knowledge acquisition, investment, and involvement. I first discuss Van Maanen and Schein's (1979) six tactics followed by a discussion of the elements of the Weidman et al. (2001) model.

Collective versus Individual

Collective socialization occurs when individuals experience a common socialization process together. Individual socialization refers to new members entering the organization singly and experiencing socialization in isolation from other new members. Most academic disciplines employ collective socialization in the admission of their doctoral students. Students enter as a cohort and share a common educational experience (Bragg, 1976; Rosen & Bates, 1967). In

contrast, individual socialization is generally characteristic of faculty hiring in a given department (Tierney & Rhoads, 1994). The greatest benefit of collective socialization is creating a peer group (Van Maanen & Schein, 1979). This form of socialization creates consensus among its members, which constrains individual action that deviates from the norms of the group (Bragg, 1976; Van Maanen & Schein, 1979). In a study of Harvard MBA students, Orth (1963) found that peer groups developed group norms that regulated member behavior and assured the competence of most members. Specifically, the groups worked together to generate the correct or appropriate answers to problems posed by the faculty. This information was then disseminated among all members so that the majority would have the correct response. Thus, the members of the group relied on their peers more than the faculty. In contrast, with individual socialization, the individual is alone in the socialization process. A Ph.D. student in this circumstance will look to the advisor as a role model and for guidance. The nature of this relationship will determine whether socialization will be a relatively smooth process or an arduous one.

Formal versus Informal

Formal socialization refers to a regimen of prescribed activities intended to teach individuals the expectation of their role (Van Maanen & Schein, 1979). Newcomers are segregated from the larger organizational membership during this process. Informal socialization is related to a more haphazard approach of learning the requirements of the role. The newcomer does not experience any specialized training and is not segregated from other organization members. Ultimately, the novice is left to determine appropriate behavior through hands on experience or observation.

As I stated earlier, doctoral students experience both formal and informal socialization to the discipline. Formal socialization of doctoral students might include orientation sessions designed to relay the expectations of the department and aid students in navigating common processes related to the graduate student experience (Van Maanen & Schein, 1979). In addition, classroom instruction may also be thought of as an example of formal socialization. An example of informal socialization is graduate students who are assigned to teach a course with no formal training. Students are left to learn about teaching through a process of trial and error, independent research, and informal discussions with others who teach. According to Allan and Meyers, (1990), while both formal and informal tactics foster commitment from new members, formal socialization tends to develop new members who are more likely to maintain the culture of the organization while informal socialization creates more innovative new entrants.

Random versus Sequential

Random socialization occurs where the organization has no prescribed course to reach a desired goal (Van Maanen & Schein, 1979). The novice undergoing random socialization is unsure of the requirements necessary to progress to higher positions. In sequential socialization, the novice is given clearly defined consecutive steps to take to reach a given role.

Graduate students in most disciplines are well aware of the sequence of activities they must take in order to finish the degree. Course completion is followed by comprehensive or qualifying examinations. Passing these exams lead to the proposal stage and ultimately the completion and defense of the dissertation. Each step is seen as preparation for the next step (Rosen & Bates, 1967). In contrast, the tenure process might be considered a random socialization experience. Faculty may be unsure of the number of publications, the importance of

service, and the role teaching plays in attaining tenure (Tierney & Rhoads, 1994). Random

socialization is thought to create greater uneasiness and uncertainty than sequential socialization.

Fixed versus Variable

Fixed versus variable socialization refers to whether or not a timetable is put in place to

reach a particular goal (Van Maanen & Schein, 1979). Fixed socialization is associated with a

clear timetable to attaining the next goal whereas variable socialization is associated with an

indeterminate time limit. Although professional students usually follow more fixed timetables of

completion, in most doctoral programs the time to completion is variable, depending on the

student's progress (Bragg, 1976).

Serial versus Disjunctive

Serial socialization occurs when a senior member, acting as role model, prepares a novice

member to fulfill a role in an organization. Disjunctive socialization is associated with having no

mentor to facilitate understanding of the role (Van Maanen & Schein, 1979). Most models of

doctoral student socialization assume students experience a serial socialization process. New

students look to advanced students and faculty as examples of how to perform the role. Some

students secure sponsorship by faculty who may then act as role models. However, sponsorship

is often based on the sponsor's belief that the student is a good fit: both personally in terms of

temperance and motivation, as well as in terms of the discipline. Research has shown that

women and students of color may be more likely to experience disjunctive socialization

(Gonzalez, 2006; Turner & Thompson, 1993). Turner and Thompson (1993) found White male

faculty often did not view women of color doctoral students to be as committed to the discipline

as White women and thus did not form many mentor-mentee relationships with the population.

Investiture versus Divestiture

Investiture-related socialization is associated with the organization valuing the talent, skills, or experiences of the novice member. The individual's perceived talents and skills are such that the organization seeks to make use of the individual's abilities for the overall success of the organization (Van Maanen & Schein, 1979). An example of investiture socialization can be found in Taylor and Antony's (2000) study of African American students pursuing doctoral degrees in education. The researchers found that when students had optimistic advisors and other faculty who affirmed them intellectually, students were more likely to maintain their desire to pursue a faculty career.

Divestiture-related socialization is associated with transforming the individual. In this case, there is the assumption that the skills, values, beliefs, and practices of the novice member must be eliminated and replaced by those values and practices of the organization. Egan (1989) asserted divestiture is the socialization approach implemented in most doctoral programs. According to Egan (1989), graduate educators assume that the values, skills, and beliefs most students bring into the program are incongruent with those necessary to be successful professionals. Thus, using sanctions and rewards, faculty force students to abandon existing values, beliefs, or practices and adopt those taught and demonstrated by faculty (Antony, 2002; Bragg, 1976; Rosen & Bates, 1967).

Although Egan (1989) asserted that divestiture socialization is detrimental to all graduate students in that it treats past values and beliefs as deficient and incompatible with a professional identity, this approach may be particularly harmful to underrepresented groups for whom values and beliefs are tied to their cultural or racial backgrounds. Such students may see an attack on

their values and beliefs as an attack on their cultural background. For many of these students, divorcing themselves from cultural values is impossible and, as Antony (2002) & Tierney and Rhoads (1994) argued, may causes difficulties in socialization.

The dimensions of socialization focus on how organizations and their agents affect socialization. While this is an important component of socialization, it is also important to understand the new member's role in his or her socialization. Weidman et al. (2001) have asserted that to undertake an individual level analysis of socialization, the researcher must examine how students acquire knowledge as well as invest and become involved in the process. To that end, I will now discuss Weidman et al.'s (2001) three core elements of graduate student socialization.

Knowledge Acquisition

Students must gain sufficient knowledge and skills to perform their role in the discipline and execute the expected practices of the discipline (Weidman et al., 2001). Most activities related to graduate studies such as coursework, participation on research teams, delivering presentations, being asked to co-author articles with faculty members, and internships allow students to develop specific skills and knowledge necessary to address the issues of the field. In addition, opportunities to engage in professional activities are particularly useful in raising students' awareness of their capacity to fill professional roles. Teaching a class alone, conducting independent research, and being the sole presenter of a conference paper are activities that significantly contribute to identification with the role (Weidman et al., 2001).

Investment

To identify and commit to a role, an individual must be invested personally in the process (Weidman et al., 2001). The graduate student, throughout the stages of socialization, is faced with increasing opportunity costs related to the pursuit of the professional role. Initially, when considering graduate school, the student must give up pursuing other career and educational options to enter a particular discipline. Once the student is in a program, time is invested in gaining expertise in specialized topic areas that are nontransferable to other fields or professions. Some students commit to being mentored by a faculty member, thus creating an additional investment to meeting the expectations of their sponsor. These investments are said to lead to greater role identification and commitment to the profession (Antony, 2002).

Involvement

Involvement is the third core element and refers to "participation in some aspect of the professional role or in preparation for it" (Weidman et al., 2001, p. 18). As student involvement, theory suggests, becoming more involved in the activities related to the profession leads to greater identification and commitment to the professional role (Astin, 1984). Involvement with faculty and advanced students enlightens the student to the concerns, issues, and points of view of the profession (Weidman et al., 2001). Involvement in professional organizations also facilitates greater awareness of these aspects of the profession.

Any discussion of the elements of socialization would be incomplete without noting their interrelated nature. Participating on a research team is at once gaining knowledge related to how research is conducted, investing time to become a researcher versus teaching or other options, and being involved in a regular practice of the profession. Thus, it is difficult to examine their

individual effects on socialization. For example, while the primary focus of Gardner and Barnes' (2006) study was to explore student involvement of doctoral students in higher education, the authors noted that increased involvement in professional organizations facilitates a greater level of knowledge acquisition. In addition, the authors found that as students increased their identification with a particular career path, they chose to invest in those activities that would enhance their professional development in that area. For instance, those who saw themselves as future faculty chose to become involved in professional organizations that focus on research versus practice.

The purpose of the last section was to demonstrate that the socialization process is indeed a bi-directional process. Although the methods a department uses to socialize students have a significant impact on the process, the student is not a passive party. As Tierney (1997) stated, the student enters with beliefs and values that affect the process. Tierney and Rhoads's (1994) assertion for faculty suggests that culturally related beliefs and values may affect the student's ability and willingness the acquire knowledge, invest in the process, and become involved given the specific context.

Actors Who Affect Socialization

Researchers acknowledge that incumbent members of an organization have a significant effect on the socialization of newcomers (Bragg, 1976; Tierney & Rhoads, 1994; Van Maanen & Schein, 1979; Weidman et al., 2001). With all models of doctoral student socialization, faculty and fellow peers in the program are considered the most influential on the socialization process. , Additionally, Researchers have noted the impact of those outside the academic environment as contributing to socialization. Specifically, Weidman et al. (2001) and Sweitzer (2009) have noted

the impact of family and friends. I will now discuss the various roles these actors play and the influence they have on the doctoral student experience.

Faculty

Many scholars considered faculty to be the primary socializing agent for graduate students (Baird, 1992; Bragg, 1976; Rosen & Bates 1967). According to Bragg (1976), as socializing agents, faculty members, "transmit their attitudes, values, and behavioral norms both formally---through the structures they establish and through the courses they teach---and informally---through individual advising and supervising of study and through social activities" (pp. 19-20). Students learn what is expected of doctoral students and faculty members through these interactions. However, the degree to which students understand the requirements and adopt the normative dimensions of these roles is dependent on the level and kind of interaction with faculty (Gardner, 2007; Taylor & Antony, 2000). Although the majority of students report regular and positive relationships with faculty (Golde & Dore, 2001), a significant number of students report limited and less than collegial interactions with faculty as well as advisors (Austin, 2002; Gardner, 2007; Nyquist et al, 1999; Turner & Thompson, 1993). The frequency and quality of the interactions has been found to affect several graduate student outcomes including their desire to enter the profession, their progress through the program, and satisfaction. For example, Golde (2000) found that infrequent or troubled interactions with advisors caused doctoral students to discontinue their doctoral programs. Ellis (2001) found that for Black women, antagonistic relationships with advisors contributed to low satisfaction with the graduate experience. As these studies reveal, both the quantity and quality of time spent with faculty have an impact on socialization.

Graduate Student Peers

Like faculty, graduate student peers play an important role in the socialization process (Austin, 2002; Becker & Carper, 1956; Bragg, 1976, Gardner, 2007, Weidman et al., 2001). There are two categories of peers with whom students interact: advanced students and those who enter the program with the student. Advanced students can offer new students information on how to navigate the process. Bragg (1976) indicated that advanced students might give advice regarding potential courses, advisors, and how to navigate the process. Advanced students might also offer informal insight into the implicit norms and expectations to be encountered in the program. Gardner (2007) found that advanced students provided information regarding the expectations faculty had regarding hours worked in the lab as well as which faculty members provided a better work environment. Advanced students might also encourage greater identification with the profession. Becker and Carper (1956) found by sharing the possible career opportunities available to physiologists, advanced students in physiology made it easier for new students to give up their pursuit of a medical degree and begin to identify themselves as physiologists.

Fellow novice students offer a different kind of support. They may provide both formal and informal information and support to individuals who are at the same level. Peers at the same status in a program may form study groups. Such groups may agree upon standards of work output and behavior (Bragg, 196). They may also act as sounding boards and cheerleaders to encourage the success of all those who enter the program together (Austin, 2002). This evidence suggests that both fellow novices and advanced students offer important information that facilitates graduate student socialization that would not otherwise be communicated by faculty.

Family and Friends

In addition to faculty and peers, family and friends have been found to influence the socialization process (Austin, 2002; Ellis, 2001; Weidman et al., 2001). However, there is relatively little research on exactly how family and friends influences the process. In a study of students (N= 12) pursuing a Ph.D. in a highly ranked business program, their support network (N= 22), and faculty and administrators (N=15), Sweitzer (2009) found that business students whose family played a significant role in their graduate student support network experienced greater incongruence between the espoused goals of the program and their personal goals than students who relied on faculty and peers from the program for support. The author found that the messages communicated by family members were different from the messages expressed by those closely associated with the program. The messages from those in the program emphasized academic success to the exclusion of other responsibilities; whereas, the messages received by family emphasized creating balance between academic and personal roles as well as achieving personal success. Schwartz, Bower, Rice, and Washington (2003) found Black women pursuing graduate degrees, cited family as a significant source of support. The women in the study stated that it was family who encouraged them to attend graduate school.

Doctoral students have indicated that friends often provide a kind of support that faculty and peers in the discipline cannot. This may be particularly true of Black students would often are the only Black or one of few Blacks in a given program. Black students in Ellis' (2001) study (N=67) reported finding friends outside the discipline that offer support when it was lacking within the department. Lewis, Ginsberg, Davies, and Smith (2004) also found that Black doctoral students developed a network of friends on whom they relied to encourage and push one another

to succeed and complete their doctoral studies. Although specific research on the social support networks of doctoral students is limited that which exists indicates that friends meet a very important and specific type of support (Defour & Hirsch, 1990).

Criticisms of Graduate Student Socialization

Although the research using socialization as a framework to understand the doctoral student experience continues to grow (Gardner, 2007, 2008, 2010; Sallee, 2011; Sweitzer, 2009), some scholars raise questions regarding various aspects of the theory and its application (Antony, 2002; Bragg, 1976; Egan, 1989; Rosen & Bates, 1967; Tierney, 1997; Tierney & Rhoads, 1994). Specifically, critics are concerned with the benefits of socialization, the process of socialization, and the purpose of socialization. A discussion of these criticisms is a useful undertaking to which I will now turn.

Some researchers have suggested that the current methods of socialization do not adequately prepare doctoral students for the roles they will fill (Austin, 2002; Nyquist et al., 1999). Austin (2002) indicated that the structure of higher education has changed with an increasing emphasis on research productivity, attaining definitive learning outcomes, and improving teaching all while facing of increasing financial constraints. While many students desire a career in the professoriate, Austin (2002) found students were not adequately socialized for many aspects of such a career. For example, Ph.D. students who wished to gain teaching experience were not always provided with such training. When students did teach, a systematic program of feedback, mentoring, and development was rarely in place. More often than not, students were socialized to the idea that research was valued but teaching was not (Nyquist et al 1999). In addition, students were not prepared for the other aspects of a faculty career. Beyond

teaching and research, students had little comprehension of faculty responsibilities to the institution and the community (Austin, 2002).

Critics also show concern about the process of socialization. Specifically, some scholars have suggested that socialization lacks a clear, cohesive, consistent, and predictable pattern (Rosen & Bates, 1967). Rosen and Bates (1967) argued that faculty have varying levels of commitment to socialization, which leaves students unsure of what is expected of them and subjects them to incomplete and inadequate socialization. Ondrack's (1975) study of nursing students and faculty at three large training hospitals (N= 708) supports this assertion. Ondrack (1975) found that when faculty and instructors delivered consistent and cohesive messages regarding expectations and values, students made the greatest shift from previously held beliefs and values. Critics like Rosen and Bates (1967) have suggested that doctoral programs should rely on formal processes of socialization. A formal process would ensure that all students receive the same information regarding the norms and expectations associated with student and professional roles. Such an approach might be particularly beneficial to students of color and women given findings that these groups are less likely to form close relationships with advisors or mentors and thus may not receive information traditionally communicated informally (Ellis, 2001; Nettles, 1990; Thompson & Turner, 1993).

I have noted throughout Chapters 1 and 2 that scholars such as Antony (2002), Egan (1989), Tierney (1997), and Tierney and Rhoads (1994) have questioned the purpose of socialization. Bragg (1976) and Weidman et al. (2001) have stated that the goal of socialization is the assumption and adoption of the values of the discipline to help the student develop an appropriate professional identity. Some scholars assert this is problematic for a number of

reasons. Egan (1989) suggested the problem lies in the assumption that doctoral students enter into programs with values and beliefs are not in line with those required to fill the roles of the discipline and that they have yet to develop the necessary level of professionalism. Thus, in Egan's summation, the purpose of socialization is a resocialization to values, beliefs, and practices that are appropriate for the discipline. As Antony (2002), Tierney (1997) and Tierney and Rhoads (1994) all suggest, this approach to socialization leaves students who have values and beliefs that are not in alignment with the discipline to face the difficult decision of disposing of personally held beliefs in order to be successful in the discipline or giving up on a academic career. Antony (2002) believes that a distinction can and should be made between the concept of socialization and professionalization. He argues that while socialization requires adoption of all values and beliefs, professionalization requires adopting those practices and values deemed essential to the discipline. Antony (2002) asserts this approach could be particularly beneficial to women and people of color who have been found to have different value orientations as compared to Whites men (Carter & Helms, 1989; Gilligan, 1982).

The socialization process might be difficult for those with values and beliefs that are different from those of the discipline. Research has shown that Black doctoral students often report difficult graduate student experiences (Ellis, 2001; Turner & Thompson, 1993). Some researchers have assumed the difficulty is due to cultural beliefs and values (Antony, 2002; Tierney & Rhoads, 1994). There does not appear to be examination of this supposition for Ph.D. students. Examining the racial identity attitudes of Black Ph.D. students will provide some insight into this argument and begin the process of determining the effects of racially-related values and beliefs on the socialization experience. I now turn to a discussion of racial identity.

Racial Identity

The history of the United States has made racial identity an often central and important component of the overall self-concept of Black people (Carter, 1996). Researchers during the past century have sought to answer several questions related to racial identity including what is Black racial identity, how does someone develop racial identity, and what is the influence of racial identity on the behavior of Blacks? In terms of the last question, the majority of the research has focused on examining the relationship between racial identity and psychological outcomes such as self-esteem, distress, and general well-being (Carter, 1991, Parham & Helms, 1985a, 1985b; Wilson & Constantine, 1999). Some scholars have turned their attention to examining the possible relationship between racial identity and educational outcomes (Awad, 2007; Chavous, 2003; Harper, 2006; Sellers et al., 1998). Results indicate that at the high school and college level, differences in educational experiences among Black students can, in part, be attributed to variations in racial identity attitudes (Chavous, 2000, 2003; Chavous et al., 2002; Harper & Tuckman, 2006). For example, GPA, involvement in organizations, and sense of academic competence have been found to be related to racial identity (Sellers, Chavous, & Cooke, 1998; Chavous, 2000; Chavous et al. 2002). However, little research has investigated the relationship between the graduate student experience and racial identity. Furthermore a review of this scant literature suggests that no studies exist exploring the relationship between racial identity and the socialization experiences of Black Ph.D. students. In this section, I will discuss the literature on racial identity, focusing on the relationship between racial identity and educational behavior. Specifically, I will define racial identity. Next, I will present three models of racial identity and discuss the similarities and differences between each. Finally, I will review

the recent research on racial identity and educational outcomes employing one particular model of racial identity, the Multidimensional Model of Racial Identity. The intent of this discussion is to demonstrate that scholars have identified racial identity as a factor that affects educational outcomes of Black high school and undergraduate students. These findings suggest that racial identity may affect an educational outcome such as socialization for Black Ph.D. students as well.

Understanding Racial Identity

In the past 40 years, researchers have developed numerous models of Black racial identity (Baldwin, 1985; Cross, 1971, 1991, Milliones, 1976, 1980; Phinney, 1992; Sellers et al., 1998). The models vary in a number of areas including specific focus, characteristics, and guiding assumptions. Upon closer examination, racial identity models differ in four common areas; 1) a model may measure one dimension of racial identity or multiple dimensions (Marks, Settles, Cooke, Morgan, & Sellers, 2004), 2) a model may focus on the importance race plays in the life of the individual or on the meaning he or she attributes to racial affiliation (Sellers et al., 1998), 3) a model may apply to any racial group or only Blacks (Seller et al., 1998), and 4) a model of racial identity may indicate that the importance of race is consistent over time and situation or can change given the circumstances (Sellers et al., 1998. In this section, I will provide a general definition of racial identity and discuss the factors that influence racial identity. Finally, I will present the four characteristics of racial identity models where differences might exist.

Although definitions of racial identity vary according to theoretical approach, most scholars would agree that fundamentally, racial identity is a social construct that refers to the

aspect of the individual's self-concept based on membership in a racially-designated social group (Carter, 1995; Helms, 1993). An individual's self-concept is how a person defines himself or herself. The self-definition is often composed of identities related to social groups with which the individual is affiliated (Erikson, 1959). It is documented that while race is but one group of many to which an individual may feel some connection, for racial minorities, it is often the most or one of the most important identities they have (Chavez & Guido-DiBrito, 1999).

Scholars have dedicated much of the research on racial identity to understanding how an individual develops racial identity. The foundation of this research likely comes from Erik Erikson's psychosocial model of development (1959). In his model, Erikson explored three aspects of identity including social-cultural identity. He found socio-cultural factors such as family, community, and society play a significant role in the development of identity. For Blacks, the influence of family, community, and society are often in conflict. Specifically, Blacks often receive inconsistent messages about racial identity from these sources.

Family members, especially parents, provide children with their first messages of the meaning of being Black. In most cases, Black parents attempt to foster positive racial identity in their children through affirming and encouraging messages (Stevenson, 1995). Such encouraging messages may be in direct contrast to the negative messages Blacks might receive from society regarding the meaning of membership in the Black race.

The history of the United States has been highly racialized. The dominant culture has treated all visible minorities as inferior to Whites at one time or another. Blacks arguably have been the most maligned of all racial groups (Carter, 1996). Because of the often conflicting messages Blacks receive about the meaning of their racial affiliation as well as differences in

experiences, there exists great variation in racial identity among Blacks. This fact has likely contributed to the large number of models that attempt to describe Black racial identity.

As indicated previously, a number of Black racial identity models exist. A cursory examination would suggest that the differences between models are innumerable. For example, some models have an Afrocentric focus (Baldwin, 1985) while others have a universal focus applying to all racial groups (Phinney, 1992). Some models are developmental (Cross, 1971, 1991; Phinney, 1992), while others are concerned with racial identity statuses (Sellers et al., 1998). However, scholars have found that models can generally be distinguished by four characteristics (Seller et al., 1998).

First, racial identity models may be distinguished by whether they are unidimensional or multidimensional. Unidimensional models are characterized by defining racial identity in terms of a single construct whereas multidimensional models of racial identity are composed of several separately defined constructs. Some unidimensional models characterize racial identity as simply the closeness an individual feels to the Black race (Marks, et al., 2004). Multidimensional models, in contrast, describe racial identity as being composed of various dimensions such as ideology, positive and negative stereotypes, and Black autonomy (Allen, Dawson, & Brown, 1989; Allen, Thornton, & Watkins, 1992; Sanders-Thompson, 1991, 1995; Sellers et al., 1998).

Second, a racial identity model may be conceptualized as either developmental or not. Developmental models are designed to explain the process by which individuals move from immature attitudes and beliefs about race to more mature points of view. Individuals who have been characterized as having immature racial identities tend not to feel close to other Blacks. In other words, they do not feel a sense of belonging to the Black race. Additionally, those with

immature racial identities often indicate that race is not a central or important aspect of their self-concept. In contrast, those that are characterized as having mature racial identity attitudes and beliefs state that race is an important component of their overall identity. Furthermore, they also indicate that they feel a closeness or sense of belonging to the Black race. Nondevelopmental models simply reflect an individual's current beliefs about the importance and/or meaning of race. Such models do not attempt to assess or judge the individual's stage of racial identity development. Racial identity models may be designed to explain one or both facets of racial identity: the importance of race to the individual's overall view of self and or the meaning an individual attributes to the membership in the Black race.

Third, models might also be compared by whether dimensions of the model describe processes that are universal to any identity group or are specific to understanding Black racial identity. Some scholars contend that the experiences of Blacks in the United States have had a distinct impact on their racial identity. Hence, the model must be specifically developed for Blacks alone in order to effectively reflect the identification process (Baldwin, 1985; Cross, 1971, 1991, 1995; Sellers et al., 1998). Phinney (1992) on the other hand asserts that there are processes associated with racial identity development that are universal across racial groups. Such models are developed to exhibit the common structures and processes related to determining the importance and meaning of race in the individual's self-concept.

The final aspect on which racial identity models might differ is whether the dimensions of racial identity are stable constructs that are consistent over periods of time and in different situations or whether the constructs of racial identity are situationally-determined. Cross (1971, 1978, 1980, 1991, 1995) asserted that components of racial identity are relatively static and

therefore do not change readily over time or in different situations. Conversely, Phinney (1992) acknowledges that in some cases, race, like other identities can become salient or important given a particular situation. For example, a Black female Ph.D. student who is a mother and a wife is a member of seven social groups: racial, gendered, and academic, as well as the community of mothers, wives, daughters, and humans. Though the student may state that the most important identities to her self-concept are that of mother, wife, and being Black, which is most salient depends upon her experiences and the situation. When she is with her children, her identity as mother is likely to be most salient; however, at night on an empty street, her racial or gendered identity may become salient depending on her experiences.

The preceding discussion indicates that while scholars have developed a multitude of models to reflect their theories regarding Black racial identity, the majority of models many be easily categorized into four groups: unidimensional versus multidimensional, developmental versus nondevelopmental, universal versus specific, and a stable construct versus a situationally determined construct. At this time, I will review three representative models of racial identity and compare them. The intent of the discussion is twofold. First, the intent is to understand the differences among racial identity models and in what cases a researcher might use one model as oppose to another. The second is to reveal why the Multidimensional Model of Racial Identity (MMRI) is the appropriate model to study the relationship between racial identity and the socialization of Black Ph.D. students.

Models of Racial Identity

A review of the literature indicates that of all the racial identity models developed, the three most frequently used by scholars in research are: Cross's Nigrescence model (1971, 1978;

1980, 1991, 1995), Phinney's Model of Ethnic Identity Development (1990), and Sellers et al's.

Multidimensional Model of Racial Identity (1998). I will now compare each model in

relationship to the four distinguishing characteristics discussed in the previous section. Table 2

below provides a summary of each model and its specific characteristics.

Table 2: Three Models of Racial Identity

Name of Model	Nigrescence Cross (1971, 1978; 1980, 1991, 1995, 1998)	Multigroup Ethnic Identity Model Phinney (1992)	Multidimensional Model of Racial Identity Sellers et al., (1997, 1998)
Type of model	Unidimensional/stages Developmental	Multidimensional/Unidimensional/Statuses Developmental	Multidimensional/ statuses
Elements of Racial identity	Preencounter, encounter immersion/emersion, internalization and internalization commitment	Self identification, Sense of belonging/ethnic attitudes, ethnic practices and behaviors, and ethnic identity achievement (examined and resolved ethnicity into self concept	Racial centrality, Racial salience, racial regard, and racial ideology
Universal or Specific	Model examines specific Black racial experience	Model examines universal process of identity development across ethnic groups	Model examines the universal process of racial identity specifically for Blacks
Focus of Model	Meaning of race	Importance of race	Importance and meaning of race
Salience and permanence of race in self-concept	Recognizes racial identity changes over time but assumes identity is relatively static once achieved. Assumes salience of race across time and situations.	Recognizes that ethnic identity changes over time but assumes identity is relatively static once achieved. Recognizes salience of race may change given the situation	Recognizes both stable and situational nature of racial salience

Nigrescence Model

The most well known racial identity model is Cross's Nigrescence model. Nigrescence is

defined as the psychology or process of becoming Black. Developed by Cross (1971, 1978,

1980, 1991, 1995, 1998) and Cross et al (1999) and informed by his personal and work-related

experiences during the Black social movement, the developmental model is designed to illustrate

the process by which Blacks make meaning of race. The model is composed of five distinct

stages: a) preencounter, b) encounter, c) immersion-emersion, d) internalization, and e)

internalization commitment.

The preencounter stage is characterized by the idealization of White culture and its

norms. Blacks in this stage hold negative attitudes about their race and seek to distance

themselves from Black culture and traditions through assimilating into the White mainstream

(Cross, Parham, & Helms, 1991). The encounter stage is characterized by a Black person

experiencing a particular racially charged event or series of events that causes the individual to

question the meaning of race personally and seek to discover his or her Black identity. This stage

leads to the immersion-emersion stage where the individual becomes immersed in Black culture.

During this stage, the reverse of the preencounter stage occurs; Black culture is idealized and

White culture is vilified and denigrated. This stage is seen as a particularly emotionally intense

phase (Carter, 1996). The internalization phase is denoted by an internally developed worldview

that values both Blacks as a social group and personal Black identity. During this phase, the

individual begins to appreciate and respect the differences between Blacks and Whites. In the

final stage, internalization-commitment, the individual commits to a new positive Black identity

and to activities that are meaningful and uplifting personally at both an individual level and to

Blacks overall while accepting and respecting people of other backgrounds (Cross, Parham, &

Helms, 1991). Although research using the Nigrescence model indicates that a strong

relationship exists between the meaning ascribed to racial identity and various behaviors, the

unidimensional structure of the model has not afforded researchers the ability to examine

whether the model's proposed processes of racial identity development are indeed accurate

(Sellers et al., 1998).

Multigroup Ethnic Identity Measure

Phinney's Model of Ethnic Identity Development (MEID) (1990, 1992) is based on

Erickson's (1959) model of ego identity development and Marcia's (1980) operationalization of

it. Phinney (1992) asserted that there are three stages to ethnic identity development:

diffused/foreclosed, moratorium, and achieved. A person moves to higher states of identity

development by exploring the concept of race in their lives and ultimately committing to a

meaning that is important and significant to them. For example, a student who is said to be at the

diffused/foreclosed stage either has no concept of race or has an unexplored concept of race such

as adopting racial attitudes held by family or society. Someone at the moratorium stage has

begun the process of exploring the importance of race but has not committed to a personal

definition. Someone at the achieved stage has both explored the importance of ethnic identity as

related to self-concept and has committed to a personal meaning. Phinney later developed the

Multigroup Ethnic Identity Measure (MEIM) as an instrument to operationalize her model. In

addition to the ethnic identity achievement, Phinney found three additional components of ethnic

identity: self-identification, sense of belonging and affirmation, and ethnic behaviors.

Phinney (1992) indicated the first step in developing an ethnic identity is stating an

affiliation to a particular ethnic group. However, Phinney recognized that stating membership to

a particular ethnic group does not mean the identity is significant to the individual nor has any

particular personal meaning. Therefore, Phinney argued understanding ethnic identity requires a

sense of belonging to and affirmation from the ethnic group. Sense of belonging is measured by assessing the individual's sense of ethnic pride and happiness to belong to the ethnic group. Ethnic behavior is the final component of ethnic identity development. Phinney (1992) argued that the degree to which the individual participates in ethnically-related activities such as attending Black arts or music festivals or being a member of Black clubs or organizations such as 100 Black Men or The National Council of Negro Women is a measure of ethnic identity. The MEIM has been useful to researchers who have sought to determine if ethnic identity development is comparable across ethnic groups. Results indicate that indeed there are universal processes that all ethnic groups experience in developing an ethnic identity (Roberts et al., 1999).

Multidimensional Model of Racial Identity

The Multidimensional Model of Racial Identity (MMRI) has become a frequently utilized model of racial identity. The MMRI is designed to examine the processes and properties related to racial identity (Sellers et al., 1997, 1998). In addition, the model also is designed to explain the relationship between behavior and racial identity.

The MMRI is guided by four important assumptions. First, the MMRI assumes that individuals can rank identities that define them by level of importance. Thus, a Black male Christian Ph.D. student is expected to be able to rank each of his identities in order of personal significance. Second, the individual's own stated racial identity is the most reliable indicator of racial identity. Thus, if a Black lesbian Ph.D. student indicates race is an important identity, it would not be assumed otherwise just because the student is that it is observed to have few relationships or interactions with Blacks.

The MMRI would rely on her statement to determine racial identity.

Third, the MMRI is not a developmental model. The model is not designed to explain how an individual forms racial identity over time. Additionally, the purpose of the model is not to assess whether an individual holds immature or mature attitudes or beliefs about race. The focus of the MMRI is on measuring an individual's racial identity at a given moment in a given situation. Finally, the MMRI reflects Sellers' et al. (1998) assertion that there are dimensions of racial identity that are situationally-determined and those that are stable. According to Sellers et al. (1997, 1998), the conditions of a given situation may cause race to become salient or important when it previously had not been such as when a noose is hung from a tree in a Black person's yard. On the other hand, there are stable dimensions of racial identity that are consistent over situations and only change slowly over time such as an individual's sense of belonging to the race. The assumptions of the MMRI allow researchers to focus on the status of the individual's racial identity and how that status influences and affects the individual's behavior.

The MMRI is composed of four interrelated but distinctive dimensions. *Racial centrality* measures of the importance of race to the individual's self-concept (Sellers et al., 1997; Sellers et al., 1998). For example, a Black disabled male doctoral student may state that his race is more central to his self-concept than his gender or disability status. Consequently, in this example, race is the central identity.

An identity that is central to an individual's self-concept is considered a stable identity. Central identities will remain consistent over time and circumstance. Therefore, the importance of race will not change for the Black disabled male doctoral student in a class who states race is central to his self-concept, just because he is enacting his student role. His racial identity will inform his interactions before his identities as student or a disabled individual.

Racial salience relates to how significant race may be to an individual's self-concept in a given situation or a particular moment of time. Racial centrality implies racial salience; thus, race in this case is considered salient across time and situations. Shelton and Sellers (2000) found that the context in which a situation occurs may cause race to become a salient identity even when race is not the central identity in the individual's self-concept. For instance, being a member of the Black race is likely to become salient to the Black lesbian student who happens to be present at a neo-Nazi parade. This is likely to be the case even if the student's central identity is that of lesbian.

Racial regard refers to the extent to which individuals feel positively or negatively about the members of a race (Sellers et al., 1998). There are two components to this dimension: *private regard* and *public regard*. *Private regard* is how the individual feels about Blacks. *Public regard* is how the individual believes others outside of the race feel about Blacks. An individual can have high or low public or private regard. A Black Ph.D. student may have high private regard but low public regard. Consequently, the student feels positively about Black people but believes others have a negative opinion of Blacks.

Racial ideology is an individual's worldview as to how Blacks should act in terms of political and economic development, social and cultural activities, and relationships with others (Sellers et al., 1997). Racial ideology is the second measure of the meaning of race in the lives of Blacks. According to Sellers et al., (1997, 1998), there are four different ideological points of view. A *nationalist* ideology asserts that Blacks in the United States have had a unique experience unlike any other group. Those who ascribe to this ideology believe that Blacks must be in charge and control their own institutions with minimum interference from others. An

oppressed minority ideology acknowledges the commonalities between the struggle of Blacks and other marginalized groups. An *assimilationist* ideology emphasizes the commonalities between Blacks and Whites as Americans. The *humanist* ideology recognizes the commonalities among all humans regardless of race, gender and other characteristics (Sellers et al, 1997; Sellers et al., 1998). The complexity of the MMRI allows researchers to address the complexity and diversity of racial identity that exists in the Black community. As aspects of racial identity, the dimensions together provide greater insight into the importance and meaning of race and how these facets of racial identity influences various psychosocial and academic outcomes as well as influence the individual's behavior.

The preceding discussion indicates a number of differences between the three models. However, with some of the differences being so disparate it is impossible to determine how one model might be better to use in a certain case while another model might be better in another. At this time, I will compare the models based on the four characteristics noted as I began the discussion about racial identity models. This should provide some clarity as to the best model to be used in my study.

Comparison of Models of Racial Identity

Type of model

Cross's Nigrescence model (1971, 1978, 1980, 1991, 1995, 1998; Cross et al., 1999) is a unidimensional developmental model of racial identity. The model is composed of stages in which the author qualitatively describes what race means to the individual at a given level of racial identity development. The model's stages indicate a stepwise process towards achieving a mature racial identity. Each stage represents a profile of attitudes taken together to describe

racial identity. Hence, an individual at the preencounter stage has pro-White-anti-Black racial attitudes with an idealization of Whites.

Phinney's model (1992), like Cross's model, is developmental. The model reflects Phinney's contention that ethnic identity develops linearly over time. A mature status of ethnic achievement is associated with an individual having both explored and committing to an ethnic identity. Achieving a mature level of ethnic identity implies the identity is now important to the individual's perception of self. Phinney's (1992) Multigroup Ethnic Identity Model (MEIM) was originally conceptualized as multidimensional model; however given that the dimensions have been found to be highly correlated with one another, most researchers operationalize the model as a unidimensional measure of ethnic identity achievement (Marks et al., 2004).

As its name suggests, the MMRI is a multidimensional model. As stated earlier, there are four dimensions to the model: racial centrality, racial salience, racial regard, and racial ideology (Sellers et al., 1997, 1998) In addition, the MMRI is not a developmental model. A guiding assumption of the model is that no racial identity status is better than another. Hence, instead of being concerned with the level of racial development and whether the individual holds mature or immature views associated with race, the authors are concerned with an individual's racial identity at a given point in time.

Focus of Model

Scholars indicate that there are two key facets of racial identity: the importance of racial identity to the individual's perception of self and the personal meaning the individual attaches to being a member of the Black race (Sellers et al., 1998). The Nigrescence model focuses on the meaning of race whereas the MEIM emphasizes the importance of race to an individual's

perception of self. Since each of these models concentrates on only one aspect of racial identity, any analysis using Phinney's (1992) or Cross's (1971, 1978, 1980, 1991, 1995) models is incomplete. The MMRI, in comparison, addresses both importance and meaning. Racial centrality measures how central or important race is to the individual's self-concept while racial regard measures and racial ideology addresses the meaning of race. This allows researchers to examine how both importance and meaning influence various outcomes.

Universal or Specific

Phinney's (1992) MEIM focuses on the universal components of ethnic identity development. This reflects the scholar's claim that there are common processes and structures associated with any identity development process. The MEIM was thus designed to describe how any ethnic group might achieve a racial identity. In contrast, Cross's model of Nigrescence (1971, 1978, 1980, 1991, 1995, 1998) reflects the unique experience and history of Blacks in the United States who until recently suffered discrimination, maltreatment, and disrespect as a racial group. As a result, the model was created specifically to take into account the influence of the Black experience in the United States on racial identity development.

The MMRI incorporates both those universal components of Black racial identity that apply to any racial group and those specific aspects of racial identity that apply to Blacks alone (Cross & Vandiver, 2001; Sellers et al, 1997, 1998; Worrell, Cross, & Vandiver, 2001. Specifically, the dimension of racial centrality, regard, and ideology could be used to apply to any group; however, the items associated with each reflect the particular experience of Blacks in the United States. The validation of these dimensions in other identity-related research

(Ashmore, Deaux, & McLaughlin-Volpe, 2004), allow researchers to be certain that Blacks do experience these processes in formation of Black racial identity.

Stable or Situationally-Determined Constructs

The Nigrescence model assumes that racial identity is a stable construct. Cross (1971, 1978, 1980, 1991, 1995, 1998) asserted that the racial identity of the individual is relatively constant and is not subject to change from situation to situation. Thus, the racial attitude of a Ph.D. student in the immersion stage of racial identity, which is characterized by anti-White attitudes, will not change just because a White peer helped the student pass an exam. However, it is important to note that the Nigrescence model recognizes that even though racial identity is relatively constant, the cumulative effects of life experiences and social environment can cause identity to gradual change over the individual's life.

The MEIM reflects the belief of some theorists that racial identity can be a stable and situationally-determined construct. Weinreich (1986) asserts that ethnic identity depends on social context and is thus situationally-determined (Weinreich, 1986). Thus, in the presence of Black friends and family, a Black student's ethnic identity may be high; however, in a predominantly White environment, such as school, ethnic identity may be low. The moratorium and achieved stages of the MEIM describe states in which an individual holds a stable ethnic identity that is relatively constant across situations and over time.

Finally, the MMRI, like the MEIM, reflects Sellers' et al. (1997, 1998) belief that racial identity has both stable and situationally-influenced properties. According to Sellers et al. (1998), particular situational cues can trigger the salience of an identity. For instance, the student identity may become salient for a Black male Ph.D. student attending a conference in his

discipline in the presence of distinguished scholars in his research area. Stable properties of identity such as beliefs and attitudes about being a student will inform his behavior in this given context. Thus, if he believes a student should defer to authority, he may sit quietly and not enter into the scholars' conversation even if he has something relevant to say.

The preceding discussion presents a strong argument that the MMRI (Sellers et al., 1997; Sellers et al., 1998) is an improvement over both the Cross (1971, 1978, 1980, 1991, 1995, 1998) and Phinney (1992) models of Black racial identity. This would indicate an overall usefulness for researchers seeking to understand how Blacks understand the significance and meaning of race in their lives. However, for the purposes of this study, it is necessary to understand how the MMRI is particularly useful in examining the relationship between Black racial identity and doctoral student socialization. It is to this discussion that I now turn.

Justification for Using Multidimensional Model of Racial Identity

The comparison the Nigrescence model, the MEIM, and the MMRI reveals the MMRI as having several advantageous characteristics that would allow researchers to explore a number of different questions related to the relationship between racial identity and various outcomes. Specifically, the multidimensional nature of the model, the specific focus on Black racial identity, and the recognition of stable and situational properties in Black racial identity permit researchers to examine the relationship between racial identity and outcomes from various points of view. The nature of the MMRI has been particularly useful in the examination of academic outcomes.

Sellers et al. (1998), by developing a multidimensional model, acknowledge that racial identity is a complex construct with many components. The multidimensionality accounts for the

complex interaction between the importance and the meaning of race to the individual. Additionally, the model allows for the variations of racial identity among Blacks. Individuals can have numerous racial identity attitudes from low to high racial centrality, racial regard, and have beliefs that vary across four ideological philosophies.

The multidimensional nature of the model allows the researcher to examine different concerns. First, the multidimensionality allows researchers to examine how any one or all dimensions of racial identity influence a particular outcome. For example, Chavous (2000) examined the possible relationship between racial centrality and organizational involvement. Chavous surveyed (N=164) Black students attending a PWI and performed a stepwise regression with organizational involvement measured as the number of Black organizations and non-Black organizations in which a student was involved. The findings indicated that the greater the importance of race to the student's self-concept, the greater the participation in Black organizations. The study suggests the possibility of using one or more subscales of the MMRI to examine the effects of racial attitudes and beliefs upon Black Ph.D. student socialization. For example, as with the aforementioned study, a researcher could examine how racial centrality might have an effect on Black Ph.D. students' socialization with regard to organizational involvement and interactions with peers and faculty. The findings of the previous study suggest that Black doctoral students for whom race is the most important element to their self-concept would shy away from organizations and interactions where either Black students and faculty members were not involved or where the concerns or issues of Blacks were not considered.

Second, researchers using the MMRI can examine the influence of racial identity on outcomes for a group of Blacks with different profiles of racial attitudes and beliefs. Harper and

Tuckman (2006) examined the relationship between academic achievement and racial identity. The authors using the racial centrality, public regard and private regard subscales from the MMRI and performing a cluster analysis developed two common profiles of racial identity attitudes and beliefs for (N=289) 9th grade and 12th grade Black high school students. The profiles were Alienated, which was characterized by low racial centrality as well as low public and private regard, and Idealized, which was characterized by high racial centrality, public regard, and private regard. The authors performed an ANOVA to determine if there were any differences in GPA by profile. Students that held racial beliefs associated with low levels of racial centrality, public and private regard had higher GPA than students that held beliefs associated with the high levels of racial centrality, public, and private regard. The primary outcome of the study is that racial identity attitudes and beliefs affect educational outcomes. The usefulness of the MMRI in this case is that it allowed the researchers to examine within group differences in racially-related beliefs. As it relates to the study of Black Ph.D. students, besides determining whether a particular component of racial identity influences faculty, peer, advisor, or mentor relationships, and interactions across the sample of students, a researcher might compare differences in these interactions by belief and attitude profiles.

Finally, utilization of the MMRI proves valuable as it allows researchers to assess the moderating or mediating effects of the importance of race on the impact of the meaning of race on the academic behavior of a student. Sellers, Chavous, and Cooke (1998) employed the MMRI to determine the possible influence of racial centrality and racial ideology on academic performance for Black students attending PWIs (N=163) and HBCUs (N=85)., Using multiple regression to analyze the data, the authors found that racial centrality was positively associated

with GPA whereas the assimilationist and nationalist racial ideologies were inversely related to

GPA. Thus, both the importance of race and a measure of the meaning of race were significantly

related to GPA. When the authors separated students by the median score on centrality, neither

the assimilationist nor the nationalist ideologies were significant in explaining GPA for low

centrality students. However, for high centrality students, assimilationist, nationalist and

oppressed minority ideologies were significant in explaining students' GPA. In particular,

holding assimilationist and nationalist ideologies led to lower GPAs for students while holding

an oppressed minority ideology was positively related to GPA. The results of this study validate

an underlying assumption of the MMRI; specifically, when race is salient in a given situation,

the individual's attitudes about race become relevant in assessing the situation and thereby

influence the behavior of the individual. This study implies there is a possibility there might be

differences in the socialization experiences of Black Ph.D. students dependent upon the

centrality of race in their self-concept. Hence, racial regard and ideology components of the

MMRI might only be related to the socialization experiences of Black Ph.D. students for whom

race is a core element of self. The results of the two previously discussed studies demonstrate the

advantages of the MMRI in examining academic outcomes. Unidimensional models cannot be

utilized in research in this manner.

The MMRI is particularly useful to researchers who assert that Blacks students have a

unique experience unlike their peers from other racial groups. The model embodies the historical

and social experiences of Blacks in the United States; however, there is no assumption that there

is a common experience among all Blacks. Thus, the model allows for comparisons among

Blacks as to the importance and meaning of their racial identity and the impact of the level of

importance and meaning on particular outcomes. Therefore, it is possible to compare the attitudes and beliefs of Black doctoral students and examine the effects on socialization. Phinney's (1992) model does not acknowledge the unique characteristics of racial groups and therefore would be less useful than the MMRI in the previous example. Furthermore, although the Nigrescence model reflects the unique experiences of Blacks and would allow for comparisons among them, its unidimensional nature does not allow for examining the complex impact of multiple aspects of racial identity on academic outcomes.

Finally, the MMRI assumes that there are both situationally-determined and stable properties in racial identity. Hence Sellers et al. (1998) acknowledge that the salience of race may be somewhat constant as in the case of racial centrality but is subject to situational influence. The model thus permits researchers to examine under what conditions the saliency of race can change and what impact might racial salience have on the individual's perceptions and behavior. Shelton and Sellers (2000) sought to determine if racial centrality, ideology, or regard would change for individuals in a racially charged environment versus a racially ambiguous environment given previous scores in the dimensions. The scholars found that although the scores on ideology and regard did not change significantly in either environment, racial centrality did change significantly in the racially charged environment. Thus, racial centrality can change given certain situations.

In a related experiment, Shelton and Sellers (2000) sought to determine if the centrality of race had any impact on the perception of students. Students were presented with either a racially charged vignette or a racially ambiguous one. Students were asked to indicate the factors that contributed to outcome of the vignette. The scholars found that racial centrality was

positively related to student's appraisal of the outcome of a racially ambiguous vignette as racially motivated. The results of each experiment indicate racial centrality has both situationally-determined and stable properties. Thus, in certain situations, importance of race can increase or in other words, racial identity can become more salient. In addition, when race is important to the individual's self-concept, it causes racial attitudes and beliefs to become relevant in the appraisal of certain situations. Thus, the MMRI could be used to understand how racial identity influences the socialization experiences of Black Ph.D. students at different types of institutions. For example, a researcher might test whether the racial centrality of Black doctoral students attending a PWI affects the level of satisfaction related to social interaction with faculty.

The aforementioned advantages of the MMRI provide a compelling argument for its use in a study to determine the relationship between racial identity and Black doctoral student socialization. Perhaps most useful in the context of my study is that the model is designed to explicitly address how racial identity affects behavior. The process is presented in Figure 1 below.
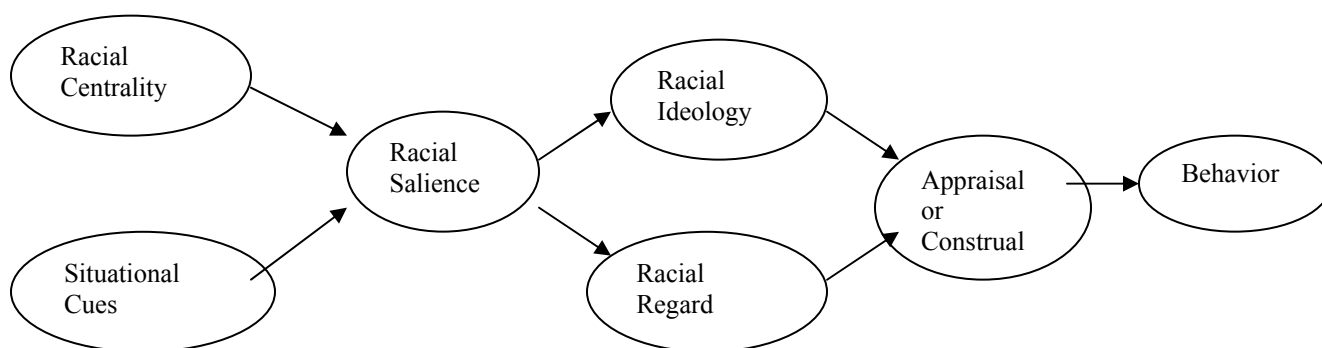
Figure 1. The process by which racial identity influences behavior at the level of the event

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

According to Sellers and colleagues (1998), racial salience is a function of how relevant race is to an individual across situations or in a given situation. In the MMRI, those with high racial centrality are individuals for whom race is salient across situations and over time. In addition, certain situational cues can cause race to become salient for some individuals. Being in a classroom where a White professor uses the "N word," will make race salient to most Black students.

The authors further argue that once racial salience becomes activated, the attitudes regarding race (i.e. racial ideology and regard) are used to appraise and assess the situation and inform the individual's behavior (Sellers et al., 1998). The Black student who believes that Whites have a negative view of members of the Black race and who hears the "N word" used in a class is likely not only to be upset, but may find relationships with White professors and peers adversely affected. However, another student, who believes Whites have positive views of Blacks, may choose to think of the incident as isolated and simply limit interactions with the particular professor. The more salient race is in a given situation; the more likely a person's behavior will be informed by personal racial attitudes and beliefs.

My study seeks to determine the effect of racial identity on the socialization of Black Ph.D. students into their program at PWIs. Socialization is measured by students' self-reported interactions with faculty, peers, academic advisors, and mentors (Nettles & Millett, 2006). Thus, the study is examining the influence of racial identity on the student's behavior. This is exactly the type of question the MMRI was designed to explain and thereby investigate. A comparison of

the MEIM, the Nigrescence model, and the MMRI suggests that the Multidimensional Model of Racial Identity is the more appropriate choice to address such questions.

The ample evidence from the literature and the aforementioned examples that indicate that racial identity influences the academic outcomes of Black undergraduates, suggests it is not inconceivable that the same might be true for Ph.D. students. While GPA might be conceived as a good measure of academic success for undergraduates, scholars assert that socialization is central to the success of doctoral students (Antony, 2002; Baird, 1992; Weidman et al., 2001). Since the success of doctoral students requires working intimately with faculty and peers in order to learn the norms, practices, and values of the field, examining the relationship between racial identity and socialization would be a worthy endeavor, particularly given that there appear to be no such studies in existence.

Summary

Throughout this chapter, I have discussed the definitions and the models related to socialization and racial identity. I have also presented literature that suggests that racial identity may inform the socialization process for Black Ph.D. students at predominantly White institutions. I have also detailed how the Multidimensional Model of Racial Identity appears to be the most appropriate model to explore the possibility of a relationship between racial identity and socialization for Black doctoral students. To examine the relationship, I have chosen to employ quantitative research methods to examine this relationship. Specifically, I am employing linear regression. I will now present a discussion of my methodological approach to the study.

Chapter 3: Methodology

Researchers agree that socialization is an integral process through which students learn the cultural norms of the discipline (Antony, 2002; Baird, 1992; Becker & Strauss, 1956; Bragg, 1976; Rosen & Bates, 1967; Weidman et al., 2001). Some scholars have found Black students report having a substantially different socialization experience than their White counterparts (Ellis, 2001; Glasgow, 2004). For example, they report fewer and less satisfying interactions with faculty and peers in their program (Lewis et al., 2004) difficult relationships with advisers (Ellis, 2001) and difficulty finding mentors (Allen, 1982; Green, 2008). However, other scholars have found few differences in the socialization experiences of Black students and students of other racial backgrounds (Nettles & Millett, 2006).

Scholars ascribe the difficulties with socialization to an incongruence between the cultural values and beliefs of Blacks and those espoused by the discipline (Hall, Mayes, & Allen, 1984; Tierney & Rhoads, 1994; Turner & Thompson, 1993). The concern with this hypothesis is that there appears to be an underlying assumption that all Blacks have similar beliefs and values. Scholars such as Carter and Goodwin (1994) and Chavous (2000) assert that Blacks vary greatly in their experiences and as such vary in their racially-related values and beliefs. These researchers would suggest that instead of using race as an indicator of cultural beliefs, models of racial identity are more appropriate and provide the means to test the aforementioned hypothesis.

One such model that is well suited to examine educational outcomes like socialization is the Multidimensional Model of Racial Identity. The model presents the processes related to how Blacks determine the importance and meaning of race in their lives and proposes a process by which racial identity influences behavior. Although I have provided a more extensive discussion

of the model in Chapter 2, I briefly review elements of the model here. Four dimensions correspond to the model.

Racial centrality relates to how central race is in the individual's self-concept. *Racial salience* is the relevance of race in a given situation or at a given time. Both dimensions are measures of the importance of race. *Racial regard* is composed of two constructs: public and private regard. Public regard measures how an individual perceives other groups to feel about the Black race. Private regard is a measure of how the individual feels about members of the Black race. *Racial ideology* measure the individual's view about how Blacks should interact in the world. There are four different ideologies.

A nationalist ideology indicates that Blacks have a unique experience unlike any other racial group and should therefore work only with other Blacks towards improving the condition of the race. Assimilationist ideology indicates that Blacks are Americans just like White Americans and should work with Whites and within the institutions of Whites to improve the lot of the race. The oppressed minority ideology emphasizes the common experiences of Blacks and other oppressed groups and indicates working together would benefit both groups. Finally, a humanist believes that there are commonalities among all people and that all groups can work together to improve the world.

The MMRI provides an opportunity to examine how racial identity affects socialization, which appears not to have been done. To that end, the purpose of this quantitative study is to investigate if racial identity influences the socialization of Black Ph.D. students attending predominantly White institutions (PWIs). The research questions that guide my study are:

1. What are the factors related to the socialization experiences of Black Ph.D. students attending PWIs?

2. What are the factors related to the racial identity of Black Ph.D. students attending PWIs?

3. What is the relationship between racial identity and the socialization of Black Ph.D. students attending PWIs?

In this chapter, I review the methodological approach I took to study the socialization experiences of Black doctoral students. Specifically, I describe the process by which I examined the relationship between racial identity and key socialization interactions and relationships. I start by discussing the design of the study. This includes my justification for using a quantitative methodological approach. I then present information regarding the specific instruments that I used to measure socialization and racial identity attitudes and beliefs. Next, I discuss the sample and the source from which the sample was drawn. The chapter concludes with an overview of the procedures that I used to collect and analyze the data.

Study Design

For this study, I used survey method to conduct my research; specifically, I used a web-based questionnaire for data collection. Researchers indicate a number of benefits and challenges in using the method (Kraut, et al, 2004; Lefever, Dal, & Mátthíasdottir, 2007; O'Neill, 2004). First, as a quantitative method of research, the survey method allows for the generalization of results of a study conducted on a relatively small sample to a larger population (Babbie, 1990). Second, web-based questionnaires are considered an efficient form of data collection. Online questionnaires can potentially reach hundreds of prospective participants with relative low cost, reduced researcher bias, and reduced overall data collection time (Fowler, 1993; Kraut et al

2004). Furthermore, the survey method allows for the collection of data pertaining to unobservable phenomena (Fowler, 1993). According to Sellers et al. (1998), racial identity attitudes are difficult to observe. For example, a Black Ph.D. student may have friends of different backgrounds but may still hold a nationalist ideology. Although the researcher might gather such information through an interview, interviewer bias could influence the findings (Kvale & Brinkmann, 2009). With a web-based questionnaire, concern with interviewer bias is eliminated. Finally, the survey method provides data that are relatively easier to interpret than qualitative data. Because there are no open-ended questions on the survey for this study that are subject to researcher's interpretation, the data was easily interpreted using statistical methods.

Conversely, there are several challenges to the use of online questionnaire. For example, researchers agree that there exists the potential for participant-related bias (Kraut et al., 2004; O'Neill, 2004). Many potential participants may not have easy access to a computer or are not computer literate. Only those with the access and the skills to use a computer can potentially participate. This may not lead to a representative sample and thus biased results. In addition, self-selection and dropout are a greater concern with online questionnaires than traditional pencil and paper questionnaires thereby potentially leading to lower response rates (Kraut, et al, 2004). Finally, the anonymous nature of online questionnaires creates an environment where the participant may take the process less seriously. Consequently, the subject may not answer questions truthfully, therefore leading to bias and inaccurate results (Kraut et al, 2004).

In addition to being a web-based questionnaire, the study has a cross-sectional design. While evidence from Baird (1992) indicates that students' participation in socializing activities increases as they advance in their program, thus making a longitudinal study a more appropriate

approach, time and financial constraints only permit a cross-sectional study. Cross-sectional studies are characterized by examining a specific population at one point in time. In this study, I am examining the socialization of Black Ph.D. students at one point in time rather than examining socialization of the same Black Ph.D. students over a period. Although I will not be able to examine the possible changes in the influence of racial beliefs and attitudes on socialization over time, the cross-sectional approach will allow me to compare students given their stage in the doctoral process.

Instrumentation

The survey for the study is divided into four sections: screening questions that will filter out those that do not meet the criteria of the study, individual and modified items as well as subscale from the Survey of Doctoral Student Finances, Experiences, and Achievements developed by Nettles and Millett (2006), a modified version of the Multidimensional Inventory of Black Identity developed by Sellers et al. (1998), and participant demographic variables. The integrated survey instrument is composed of 86 individual items and is included in Appendix A. In the demographic section, there are 14 questions that make inquiries into the participant's gender, age, and the participant's field of study (education as a field of study acts as the reference category). Also included in this section are items related to the student's stage in program (taking classes serves as the reference category), full or part time status, and type of financial assistance received are included. Similar background and demographic data has been collected and included in other studies of doctoral student socialization (Nettles, 1990; Nettles & Millett, 2006).

Each reference category was chosen based upon Hardy's (1993) recommendations for choosing a reference category. Specifically, a reference category should be useful in comparing the variable to the other variables in the category, it should have a comparable sample size to the other variables in the category, and it should be a well defined category. In the case of education as the reference category for the field of study variable, it is useful in comparing it to STEM and to the Social Sciences and Humanities, particularly since it is widely known that Black students earn more doctoral degrees in education than any other field of study (NCES, 2007). As indicated in Chapter 4, the sample size for participants in the education field is comparable to the other fields in category. Finally, it is well defined. The variable refers only to those who are receiving or who have received degrees in the field of education. A variable that is not well defined would be the other category in the field of study variable. This would include any those fields outside STEM, social sciences and humanities, and education.

Multidimensional inventory of black identity. Sellers and his colleagues (1997, 1998) developed the Multidimensional Inventory of Black Identity (MIBI), a public access instrument to measure the particular constructs of the Multidimensional Model of Racial Identity (MMRI). The MIBI is composed of 56 items measuring three dimensions: racial centrality, racial regard, and racial ideology. Racial regard is divided into two components, public and private regard, and the racial ideology construct is divided into four categories: nationalist, assimilationist, humanist, and oppressed minority.

Sellers and his colleagues have consistently reported that the MIBI is a reliable measure for each of the subscales of the MMRI. Sellers et al. (1997) found the internal consistency values represented by the Cronbach's Alphas in the range of .60 to .79, which indicate acceptable

reliability (Hair, Anderson, Tatham, & Black, 1998). Cokley and Helm (2001) conducted an independent confirmatory factor analysis to verify the results on the revised MIBI. The researchers found that all subscales had acceptable Cronbach's Alphas. The alphas ranged from .72 to .83.

However, Cokley and Helms (2001) raised concerns regarding many of the individual items of the MIBI. A confirmatory factor analysis performed by the scholars indicated that there were a number of problematic items found in the ideology dimension that when included in the scale "calls into question the nature of the constructs themselves" (p. 92). The authors consider an item problematic if consensus about the item structure coefficient could not be reached, (b) if there were large standardized structural coefficients (greater than or equal to .3) on at least two factors in the current study, (c) if there were standardized structural coefficients < .3 in the current study, or (d) if the items loaded on more than one factor in Sellers et al.'s (1997) original study. (pp. 88-89)

Cokley and Helms found that a number of items were subject to faulty logic and were therefore problematic. For example, the following item intended to measure humanistic ideological beliefs, "Blacks would be better off if they were more concerned with the problems facing all people rather than just focusing on Black issues" is problematic in that it is based on the false assumption that an individual cannot be a humanist and focus on the issues of Blacks. Furthermore, the standardized structural coefficient, derived in confirmatory factor analysis, represents the amount of variance in the item explained by the factor. It is difficult to determine which factor an item is most closely associated when the item loads on two different factors that

have similar coefficients. It is more desirable to have an item exclusively associated with one factor.

Low coefficient values indicate a weaker relationship between the factor and the item. Scholars differ greatly in terms of what they argue is a reasonable cutoff value for including an item in a factor. Some state for exploratory purposes the cutoff value should be $\leq .25$ (Raubenheimer, 2004). Hair et al (1998) have asserted that values above .6 are high and values below .4 are low.

Fourteen variables were found to be problematic by the scholars' criteria. For instance, the authors found that three items loaded on more than one scale. The item, "Blacks should view themselves as being Americans first and foremost" contributed to measuring assimilation but was also inversely related to centrality. The authors indicated that given the strong reliability of the subscales otherwise, eliminating the problematic items would likely improve the strength of the psychometric properties of the instrument. To this end, I have chosen to exclude the designated problematic items. Furthermore, using the definitions associated with the dimensions, assessing the scale for redundancies, and using scholars' recommendation of .4 being a reasonable cutoff value for which to exclude an item from a factor, a number of other variables were excluded from the inventory. The eventual modified version of the MIBI includes 28 items. Both the full inventory and the modified inventory are included in Appendix F with justification for including an item in the "short version" of the MIBI.

Survey of doctoral student finances, experiences, and achievements. Several researchers have developed surveys to measure doctoral student socialization (Baird, 1992; Nettles & Millett, 2006; Weidman & Stein, 2004). Across each, there are common

characteristics: items measuring perceptions of faculty–student interactions and student-student interactions, student scholarly activities, and satisfaction with the various aspects of the experience. In the survey, I employed indices, individual items, and modified items from the Survey of Doctoral Student Finances, Experiences, and Achievements developed by Nettles and Millett (2006). I chose Nettles and Millett's survey because of the clear and thorough documentation of its development and the fact that the indices and items were validated using a sample of over (N=9000).

I took twenty-two items from the survey that measured key socialization interactions including: peer-peer interactions, student-faculty interactions, academic interactions with faculty; and interactions with adviser and used them as a basis for the questionnaire. Some items were used verbatim, while others were modified. An example of an item from the student-faculty interaction index is "It is easy to develop personal relationships with faculty members in this program" and an example of a peer interaction item is "It has been easy for me to meet and make friends with others students in my program."

 One question that referred to a student's satisfaction were also incorporated into the survey. Finally, three items from the survey were included to measure the participant's scholarly activities. An example of an item measuring scholarly activity is "(Have you) published any scholarly work (article, book review, book chapter, monograph, textbook, or other book".

In an effort to gather information that may clarify participant responses, I created two additional sets of questions. First, two questions inquiring as to the race and gender of the adviser will be included. The logic behind this is that Black students who had a nationalist ideology and a low public regard might still report a positive experience in a PWI environment if they had a

Black advisor and thereby lead to inconclusive results. In addition, I included two questions that measured student's satisfaction with the level of contact they had other regarding the Black students and with Black faculty. These variables act as controls.

I also included an index to measure student-mentor interaction. The questions were constructed employing the same four items used in the advisor index. Five questions related to whether the student has or had a mentor, how long it took to find a mentor, whether the mentor was a faculty member in the participant's department, and the gender, and race of the mentor were included. Table 3 includes a description of the variables included in the analysis.

Table 3

List of Variables for Analysis

Variable	Description
Dependent Variables	
Faculty-Student Interactions Index	This index is the result of an exploratory factor analysis on items related to the level of frequency in which the participant interacted academically with faculty during their doctoral program. Scores were calculated by dividing the sum of an individual's responses on the four items included in the index by 4. Frequency was measured on a seven point Likert type scale with 1= no interaction and 7= very frequent interaction.
Peer-Peer Interactions Index	This index is the result of an exploratory factor analysis on items, which measured the level of the participant's academic and social interaction with peers during their doctoral program. Scores were calculated by dividing the sum of an individual's responses on the six items included in the index by 6. Items were drawn from the Survey of Doctoral Finances, Experiences, and Achievement. Frequency was measured on a 7 point Likert type scale with 1= no interaction and 7= very frequent interaction.
Student's Perceptions of Faculty	This index is the result of an exploratory factor analysis on items, which measured the participant's perceptions of faculty's ability to instruct and engage socially with students. Scores were calculated by dividing the sum of the individual's responses on the six items included in the index by six. Items were drawn from the Survey of Doctoral Finances, Experiences, and Achievements. Perceptions were measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.
Advising Relationship	This index is the result of an exploratory factor analysis on items, which measures the participant's perceptions of their advisor's ability to address their professional and personal development. Scores were calculated by dividing the sum of the individual's responses on the four items included in the index by 4. Items were drawn from the Survey of Doctoral Finances, Experiences, and Achievement. Perceptions were measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.
Mentoring Relationship	This index is the result of an exploratory factor analysis on items, which measures the participant's perceptions of their mentor's ability to address their professional and personal development. Scores were calculated by dividing the sum of the individual's responses on the four items included in the index by 4. Items were based on items drawn from the Survey of Doctoral Finances, Experiences, and Achievement. Perceptions were measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.
Independent Variables	
Age	Continuous variable indicating the age of the participant
Gender	Participant's self-reported gender identification (Male= 1, Female = 2)
Coupled	Variable indicating whether a participant was in a marriage-like relationship
First Generation	Variable indicating whether participant was the first person in immediate family to attend college

Table 3. Continued

Variable	Description
HBCU Undergraduate Attendance	Variable indicating whether the participant attended an HBCU as an undergraduate
Number of Black Faculty in Program	Variable indicating number of Black faculty in participant's program (1=0, 2=1, 3=2, 4=3, 5=4, 6=5, 7= 6 or more)
Number of Black Students in Program	Variable indicating number of Black students in participant's program besides participant (1=0, 2=1, 3=2, 4=3, 5=4, 6=5, 7= 6 or more)
Full Time Attendance Status	Variable indicating whether the participant was a full time student
Stage in Doctoral Process 　Comps or Prelims 　Dissertation Stage 　Completed 　Taking courses (Reference Category)	Dummy variables indicating the participant's stage in the doctoral process
Field of Study 　STEM 　Social Sciences/Humanities 　Other 　Education (Reference Category)	Dummy variables indicating the participant's field of study
Fellowship	Variable indicating whether participant received a fellowship during doctoral study
Research Assistantship	Variable indicating whether participant was a research assistant during doctoral study
Teaching Assistantship	Variable indicating whether participant was a teaching assistant during doctoral study
Administrative Assistantship	Variable indicating whether participant was an administrative assistant during doctoral study
Tuition/Fee Waiver	Variable indicating whether participant received a tuition/fee waiver during doctoral study
Loans	Variable indicating whether participant received a loan during doctoral study
Racial Centrality	Modified subscale from Multidimensional Inventory of Black Identity (MIBI), which measures the importance of race in the participant's self-concept. Score represent mean of the four items. Index was measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.
Private Regard	Modified subscale from Multidimensional Inventory of Black Identity (MIBI), which measures the participant's opinion of the Black race. Score represent mean of the four items. Index was measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.

Table 3. Continued

Variable	Description
Public Regard	Modified subscale from Multidimensional Inventory of Black Identity (MIBI), which measures the participant's perceptions of society's opinion of Black race. Score represent mean of the four items. Index was measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.
Nationalist Ideology	Modified subscale from Multidimensional Inventory of Black Identity (MIBI) which measures degree to which the participant agrees with nationalist beliefs and attitudes. Score represent mean of the four items. Index was measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.
Assimilationist Ideology	Modified subscale from Multidimensional Inventory of Black Identity (MIBI). Measures degree to which the participant agrees with assimilationist beliefs and attitudes. Score represent mean of the four items. Index was measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.
Oppressed Minority Ideology	Modified subscale from Multidimensional Inventory of Black Identity (MIBI). Measures degree to which the participant agrees with an oppressed minority ideology. Score represent mean of the four items. Index was measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.
Humanist Ideology	Modified subscale from Multidimensional Inventory of Black Identity (MIBI). Measures degree to which the participant agrees with a humanist ideology. Score represent mean of the four items. Index was measured on a 7 point Likert type scale with 1= strongly disagree and 7= strongly agree.

Participants

A total of 389 current Ph.D. students and recent graduate representing at least 30 institutions completed the questionnaire. Of this, 94 were men and 295 were women. In Chapter 4, I will provide a more detailed description of the particular characteristics of the sample.

Participants were recruited using a purposive and chain sampling approach. My sample was drawn from individuals who currently participated or were participants of a fellowship program designed to increase the number of faculty from underrepresented groups. Previous research establishes the legitimacy of using fellowship organizations for academic study (Golde & Dore, 2001). The fellowship program provides financial and professional support to over 300 doctoral students from underrepresented populations. Of these students, a sizable number are Black.

In addition, I completed an online search of institutional based organizations that served Black graduate students. These primarily consisted of Black graduate student associations. I identified whether the institution offer Ph.D. degrees in any field. Those that did were included in the data collection process. Finally, in the invitation letter, participants were asked to forward the link to the questionnaire any individuals they felt might meet the criteria of the study.

Participation in the study required that the respondent self-identify as Black and be a current Ph.D. student who had completed at least one year of doctoral study or a recent graduate who received the Ph.D. within the last academic year. Those who identify as multiracial students were excluded from the study. The MIBI was designed to measure the racial identity of Black people. Studies suggest that multiracial students experience a different process of forming a racial identity (Renn, 2000, 2003). Including this population in the study would likely have biased the results.

Students who had spent less than a year in their program may not have been able to form the relationships nor have the interactions related to socialization. Including only those students who had at least a year of study increased the likelihood of having participants who had for who had developed relationships with both faculty and fellow students and therefore could provide meaningful responses to inquiries regarding such relationships and interactions. Finally, newly minted Ph.D.s will still have the ability to respond to questions related to their socialization experience. Thus, they were included in the sampling. Moreover, including current students and recent graduates will allow for the analysis of possible differences of experience related to the student's stage in the doctoral process.

Data Collection Procedures

Upon IRB approval, I sent an invitation letter to all potentially eligible participants who were listed on the fellowship's website. This letter included an explanation of the study and a link to the online survey. Participants were asked to complete the survey by February 1, 2011t. Periodic reminders were sent every week to potential participants with a final reminder sent to students on January 26, 2011. Copies of the initial email invitation and reminder email are included as Appendix B, C, and D. For those institutions that had organizations that served Black graduate students, an email was sent to the leadership of the organization asking them to forward the invitation letter to their membership. The same reminder schedule set for members of the fellowship program was followed for the institutional organizations.

The online questionnaire was developed and hosted using mrInterview, a software package that can be used to design and deploy secure online questionnaires. The questionnaire was not password protected and was accessible to anyone who received the URL link.

Before beginning the questionnaire, participants were asked to read an informed consent statement. A copy of the informed consent is included, as Appendix E. Continuing on to the questionnaire was considered an agreement to participate in the study. The average time it took to complete the survey was 8 minutes.

Email addresses were requested from participants in order to contact the winners of the prizes offered as incentives. Participants had an opportunity to win one of seven cash prizes, one $100 Visa gift card, two $50 Visa gift cards, and four $25 Visa gift cards. The probability of winning one of seven prizes based on 210 participants, the minimum number necessary for the study, was 1 in 33. The drawing took place on February 8 and winners were contacted within 24

hours. The winners responded within a week of notification and their gift cards were sent two weeks later.

Data Analysis

I used SPSS Version 17, a statistical software package, to analyze the data. SPSS allowed the researcher to perform a wide range of statistical procedures including descriptive and inferential statistics. Initially, I calculated descriptive statistics for demographic and background variables. In addition, I conducted confirmatory factor analysis to determine the relevant socialization measures. I then performed reliability analysis to determine the internal consistency related to each of the factors. Descriptive statistics including the means and standard deviations were then calculated for the resulting socialization measures, which included peer-peer interactions, faculty-student interaction, and student's perceptions of faculty, interactions with advisor, and interactions with mentor. In addition, correlation analysis was performed to determine the relationships between the aforementioned measures. In addition, reliability analysis was performed on the modified MIBI subscales to determine the internal consistency of each subscale. I also performed descriptive statistics on all subscales related to racial identity, which included racial centrality, racial regard, and racial ideology.

I conducted multiple regression analyses to address the research questions. Specifically, to address question one, I conducted a multiple regression for faculty-student interactions, peer-peer interactions, and student's perceptions of faculty to determine what background and demographic variables were predictors. For question two, relevant demographic and background variables were regressed on each of the racial identity subscales to determine what relationships existed. Finally, for question three, for each measure of socialization previously indicated, a

hierarchical multiple regression was performed to determine whether a relationship existed between racial identity and socialization. First, background and demographic variables were regressed upon each of the socialization measures to determine the existing relationships between the variables. Then, I added the subscale racial identity to explore the possible relationship with each socialization measure.

Limitations

Several limitations exist in the study. I will discuss those of note in the context of overarching themes of interest. They relate to sampling concerns, the self-reported nature of data collections, and the nature of the reliability of the instrument used to measure racial identity.

Sampling bias may exist due to the nonrandom method of securing participants. It is possible that participants from a fellowship program that seeks to increase the number of underrepresented groups in faculty positions as well as individuals who are members of Black graduate student organizations may ascribe to certain racial identity attitudes more than the general population of Black Ph.D. students. The results based on this sample may not be generalizable to all Black Ph.D. students attending PWIs. In addition, with respect to the fellowship program, participants are strongly encouraged to find and work closely with a faculty member as a mentor. Thus, their interaction with faculty and their responses to the mentoring items may not be representative of Black Ph.D. students, which again would make the results less generalizable.

As with many studies, the respondents self-selected to participate in this study. Researchers have indicated that due to self-selection, results might be biased (Kraut et al., 2004; O'Neill, 2004). The concern is that some individuals may be more likely to participate in the study versus others. For example, the concern for this study would be that only those with

extreme experiences of socialization would participate. This would lead to results that may not be generalizable to the population. Additionally, because there was an incentive attached to participation, some individual who were not actually Ph.D. students may have completed the questionnaire. I attempted to address this by including an item asking the respondent if they were currently a Ph.D. student or a recent graduate. Those that did not answer in the affirmative were not allowed to complete the survey.

Finally, the reliability of the instruments is also a concern. As previously discussed, the MIBI has been found to be problematic in terms of its reliability. I attempted to address this by eliminating items deemed problematic by Cokley and Helms (2001) and those that had low factor loading coefficients. However, even with the modifications, reliability could not be ensured. This is the case because the coefficients derived from a factor analysis are related to the specific sample. Thus, items that were associated with a particular construct in other samples may not be associated with the same construct in another sample. This was the case in a recent study using the MIBI (Miller, 2007). While factor analysis would allow for determining the relationship between items and thus define the common construct to which they are associated, for the sake of comparison with previous studies (Chavous, 2000; Sellers, Shelton, & Chavous, 1998), I grouped items in their conventional constructs. As these may not be the most reliable measures of the constructs, biased findings may result.

Conclusion

Most researchers assume racial and ethnic groups have a common cultural experience. Black racial identity theory asserts that Blacks hold a number of different beliefs and attitudes about race. The Multidimensional Model of Racial Identity (MMRI) is based on the assumption

that when race is salient, differences in racial beliefs and attitudes ultimately lead to different behavior. Although the assertion of the model has been validated in a number of academic outcomes at the secondary and undergraduate levels (Chavous et al., 2002; Harper & Tuckman, 2006), it appears no researchers have sought to establish whether racial identity attitudes and beliefs have any impact at the doctoral level. My study examining the possible relationship between racially-related attitudes and beliefs and the socialization of Black doctoral students is an attempt to address the lack of research in the area.

Chapter 4: Findings

In this chapter, I present the findings of the study. As stated in preceding chapters, the purpose of the study is to determine the relationship between racial identity and the socialization of Black doctoral students into their Ph.D. programs. First, I present the descriptive statistics on the demographic data. Next, I answer each of the research questions in turn discussing the methods of analyses used.

Demographic Findings

Table 4 that follows is a summary of the descriptive statistics. Three hundred eighty-nine (389) current Black Ph.D. students and recent graduates completed the questionnaire. Women accounted for 295 (or 75.8%) of respondents while men accounted for 94 (or 24.2%) of respondents. According to the Council of Graduate Schools (2010), in 2009, Black males composed 29.2 percent and Black females accounted for 70.8 percent of total Black enrollment in graduate programs. Thus, males are slightly underrepresented in this sample. The average age of participants was 32. The majority of the Black Ph.D. students who took the survey stated that they had never been married 57.3% with 32.6% indicating they were married and a small percentage stating they were either separated, divorced, or widowed 5.7% or partnered 4.4%.

Only 37.5% indicated they were first generation college students. The majority, (243, or 62.5%) have at least one immediate family member who had gone to college. Additionally, only 134 or 34.4% attended an HBCU as undergraduates. Respondents were at various stages of their Ph.D. process. Specifically, 21.1% were still taking courses, 17.7% were taking or preparing for comprehensive or preliminary examinations. 46.5% were currently working on their dissertations while 14.7% had completed their dissertations within the previous year.

Table 4

Descriptive Statistics for Demographic and Background Variables

Characteristic	N	%	*M*	*SD*
Gender				
Male	94	24.2%		
Female	295	75.8%		
Marital Status				
Separated, Divorced, Widowed	22	5.7%		
Single (Never Married)	223	57.3%		
Married	126	32.6%		
Partnered	17	4.4%		
First Generation				
No	243	62.5%		
Yes	146	37.5%		
HBCU Undergraduate Attendance				
No	255	65.6%		
Yes	134	34.4%		
Full Time Attendance Status				
No	56	14.4%		
Yes	333	85.6%		
Stage in Doctoral Process				
Taking courses	82	21.1%		
Comps or Prelims	69	17.7%		
Dissertation Stage	181	46.5%		
Completed	57	14.7%		
Field of Study				
STEM	115	29.6%		
Social Sciences/Humanities	147	37.7%		
Education	102	26.2%		
Other	25	6.4%		
Financial Support Received				
No	12	3.0%		
Yes	377	97%		
Types of Financial Support Received[1]				
Fellowship	253	67%		
Research Assistantship	180	48%		
Teaching Assistantship	154	41%		
Administrative Assistantship	44	12%		
Tuition/Fee Waiver	220	58%		
Loans	195	52%		
Age			32	7
Number of Black Faculty in Program			2.35	.47
Number of Black Students in Program			4.58	2.22

[1]Participants were asked to indicate all types of financial support that they received during their doctoral student experience.

One hundred twenty-five or 32.1% of the participants were pursuing or had attained

degrees in the social sciences or humanities with 115 or 29.6% in science, technology,

engineering, and mathematics (STEM) fields. One hundred and two participants or 26.2% sought

or attained degrees in education. Participants indicated receiving financial support from multiple

sources. In descending order 253 (67%) received fellowships, 220 (58%) received tuition

waivers, and 195 (52%) received loans. Additionally, 180 (48%) of participants stated they

served as research assistants while 154 (41%) held positions as teaching assistants. Finally, 44

(12%) respondents had administrative assistantship.

It was important to account for the number of Black faculty and students with which the

participants might come in contact to understand if their socialization was due to the presence of

Black faculty and students. Accordingly, I sought to determine the number of Black faculty and

students in the respondents' program. I did not define program for the participants. Thus, some

may have responded based on their particular area of specialty, while others may have responded

based on their department. On average, there was approximately one Black faculty member

(M=2.35, SD=.47) and five Black students (including the participant) (M=4.58, SD= 2.22) in the

student's program. With the characteristics of the respondents now established, I turn to

addressing the three research questions that guided the study.

Question 1: What are the Factors Related to the Socialization Experiences of Black Ph.D.

Students Attending PWIs?

Doctoral student socialization is often defined in terms of the interactions a student has

with fellow peers and with faculty (Baird, 1992; Bragg, 1976, Weidman, Twale, & Stein, 2001).

Nettles and Millett's (2006) study of doctoral student experiences developed a number of items

designed to measure students' satisfaction with such interactions. I used modifications of several items from the Survey of Doctoral Student Finances, Experiences, and Achievements to measure the frequency with which the participant engaged in typical interactions with faculty or peers as well as to what degree the respondent agreed with a given statement. For example, the participant was asked, "How frequently do you discuss your academic progress with a faculty member in my program." Additionally, participants were asked to indicate the degree to which the following statement reflects their doctoral student experience, "It is easy to develop personal relationships with other students in this program." I also included specific measures for an advising relationship between a student and a particular faculty member that Nettles and Millett developed. I adapted the items measuring advising in order to measure the mentoring relationship and included them in the survey.

Individual items included in a model often measure the same concept. To determine if the items measured common constructs of socialization and thus could be consolidated into one factor, I performed exploratory factor analyses. Below, I describe and present the results of the factor analysis and define the resulting scales or factors. This process includes a discussion of how the reliability of the scales is determined. I then present the related descriptive statistics for the socialization scales. This presentation is followed by an examination of the relationship between the socialization scales and the demographic and background variables. The process involves both bivariate and multiple regression analyses. Tables 5-10 offer a summary of the findings.

Factor Analysis

Twenty-six items measuring interactions between the Ph.D. student, faculty, peers, the advisor, and the mentor were included in the factor analysis. The purpose of the analysis was to determine if items measured similar constructs and thus could be combined into factors or scales. Combining items into a smaller number of scales reduces the number of variables and thus the complexity of the model. A byproduct of fewer variables is that it reduces the number of respondents needed to ensure statistical power and reliable results. I used SPSS Version 17.0 to perform a factor analysis. The Eigenvalue threshold was set at one. Additionally, to eliminate items that are weakly correlated to an item and therefore may not be strong measures of a particular construct, items with loading coefficient of .4 or less were excluded. The analysis yielded five distinct factors. They are defined as follows: faculty interaction (four items), which measured the student's academic interactions with faculty; peer interaction (six items), which measured the level of the student's academic and social interaction with peers; perceptions of faculty (six items), which measures student's perceptions of quality of instruction and feedback, fairness towards students, openness to communication, new ideas, and student's research; advising relationship (four items), which measured the student's perception of the availability and concern of their advisor for their success, and mentoring relationship (four items), which measured the student's perception of the availability and concern for their success. Two items were excluded, as the factor loading on the items could not be supported by the literature or conventional understanding of academic interactions. The individual items and the factor in which they loaded are included in Table 5 below.

Table 5

Factor Analysis of the Socialization Indices

Factor and Survey Item	Factor Loading	Internal Consistency
Faculty-Student Interactions		.752
Discussed research interests and ideas with a faculty member in my program	.791	
Discussed career plans and ambitions with a faculty member in my program	.761	
Discussed academic progress with a faculty member in my program	.601	
Worked with at least one faculty member in my program on non-course related research or scholarly projects	.481	
Peer-Peer Interactions		.810
Worked with other graduate students in my program on non-course related research or scholarly projects	.637	
Socialized with graduate students of different racial-ethnic backgrounds	.676	
Participated in school-or program-sponsored social activities with other graduate students in my program	.696	
Participated in an informal study group with other graduate students in my program	.718	
Socialized informally with other graduate students in my program	.774	
It has been easy for me to meet and make friends with others students in my program	.522	
Student's Perceptions of Faculty		.886
Faculty in my program treat students fairly	.830	
Faculty in my program provide quality instruction	.744	
There is good communication between me and the faculty in my program	.720	
Faculty in my program are interested in my research	.660	
Faculty in my program are open to new ideas	637	
It is easy to develop personal relationships with faculty members in this program	.592	
Advising Relationship		.872
My advisor offers useful criticisms of my work	858	
My advisor is accessible for consultation	.809	
My advisor has concern for my professional development	.717	
My advisor is interested in my personal welfare	.552	
Mentoring Relationship		.841
My mentor offers useful criticisms of my work	.872	
My mentor is accessible for consultation	.869	
My mentor has concern for my professional development	.804	
My mentor is interested in my personal welfare	.720	

To verify whether the factors derived and constructed were reliable measures, I conducted

reliability analyses. The process involved entering the items to be included in a given scale and

assessing the resulting coefficient, the Cronbach's Alpha. The Cronbach's Alpha measures the

mean correlation between items included in the scale and thus, the extent to which the items can

be thought of as measuring a single construct. The strength of the correlation is reflected in the alpha value, which ranges from zero to one. A greater degree of correlation between items is reflected in a greater alpha value. Generally, Cronbach's Alpha values greater than .70 are acceptable and indicate the scale as being internally consistent and reliable (George & Mallery 2003; Nunnaly, 1978). Reviewing Table 6 below, it is clear that all socialization scales are reliable measures given the criteria for acceptability previously stated.

Descriptive Statistics Associated with Socialization Factors

The results of the descriptive statistics as well as the Cronbach alpha values are represented in Table 6. The mean value for faculty-student interaction is 4.92 (on a 7-point scale). This implies that on average, Black Ph.D. students occasionally interacted with the faculty in their department. Also, the average student's faculty perceptions ($M = 4.48$) reflects students' somewhat neutral assessment of faculty's instruction, treatment of students, receptiveness to student's ideas and research, and ability to form personal relationships. The mean value of peer interactions ($M = 4.42$) indicates that on average, Black students sometimes interact with their peers.

Respondents recorded a mean value of 4.52 on the advising scale which indicates that participants, on average, somewhat agreed that their advisor was accessible, helpful, and concerned about the student's personal welfare and professional development. The mean value of the mentoring relationship scale was 6.26, which indicated that the average respondent agreed that his or her mentor was active in guiding his or her academic career.

Table 6

Descriptive Statistics for Socialization Factors

Characteristic	N	Cronbach's Alpha	*M*	*SD*
Faculty-Student Interactions	389	.752	4.92	1.33
Faculty Perceptions	389	.886	4.48	1.43
Peer Interactions	389	.810	4.42	1.34
Advising Relationship	156	.872	4.52	1.51
Mentoring Relationship	348	.841	6.26	.99

Characteristics of Advising and Mentoring Relationships

In addition to determining students' perceptions of their advising and mentoring relationships, I sought to gather information on the characteristics of the advising and mentoring for the participants. In particular, I gathered information on the number of students who stated they had an advisor and/or a mentor, as well as information on the race and gender of the advisor and mentor. Finally, specifically regarding mentors, I sought to determine whether the student's mentor was a faculty member in his or her program and how long it took participants to find their mentors. In this study, an advisor was defined as a faculty member assigned by your department/program to act in an official capacity in such ways as discussing and approving your coursework or signing registration forms. A mentor was defined as someone to whom they turn for advice, to review a paper, or for general support and encouragement. The results are summarized in Table 7.

Table 7

Descriptive Statistics for Specific Advising and Mentoring Variables

Characteristic	N	%
Have an Advisor (total)	375	96
Have an Advisor (for analysis)[a]	156	40
Same Race as Respondent	36	23
Same Gender as Respondent	76	49
Have a Mentor	348	89
Same as Advisor	219	63
Faculty Member in Program	265	76
Same Race as Respondent	137	39
Same Gender as Respondent	211	61
Length of Time it took to Attain Mentor		
Had mentor upon entry into program	151	43
Had mentor within month of entry	29	8
Had mentor by end of first term	44	13
Had mentor within first year	55	16
Had mentor within second year	39	11
Took longer than two years to find mentor	30	9

[a]Note: Only participants who had an advisor but no mentor or whose advisor was someone separate from whom they considered their primary mentor was considered in the analysis of advising relationship.

The results indicate that 96% of respondents had advisors while 89% had mentors. Many of the respondents also indicated that their advisor was also their primary mentor 63%. In 23.1% of the advising relationships, both the respondent and the advisor were Black, while 49% of respondents had advisor who were the same gender. This indicates Black Ph.D. students experience considerable cross-cultural academic advising.

In terms of mentors, in 61% of the cases, the mentor and the respondents were the same gender. The same was not true regarding race. Only 39% were the same race as their mentor. In the mentoring relationships, participants were slightly more likely to be matched by gender or race than in the advising relationships. This may be due to the difference in how individuals

acquire an advisor or mentor. Specifically, advisors are generally assigned without much input by the student while both the mentor and the mentee have some say in whether or not to forge the mentoring relationship.

Additionally, 76% of the respondents found mentors from among the faculty of their program. This seemingly indicates that the majority of Black Ph.D. students do not have to look beyond the members of their faculty for academic guidance and support. Of note, the majority of individuals indicated they entered their program with a mentor; 43% had mentors as they entered the program; while 20% took two years or more to find a mentor. Thus, most students recognized the importance of mentoring to their success and sought to secure such guidance early on in their doctoral experience.

While the descriptive statistics associated with the socialization variables are useful indicators of the socialization experiences of Black Ph.D. students, it is important to examine the potential relationship between the socialization measures and the demographic and background variables. Weidman et al., (2001), in their model of graduate and professional student socialization, indicate that a student's background and academically-related experiences influence socialization. To investigate this assertion, I conducted both bivariate and multiple regression analyses. The results for the bivariate analysis are summarized in Table 8 while the results from the multiple regression analysis can be located in Tables 9 and 10.

Bivariate Analysis

As shown in Table 8, several demographic and academic variables are significantly correlated with the socialization factors. It is apparent, however that there exist different

relationships between the background variables and each socialization variable. At this time, I

will discuss the significant relationships.

Table 8

Significant Correlations between Socialization Scales and Demographic/Academic Variables

Characteristic	r	Sig	N
Faculty Interactions			
Fellowship	.116	024	378
Research Assistantship	.153	.003	378
Tuition/Fee Waiver	.105	.041	378
Black Faculty	.101	.046	389
STEM	-.103	.042	389
Peer Interactions			
Age	.107	.035	389
Tuition/Fee Waiver	.130	.011	378
HBCU Undergraduate Att	.108	.033	389
Completed	101	.047	389
Faculty Perceptions			
Black Student	.149	.003	389

Faculty interactions. There are five variables correlated with faculty interaction: receipt

of fellowship, receipt of research assistantship, receipt of tuition/fee waiver, number of Black

faculty, and STEM major. Receipt of fellowship is positively correlated to faculty interactions (r

$= .116$, $p < .05$) which suggests that those with fellowships interacted more frequently with

faculty. In addition, the correlation analysis revealed that participants who served as research

assistants had more frequent faculty interactions than those who did not, ($r = .153$, $p < .01$).

Participants who received tuition/fee waivers interacted with faculty more regularly ($r = .105$, *p*

< .05) than students who did not. The number of Black faculty was found to be positively related

to faculty interaction ($r = .101$, $p < .05$). Thus, as the number of Black faculty in the participants

program increased the more faculty-student interaction that took place. Finally, those in the

STEM fields are less likely to interact with faculty than those who are in other disciplines (r = -.103, p < .05).

Peer interactions. There are four variables correlated with peer interactions: age of student, receipt of tuition/fee waiver, undergraduate attendance at an HBCU, and having completed the Ph.D. The inverse relationship between age and peer interactions suggests that older respondents interact less frequently with their peers than younger participants in the study. Receipt of tuition/fee waiver is positively correlated to peer interactions (r = .130, p < .05) which indicates that those with tuition/fee waivers interacted more frequently with their peers. Having attended an HBCU is positively correlated with peer interaction in programs at PWIs (r = .108, p < .05). This indicates that participants who attended an HBCU as an undergraduate interact more frequently with peers in their program than those who did not attend an HBCU. The final significant relationship is the positive relationship between completion of the Ph.D. and peer interaction. Namely, individuals who indicated that they had recently finished their Ph.D.s interacted with peers while in their doctoral program more than students who were still matriculating.

Perceptions of faculty. The number of Black students in the program was the only variable correlated to perceptions of faculty (r = .149, p < .01). This relationship suggests that increasing numbers of Black students improves perceptions of faculty. A simple explanation for this result is that programs that attract larger numbers of Black students likely engage in formal and informal activities that allow Black students to feel well treated, heard, and respected. For example, faculty may use dialogue as the mode of discourse in the classroom. A dialogic approach to teaching welcomes and encourages multiple viewpoints to be presented and

examined. Furthermore, faculty may engage in social activities with students that fosters a sense of belongingness in the academic community.

I also conducted a bivariate analysis for both advising and mentoring. None of the demographic or background variables were significantly correlated to either measure. This suggests that as conceptualized, the current model is a poor fit to explain the variance of these two variables. Thus, I discontinued further statistical analysis of these variables.

The previous discussion indicates that a number of background variables are correlated with three of the five socialization variables. As indicated, the bivariate analysis, while indicating the strength and direction of the relationship between two variables, does not control for the effects of other variables on the relationship. To control for the possible influence of other variables on the relationship and to determine which, if any, relationships hold, multiple regression analyses must be conducted. I will now turn the results of multiple regression analyses performed on the socialization factors and background variables.

Multiple Regression Analyses

I performed three separate multiple regression analyses with faculty-student interactions, peer-peer interactions, and student's perceptions of faculty each serving as the dependent variable. Below, I discuss the results of those regressions. Tables corresponding to significant results are located below with tables corresponding to nonsignificant results located in Appendix G.

Table 9

Multiple Regression Analysis of Demographic and Academic Background Variables on Faculty-Student Interactions

Characteristic	B	β	t-stat	p
Constant	4.92	6.51		0.00
Gender	.04	.01	.25	.80
Age	-.02	-.09	-1.59	.11
Coupled	.08	.03	.54	.59
First Generation	-.24	-.09	-1.64	.10
HBCU Undergraduate Attendance	-.02	-.01	-.11	.91
Number of Black Faculty in Program	.03	.03	.55	.58
Number of Black Students in Program	.03	.05	.80	.42
Full Time Attendance Status	-.00	.00	-.00	.99
Stage in Doctoral Process				
Comps/Qual Exams	-.13	.04	.59	.55
Dissertation Stage	.17	.06	.90	.37
Graduate	.38	.10	1.48	.14
(Ref Cat: Taking Courses)				
Field of Study				
STEM	-.97	-.34	-3.17	.00
Social Sciences/Hum	-.56	-.20	-1.93	.06
Other	.54	.10	-1.75	.08
(Ref Cat: Education)				
Types of Financial Support				
Fellowship	.39	.14	2.44	.02
Research Assistantship	.34	.13	2.36	.02
Teaching Assistantship	-.04	-.01	-.24	.81
Administrative Assistantship	-.07	-.02	-.32	.75
Tuition/Fee Waiver	.20	.08	1.43	.15
Loans	.07	.03	.52	.61

Adjusted R ^{2}=.06 F(20, 357) = 2.188, p < .01)

Faculty interactions. The overall model for faculty interaction was significant (F(20, 357)) = 2.188, $p < .01$), with six percent of the variance being explained. Of the 20 variables included in the model, three individually were significant predictors of faculty interactions holding all other factors constant. Holding a fellowship and serving as a research assistant were positively related to greater levels of faculty interaction. Individuals who received these two

forms of funding were more likely to interact with faculty than those who did not. Finally, being

in a STEM discipline was inversely related to faculty interactions. Thus, those in STEM fields

reported significantly lower faculty interaction than their counterparts in the education fields.

Table 10

Multiple Regression Analysis of Demographic and Academic Background Variables on Peer-Peer Interactions

Characteristic	B	β	t-stat	p
Constant	3.70		4.83	0.00
Gender	.18	.06	1.08	.28
Age	-.02	-.12	-2.10	.04
Coupled	.14	.05	.89	.38
First Generation	-.28	-.10	-1.91	.06
HBCU Attendance Undergraduate	.16	.06	1.12	.27
Number of Black Faculty in Program	-.01	.01	-.15	.88
Number of Black Students in Program	.06	.11	1.80	.07
Full Time Attendance Status	.13	.03	.54	.59
Stage in Doctoral Process				
Comp/Qual Exam	.32	.09	1.45	.15
Dissertation Stage	.31	.12	1.64	.10
Graduate	.72	.19	2.75	.01
(Ref Cat: Taking Courses)				
Field of Study				
STEM	.08	-.03	.38	.70
Social Sciences/Hum	.19	-.07	.95	.34
Other	.38	.07	1.22	.23
(Ref Cat: Education)				
Types of Financial Support				
Fellowship	.01	.004	.07	.94
Research Assistantship	.07	.03	.49	.63
Teaching Assistantship	-.11	-.04	-.70	.48
Administrative Assistantship	-.09	-.02	-.40	.69
Tuition/Fee Waiver	.30	.11	2.09	.04
Loans	.15	.06	1.03	.30

Adjusted R^2=.04 F(20, 357) = 1.751, p < .05)

Peer interactions. The model for peer interactions was significant (F(20, 357)) = 1.751, $p < .05$) with approximately four percent of the variance being explained. Three variables were significant predictors of peer interactions. Holding constant other factors, having a tuition waiver was significantly related to higher levels of peer interaction. Thus, students with tuition/fee waivers more frequently interacted with peers than those students who did not. Additionally, an older student can be expected to have less frequent peer-peer interactions than a younger student holding all other factors constant. Finally, having completed the Ph.D. was significantly related to peer-peer interactions. Those that had completed indicated they interacted more with peers relative to those who were still taking classes.

Nonsignificant models. The model composed of demographic and academic background variables proved not to be significant in its prediction of faculty perceptions. I include the table showing the results of the regression for this variable in the Appendix G, as there is a possibility that by adding the racial identity variables, the model may become significant and require some discussion. I will now move on to my discussion of question 2.

Question 2: What are the Factors Related to the Racial Identity Attitudes and Beliefs of Black Ph.D. Students Attending PWIs?

The Multidimensional Model of Racial Identity (MMRI) and its corresponding instrument, the Multidimensional Inventory of Black Identity (MIBI), address and measure the importance and meaning of race to an individual's self-concept (Seller et al, 1998). The MIBI measures three aspects of racial identityracial centrality, which is the importance of race to the individual's idea of self; racial regard, which is the individual's personal judgment regarding members of a race and perception of society's judgment of members of a race; and racial

ideology, which is an individual's belief regarding the correct attitudes of members of a race regarding political and economic development, social and cultural activities, and interpersonal relations. Sellers et al. (1998) indicated there are two components of racial regard: *public and private* and four ideological philosophies an individual might hold: *nationalist, oppressed minority, assimilationist, and humanist*.

As explained in Chapter 3, a modified version of the MIBI was used, taking into account many of the issues raised by other scholars (Cokley & Helm, 2001). To verify that the modified scales for each of the constructs were reliable measures, reliability analyses were performed. The Cronbach's Alphas corresponding to each scale are included in Table 11 below.

From Table 11 below, it is clear that four scales have Cronbach alpha values above .70, indicating that they are internally consistent and reliable measures (Nunnally, 1978). Specifically, racial centrality, public regard, private regard, and nationalist racial ideology have Cronbach's Alpha values greater than .70. According to George and Mallery (2003), both oppressed minority racial ideology, which as a value of .664 and humanist racial ideology that has a value of .626 are both considered questionable scales. As the Cronbach's Alpha score declines, it is less certain that the items included in the index are measuring the same construct. Thus, it is less certain that the items included in the oppressed minority subscale and the humanist ideology subscales actually measure those constructs. The Cronbach's Alpha value for assimilationist racial ideology is .519 and is consider a poor measure for the construct in this case. For the purposes of continuity with other studies examining the relationship of racial identity on academic outcomes, I will not exclude the assimilationist scale; however, any results

where it is significant must be considered with caution. I will now present the results on racial

identity for the sample.

Table 11 provides a summary of the descriptive statistics related to racial identity.

Table 11

Descriptive Statistics for Racial Identity Subscales

Characteristic	N	Cronbach's Alpha	*M*	*SD*
Racial Centrality	389	.862	6.10	1.10
Racial Regard				
Public Regard	389	.860	3.32	.616
Private Regard	389	.710	6.56	1.22
Racial Ideology				
Nationalist	389	.734	3.87	1.19
Assimilationist	389	.519	4.09	1.17
Op Minority	389	.664	5.16	1.17
Humanist	389	.626	5.92	.880

Included in the table are the mean and standard deviation associated with each measure. The

mean value for racial centrality is 6.10 (on a 7-point Likert type scale). This indicates that for the

average respondent, race is central to his or her self-concept. According to Sellers et al. (1998),

this would mean that racial regard and racial ideology will be relevant to the individual and

thereby employed to assess a given situation and inform the individual's behavior. In terms of

racial regard, the mean value of public regard is 3.32. This indicates that the average respondent

somewhat disagrees that individuals of other racial/ethnic backgrounds have a high opinion of

members of the Black race. However, the mean value of private regard is 6.56; hence, the

average participant has very high regard for Blacks.

As indicated earlier, an individual might hold beliefs related to four racial ideologies. The

nationalist ideology indicates strong feelings towards the Black race. Individuals who hold such

ideological views believe that no other race or ethnic group has had an experience like Blacks in

the United States. They further assert that because of this experience, Blacks must engage in community and institution building and culturally-affirming activities that exclude other groups. The mean value for nationalist beliefs is 3.87. This indicates that on average, respondents do not agree or disagree with nationalist ideology.

Holding oppressed minority beliefs indicates that the individual believes that other ethnic groups have been marginalized by the dominant culture. Those who espouse this ideal assert that Blacks and other marginalized groups should work together. The mean score for oppressed minority ideology is 5.16; hence, the average respondent somewhat agree with this ideology.

Assimilationists ascribe to the beliefs of the dominant culture. The mean value is 4.09. Thus, the respondents on average neither agree nor disagree with such beliefs. Humanist beliefs assert that all groups have similar values and experiences. The mean value for this ideological assertion is 5.92. This indicates that the average respondent ascribes to this ideal.

Researchers have found a number of factors such as neighborhood (and its racial makeup); level of contact with other Blacks, and age may influence the status of an individual's identity (Chavous, 2000). Using the literature as a basis for choosing those variables that might be related to racial identity and bivariate and multiple regressions as my methods for analysis, I sought to test whether certain conditions in the students' background and current environment might predict racial identity. The results are included in tables 12-18.

Bivariate Analysis

As shown in Table 12, several racial identity factors were correlated with demographic and background variables. It is also apparent that several variables consistently were correlated

with racial identity factors. These include number of Black faculty, attending an HBCU, and

majoring in STEM, Social Sciences and Humanities.

Table 12

Significant Correlations between Racial Scale and Demographic/Academic Variables

Characteristic	r	Sig	N
Centrality			
Age	.106	.037	389
Black Faculty	.131	.010	389
Black Students	.117	.021	389
HBCU	.167	.001	389
STEM	-.267	.000	389
SocialHumanities	.129	.011	389
Private Regard			
Age	.129	.011	389
HBCU	.105	.038	389
STEM	-.259	.000	389
Assimilation Ideology			
Black Faculty	-.223	.000	389
HBCU	-.165	.001	389
STEM	.117	.021	389
Oppressed Minority Ideology			
Black Faculty	.114	.025	389
HBCU	-.102	.045	389
STEM	-.135	.008	389
SocialHumanities	.143	.005	389
Humanist Ideology			
Black Faculty	-.179	.000	389
Nationalist Ideology			
Black Faculty	.215	.000	389
Black Students	.101	.046	389
HBCU	.135	.008	389
STEM	-.232	.000	389
SocialHumanities	.120	.018	389

Centrality. Six variables were significantly related to centrality: age of student ($r = .106$,

$p < .05$), number of Black faculty ($r = .131$, $p = .01$), number of Black students ($r = .117$, $p <$

.05), and attending an HBCU ($r = .167$, $p < .01$). In addition, two fields of study were

significantly correlated to centrality: STEM ($r = -.267$, $p < .001$), Social Sciences and Humanities

(r =.129, *p* < .05). All variables were positively correlated with centrality except majoring in the STEM fields. Thus, as students increase in age, the importance of race to their self-concept increases. This finding implies that centrality of race is related to maturity or life experiences. As individuals mature, race becomes a more important construct in the self-concept. Additionally, as the number of Black faculty and Black students increase in a given program, so does race as a defining feature of the individual's identity. Students who attended an HBCU as undergraduates were found to have a higher level of racial centrality than those who did not. These students might enter their programs with race being more important to their identity than students who did not attend HBCUs or it may be that being in a culturally different environment, the importance of race increases for them. Students in the Social Sciences and Humanities reported race being more central to their self-concept than their counterparts. However, those in the STEM fields reported lower levels of racial centrality. This, like the previously mentioned case, may be a function of self-selection; students for whom race is more central to their self-concept may be drawn to certain fields of study. Additionally, the environments of some fields may facilitate greater racial identity development in Black students than others.

Private regard. Age of student (r = .129, *p* < .05), attending an HBCU (r = .105, *p* < .05), and majoring in STEM field (r = -.259, *p* <.001) were correlated with private regard. As in the aforementioned case, all variables were positively correlated with private regard except majoring in the STEM fields. In terms of age, as students get older, their opinions of Blacks as a race become more positive. Additionally, students who attended an HBCU reported higher regard for Blacks than their PWI counterparts did. Finally, those in the STEM fields had lower regard for Blacks than those not in the STEM fields. This result may be a function of those who

have lower regard for Blacks entering into STEM or individuals fail to develop a higher opinion of Blacks because they are in STEM.

Assimilationist ideology. Assimilationist views were correlated with three background variables: number of Black faculty in program ($r = -.223, p < .001$), attending an HBCU ($r = -.165, p = .001$), and majoring in STEM field ($r = .117, p < .05$). Unlike the earlier cases, all variables were inversely correlated with assimilationist beliefs except majoring in the STEM fields. This indicates that students in programs with more Black faculty and students who attended an HBCU reported agreeing with fewer assimilationist views than their counterparts in each category did. However, those in the STEM fields reported agreeing with more assimilationist views and beliefs Blacks than those not in the STEM fields.

Oppressed minority ideology. Agreement with oppressed minority views was correlated with four background variables: number of Black faculty in program ($r = .114, p < .05$), attending an HBCU ($r = -.102, p = .05$), majoring in STEM field ($r = -.135, p < .01$), and Social Sciences and the Humanities ($r = -.143, p = .01$). Those students with more Black faculty and students majoring in the Social Sciences and Humanities agreed with an oppressed minority ideology more than those with fewer Black faculty and being in other fields of studies. Those who attended an HBCU and those in the STEM fields were less likely to agree with oppressed minority ideologies than those who attended PWIs and those who do not major in the STEM fields.

Humanist ideology. The number of Black faculty was found to be inversely correlated to humanist beliefs ($r = -.179, p < .001$). This finding suggests that students in programs with more Black faculty agree with fewer humanistic ideas than those in programs with fewer Black faculty

members. This result may be a function of the subject matter the students are studying or the beliefs that Black faculty share.

Nationalist ideology. Five variables were significantly related to centrality: number of Black faculty ($r = .215$, $p < .001$), number of Black students ($r = .101$, $p < .05$), attending an HBCU ($r = .135$, $p < .01$), majoring in a STEM field ($r = -.232$, $p < .001$), and majoring in Social Sciences and Humanities ($r = .120$, $p < .05$). All variables were positively correlated with centrality except for those majoring in the STEM fields. This indicates that students with more Black faculty and students in their program, students who attended an HBCU, and students in the Social Sciences and Humanities report agreeing with more nationalist ideas than their counterparts. However, those in the STEM fields agreed less with nationalist beliefs.

As stated earlier, bivariate analysis, while indicating the strength and direction of the relationship, fails to control for the influence of other variables. Regression analysis is needed to ascertain what variables are predictors of a variable of interest. I will now turn to the results of the multiple regression analyses conducted to establish the relationships between the racial identity factors and the demographic and background variables.

Multiple Regression Analyses

I performed seven regressions, one for each of the racial identity factors. A discussion of the significant models and relationships follows. The results are summarized in Tables 13-18.

Table 13

Multiple Regression Analysis of Demographic and Academic Background Variables on Centrality

Characteristic	B	β	t-stat	*p*
Constant	5.04		12.22	0.00
Gender	.08	.03	.65	.52
Age	.01	.07	1.35	.18
First Generation	-.01	-.00	-.05	.96
HBCU Attendance Undergraduate	.46	.20	3.98	.00
Number of Black Faculty in Program	.04	.05	.99	.32
Number of Black Students in Program	.01	.03	.50	.62
Field of Study				
STEM	-.62	-.26	-4.12	.00
Social Sciences/Hum	-.02	-.01	-.13	.90
Other	-.07	-.02	-.28	.78
(Ref Cat: Education)				

Adjusted R^2=.10, $F(9, 379) = 5.75$, $p < .001$)

Centrality. The model was significant ($F(9, 379) = 5.75$, $p < .001$) and explained approximately ten percent of the variance in centrality. Two variables were significant predictors of centrality. The model suggests that students who attended an HBCU as an undergraduate will report higher levels of racial centrality than those who did not attend HBCUs holding all other factors constant. Furthermore, the model also suggests that the racial centrality on average will be lower for those in STEM fields than for those in education.

Private regard. Table 14 that follows reflects the findings related to private regard. The model was significant ($F(9, 379) = 4.53$, $p < .001$) and explained eight percent of the variance in private regard. Two variables were significant predictors of private regard. The model suggests that students who attended an HBCU as undergraduates will report on average higher levels of private regard than those who did not attend HBCUs. Furthermore, the model also suggests that

the private regard on average will be lower for those in STEM fields than for those in the

education fields.

Table 14

Multiple Regression Analysis of Demographic and Academic Background Variables on Private Regard

Characteristic	B	β	t-stat	*p*
Constant	6.19		26.45	0.00
Gender	.02	.02	.29	.77
Age	.01	.08	1.65	.10
First Generation	.01	.01	.18	.86
HBCU Attendance Undergraduate	.18	.14	2.69	.01
Number of Black Faculty in Program	.001	.003	.05	.96
Number of Black Students in Program	.01	.02	.39	.70
Field of Study				
STEM	-.40	-.30	-4.64	.00
Social Sciences/Hum	-.09	-.07	-1.15	.25
Other	-.01	-.04	-.74	.46
(Ref Cat: Education)				

Adjusted R^2=.076, $F(9, 379) = 4.53$, $p < .001$)

Nationalist ideology. Table 15 that follows reflects the findings related to nationalist ideology.

The model was significant ($F(9, 379)) = 5.32$, $p < .001$) and explained approximately nine

percent of the variance in nationalist ideology. Three variables were significant predictors of

nationalist ideology. The model suggests that students who attended an HBCU as an

undergraduate will report a greater adherence to nationalist beliefs than those who did not attend

HBCUs. Furthermore, the model also suggests that on average, the more Black faculty in a

program, the greater the students' beliefs in nationalist ideology. Finally, the model indicates that

Black Ph.D. students in STEM fields hold fewer nationalist ideological beliefs and attitudes than

Ph.D. students in education.

Table 15

Multiple Regression Analysis of Demographic and Academic Background Variables on Nationalist Ideology

Characteristic	B	β	t-stat	*p*
Constant	3.73		8.30	0.00
Gender	-.04	-.02	-.29	.77
Age	-.01	-.05	-1.03	.30
First Generation	-.11	-.05	-.94	.35
HBCU Attendance Undergraduate	.43	.17	3.41	.001
Number of Black Faculty in Program	.14	.17	3.07	002
Number of Black Students in Program	-.01	-.02	-.34	.74
Field of Study				
STEM	-.61	-.24	-3.725	.000
Social Sciences/Hum	-.06	.02	-.39	.70
Other	-.17	-.04	-.68	.50
(Ref Cat: Education)				

Adjusted R^2=.091, $F(9, 379) = 5.32$, $p < .001$)

Assimilationist ideology. The following table presents the findings related to assimilationist ideology. The model was significant $F(9, 379) = 5.52$, $p < .001$) and hence explained ten percent of the variance of the assimilationist ideology. Five variables were significant predictors. The model indicated that older students hold a greater degree of assimilationist views than younger students do. Additionally, students in programs with more Black faculty and those who attended HBCUs as undergraduates hold fewer assimilationist ideas than those with fewer Black faculty and who did not attend an HBCU as an undergraduate, holding all other things constant. Finally, participants in STEM and Social Sciences/Humanities were found to more strongly agree with assimilationist beliefs and attitudes than participants in education.

Table 16

Multiple Regression Analysis of Demographic and Academic Background Variables on Assimilation Ideology

Characteristic	B	β	t-stat	p
Constant	4.35		9.93	0.00
Gender	-.18	-.07	-1.31	.19
Age	-.02	.12	2.39	.02
First Generation	.06	.02	.47	.64
HBCU Attendance Undergraduate	-.43	-.18	-3.55	.000
Number of Black Faculty in Program	-.18	-.23	-4.16	.000
Number of Black Students in Program	.02	.04	.73	.47
Field of Study				
STEM	.45	.18	2.83	.01
Social Sciences/Hum	.33	.142	.29	.02
Other	.32	.07	1.28	.20
(Ref Cat: Education)				

Adjusted R^2=.095, $F(9, 379) = 5.52, p < .001$)

Oppressed minority. Table 17 reflects the findings related to the oppressed minority ideology. The model yielded an odd result. While significant, $F(9, 379) = 2.312$ $p < .05$), predicting three percent of the variance none of the individual variables significantly predicted oppressed minority views. This indicates that a number of important explanatory variables were not included in the model. The significance of the model is due to the constant term.

Table 17

Multiple Regression Analysis of Demographic and Academic Background Variables on Oppressed Minority

Characteristic	B	β	t-stat	*p*
Constant	5.80		12.73	0.00
Gender	-.19	-.07	-1.35	.18
Age	-.01	-.07	-1.39	.17
First Generation	.15	.06	1.19	.24
HBCU Attendance Undergraduate	-.17	-.07	-1.34	.18
Number of Black Faculty in Program	.08	.10	1.74	.08
Number of Black Students in Program	-.02	-.04	-.69	.49
Field of Study				
STEM	-.22	-.09	-1.35	.18
Social Sciences/Hum	.19	.14	1.25	.21
Other	-.16	-.03	-.60	.55
(Ref Cat: Education)				

Adjusted R^2=.03, ($F(9, 379) = 2.312, p < .05$)

Humanist ideology. Table 18 presents the findings of the regression analyses of the background variables and the humanist ideological construct**.** The model was significant in predicting humanist beliefs $F(9, 379) = 2.27, p < .05$). However, only three percent of the variance was explained. Age and the number of Black faculty were found to be significant predictors of humanist ideals. Students in programs with more Black faculty have fewer humanistic beliefs holding all other factors constant. On the other hand, the older a student is, the more likely he or she will hold humanist beliefs.

Table 18

Multiple Regression Analysis of Demographic and Academic Background Variables on Humanist Ideology

Characteristic	B	β	t-stat	*p*
Constant	5.59		16.32	0.00
Gender	.01	.01	.12	.91
Age	.01	.12	2.22	.03
First Generation	.01	.01	.15	.88
HBCU Attendance Undergraduate	-.06	-.03	-.58	.56
Number of Black Faculty in Program	-.12	-.19	-3.36	.001
Number of Black Students in Program	.03	.07	1.21	.23
Field of Study				
STEM	.19	.10	1.47	.14
Social Sciences/Hum	.05	.03	.47	.64
Other	.08	.02	.41	.68
(Ref Cat: Education)				

Adjusted $R^2 = .028$ $F(9, 379) = 2.27$, $p < .05$

The findings for question two indicate that six of the seven constructs used to measure racial identity are significantly related to demographic and academic background variables. Specifically, racial centrality was positively related to attending an HBCU as an undergraduate while majoring in STEM is inversely related. Similarly, private regard was related to the same variables in the same way. Holding a nationalist ideology was positively and significantly related to attending an HBCU as an undergraduate student and the number of Black faculty. Conversely, assimilationist ideology was inversely related to these same variables. Additionally stronger agreement with assimilationist ideas was also inversely related to age.

Age and the number of Black faculty in the program are significantly and positively related to more humanist beliefs. While the overall model for oppressed minorities was significant, none of the individual variables alone was significant in explaining the variability in

the model. Finally, the model for public regard was not significant. I will now turn the discussion to the findings for question 3, which is the central question of this study.

Question 3: What is the Relationship between the Racial identity and the Socialization Experiences of Black Ph.D. Students Attending PWIs

To answer the third question of the study, two different statistical procedures were performed. First, I performed a bivariate analysis to determine if there were correlations between the variables. To address question one, bivariate relationships were determine for the socialization variables and the background and academic variables. In question 2, bivariate relationships between racial identity and some select background and academic variables were established. Thus, to address question 3, I only sought to examine the bivariate relationship between the socialization measures and racial identity. Results can be found in Table 19.

Next, I conducted multivariate analyses to determine whether the relationships established previously between socialization and racial identity hold once potential confounding effects of other variables included in the model are controlled. Specifically, three five separate hierarchical regression analyses were conducted corresponding to each socialization factor to measure the effect of racial identity on the overall model and to determine what racial identity factors significantly explain the variation in socialization. The findings can be found in Table 20.

Bivariate Analysis

As shown in Table 19, several racial identity variables were correlated with aspects of socialization. While each measure of socialization is correlated with a different combination of racial identity variables, it is interesting to note that public regard is consistently related to all but one of the factors.

Table 19

Significant Correlations between Socialization and Racial Identity Variables

Characteristic	r	Sig	N
Faculty Interactions			
Public Regard	.110	.030	389
Assimilation Ideology	-.125	.013	389
Nationalist Ideology	.125	.014	389
Peer Interactions			
Public Regard	.105	.038	389
Faculty Perceptions			
Centrality	.141	.005	389
Private Regard	.150	.003	389
Public Regard	.169	.001	389
Humanist Ideology	.163	.001	389
Advising Relationships			
Centrality	.177	.027	156
Public Regard	.238	.003	156
Humanist Ideology	.278	.000	156
Mentoring Relationships			
Centrality	.132	.014	348

Faculty interactions. There are three racial identity variables that were correlated with faculty interaction: public regard, assimilationist ideology, and nationalist ideology. Public regard is positively correlated to faculty interactions ($r = .110, p < .05$), which suggests that when participants believed those of other ethnic/racial backgrounds held favorable views regarding Blacks, they interacted more frequently with faculty. In addition, the correlation analysis revealed that when students had strong assimilationist views, they tended to interact less frequently with faculty ($r = -.125, p < .05$), whereas students who held strong nationalist ideological beliefs tended to interact more frequently with faculty ($r = .125, p < .05$).

Peer interactions. The only racial identity variable associated with peer interaction was public regard (r = .105, *p* < .05). This suggests that when Black students believe peers of other backgrounds hold positive views about Blacks, they interact more frequently. The previous explanation with regard to faculty interactions and public regard would also hold in this case.

Perceptions of faculty. Four different racial identity subscales were correlated with perceptions of faculty: centrality, public regard, private regard, and humanist. Centrality was positively related to faculty perceptions (r = .131, *p* <.01). This relationship suggests students for whom race is a defining factor in their self-concept more favorably view the abilities and responsiveness of faculty in their program. Private regard (r = .141, *p* < .001), public regard (r =.178, *p* < .001), and humanist (r = .152, *p* <.001) are all positively correlated with perceptions of faculty. This indicates that the higher the level of private and public regard and the greater the adherence to the humanist ideology, the more positive participant's appraisal of faculty abilities and receptiveness toward students.

Advising. Four different racial identity variables were correlated with advising: centrality, public regard, oppressed minority, and humanist. Centrality was positively related to advising (r =.180, *p* < .05), which indicates the more central race is to the individual's self-concept, the more positive the appraisal of faculty advising. The positive relationship between advising and public regard (r = .224, *p* < .001) suggests that the more strongly a student's belief that Blacks were well regarded by society, the more positive the student's appraisal of the advising relationship. Additionally, the stronger the student's belief that other minorities had a similar experience as Blacks in the United States (r = .295, *p* < .001), the more positive the

individual's assessment of the advising relationship. Finally, there is a positive correlation between holding a humanist ideology and the participant's appraisal of the advising relationship.

Mentoring. Racial centrality was the only variable correlated with the mentoring relationship. The correlation coefficient associated with centrality and mentoring was r = .132, *p* < .05. This suggests that the more central race is to the individual's self-concept, the more highly they rate the job the mentor is doing.

The aforementioned discussion indicates that racial identity variables are correlated to socialization variables. Those for whom race is central to their self-concept more favorably appraise their faculty overall and their advisor and mentor specifically. Black students who perceive that society has a high opinion of Blacks interact more frequently with faculty and peers, have a more positive opinion of faculty and will more favorably assess their advisor. Blacks holding strong assimilationist views tended to shy away from faculty interactions while students holding stronger nationalist ideologies more frequently interacted with faculty. A strong regard for Blacks in general caused students to hold favorable views of their faculty. The same was true for adhering to a strong humanist ideology. Finally, holding either an oppressed minority or humanist ideology led to students positively appraising their advisor. As indicated above, the bivariate analysis, while indicating the strength and direction of the relationship between two variables does not control for the effects of other variables on the relationship. To determine the specific effect a variable has on another, it is necessary to account for the effects of other important variables. In regression analysis, the effects of other potentially important variables are accounted for to examine the particular relationship between the dependent variable

and a specific independent variable. I now turn to the results of the regression analysis performed

to determine the relationship between the socialization variables and racial identity

Hierarchical Regression Analyses

Hierarchical regression analyses were conducted with each measure of socialization to

answer two separate but related questions: (1) after accounting for background and demographic

factors, does adding racial identity variables significantly contribute to the explanatory power of

the model, and (2) which racial identity variables are significant in the new model? I performed a

hierarchical regression where each of the socialization variables (faculty interaction, faculty

perception, peer interaction, advising, and mentoring) was the dependent variable. For each

regression, the first block of variables that was entered included demographic variables (gender,

age, coupled status, first generation status), academically-related variables (status in program,

full- or part-time status, field of study, financial support), and racially-related variables (HBCU

attendance as undergraduate, number of Black faculty in program, number of Black students in

program). The second block of variables included the racial identity variables (racial centrality,

public, and private regard, assimilationist, nationalist, humanist, and oppressed minority). The

results of each regression are included in Table 20 below.

The results from the hierarchical regression indicate that when the model including the

racial identity variables a significant amount of the variance was explained in only three of the

socialization measures: faculty interactions, faculty perceptions, and peer interactions. It is

important to note that the addition of the racial identity variables made the model for student's

perceptions of faculty significant. The nonsignificant results on the advising and mentoring

Table 20

Hierarchical Multiple Regression Analyses Predicting the Relationship between Racial Identity and Faculty Interactions, Perceptions of Faculty, and Peer Interactions

	Measures of Socialization					
	Faculty Interactions		Perceptions of Faculty		Peer Interactions	
Predictor	β	ΔR^2	β	ΔR^2	β	ΔR^2
Step 1		.06**		.02		.04**
Model 1[a]						
Step 2		.03*		.05**		.01
Centrality	.04		.16*		.12	
Public Regard	.18**		.17**		.10	
Private Regard	-.05		-.04		-.06	
Nationalist	.13		-.03		-.14*	
Assimilationist	-.09		-.05		-.08	
Op Minority	-.07		-.02		-.08	
Humanist	.09		.15*		-.01	
Total R^2		.09**		.07**		.05*
N		350		350		350

Note. ΔR^2 reported are adjusted R^2.

[a]*Control variables include age, gender, marital status, first generation status, number of Black faculty, number of Black students, attendance status, field of study, source of funding, HBCU attendance, and stage in Ph.D. studies.*

*$p < .05$, **$p < .01$.

indicates that the model developed for this study is inappropriate for explaining the advising and mentoring relationships of Black Ph.D. students. Specifically, the background, academic , and racial identity variables included were not significant predictors of advising and mentoring relationships; thus, rendering any further discussion of these two variables moot. I will now comment on the results for each of the significant models.

Faculty-student interactions. For faculty-student interactions, the initial model which included variables related to the participant's demographic and academic background, ($F = 2.19$, $p < .01$) yielded an adjusted $R^2 = .06$; thus, six percent of the variance in faculty-student interactions was explained by background variables. Adding the racial identity variables

significantly increased the amount of variance explained by the overall model by 3 percent (ΔF = 2.48, *p* < .05*)*. The overall model is significant *F(*27, 350), p < .001.

The only specific racial identity variable that was a significant predictor of faculty interaction was public regard (β = .18, p < .001). Thus, upon controlling for the influence of other variables, public regard significantly contributed to the explanatory power of the model. Therefore, to the degree that the student believed society had a high opinion of Blacks positively and significantly affected interactions with faculty.

Student's perceptions of faculty. The initial model, which included only demographic and academic background variables, did not yield a significant model (*F* =1.42*, p* = .109). Adding racial identity variables to the model significantly increased the amount of variance explained (*ΔF* = 3.75, *p* < .001*)*. The racial identity variables led the overall model to become significant (*F(*27, 350) =2.08*, p* < .01*)*; thus a statistically significant amount of the variance of faculty perceptions (seven percent) was explained by the model.

Three particular racial identity variables were found to be statistically significant: centrality, public regard, and humanist. The significance of centrality (β = .16, *p* < .05*)* suggests that students for whom race is important to their self-concept more positively assess the abilities of faculty in their program. It was also found that public regard (*β* = .17*, p* < .01*)* was positively related to student's perceptions of faculty. Finally, a humanist ideology (*β* =.15*, p* < .05*)* also is positively related to student's perceptions of faculty. Thus, the greater the participant's belief that society holds Blacks in high regard and the more a respondent agrees with humanist ideology, the more favorable was the assessment of faculty's instructional abilities and ability to connect with students socially.

Peer interactions. Analyses in this case yielded interesting results. The model that included only background variables was significant ($F(27, 350) = 1.75, p = .05$). However, adding the block of racial identity variables did not significantly add to the explanatory power of the model ($\Delta F = 1.71$, p= .106). However the overall model was significant ($F(27, 350) = 1.76, p < .05$). The first block explained 4 percent of the variance in peer interactions while the second block added only 1 percent. One racial identity variable emerged as being a significant predictor of peer interactions. Having nationalist beliefs was found to be inversely related to peer interaction ($\beta = -.13, p < .05$) Thus, the more strongly the participant agreed with nationalist beliefs, the fewer peer-peer interactions they reported.

Preceding regression analyses indicate that racial identity has a direct effect on three important measures of doctoral student socialization for Black Ph.D. students. Specifically, it contributes directly to explanatory power of the models for faculty interactions, faculty perceptions, and peer interactions. In addition, for all three measures of socialization, individual factors of racial identity are significant in explaining the variance in these measures. This in part support the idea posited by Tierney and Rhoads (1994) that cultural values and beliefs might influence an individual's academic socialization. Moreover, it supports Sellers et al's. (1998) supposition that racial identity influences behavior. In the case of the study, certain racial identity attitudes shaped faculty-student interactions, peer-peer interactions, and student's perceptions of faculty.

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Summary

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The purpose of this study was to address three research questions related to the socialization experiences and racial identity of Black Ph.D. at predominantly White institutions.

In question one, I sought to determine the factors related to socialization of Black Ph.D. students. Factors that were significantly related to faculty interactions were being a graduate, majoring in STEM, receiving a fellowship, and being a research assistant. In terms of peer interactions, age of student and receiving a tuition/fee waiver were significant factors.

For question 2, I sought to determine what demographic and academic background factors were related to the racial identity of the sample. I found two factors were significantly related to racial centrality: attended an HBCU as an undergraduate, which was positively related to racial centrality and majoring in a STEM field, which was negatively related to racial centrality. Similarly, these same factors were significant explanatory variables for private regard. Attending an HBCU as an undergraduate and the number of Black faculty members in a program were positively and significantly related to the degree to which an individual held nationalist beliefs. Along with age of respondent, these same variables were significant explanatory variables for an assimilationist ideology. Finally, age and number of Black faculty members were significant explanatory variables for humanist ideology.

The final question that guided this study referred to the relationship between racial identity and socialization for the participants of this study. The results suggest that a relationship exists between racial identity and three components of socialization. Public regard was significantly related to faculty interactions and perceptions of faculty. In addition, for perception of faculty, racial centrality and humanist ideology were significant. Finally, for peer interactions, nationalist ideology was significantly related. At this time, I will turn to Chapter 5 where I will discuss the conclusions in light of the extant literature and theoretical framework. I will then

discuss the implications of the results followed by my recommendations socializing agents. I will

end the discourse by offering potential directions for future inquiry.

Chapter 5: Discussion and Conclusions

This study sought to address three questions: (1) What factors influence the socialization of Black Ph.D. students attending PWIs; (2) What factors influence the racial identity attitudes and beliefs of Black Ph.D. students attending PWIs?; and (3) What is the relationship between the racial identity and the socialization of Black Ph.D. students attending PWIs? As stated throughout this dissertation, scholars have asserted that the cultural values and beliefs of Blacks and other ethnic groups may be incongruent with those espoused and promoted in the academy (Antony, 2002; Tierney & Rhoads). They intimate that cultural incongruence might lead to difficulties in student socialization. There is little research on the socialization experiences of ethnic minorities (Ellis, 2001; González, 2006; Taylor & Antony, 2000) and there appears to be none that examines the influence of their cultural beliefs and attitudes on the experience.

The results from the study indicate that to some degree, culturally-related beliefs and attitudes matter. Specifically, racial identity influences the faculty–student interactions, peer-peer interactions, and student's perceptions of faculty of Black Ph.D. students at PWIs. In this chapter, I discuss the results related to each research question. To provide context by which to understand the findings, I will draw upon higher education and other relevant literature. Finally, I will discuss the implications and recommendations for policy changes, future paths for research, and offer closing thoughts.

Question 1: What Factors are Related to the Socialization of Black Ph.D. Students

Attending PWIs?

As stated in Chapter 2, socialization is the process by which newcomers are introduced to the culture of the organization and learn how their particular role in the organization is defined

(Van Maanen & Schein, 1979). Scholars who have studied doctoral student socialization have developed several models of the process (Baird, 1992; Bragg, 1976; Weidman, Twale, & Stein, 2001). An analysis of the models reveals common interactions that facilitate the process. Specifically, faculty and peer interactions are viewed as the primary means through which students learn the expectations and skills associated with roles within their discipline.

Furthermore, researchers of doctoral student socialization have also sought to determine the particular factors that shape faculty and peer interactions (Baird, 1992; Nettles & Millett, 2006). Specifically, Nettles (1990) investigated whether demographic variables such as race, socioeconomic status (SES), and gender had an effect on interactions. Nettles found that there were differences by race and SES in interactions with faculty. Additionally, Baird (1992) examined whether the stage in the doctoral process shaped students' perceptions of the frequency in which they interacted with their faculty and peers. He found that students perceived greater interaction with faculty and peers as they progress through their doctoral program.

Additionally, research exists suggesting the importance of funding sources in the socialization process. Specifically, Nettles and Millett (2006) discussed whether receiving a fellowship, taking out student loans, or serving as a research or teaching assistant would have any effect on the student's interactions with faculty. They found that having a research assistantship was significant in predicting faculty-student academic interactions only for students in the social sciences. Furthermore, they found that receiving a fellowship was only significant in predicting faculty-student academic interactions for those in the STEM fields. Some, scholars have investigated whether the discipline in which a student is studying shapes the nature and frequency of faculty and peer interactions (Gardner, 2007, 2010; Sallee, 2008, 2011; Sweitzer,

2009). For instance, Sallee (2008) found that students in English interacted less frequently with both faculty and peers than students in Aerospace and Mechanical Engineering. I drew from these studies to test whether demographic, academic stage in doctoral studies, source of financial support, and field of study were related to faculty and peer interactions for Black Ph.D. students at PWIs.

Factors Affecting Faculty Interactions

Three predictor variables emerged as significant in explaining the variance in faculty interactions: receiving a fellowship, receiving a research assistantship, and pursuing a degree in STEM. Two forms of funding were found to be positively related to faculty-student interactions: receiving a research assistantship and receiving a fellowship. Thus for Black Ph.D. students, regardless of their field of study, research assistantships and fellowships tended to foster frequent faculty-student interactions. With many research assistantships, faculty work closely with students developing hypotheses, conducting research, and interpreting and reporting the results. Hence, frequent interactions are the outcome of the research process. The influence of a fellowship on faculty-student interaction could stem from one of two scenarios. When the fellowship requires the student to work with faculty, it acts as a catalyst to facilitate their interactions. Another possibility is fellowship funding frees the student from needing to secure off-campus employment, which might be required to fund their studies. With their financial need met, it increases the possibility of interacting with faculty outside the class and in informal settings. Therefore, my findings are consistent with those of Nettles and Millett (2006).

Results indicated an inverse relationship exists between being a student in STEM and faculty-student interaction. Specifically, the finding suggests that Black STEM Ph.D. students

have fewer interactions with faculty than Black Ph.D. students in the reference group, education. Nettles and Millett (2006) found that African Americans in the sciences and mathematics reported lower faculty-student *social* interactions than their other race counterparts while finding no difference in *academic* faculty-student interaction. In this study, the faculty-student interactions are considered as academic interactions as it includes items related to research, career, and academic progress. A reason that might be posited for this outcome is that Black Ph.D. students in STEM are less likely to encounter Black faculty than their counterparts in education (NCES, 2009). For a number of reasons including perceived or actual racial stereotyping, transition issues, and other concerns, Black students in STEM may find it difficult to form relationships with white faculty and thus have fewer interactions than their counterparts in education (Oden, 2003). Another reason that might be offered is that the academic environment and experience in STEM differs from that of education for Black students. This may influence the degree to which they come in contact and thus their level of interaction with faculty.

Factors Affecting Peer-Peer Interactions

Peer interactions have been associated with increased socialization into the discipline (Austin, 2002; Becker & Carper, 1956; Gardner, 2007). In this study, three factors significantly influenced this outcome: the age of the student, receiving a tuition/fee waiver, and completing the Ph.D. program. In particular, older students indicated having lower levels of interactions with peers while students with tuition waivers indicated higher levels of interaction in comparison to those without tuition waivers. Additionally, participants who completed the program indicated

having more peer-peer interactions during their Ph.D. process than those that were still taking classes.

Both Austin (2002) and Gardner (2008) have found that age has a negative effect on the level of interaction between students. A number of reasons might be posited for this result. Older students may be more likely to be involved in long-term relationships that require attention when these students are not occupied with course-related activities. Additionally, older students may have familial responsibilities (children, aging parents, etc.) that might prevent frequent interactions with fellow students. Moreover, older students may have full time jobs or careers. Attending to the responsibilities associated with their employment may impede interactions with school peers. Finally, older students may feel outside of coursework and academically related activities, they have little in common with younger students, particularly younger students from other racial/ethnic backgrounds.

An unexpected result was the positive relationship between tuition/fee and peer-peer interactions. There appears to be no previous research that has found tuition/ fee waivers alone to be significant in explaining any aspect of doctoral student socialization. Generally, such waivers are part of the benefits of an assistantship or fellowship. To find that this funding option has its own unique effect separate from these other sources of funding requires some explanation.

Tuition and fees are arguably the most significant costs related to graduate education. It might be assumed that without a tuition/fee waiver, a student, even with an assistantship or fellowship, might need additional funds to cover those costs. Any additional time spent working off campus is likely to impede opportunities to interact with fellow students. Thus, a tuition/fee

waiver may substantially affect the amount of time the student has available to spend with fellow students.

Being a graduate was positively related to the frequency of peer-peer interactions. Baird (1992) suggested the nature of the peer-peer student relationship changes over time. In particular, Baird indicated that as individuals move through their program, their personal interactions with peers become more frequent. Research has found that doctoral students rely on peers for social and academic support (Gardner, 2010). For example, students rely upon their peers for social support in the form of engaging in informal social activities such as parties and dinner outside of the classroom. Gardner (2008) found, peers might also offer support through their participation in writing and study groups. Additionally, individuals rely upon their peers as colleagues, engaging in research and presentation unrelated to class assignments. Finally, peers can also act as mentors guiding individuals through the processes related to doctoral study. Recent graduates have the advantage of considering their peers in all these capacities whereas those respondents still taking class may not have experience their peers in all these ways.

It is important to note that a significant relationship was not found between the level of peer-peer interaction and those at the dissertation stage. It would seem that if Baird's (1992) findings are generalizable, students at the dissertation stage would also indicate a greater level of peer-peer interaction. It is unclear why this result was not reach. Further inquiry into peer-peer relationships throughout the stages of doctoral study for Black Ph.D. students is necessary.

It must be noted again that the model developed was insufficient in explaining the variance in faculty perceptions, the advising relationship, and the mentoring relationship. While there has been a body of research examining the mentoring relationship in the doctoral student

context (Green & Bauer, 1995; Tenenbaum, Crosby, & Gliner, 2001) and Black doctoral students specifically (Lee, 1999; Patton & Harper, 2003), much less is known about the factors that influence the advising relationship or how students perceive faculty (Barnes, Chard, Wolfe, & Stassen, 2011; Zhao, Golde, & McCormick, 2007). This is particularly the case with ethnic minorities. There is considerable room in the future for researchers to consider and determine the factors that influence these concerns.

In summary, the results indicate that variables previously found to be significant in explaining the faculty and peer interactions for Ph.D. students in general were found to be significant for Black Ph.D. students. For example, having held a fellowship or research assistantship were significant predictors of faculty interactions for the participants in this study. These findings are consistent with the findings of other scholars who study socialization (Nettles & Millett, 2006). Additionally, age and being a recent graduate were related to peer-peer interactions. This is consistent with the finding of other researchers who have found age and stage of doctoral study to be related to the socialization process (Baird, 1992; Gardner, 2008).

Two unique findings emerged from the study. First, Black students in STEM reported lower faculty interactions than their peers in education. This result may be due to the nature of doctoral education in the STEM fields or it may be due to cultural differences between students and their faculty. The limited research on minority graduate students in STEM does not support the finding of this study (MacLachlan, 2006; Nettles & Millett, 2006). Further inquiry into the particular educational experiences of Black students across disciplines is necessary to understand this outcome. Finally, tuition/fee waivers were found to be significant in predicting peer interactions. There does not appear to be any research on the possible role of tuition waivers in

the socialization process in general and what relationships they may or may not facilitate. Future research may be warranted to examine this in other contexts.

While it is useful to determine the factors that influence the socialization of Black Ph.D. students alone, this analysis fails to address the possible influence of within-group racial identity differences upon the aforementioned results. Consequently, it is important to determine the racial identity background of participants and the factors that shape their racial beliefs and attitudes. Thus, I will now turn my attention to discussing the findings of the analysis that sought to determine the factors that were significantly related to the racial identity of the respondents.

Question 2: What Factors are Related to the Racial Identity Attitudes and Beliefs of Black Ph.D. Students Attending PWIs?

The literature on racial identity establishes demographic and background variables such as education, regional origin, and age are significant factors in racial identification (Broman, Neighbors, & Jackson, 1988; Parham & Williams, 1993). Additionally, researchers have found differences in the racial identity of Black undergraduate students who attend PWIs and those who attend HBCUs (Cokley, 1999). There does not appear to be any research that has explored the relationship between background and academic factors associated with Black Ph.D. students and their racial identity. To address this dearth in the literature, I included demographic, educational background, educational environment, and field of study variables to determine whether such factors were related to the racial identity of Black Ph.D. students.

The results from multiple regression analyses indicated that age of the student, attending an HBCU, the number of Black faculty, and being in the STEM fields were significant predictors of several components of racial identity as conceptualized by Sellers et al. (1998). Before I

proceed with a discussion of the specific findings, it may be useful to review the definition of the dimensions of racial identity as they were presented in Chapter 2.

Sellers et al.'s (1998) model of racial identity suggests that there are three components: racial centrality, racial regard, and racial ideology. *Racial centrality* is a measure of the importance of race in an individual's self-concept. There are two subcomponents of racial regard: *private regard,* which is the individual's opinion of the Black race and *public regard,* is the individual's perceptions of society's opinion of Blacks as a race. There are four measures of ideology: nationalist ideology, assimilationist ideology, humanist ideology, and oppressed minority ideology. Holding a *nationalist ideology* suggests an individual believes Blacks have had a unique experience unlike any other racial group in the United States and that their culture and institutions must be vigorously maintain without any outside influences. Espousing an *assimilationist ideology* indicates the individual holds values and beliefs that are commonly promoted in American society. Thus, a Black person holding such beliefs supports the assimilation of Blacks into American culture and society. *Humanist ideology* is related to the belief that individuals, regardless of race, are more similar than different. A Black person holding such beliefs espouses *humanist* values. Finally, the oppressed minority ideology is associated with a system of values and beliefs that maintain Blacks and other marginalized groups have much in common and should work together to address issues and concerns that affect them. By reiterating the definitions for the components of racial identity, there should be adequate context to examine and explain the results from the analysis of the factors that predicted racial identity for of the participants. It is to these explanations I now turn.

Age

Results indicated that the age of the participant was related to two ideological constructs: humanist and assimilationist. The findings suggest that older participants tended to agree more with humanistic beliefs, but less with assimilationist ideology than did younger respondents. The results are consistent with Cross's model of racial identity development (Cross, 1971, 1978, 1980, 1991, 1995).

Cross (1971, 1978, 1980, 1991, 1995) asserts that there are several stages to racial identity beginning with preencounter, which is characterized by low or negative Black racial identity and strong assimilationist beliefs, and ending with internalization, which is characterized by a positive Black racial identity with strong humanistic beliefs. Cross (1991, 1995) found that younger individuals often fall into the preencounter stage. Some young Blacks who have not explored their racial identity will tend to accept the dominant culture's beliefs and values. Thus, they have low or negative racial identity and espouse more assimilationist beliefs. On the other hand, older Black individuals have likely had a sufficient opportunity to explore their own racial identity and recognize the commonalities that exist across race and ethnicity. Thus, while they have a high and positive Black racial identity, they also hold strong humanist beliefs and tend to fall into internalization-commitment stage. (Cross, 1991, 1995; Sellers et al., 1998; Worrell, 2008). The findings of this study confirm what the aforementioned researchers found in earlier studies.

Additionally, this finding may be the result of changes in the demographics of the United States. According to Howe and Strauss (2002), "The Millennial Generation", the generation of the participants born in 1982 or after has grown up in a more multicultural environment than

previous generations. Such an environment might lead many younger Black students to hold more assimilationist viewpoints.

Attending an HBCU

Attending an HBCU as an undergraduate was found to be positively related to racial centrality, private regard, and nationalist ideology. It was also found to be inversely related to assimilationist ideology. Thus, individuals who attended an HBCU as undergraduates on average indicated that race was a more important aspect of their self-concept than their counterparts that attended PWIs as undergraduates. Additionally, HBCU graduates also had a higher regard for Blacks and agreed more strongly with nationalist beliefs than their PWI graduate peers. Finally, former HBCU students were less likely to strongly agree with assimilationist beliefs than their PWI colleagues.

Several possible explanations may be offered for these findings. In the case of HBCU attendance and racial centrality, it might be the case that entering a PWI environment makes race more salient or important to former HBCU attendees than those who attended PWI institutions as undergraduates. This conclusion is related to the findings of a study by Shelton and Sellers (2000), who found that certain situations or stimuli might increase the importance of race to the individual. In this case, being in a predominantly White environment that potentially espouses and promotes values much different from those at HBCUs might cause race to become more salient. It could also be the case that changing status from being in the majority at an HBCU to being in the minority may make race salient.

An alternative explanation is that students who attended HBCUs simply have higher levels of racial centrality than their counterparts who attended PWIs. Students who attend an

HBCU generally are exposed to a not readily known history of Black achievement. Furthermore, they have the opportunity to regularly interact with Black faculty and students who excel in their field of study. Such exposure to the positive contributions Blacks have made and continue to make to society are likely to have significant and long term effects on racial identity (Shelton & Sellers, 2000). Thus, Black Ph.D. students who attended HBCUs may simply enter their doctoral programs with race being more important to their self-concept than those who attended PWI institutions as undergraduates. Additionally, coming from an HBCU where Blacks are in the majority as students as well as faculty and administration may foster the development of a higher opinion of Blacks overall than those who attended PWIs. Finally, attending an HBCU may also contribute to its graduates agreeing more strongly with nationalist beliefs than those who did not attend such institutions. Students who attended an HBCU have participated in an institution largely run by Blacks. Additionally, they have been immersed in an environment where they are surrounded by Black history, art, philosophy, and thought. Consequently, given the manner in which nationalist ideology is measured, it makes sense that in general, HBCU alumni would score higher on the measure and conversely, hold fewer assimilationist beliefs than their counterparts who attended a PWI.

Number of Black Faculty

The number of Black faculty in the program was found to be a predictor of a number of racial ideologies of the participants. Specifically, the number of Black faculty was positively related to a greater agreement with nationalist ideology, but inversely related to the level of agreement with assimilationist and humanist ideology. These findings suggest two alternative explanations.

It may be the case that students chose their program based on their own ideological beliefs. For example, students with nationalist beliefs might choose a program where they have a greater likelihood of finding like-minded faculty or where they will feel the most comfortable. This may more likely be the case where there are greater numbers of Black faculty.

Alternatively, the student's racial ideology may be influenced by the racial composition of the faculty. Thus, having a greater number of Black faculty may increase the likelihood that a student will be exposed to more nationalist attitudes and beliefs. This exposure might influence the ideological beliefs of Black students. Note that this does not mean they adopt an absolute nationalist ideology to the exclusion of other ideologies; it simply means that they develop some nationalist beliefs. For example, they may not have understood the value and the contributions of Black institutions; however, being in the presence of Black faculty who participate in, attended, or who are leaders in such enterprises, may shift their attitude toward them and their importance to the Black race. On the other hand, where there were fewer Black faculty, students may be less likely to be exposed to nationalist beliefs and attitudes and thus may adopt more assimilationist viewpoints.

Overall, there is strong evidence that racial ideologies are related to the number of Black faculty in a particular program. Sedlacek (1987) indicated that the presence of more faculty of color provides Black students with a variety of viewpoints and perspectives that may be more relevant to their experience and in alignment with their beliefs and values. These findings suggest that this may be the case.

It is an odd result that humanist ideology would be inversely related to the number of Black faculty. The most likely explanation is that the items that measure the construct may have

some influence on this outcome. The items that measure humanist ideology are as follows: (1) Blacks should judge Whites as individuals and not just members of the White race, (2) People regardless of their race have strengths and limitations, (3) Blacks and Whites have more commonalities than differences, and (4) We are all children of a higher being, therefore we should love people of all races. Two of the statements invoke a Black/White dichotomy similar to the items that measure assimilation; thus, it may be the case that participants answered based upon the degree to which they hold assimilationist beliefs. Scholars have noted these similarities and have suggested that these items be modified to improve the validity of the constructs (Cokley & Helms, 2001).

Being in the STEM Fields

Three components of racial identity were found to be inversely related to pursuing a degree in STEM fields: racial centrality, private regard, and nationalist ideology Furthermore, a positive relationship was found to exist between being in a STEM discipline and agreement with assimilationist ideology. Specifically, those who were in the STEM fields reported significantly lower levels of racial centrality, private regard, and nationalist beliefs than their counterparts in education. Thus, for Black Ph.D. students in STEM, race was less important to their overall self-concept; they held Blacks in lower regard; and they less strongly agreed with nationalist beliefs than their counterparts who majored in education. Additionally, they were more likely to agree with assimilationist ideology than their colleagues in education. These findings may be the result of two different lines of reasoning that would require additional qualitative inquiry.

It may be the case that those who enter the STEM fields identify less with race than some other identity. While this explains the findings for racial centrality, it does not provide an

adequate explanation as to why those in the STEM fields would have a lower opinion of Blacks overall and would have lower levels of agreement with nationalist beliefs. An alternative explanation points towards Steele's (1997) Stereotype threat and disidentification theory.

According to stereotype threat, Blacks students who strongly identify with academics are subject to the negative myths about Blacks' cognitive, intellectual, and test taking abilities. When presented with tasks on which Blacks are not expected to perform well, the pressure of trying to disprove the stereotype causes sufficient anxiety to hinder performance. Thus, the student has a choice: to disidentify with his or her academic self in order to maintain overall self-concept, which is closely associated with race, or to disidentify with his or her racial identity in order to maintain the academic identity, perform well in academic settings, and not suffer the effects of stereotype threat.

For this sample, it appears that students in STEM fields might choose disidentification with race as a coping mechanism to ensure their academic success. This extends beyond simply race being less central to their global self-concept. STEM participants also held lower opinions of Blacks and less nationalist beliefs. Though there appears to be no research to confirm this, I assert that this result is likely specific to STEM due to the lack of same-race role models in these disciplines as well as the perceived greater intellectual abilities required to perform well in these fields of study and prevailing, though inaccurate social views on general Black intelligence. Further research is needed to examine the racial identity attitudes of students of Black students in different disciplines and the factors related to them.

Being in the Social Sciences and Humanities

Finally, a positive relationship was discovered to exist between assimilationist ideology and being a student in the social sciences or humanities. Thus, students of these two fields of study were more likely agree with assimilationist beliefs than their counterparts in education. It is possible that the aforementioned assertion regarding stereotype threat will be applicable in this case, although the social sciences and humanities are not generally considered subjects that cause performance anxiety on the part of Black students. Further study is required to determine what might be the cause for this result.

In summary, these findings extend our understanding of the racial identity of Black. Ph.Ds. The overall results suggest that not only are background variables related to racial identity but also factors related to the graduate education experience.

Specifically, the results suggest that there are not only differences in racial identity by age, HBCU attendance status, and number of Black faculty in program, but also by discipline. Future research is required and suggested to clarify these findings.

I have addressed the results of two of my research questions. In the process, I have discussed the background and demographic factors that influence socialization and the factors that influence the racial identity of Black Ph.D. students. The stated purpose of this study was to determine whether racial identity was related to the socialization of Black Ph.D. students. In the next section, I will discuss the findings of that particular question.

Question 3: What is the Relationship between the Racial Identity and the Socialization of

Black Ph.D. Students Attending PWIs?

To date, racial identity has not been considered a factor in predicting the socialization outcomes of Black graduate students in general and specifically Black Ph.D. students. As noted previously, Antony (2002) and Tierney and Rhoads (1994) have asserted that academic socialization may be hindered when an incongruence exists in the cultural values between the newcomer and the socializing agent. As defined by the MMRI, racial identity is the beliefs, attitudes, and values regarding race held by Blacks and may be thought of as the individual's cultural beliefs. Thus, using racial identity as a measure of cultural beliefs allows for the examination of these scholars' assertions.

I sought to determine if racial identity was related to socialization. The findings indicated that racial identity plays a complex role in predicting the variance of faculty-student interactions, peer-peer interactions, and students' perceptions of faculty. Specifically, I found that racial identity significantly contributed to the predictive ability of the models for the dependent variables indicated earlier, and several specific subscales of racial identity were significant predictors of each of the dependent variables. I now turn to a discussion of the findings.

Public Regard

Public regard was found to be positively related to both faculty-student interactions and student perceptions of faculty. These results suggest that the participants' opinion about society's views of Blacks influenced not only their interactions with faculty, but also their perceptions of the quality and ability of faculty to engage students in formal and informal settings. In other words, the more participants believed that society held positive views of Blacks, the more

frequent their interactions with faculty and the more favorable their appraisal of the faculty's ability to interact with students in and out of the classroom.

A potential explanation for these relationships may be that respondents who were more likely to believe that society holds a positive opinion of Blacks perceived less of a difference between themselves and faculty at their PWIs. Consequently,, these students may have had fewer apprehensions interacting with faculty than those students who believed that such faculty have little respect for Blacks in general and, by extension, themselves.

Furthermore, given that faculty interactions in this study are defined as academic interactions, it is not implausible to suggest that frequent encounters with faculty could translate into higher appraisal of their formal and informal engagement. Specifically, it might be posited that students who believe they, as members of the Black race, are respected and well received by others, may interact more with faculty. These frequent interactions facilitate the building of personal and professional relationships with faculty that ultimately lead to more favorable appraisal of faculty's instructional and social abilities. Conversely, students who do not believe society has a high regard for Blacks interact less frequently with faculty. Their less frequent interactions may contribute their lower appraisal of faculty's abilities.

These findings are in line with the results of Chavous et al. (2002) and their study employing the theory of perceived ethnic fit. Chavous and her colleagues found when students perceived greater ethnic fit at their PWIs; they achieved higher grades and felt more academically competent. Thinking of public regard as a proxy for perceived ethnic fit, it is not difficult to suggest that those who most strongly believe that society has high regard for Blacks

would more frequent engage with faculty and have a higher appraisal of their instructional and social abilities.

Another possible, but less likely, explanation given the assumed stable nature of public regard is that positive and frequent interactions as well as high quality academic experiences with faculty may influence a student's opinion of how Blacks are regarded by others. Consequently, the positive relationship between public regard and faculty-student interactions and student perception's of faculty would be explained by proactive faculty who seek to frequently involve and interact with students in and outside of the classroom. By virtue of their actions, the individual's perception of the public's regard for Blacks improves.

Racial Centrality

Racial centrality was found to be a predictor of students' perceptions of faculty. This suggests that the more important race is to the individual's self-concept, the more strongly he or she agreed that faculty effectively engaged students in and out of the classroom. This may be explained by drawing on the ongoing debate of whether strong racial identification is a help or hindrance to academic achievement for Black students.

Fordham and Ogbu (1986) found that the Black students in their study asserted that there was incongruence between strong racial identification and academic success. The students indicated that to achieve academically required them to give up their cultural beliefs and values and ascribe to those of Whites. In contrast, Oyserman, Bybee, and Terry (2006) as well as Chavous et al. (2002) found that strong racial identification is positively related to academic achievement. The results of this study indicate that the assertions of the latter scholars may be true.

Specifically, because of strong racial identity and pride, participants sought to perform well academically. The desire to do well would likely lead to more frequent engagement of faculty both in and out of the classroom setting. This may ultimately lead students to higher appraisal of faculty's instructional and social abilities. The limited research on the relationship between racial identity and the academic outcomes for this particular population indicates further study is warranted.

Humanist Ideology

Humanist ideology was also found to be a predictor of students' perceptions of faculty. The positive relationship between the two concepts might be explained in a similar fashion as that of the relationship between public regard and students' perceptions of faculty. That is, students who are more likely to agree that individuals, regardless of race, are similar may perceive less of a difference between themselves and White faculty and thus may feel they fit well into their program. Participants that see themselves as more similar to faculty than different may be more likely to appraise faculty's instructional and social abilities positively than if they saw themselves as different.

Nationalist Ideology

Nationalist ideology was found to be inversely related to peer-peer interactions. Hence, the more a student agrees with this ideology, the less likely he or she is to interact with peers in the program. This finding is similar to the conclusion drawn previously regarding participants in STEM fields. A student who agrees with nationalist ideas is likely to feel at odds with the majority of his or her peers. In response, the student will not interact with peers either academically or socially. As stated earlier, researchers have found peer support can be crucial to

the development of necessary skills and competencies related to the discipline (Becker, 1956; Bragg, 1976). Without such support, a student may find his or her socialization into the discipline insufficient.

As the findings indicate, racial identity is a predictor of Black Ph.D. student socialization. Specifically, public regard is a predictor of faculty interactions. Public regard along with racial centrality and humanist ideology are predictors of perceptions of faculty, and finally nationalist ideology is a predictor of peer interaction. Thus, it appears that racial identity matters in the socialization experiences of Black Ph.D. students and predict the behavior of individuals. Additionally, the results are an indication that there is some validity to Tierney and Rhoads's (1994) cultural incongruence hypothesis with respect to Black Ph.D. students.

Antony (2002) and Tierney and Rhoads (1994) assert that a supposed essential component of successful socialization is the need to accept and adopt the norms and values of the discipline. These scholars note that this process may be problematic as the values of the discipline are informed by the dominant culture. Individuals from underrepresented groups such as Blacks may have cultural norms, values, and beliefs that are distinctly different and in conflict with those espoused in their academic program. The difficulty in attempting to jettison personal values and replace them with unfamiliar ones may manifest itself in how a student interacts with faculty and peers.

The findings of this study seem to support the assertion that cultural beliefs have an effect on the socialization experience of the participants within the PWI environment. Thus, when participants indicated that their cultural values were similar to society (e.g. humanist ideology), they more positively appraised faculty's ability to facilitate socialization. However,

when participants indicated that their values were different from that of society (e.g. nationalist ideology), their appraisal of faculty was less favorable. Moreover, it appears that the more strongly an individual believed that society valued and respected Blacks, the more interactions they had with faculty and the more positive their perceptions of faculty.

Overall, the results of the study provide a more complete picture of the factors that influence the Ph.D. experiences of Black students. Therefore, in addition to the stage in doctoral process, source of funding, and field of study influencing the socialization of Black Ph.D. students in a similar manner as other Ph.D. students, racial identity has a unique and additional influence on socialization. Additionally, the findings related to racial identity allow for the examination of within group differences. Hence, results reveal that not all Blacks experience their doctoral process in the same manner. This finding suggests that the same socialization approach or action may lead to very different behavioral responses and outcomes.

The findings of the study suggest that current approaches to socialization may need to be revised. In the following section, I will make recommendations as to what socializing agents might do to improve the socialization experiences of Black Ph.D. students. I will first offer my recommendations on what might occur to enhance socialization. I will then discuss specific policy changes as they relate to faculty-student interactions, peer-peer interactions and students' perceptions of faculty.

Implications and Policy Recommendations

This study establishes that in addition to traditional socialization factors, racial identity also influences students' perceptions of faculty as well as peer and faculty interactions for Black Ph.D. students attending PWIs. Thus, the results of the study suggest that beliefs and values

related to race influence how students participate in their socialization and how they perceive faculty and their contribution to the student's socialization. Ultimately, these results support Antony's (2002) call to doctoral programs to reconsider their current socialization strategies.

Develop New Approach to Socialization

Antony (2002) posits that socialization should be approached in such a way that students are made aware of the difference between the values and beliefs that are integral to practicing in the discipline and those that many individuals hold in the discipline, but are not necessary to adopt. This would allow students greater freedom in determining and defining the roles they will fill in the future. The first step towards this new approach to socialization requires faculty to examine the values and beliefs of the discipline and the assumptions they hold regarding what is necessary for success in the field. This process cannot be undertaken alone. Faculty from other types of institutions, other disciplines, and students might be involved in the process in order for faculty to recognize that differing values and beliefs are not necessarily incongruent with the overarching goals of the discipline.

This process of bringing faculty together across institution type to dialogue about differing values and beliefs within the discipline might begin at a national conference. The leadership of the national organization might initiate the meeting through sponsoring a special session on the challenges of socialization of Ph.D. students from underrepresented groups. In terms of bringing faculty and students together at a particular institution and across disciplines, the provost might sponsor a faculty and graduate student workshop where, again, the focus is on the challenges to the success of Ph.D. students from underrepresented groups. In both cases, the design of the session must be intentional. The focus cannot be on the lack of skills, talents, or

commitment of Ph.D. students, but on the hurdles, certain practices and patterns of beliefs have on the ability for students to commit to a role in the discipline. It is hoped that this process of evaluating cultural barriers within the discipline will reveal a clear distinction between essential values and optional values one might adopt, given the particular goals within a discipline.

As stated previously, the preceding recommendation is the first step towards changing the process of socializing Ph.D. students. Once socializing agents accept the new approach to preparing students for their future roles in the academy, they must develop specific methodologies to change faculty-student interactions, peer-peer interactions, and students' perceptions of faculty. It is to these particular policy changes I will now turn.

Changing Faculty-Student Relationships

The findings suggest, the more the participant believes that society has a high regard for Blacks, the greater the level of his or her interactions with faculty. However, on average, respondents mildly disagreed with this belief (M= 3.32 on a seven point Likert type scale with 1= strongly disagree and 7=strongly agree); thus, in light of this perception, it may be difficult for faculty to develop productive and helpful faculty-student relationships. Tierney (1997) suggests that to improve faculty interactions while addressing differences in racial identity, the dynamics of the faculty-student relationship be modified. He suggests that faculty, instead of treating students as passive participants in their socialization, that they recognize that students influence and are influenced by the process. Accordingly, it would be more useful to invite students into a partnership were both parties are actively involved in facilitating an effective socialization experience. Specifically, faculty might begin their relationship with a student determining the goals, aspirations, beliefs, and values of the student. The faculty member might

also share the values, beliefs, and practices that are important to him or her. From this point, the socializing faculty member and the student can mutually develop a socialization plan, determining the activities, experiences, skills, and knowledge necessary to fill the desired future role based upon the aspirations and values of the student and the need for the faculty member to prepare the student for the traditional roles of the discipline.

For example, in addition to the mainstream discipline-related national organizations, the faculty may also help students identify race-related professional organizations such as the Association of Black Psychologists, the National Black Graduate Student Association, and African Americans in Higher Education, which can provide students professional development and networking opportunities as well as same race role models in their discipline. Additionally, the socializing faculty in the department may also help students identify same race mentors and peer support systems outside the program but within the institution. Finally, faculty might strive to work with students to develop a research agenda that is of interest to the student regardless of the student's racial identity. Of course, if the student desires to research issues related to his or her racial identity and experience, faculty should strive to encourage and support such endeavors. Faculty can demonstrate their support by striving to learn and understand the subject matter as well as helping the student identify important sources of information. Cultivating a faculty-student relationship that is respectful of the cultural needs of the student may not change the student's perception of society's opinion of Blacks, but it eliminates the potential barrier the perception might pose to effective socialization.

Addressing Pedagogy, Course Design, and Classroom Climate

Additionally, faculty might examine their pedagogical approaches and course content. Faculty could consider developing teaching and learning methodologies that allow students to draw upon their own backgrounds and experiences. An environment where students can connect their experience with course content is likely to increase student engagement and facilitate greater interaction with the instructor. Thus, for example, faculty might ask the student to teach a lecture or provide a demonstration based on a topic of interest or expertise to the overall class. Additionally, creating a classroom culture where everyone is expected to value and respect the opinions of others will contribute significantly to high quality interactions between faculty and students. Finally, faculty might examine their courses to determine if diverse perspectives are adequately represented. If not, every effort should be made to include such ideas, concerns, and subjects into their curricula. These acts will all serve to foster quality faculty-student interactions and socialize student to the roles they can fill in the discipline.

Facilitating Peer-Peer Interactions

As stated in Chapter 2, a number of socialization scholars have noted that peers are key agents of socialization (Baird, 1992; Bragg, 1976; Weidman, Twale, & Stein, 2001). Both faculty and students have opportunities to increase the quality and frequency of peer interactions that occur between Black Ph.D. students and others in their program. Faculty can foster better peer-peer interactions by creating more formal and informal opportunities for students to work and learn from one another. First, within the classroom or laboratory, faculty might strive to create a climate that values and draws upon the diversity of experience and background such that it encourages students to see themselves as essential contributors to each other's learning and

Ph.D. experience. For example, when engaging in the exploration of content, faculty might encourage dialogue between students when appropriate. This will allow students an opportunity to be exposed to and examine multiple perspectives.

Second, faculty might also assign paired or group work both in and out of class. For instance, having students get involved in a research projects around a topic of interest cultivates mutual reliance between students, and moves students towards the realization of the value of collaborative engagement. While such pedagogical approaches will benefit all students, they are likely to be particularly beneficial to Black Ph.D. students, especially, those who are older, first generation, or who hold stronger nationalist ideologies. These groups of students, according to the model, are more challenged in their interactions with peers. Designing the socialization activities in the aforementioned way will serve to directly involve Black students with their peers and perhaps positively affect the quantity and quality of their interactions.

Students can also contribute to the increase in frequency of interactions among peers. In particular, students can be mindful of behaviors that marginalize or silence other students. Striving to be inclusive of all peers in formal and informal activities is important. Thus, when planning informal gatherings, students might consider inviting all cohort members or fellow students. Additionally, students might consider inviting diverse individuals to participate in their studies and on research teams. The diversity of backgrounds and experiences are likely to serve the group well in thinking through and completing classroom assignments; contemplating possible research projects and theoretical frameworks as well as constituencies to study; and identifying avenues and mediums to present and publish research. Such actions foster an

environment of value and respect from which all students, but particularly those students who have the potential to be marginalized due to the culture of PWIs can benefit.

Changing Students' Perceptions of Faculty

Students' perceptions of faculty included items that measured students' perceptions of the faculty's quality of instruction and feedback, fairness towards students, openness to communication, new ideas, and student's research. These perceptions were significantly related to the student's perception of society's view of Blacks; how strongly the student agreed that there are commonalities across racial groups; and how important race was to the self-concept of the student. Thus, perceptions of faculty were strongly associated with racially-related beliefs and attitudes. Faculty, therefore, must be mindful of the strong influence cultural beliefs and values play in the behavior of some Black students as they develop an approach to socialize students into the discipline. Claude Steele (1997) and Joshua Aronson's (2002) wise schooling practices are potentially a useful approach faculty might use to convey, genuine concern, support, and respect for the student and his or her development that considers the implications of racial beliefs on the socialization process in a predominantly White environment. Steele (1997) and Aronson's (2002) wise schooling techniques were designed to combat stereotype threat. The scholars indicate that when teachers provide students with challenge and support, value multiple perspectives, stress the expandability of intelligence and skills, and convey to students a sense of intellectual belongingness, there are significant academic and psychological benefits. While scholars have most frequently advocated the use of wise schooling techniques for high school students and undergraduates, Antony and Taylor (2001) and Taylor and Antony (2000),

suggested that the practices were also applicable to Black doctoral students in education programs at PWIs.

Challenge and support. In terms of challenge and support, Steele (1997) asserts that giving students challenging work in the context of an optimistic and supportive faculty–student relationship conveys to students the faculty's faith in their potential. To communicate the standards and expectation of each assignment, faculty might provide students with rubrics. Upon completion of each assignment, straightforward feedback can further articulate what the faculty member thinks is a high quality product. Faculty can also establish their commitment to helping the student improve their skills by being readily available to consult. These actions will serve to communicate that faculty not only care about the student's academic success but in aiding in the development of skills necessary for professional success. Furthermore, while this may not change a student's belief with respect to public regard, it may allow them to believe that at least within their program, there are faculty who respect them as Black students.

Providing multiple perspectives. Valuing and including multiple perspectives in teaching a course is an excellent tool to encourage critical thinking and engagement among students. An added benefit of regularly examining the course content from diverse points of view and from varied pedagogical approaches is that it suggests to all students, but particularly to underrepresented students, that their beliefs and experience are respected and valued. Furthermore, such action suggests that the issues and concerns that are important to Black students are meaningful and worthy of time and discussion in academia.

Malleability of intellect and skills. Researchers of the malleability of intelligence have found that for students who believe that intelligence or ability is fixed, they are more likely to see

failure as an indicator of their inability to succeed in a given field or on a given task (Dweck, 1986, 1999; Nicholls, 1984; Utman, 1997). Black students who believe intelligence is fixed and for whom race is important to their self-concept might be more adversely affected by instances of failure. For these students, failure is not only an individual phenomenon but is also tied to their race. This may make a poor performance on a test or failure to successfully draft a literature review particularly discouraging, especially in a PWI environment and particularly if the student believes the public has a low regard for Blacks; thus, there may be the belief that some faculty, believe that Blacks students are more likely to fail. Thus, such students may be more likely to lower future efforts as well as avoid engaging in the specific difficult task (Dweck, 1986, 1999).

To combat this and help students overcome this debilitating attitude, faculty might endorse the idea that with practice and work, an individual's skills and abilities can improve. In addition to adopting and promoting such a point of view, providing students with examples of ways and opportunities to enhance their abilities will communicate to students that most aptitudes that are perceived as gifts are really skills that can be acquired. For example, giving students an opportunity to submit multiple drafts over a longer period creates a body of evidence that the student can use to track progress. Additionally, faculty might also share stories of their development in a related area of difficulty. Finally, faculty can involve students in academic or professional experiences where skills or capabilities are developed, such as in a research team or serving on a committee. Such actions strongly convey the expandability of intellect, knowledge, and skills.

Sense of belonging. Helping students feel that they belong in their Ph.D. program and in the discipline is arguably the most important responsibility of faculty. For students who believe

others do not have a high regard for Blacks in general or who might feel their ideological beliefs are incongruent with PWI environments, efforts to affirm that what they offer to the discipline by way of their intellect, interests, and abilities is immeasurable. In their study of Black doctoral students in education at a PWI, Taylor and Antony (2000) found when faculty were supportive and made students feel as if they belonged academically, students were more likely to consider academic careers. One specific action that can be taken by the program to increase Black students' sense of belonging is to increase the number of Black faculty and students.

Increasing the presence of both Black faculty and students signals to any individual student that the interests and concerns of Blacks are academically important and worthy of discussion and study. Moreover, it provides role models to Black students, communicating that individuals who look like them are successful and well respected within the discipline. To increase the number of Black faculty, deans and department heads might begin to coordinate with chief diversity officers or those who hold similar positions on campuses to identify organizations through which they might connect with suitable Black candidates. Such organizations might be programs such as the Southern Regional Education Board (SREB), which sponsors two programs designed to support students from underrepresented groups who aspire to be faculty members. Additionally, many academic disciplines have professional organizations that are race-based such as the Association of Black Anthropologists or the American Association of Blacks in Higher Education.

In terms of recruiting Black Ph.D. students, PWIs might consider developing relationships with HBCUs to identify Black students who are considering graduate studies. Additionally, sponsoring special weekends in which potential Black Ph.D. students from various

disciplines visit a campus might be a beneficial undertaking. Finally, individual departments and faculty members within those departments might consider developing and maintaining relationships with the TRIO programs on a given campus. One important component of many TRIO programs is cultivating an interest in graduate education for its students. Thus, such programs have access to the very students that are likely to be successful in Ph.D. programs.

Recognizing that increasing the number of Black faculty in the short run may be difficult, other efforts can be made to increase the sense of belonging of Black Ph.D. students into their program and the discipline. Faculty might strive to include Black students in all aspects of academic and professional work including, as mentioned previously, research teams, committees, and teaching responsibilities. Additionally, inviting students to participate in proposal submissions and presentations also provides a sign that their intellectual contribution is respected. Finally, treating students as junior colleagues is a strong indicator that they have a place within the program and in the discipline.

While the aforementioned recommendations specifically allow Black students with varied racial beliefs and values to be successfully socialized into their programs and disciplines, such policy changes can enhance any student's Ph.D. experience. By moving away from a limited approach to socializing students that restricts success to only those who are like those who have preceded them or who are willing to jettison beliefs to fit in, a more diverse body of Ph.D.s will be produced. This increase in diverse voices and approaches will ultimately push disciplines to greater discovery and innovative practices which is the expressed goal of the academic community.

Future Research

This study is seemingly the first to examine the relationship between racial identity and socialization. I have found that racially-related beliefs and attitudes influence how Black Ph.D. students at PWIs interact with faculty and their peers. Additionally, racial identity also shapes a student's perceptions of the instructional abilities of faculty and their willingness to engage students socially. While this research has yielded compelling evidence of the impact of culture on socialization, it has opened several opportunities for future research.

Cross Sectional versus Longitudinal Data

As noted in Chapter 3, data for this study is of a cross sectional nature. Scholars, students, and programs would benefit from longitudinal studies and analyses. Specifically, understanding the factors that influence the socialization of Black Ph.D. students over time would be useful to enact effective policy geared towards increasing persistence, encouraging more students to consider becoming faculty, and creating a generally more satisfying educational experience. Additionally, in relation to racial identity, it would be important to understand whether the constructs are indeed stable or if certain environmental conditions and experiences during doctoral studies influence racially-related values and beliefs.

Racial Identity and Institutional Type

The focus of this study was on Black Ph.D. students at PWIs as it was assumed that such institutional environments potentially cause race and hence racial identity to be more salient and thus affect the student's behavior. However, there is the possibility that racial identity might also be related to the socialization of Black students at historically Black colleges and universities (HBCUs). As has been noted by many scholars, HBCUs have greater levels of diversity overall

and particularly at the Ph.D. level (Nettles & Millett, 2006). Such an environment may lead to a different result than found in this study. Future research would be helpful to determine the answer.

Measures of Values and Beliefs

I chose to examine the relationship between racial identity and socialization because previous literature indicated that racial identity was related to the academic outcomes of high school and undergraduate Black students and that it reflected the racially-related values and beliefs of Blacks (Harper & Tuckman, 2008; Sellers, Chavous, & Cooke, 1998). My purpose was to determine if certain racial beliefs and values facilitated or hindered the socialization of Black Ph.D. students. Future researchers who seek to verify whether value congruence is a factor in socialization may choose to use other measure of values or cultural orientation scale to examine the theory of cultural incongruence. For example, a future researcher might employ the Intercultural Values Inventory (Carter & Helms, 1990) to determine if differences in cultural values orientation effects socialization.

Measures of Academic Outcomes

Missing from this study are a number of variables that were considered too sensitive to solicit from participants and which might have led to a lower response rate. Additionally, other variables were not included as they might increase the difficulty of attaining IRB approval. Thus, GPA and GRE scores were not included. Determining the relationship between socialization, racial identity, GPA and GRE at the doctoral level is likely to be useful. Furthermore, examining these academic measures in relationship to racial identity for Black Ph.D. students serve to provide continuity with past research examining the relationship between GPA and racial

identity for high school (Harper & Tuckman, 2006) and college students (Awad, 2007; Sellers, Chavous, & Cooke, 1998). Finally, future scholars might consider examining the influence of racial identity on other aspects of the doctoral student's experience. Researchers have found involvement in race-related organizations (Chavous, 2000), and academic self-concept and competence for undergraduates (Chavous et al., 2002. These relationships have not been validated at the Ph.D. level.

Quantitative versus Qualitative Methodology

While this study utilized a quantitative methodology, qualitative methods of research have often been used to explore the experiences of Black doctoral students (Felder, 2010; Gasman, Gerstl-Pepin, Anderson-Thompkins, Rasheed, & Hathaway, 2004). Qualitative methodology allows for deep examination of a phenomena or idea. In the case of the relationship between racial identity and socialization, qualitative methodologies such as phenomenology, case study, or ethnography are likely to reveal in the participant's own voice the exact nature of how racial identity matters in doctoral student socialization. There are ample examples of how qualitative methods have been valuable in the study of socialization (Sweitzer, 2009; Gardner 2008, 2010; Sallee, 2008). Qualitative studies regarding this topic would provide rich descriptions of the socialization experiences of Black doctoral students and likely reveal unrealized aspects, challenges, and components. For example, a qualitative researcher might use the MIBI to determine the racial beliefs and values of Ph.D. students. The researcher could then divide the participants by their beliefs and interview them to access how their beliefs influence their interactions with faculty and peers, their perceptions of faculty, their feelings about their in class and out of class experiences or their experiences with advising and mentoring.

Measures of Racial/Ethnic Identity

As racial identity influenced the socialization of Black Ph.D. students attending PWIs, it is possible that ethnic identity affects the doctoral experience of other groups. Researchers might consider using a measure of ethnic/racial identity that applies to Latino or Asian American students or a cultural identity measure or scale for international students to determine whether this relationship exists or how it might be different. Moreover, a nonspecific measure of ethnic identity like Phinney's (1989) might be utilized to compare the influence across groups. Finally, researchers might use other measures of Black racial identity. For example, the Cross Racial Identity Scale (Cross & Vandiver, 2001), based on Cross's revised Nigrescence model might be used to examine the socialization experiences of Black Ph.D. students and to validate or refute the findings of this study. As the preceding discussion indicates, there is much more to know about the socialization experience of Black Ph.D. students in general and the influence of racial identity on that experience specifically. I have suggested several questions, constructs, and methods that future researchers might consider to contribute to knowledge on the subject. Certainly, there exist other issues, concerns, scales, and methodologies. I invite scholars to be inspired by their curiosity to explore their ideas in the manner that they feel is best suited for the task.

Conclusion

Few researchers have specifically examined the socialization experiences of Black Ph.D. students at PWIs exclusively (Lewis, Ginsberg, Davies, & Smith, 2004) and, until this study, no studies sought to determine if a relationship exists between Black student's racial identity and their socialization experience. The results of this study indicate that to some degree, racial

identity matters. Specifically, in addition to background characteristics and experiences, values and beliefs related to race are not only relevant to students' perceptions of their experience, but also to how they interact with faculty and peers.

These findings partially validate the assertion of Antony (2002) and Tierney and Rhoads (1994) that cultural values and beliefs have an effect on socialization. This information is essential and informs what faculty and programs can do in the future to improve the experience for Black students and possibly increase their persistence and ultimate graduation. Faculty in all disciplines might begin the examination of their assumptions regarding the requirements necessary to be successful in the field. Additionally, they might also examine what they might do differently to increase the number of successful students. Old models of socialization were restrictive and limited diversity in many forms including values and beliefs. Those charged with the development of Ph.D. students should strive to be fully committed to all students who desire to become scholars and scholar-practitioners, regardless of their cultural background, beliefs, or values. This is essential if academia is to continue to be relevant and produce the knowledge necessary to address the ever-evolving issues of society.

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Appendix

Appendix A: Survey of Socialization Experiences of Black Doctoral Students (Online Questionnaire)

Greetings Friend,

You have reached the survey on the socialization experiences of Black Ph.D.s (and former students). Your responses will help inform policy on how institutions and programs can increase the number of Blacks receiving doctoral degrees. Your participation in this study is completely voluntary and your responses are confidential. Only I will have access to your data. No effort will be made to connect you to your responses. The survey is composed of five sections: faculty and peer interactions, professional development activities, advisor and mentor experiences, racial identity, and background questions.

Though it is important that you complete the survey in order to generate a sufficient number of responses for accurate and generalizable results, again note your participation is voluntary and you may withdraw from participating at any time. The only penalty for withdrawal is that you will not be included in the drawing for one of seven Visa gift cards. The survey takes approximately 15 minutes to complete. Please answer the questions as honestly as possible.

Thank you.

Ferlin G. McGaskey,
University of Tennessee, Knoxville
Doctoral Candidate in Higher Education Administration.

Filter Questions

1. Do you identify as Black or African American
   a. Yes
   b. No

2. Are you a native born or naturalized citizen of the United States of America
   a. Yes
   b. No

3. Do you meet one of the following conditions: (For current students) Been in a Ph.D. program for at least two semesters (For those who have completed a Ph.D.)Completed a Ph.D. program between December, 2009 and today

   a. Yes
   b. No

Faculty and Peer Experiences

The following section contains questions related to your faculty and peer interactions as well as your general feelings regarding your program.

Key: 1-Never; 2-Seldom; 3-Sometimes; 4: Often; 5: Very Often How often do you or did you do the following						
4. Discussed career plans and ambitions with a faculty member in my program						
5. Discussed research interests and ideas with a faculty member in my program						
6. Worked with at least one faculty member in my program on non-course related research or scholarly projects						
7. Discussed your academic progress with faculty in your program						
8. Socialized informally with faculty in my program						
9. Participated in an informal study group with other graduate students.						
10. Socialized with graduate students of different racial-ethnic backgrounds						
11. Participated in school-or program-sponsored social activities with other graduate students						
12. Socialized informally with other graduate students in my program						
13. Worked with other graduate students in my program on non-course related research or scholarly projects						

Key: 1-7 with 1 indicating strongly disagree and 7 indicating strongly agree Please indicate the degree to which agree with the following statement						
14. It has been easy for me to meet and make friends with others students in my program						
15. It is easy to develop personal relationships with faculty members in this program.						
16. I come in contact with Black faculty/staff as much as I would like						
17. I come in contact with Black students as much as I would like						

Key: 1-7 with 1 indicating very dissatisfied and 7 indicating very satisfied Please indicate how satisfied or dissatisfied are you with the following aspects of your doctoral experience at this institution						
18. Faculty in my program provide quality instruction						
19. Faculty in my program are open to new ideas						
20. Faculty in my program treat students fairly						

21. Faculty in my program provide useful feedback on scholarly projects						
22. Faculty in my program are interested in my research						
23.There is good communication between me and the faculty in my program						
24. Overall, I am satisfied with my doctoral student experience.						

Professional Development Activities

The following brief section asks for information regarding the professional development activities in which you may have engaged.

Key: 0=0; 1=1; 2=2; 3=3; 4=4; 5=5 or more **Approximately how many times have you done the following activities since enrolling in your doctoral program? (Check one response on each item)**						
25. Presented at conferences, workshops, etc.; exhibitions or performances in the fine or applied arts						
26. Published any scholarly work (article, book review, book chapter, monograph, textbook, or other book						
27. Submitted for publication any scholarly work (article, book review, book chapter, monograph, textbook, or other book)						

Advisor and Mentor Experiences

The following section involves questions related to your relationship with an advisor and or mentor. This includes questions regarding the race and gender of these individuals.

28. A faculty or research advisor is a person assigned by your department/program to act in an official capacity in such ways as discussing and approving your coursework or signing registration forms. Please note that your faculty or research advisor may not be your mentor. Do you have a faculty member who serves as your advisor?

    1. Yes
    2. No

29. Is your advisor the same gender as you?
    1. Yes
    2. No

30. Is your advisor the same race as you?
    1. Yes
    2. No

Key: 1-7 with 1 indicating strongly disagree and 7 indicating strongly agree Please indicate to what degree to which you agree with the following statements: My advisor							
31. Is interested in my personal welfare							
32. Has concern for my professional development							
33. Offers useful criticisms of my work							
34. Is accessible for consultation							

35. Many doctoral students have someone to whom they turn for advice, to review a paper, or for general support and encouragement. This person may be thought of as a mentor. If you have more than one mentor, please comment on the one whom you work most closely. Do you have someone who serves as your mentor?

    1. Yes
    2. No

36. Is your mentor the same person as your faculty advisor?

    1. Yes
    2. No

37. Is your mentor in your program?

    1. Yes
    2. No

38. Is your mentor the same gender as you?

    1. Yes
    2. No

39. Is your mentor the same race as you?

    1. Yes
    2. No

40. How long did it take you to locate your mentor? (Please check one response.)

    a. I had a mentor when I entered the program.
    b. I located a mentor within a month of entering the program.
    c. I located a mentor within the first term of entering the program.
    d. I located a mentor within the first year of entering the program.
    e. I located a mentor within the first two years of entering the program.
    f. It took me longer than two years to locate someone to serve as a mentor

Key: 1-7 with 1 indicating strongly disagree and 7 indicating strongly agree Please indicate to what degree to which you agree with the following statements: My mentor							
41. Is interested in my personal welfare							
42. Has concern for my professional development							
43. Offers useful criticisms of my work							
44. Is accessible for consultation							

Racial Identity

Racial identity is the attitudes and beliefs an individual holds related to membership in a racial group. Please answer these questions as truthfully as you can.

Key: 1-7 with 1 indicating strongly disagree and 7 indicating strongly agree Please indicate the degree to which you agree with each of the following statements							
45. I feel good about Black people							
46. Overall, Blacks are considered good by others							
47. In general, being Black is an important part of my self-image							
48. I feel that Blacks have made major accomplishments and advancements							
49. Blacks who espouse separatism are as racist as White people who also espouse separatism							
50. Blacks would be better off if they adopted Afrocentric values							
51. Black students are better off going to schools that are controlled and organized by Blacks							
52. I have a strong attachment to other Black people							
53. Black people must organize themselves into a separate Black political force							
54. In general, others respect Black people							
55. I have a strong sense of belonging to Black people							
56. The same forces which have led to the oppression of Blacks have also led to the oppression of other groups							
57. Blacks should try to become friends with people from other oppressed groups							

58. Blacks should judge Whites as individuals and not just members of the White race							
59. People regardless of their race have strengths and limitations							
60. Because America is predominantly white, it is important that Blacks go to White schools so that they can gain experience interacting with Whites							
61. Blacks and Whites have more commonalities than differences							
62. A sign of progress is that Blacks are in the mainstream of America more than ever before							
63. There are other people who experience racial injustice and indignities similar to Black Americans							
64. Being Black is an important reflection of who I am							
65. In general, other groups view Blacks in a positive manner							
66. I am proud to be Black							
67. I am happy I am Black							
68. Blacks should strive to integrate all institutions that are segregated							
69. We are all children of a higher being, therefore we should love people of all races							
70. Blacks will be more successful in achieving their goals if they form coalitions with other oppressed groups							
71. It is important for Black people to surround their children with Black art, music, and literature							
72. Society views Blacks as an asset							

Background Questions

Please respond to the following questions.

73. Are you?

    a. Male
    b. Female

74. How old are you?

75. What is your current marital status?

    a. Separated, divorced, widowed
    b. Single, never married
    c. Married
    d. Partnered

76. Are you a first generation college student (first generation is defined as the first person in your immediate family (mother, father, brothers and sisters) to attain a baccalaureate degree)?

    1. Yes
    2. No

77. Did you attend a Historically Black College or University?

    1. Yes
    2. No

78. Is your current institution a Historically Black College or University?

    1. Yes
    2. No

79. How many black faculty are there in your program?
    1. 0
    2. 1
    3. 2
    4. 3
    5. 4
    6. 5
    7. 6 or more

80. Beside yourself, how many other Black students are in your program?

1. 0
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6 or more

81. Do you receive any financial assistance?

a. Yes
b. No

82. Which of the following forms of financial support do you currently receive? (Please check all that apply)

a. Fellowship
b. Research Assistantship
c. Teaching Assistantship
d. Administrative Assistantship
e. Tuition/Fee Waiver
f. Loans
g. None of the above

83. Do you participate in the Institute on Teaching and Mentoring (Compact for Faculty Diversity)

a. Yes
b. No

84. Are you a full time student?

1. Yes
2. No

85. Where are you in your program?

1. Taking Classes
2. Comprehensive exams/
3. Dissertation Stage

4. Graduate

86. Please indicate your field of study

   a. STEM (Biological or Physical Sciences, Technology, Engineering or Mathematics)
   b. Education
   c. Social Sciences
   d. Humanities
   e. Other

Thank you for taking the time out of your schedule to complete the survey. Your

participation is greatly appreciated. If you wish to be entered into the drawing for the Visa gift

cards, please enter your email address below. Again thanks.

Email address:

Appendix B: Invitation letter to participate

Dear Friend,
My name is Ferlin McGaskey and I am doctoral candidate in Higher Education Administration. I am inviting you to participate in my dissertation research of the socialization experiences of Black doctoral students.

Specifically, the purpose of my study is to determine the relationship between racial identity and the socialization of Black doctoral students into their programs and their disciplines.

If you choose, your participation will include completing a survey designed to gather demographic, socialization, and racial identity data. The survey takes about 15 minutes to complete. Your participation is voluntary. By completing the survey, you will be entered into a drawing to receive one of seven gift cards. The top prize is a $100 Visa gift card with two $50 dollar and four $25 dollar gift cards also available. The drawing for prizes will take place on December 13 and winners will be notified by December 14. Chances of winning are 1in 33.

Note that your responses will be kept confidential. Only I will have access to the information you provide. Your participation is voluntary and you have the right to withdraw at any time. Although the results of this research are likely to be published and presented where they illuminate the experiences of Black doctoral students, at no time will your identity be disclosed.

Although participation in this study offer no direct benefits to you; your responses aggregated with other responses will be presented at conferences and published in journals, informing both policy and future research regarding Black doctoral students.

If you have any questions or concerns about this study or if any problems arise, please contact Ferlin McGaskey at 865-604-5480 or by email at fmcgaske@utk.edu. You may also contact Dr. Margaret Sallee, chair of my dissertation committee by email at msallee1@utk.edu.

The link to the survey is as follows:
[Link] (You may have to copy this URL into your web browser.)

Thank you in advance for your participation.

Sincerely,

Ferlin McGaskey
Ph.D. Candidate
Higher Education Administration
The University of Tennessee, Knoxville
SREB Doctoral Scholar

Appendix C: Reminder Letter

Dear Friend,

Two weeks ago, you received an email invitation to participate my dissertation research regarding your experiences as a Black doctoral student. Specifically, the purpose of the study is to investigate the relationship between racial identity and the socialization of Black doctoral students.

If you have completed the survey, I would like to thank you. If you have not, please do so today by clicking on the link below which will take you to website hosting the survey. By completing the survey, you are helping scholars better understand the factors that contribute to doctoral student success.

Most participants indicate the survey takes approximately 15 minutes to complete. By completing the survey, you will be entered into a drawing to receive one of seven gift cards. The top prize is a $100 Visa gift card with two $50 and four $25 gift cards also available. The drawing will take place December 13. Winners will be contacted by December 14. Odds of winning are 1 in 33.

[Link]
(You may have to copy this URL into your web browser.)

As a fellow doctoral student, I realize how busy your schedules may be. Please know that I am grateful to you for taking the time to complete the survey.

Thank you for your participation. It is sincerely appreciated.

Best,

Ferlin McGaskey
Doctoral Candidate
University of Tennessee
SREB Doctoral Scholar

Appendix D: Final Reminder

Dear Friend,

Six weeks ago, you received an email invitation to participate in a study about your experiences as a Black doctoral student. Specifically, the purpose of the study is to investigate the relationship between racial identity and the socialization of Black doctoral students. This email is to inform you that the study ends on December 8, 2010 at 11:59 pm.

If you have completed the survey, I would like to thank you. If you have not, please do so today by clicking on the link below which will take you to the website hosting the survey. By completing the survey, you are helping scholars better understand the factors that contribute to doctoral student success.

Most participants indicate the survey takes approximately 15 minutes to complete. By completing the survey, you will be entered into a drawing to receive one of seven gift cards. The top prize is a $100 Visa gift card with two $50 and four $25 gift cards also available. The drawing will take place December 13. Winners will be contacted by December 14. Odds of winning are 1 in 33.

[Link]
(You may have to copy this URL into your web browser.)

As a fellow doctoral student, I realize how busy your schedules may be. Please know that I am grateful to you for taking the time to complete the survey.

Thank you for your participation. It is sincerely appreciated.

Best,

Ferlin McGaskey
Doctoral Candidate
University of Tennessee
SREB Doctoral Scholar

Appendix E: Informed Consent for Participants

INTRODUCTION

You are invited to participate in a research study conducted by Ferlin McGaskey, a Doctoral Candidate from the University of Tennessee. You are receiving this survey because you have (A) self-identified as Black or African American and (B) you are pursuing a doctoral degree in your discipline. Your participation is voluntary. Please, carefully read the information below.

PURPOSE OF THE STUDY

The purpose of this study is to understand the socialization experiences of Black doctoral students. Specifically, the study will focus on investigating the relationship between racial identity and the socialization of Black doctoral students into their programs and their disciplines.

PROCEDURES

If you volunteer to participate, you will be asked to complete the following survey. It takes approximately 15 minutes to answer all items on the survey.

POTENTIAL RISKS AND DISCOMFORT

There is the possibility that you may experience mild anxiety or discomfort during the survey. If at any time you become uncomfortable, you may stop taking the survey.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

There are no direct benefits that will accrue to you. However, your responses along with the responses of others may be used to inform policies designed to change the socialization of doctoral students.

PAYMENT/COMPENSATION FOR PARTICIPATION

Any participant who completes the survey will be entered into a drawing for one of seven Visa gift cards. All participants have a chance to win (A) one $100 Visa gift card, (B) one of two $50 Visa gift cards, or (C) one of four $25 Visa gift cards. The drawing for the gift cards takes place on December 13, 2010.

CONFIDENTIALITY

Any information gathered in this study that might identify you as a participant will be kept confidential. This information can only be disclosed with your permission or as required by law. Only the primary researcher will have access to the data. All data will be maintained and stored

in the investigator's office in a file cabinet that will be remain locked on a password protected computer. Data will be stored for an indefinite period.

PARTICIPATION AND WITHDRAWAL

As stated earlier, participation is strictly voluntary and you may withdraw at any time without penalty or consequence. If you choose not to complete the survey, your data will not be included in the final analysis.

CONTACT INFORMATION

If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study,) you may contact the researcher, Ferlin McGaskey at the Tennessee Teaching and Learning Center Aconda Court Room 103, 1534 Cumberland Avenue, Knoxville, TN 37996 or by email at fmcgaske@utk.edu or phone at (865) 604-5480. You may also contact Dr. Margaret Sallee, chair of my dissertation committee at msallee1@utk.edu for additional information or concerns. If you have questions about your rights as a participant, contact Brenda Lawson, Compliance Officer at the Office of Research. Her number is (865) 974-3466.

CONSENT

I have read the above information. By continuing on to the survey, I am agreeing to participate in the study

Appendix F: Modification of MIBI

Multidimensional Inventory of Black Identity: Full and Modified Versions

MIBI Full	MIBI Short	Rationale for Modification
Centrality	Centrality	Centrality
1. In general, being Black is an important part of my self-image. (.489)	1. In general, being Black is an important part of my self-image. (.489)	Definition: Centrality is a measure of importance of a particular identity in a person's overall self-concept
2. I have a strong sense of belonging to Black people. (.656)	2. I have a strong sense of belonging to Black people. (.656)	High factor loading coefficient
6. I have a strong attachment to other Black people. (.685)	3. I have a strong attachment to other Black people. (.685)	High factor loading coefficient
7. Being Black is an important reflection of who I am. (.610)	4. Being Black is an important reflection of who I am. (.610)	High factor loading coefficient
3. My destiny is tied to the destiny of other Black people. (.363)		
4. Being Black is unimportant to my sense of what kind of person I am. (.444)		
1. Overall, being Black has very little to do with how I feel about myself. (.434)		
8. Being Black is not a major factor in my social relationships. (.357)		
Private Regard	Private Regard	Private Regard
1. I am happy that I am Black. (.877)	1. I am happy that I am Black. (.877)	High factor loading coefficient
2. I feel that Blacks have made major accomplishments and advancements. (.600)	2. I feel that Blacks have made major accomplishments and advancements. (.600)	High factor loading coefficient
3. I am proud to be Black. (.841).	3. I am proud to be Black. (.841).	High factor loading coefficient
4. I feel good about Black people. (.482)	4. I feel good about Black people. (.482)	Definition of subscale

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5. I often regret that I am Black. (.549) 6. I feel that the Black community has made valuable contributions to this society.　(.362)		
Public Regard 1. Overall, Blacks are considered good by others. (.805) 2. In general, others respect Black people. (.851) 3. In general, other groups view Blacks in a positive manner. (.679) 4. Society views Black people as an asset. (.497) 5. Blacks are not respected by the broader society. (.260) 6. Most people consider Blacks, on the average, to be more ineffective than other racial groups. (.300)	Public Regard 1. Overall, Blacks are considered good by others. (.805) 2. In general, others respect Black people.　(.851) 3. In general, other groups view Blacks in a positive manner. (.679) 4. Society views Black people as an asset. (.497)	Public Regard High factor loading coefficient High factor loading coefficient High factor loading coefficient Definition of subscale
Assimilation 1. Blacks who espouse separatism are as racist as Whites who also espouse separatism. (.525) 2. A sign of progress is that Blacks are in the mainstream of America more than ever before. (.561). 3. Because America is predominantly White, it is important that Blacks go to White schools so that they can gain experience interacting with Whites. (.405) 4. Blacks should strive to integrate all institutions, which are segregated. (.585) 5. Blacks should try to work within the system to achieve their political and economic goals.[1] (.635)	Assimilation 1. Blacks who espouse separatism are as racist as Whites who also espouse separatism. (.525) 2. A sign of progress is that Blacks are in the mainstream of America more than ever before. (.561). 3. Because America is predominantly White, it is important that Blacks go to White schools so that they can gain experience interacting with Whites. (.405) 4. Blacks should strive to integrate all institutions, which are segregated. (.585)	Assimilation High factor loading and non problematic measure High factor loading and non problematic measure Non problematic measure High factor loading and non problematic measure

6. Blacks should strive to be full members of the American political system. [1] (.540)		
7. Blacks should feel free to interact socially with White people. [1] (.621)		
8. Blacks should view themselves as being Americans first and foremost. [1] (.475)[a]		
9. The plight of Blacks in America will improve only when Blacks are in important positions within the system. [1] (.203)		
Humanist 1. Blacks and Whites have more commonalities than differences. (.528)	Humanist 1. Blacks and Whites have more commonalities than differences. (.528)	Humanist High factor loading coefficient and nonproblematic measure
2. We are all children of a higher being, therefore we should love people of all races. (.574)	2. We are all children of a higher being, therefore we should love people of all races. (.574).	High factor loading coefficient and nonproblematic measure
3. Blacks should judge Whites as individuals and not as members of the White race. (.607)	3. Blacks should judge Whites as individuals and not as members of the White race. (.607).	High factor loading and nonproblematic measure
4. People, regardless of their race, have strengths and limitations. (.442).	4. People, regardless of their race, have strengths and limitations. (.442).	Nonproblematic measure
5. Blacks would be better off if they were more concerned with the problems facing all people rather than just focusing on Black issues. [1] (.462).		
6. Being an individual is more important than identifying oneself as Black. [1] (.468)		
7. Blacks should have the choice to marry interracially. [1] (.592)		
8. Black values should not be		

inconsistent with human values. [1] (.240). 4. Black people should not consider race when buying art or selecting a book. [1] (.391)		
Oppressed Minority 1. The same forces which have led to the oppression of Blacks have also led to the oppression of other groups. (.622). 2. There are other people who experience racial injustice and indignities similar to those of Black Americans. (.664). 3. Blacks will be more successful in achieving their goals if they form coalitions with other oppressed groups. (.617). 4. Blacks should try to become friends with people from other oppressed groups. (.656). 5. The racism Blacks have experienced is similar to that of other minority groups. (.629) 6. The struggle for Black liberation in America should be closely related to the struggle of other groups. (.689) 7. Blacks should learn about the oppression of other groups. [1] (.611) 8. Black people should treat other oppressed people as allies. (.609) 9. The dominant society devalues	Oppressed Minority 1. The same forces which have led to the oppression of Blacks have also led to the oppression of other groups. (.622). 2 There are other people who experience racial injustice and indignities similar to those of Black Americans. (.664). 3. Blacks will be more successful in achieving their goals if they form coalitions with other oppressed groups. (.617). 4. Blacks should try to become friends with people from other oppressed groups. (.656).	Oppressed Minority High factor loading coefficient and parsimony High factor loading coefficient and parsimony High factor loading coefficient and parsimony High factor loading coefficient

anything not White male oriented. (.270[b])		
Nationalist 1. It is important for Black people to surround their children with Black art, music, and literature. (.507).	Nationalist 1. It is important for Black people to surround their children with Black art, music, and literature. (.507).	Nationalist High factor loading coefficient and non problematic measure
2. Blacks would be better off if they adopted Afrocentric values. (.720).	2. Blacks would be better off if they adopted Afrocentric values. (.720).	High factor loading coefficient
3. Black students are better off going to schools that are controlled and organized by Blacks. (.722)	3. Black students are better off going to schools that are controlled and organized by Blacks. (.722)	High factor loading coefficient
4. Black people must organize themselves into a separate Black political force. (.715).	4. Black people must organize themselves into a separate Black political force. (.715).	High factor loading coefficient
5. Whenever possible, Blacks should buy from other Black businesses. (.495).		
6. A thorough knowledge of Black history is very important for Blacks today. (.344)		
7. Blacks and Whites can never live in true harmony. [1] (.323).		
8. White people can never be trusted where Blacks are concerned. [1] (.417).		
9. Black people should not marry interracially. [1] (.350[c])		

Note. Items marked with a 1 represent problematic items from Ideology subscales. Items marked with a letter factor loaded strongly with other subscales.

Appendix G: Multiple Regression Analysis of Demographic and Academic Background

Variables on Perceptions of Faculty

Appendix G

Multiple Regression Analysis of Demographic and Academic Background Variables on Student's Perceptions of Faculty

Characteristic	B	β	t-stat	*p*
Constant	4.54		5.49	0.00
Gender	.04	.01	.25	.80
Age	-.01	-.05	-.82	.42
Coupled	-.08	-.03	.46	.64
First Generation	-.15	-.05	-.95	34
HBCU Undergraduate Attendance	.14	.04	.86	.39
Number of Black Faculty in Program	-.01	-.01	-.17	.87
Number of Black Students in Program	.09	.14	2.40	.02
Full Time Attendance Status	.12	.03	49	.63
Stage in Doctoral Process				
Comps/Qual Exams	.11	.03	.46	.65
Dissertation Stage	.21	.07	1.03	.31
Graduate	.16	.04	.56	.58
(Ref Cat: Taking Courses)				
Field of Study				
STEM	-.52	-.17	-2.18	.03
Social Sciences/Hum	-.05	-.02	-.24	.81
Other	- 49	- .08	-1.43	.15
(Ref Cat: Education)				
Types of Financial Support				
Fellowship	.14	.05	81	.42
Research Assistantship	.26	.09	1.64	.10
Teaching Assistantship	-.23	-.08	-1.40	.16
Administrative Assistantship	-.27	-.06	-1.06	.29
Tuition/Fee Waiver	.09	.03	.55	.58
Loans	-.24	.08	-1.51	.13

Adjusted R^2=.02 $F(20, 357) = 1.42$, $p = .11$)

VITA

Ferlin G. McGaskey was born in Natchitoches, Louisiana. Raised in Oklahoma City, Oklahoma, he is proud to be a product of the Oklahoma City Public Schools System. His post-secondary education began at Rose State College, a community college in Midwest City, Oklahoma. He eventually earned his Bachelor's of Art degree in Economics at William Jewell College in Liberty, Missouri. In 2001, Ferlin earned a Master's of Art degree in Economics at the University of Tennessee, Knoxville.

After owning an antiques business and engaging in real estate speculation, Ferlin entered the Higher Education Administration program at the University of Tennessee, Knoxville. During his doctoral studies, Ferlin served as the graduate assistant for the Commission for Blacks; as a research assistant for the Tennessee Teaching and Learning Center and was a Southern Regional Education Board Doctoral Scholar. Upon completion of his doctoral degree, Ferlin hopes to secure a faculty position in the Midwest.