

ABSTRACT

Title of Thesis: RELATIONSHIP OF SETTING AND INTERNAL ATTITUDES ON THE POSITIVE AND NEGATIVE INTERACTIONS BETWEEN DIFFERENT RACE COLLEGE STUDENTS

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This thesis investigated how the quality of cross-racial interactions varied across situations in a campus environment and also examined the influence of internal attitudes toward diversity on the quality of these interactions. The influence of race, gender and cohort on cross racial interactions was also examined. The stratified, random sample of 1,000 students included 250 students each from four racial/ethnic categories - White, African American/Black, Asian Pacific American, and Hispanic/Latino. Respondents completed the Miville-Guzman Universality-Diversity Scale-Short, excerpts from the Cultural Attitudes and Climate Questionnaire, and the author developed Cross Racial Interaction Scale to measure the quality of cross racial interactions in 13 situations on a college campus. This study found that the quality of cross racial interactions did vary by situation and that students clustered in identifiable

ways related to the similarity of their cross racial experiences. Evidence was also found in support of previous research that Black students continue to perceive their cross racial experiences less positive than their White counterparts.

RELATIONSHIP OF SETTING AND INTERNAL ATTITUDES ON THE
POSITIVE AND NEGATIVE INTERACTIONS
BETWEEN DIFFERENT RACE COLLEGE STUDENTS

By

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Chapter 1

Introduction

Fostering healthy interpersonal relationships between people of different racial/ethnic groups is important in a country with rapidly increasing ethnic minority populations. Yet there are signs that segregation is increasing along with evidence of growing racial and ethnic hostility ((American Commitments National Panel, 1995; Mack, Tucker, Archuleta, DeGroot, Hernandez & Cha, 1997; Pascarella, Edison, Nora, Hagedorn & Terenzini, 1996; Ponterotto & Casas, 1991). For example, the Southern Poverty Law Center (1999) reports that there are more than 500 hate groups operating in the United States.

One way to improve race relations is to improve interpersonal interactions across racial/ethnic lines. There is strong evidence that increasing positive cross racial interactions is associated with improved racial attitudes (Powers & Ellison, 1995; Sigelman & Welch, 1993)

Universities provide prime opportunities to increase positive cross racial interaction. It is often the first place students have experiences in a diverse racial/ethnic community (American Commitments National Panel, 1995). A solid majority of Americans view higher education as very important in preparing people to function in a more diverse society (DYG, Inc., 1998).

Students on college campuses express a strong desire for an increase in cross racial interaction and communication (Duster, 1993; Fisher & Hartmann, 1995).

Students have stressed the importance of cross racial friendships as a means of learning about others, building a sense of understanding between diverse groups and reducing prejudicial attitudes (Humphreys, 1998; Nesdale & Todd, 1998). It has been shown that friends and peers are a significant source of influence on students' openness to diversity (Pascarella et al., 1996) and attitudes about racial issues (Newswanger, 1996). Studies on college campuses have found a positive correlation between increasing, positive cross racial/ethnic interaction and academic development (e.g., critical thinking) and satisfaction with college (Astin, 1993; Helm, Sedlacek & Preito, 1998).

Ironically even while there is growing diversity on college campuses (Carter & Wilson, 1998) and students desire greater levels of cross racial interaction, they are often disappointed by the reality they find (Humphreys, 1998; Kropp, 1992; Lederman, 1993; Reisberg, 1999; Smith 1997).

Universities, therefore, provide a unique opportunity in society to improve race relations by improving cross racial interactions. The public wants it, students want it, and there are positive learning outcomes as a result. However, actually achieving positive cross racial interactions remains a challenge. It is within this context that the current study will focus on understanding better, and potentially improving, these interactions.

Are there situations (e.g, classrooms versus residence hall) on a college campus where cross racial interactions are relatively more positive than others? If so,

these situations might provide clues to better understanding how to improve cross racial interactions across other settings. Campus climate studies represent one line of research that provide a better understanding of the nature of cross racial interactions on college campuses. Some climate studies have focus on specific settings like residence halls (Johnson-Durgans, 1994; Newswanger, 1996), or compared two settings (Korgen, Mahon & Wang, 2003; McClelland & Auster, 1990), but none have been found that systematically compared the quality of cross racial interactions across the different situations in the college environment. Doing so would help in determining where positive (and negative) cross racial interactions are occurring.

Many campus climate studies focus on the perceptions students from different racial or ethnic backgrounds have about their experiences on campus. These studies generally report that minority students are experiencing more negative campus experiences than White students (Ancis, Sedlacek & Jonathan, 1998). Minority students feel more socio-cultural alienation (Mack et al., 1997), feel the climate is less friendly (McClelland & Auster, 1990), and are significantly less satisfied (Fisher & Hartmann, 1995; Student Affairs Research Services, 1994).

Another line of research that can be helpful in understanding the relationship between different campus situations and the quality of cross racial interactions revolves around Allport's (1954) contact hypothesis. Subsequent work has refined the original contact hypothesis (Amir, 1969; Brewer & Brown, 1998; Cook, 1985; Pettigrew, 1998). The central premise of the contact hypothesis is that bringing

different groups (e.g., racial/ethnic) together under certain prerequisite conditions will promote the development of more harmonious intergroup relations and reduce intergroup tensions (Brewer & Brown, 1998; Gaertner, Rust, Dovidio, Bachman & Anastasio, 1994). Since the characteristics of situations on college campuses can vary widely across classrooms, dorm rooms, work settings and social activities the contact hypothesis provides a theoretical basis to suggest that the quality of cross racial interactions may also vary across these different situations.

A qualitative campus climate study conducted at a large, Eastern, public university, using the contact hypothesis as a basis found that positive, as well as negative cross racial interactions of students centered around four major environmental settings: the academic setting; the employment setting; the residential setting; and the social setting (Cotton, Kelley & Sedlacek, 2000). Within these settings, specific situations were repeatedly mentioned as important locations of cross racial interaction, for example, classrooms, recreation activities and parties. Cotton et al. supports the hypothesis that the quality of cross racial interactions will vary by different situations in the campus environment, however, this qualitative study cannot be generalized. Nor does it systematically measure the positive or negative nature of these interactions across other situations.

Is it possible that in trying to understand cross racial interactions, rather than focusing on the situation, it is more important to understand the internal attitude of a person toward people of other races? There is a clear link between one's attitudes and

many forms of social behavior (Baron & Byrne, 1994). For example, prejudice is an attitude (usually negative) toward a specific group and has been shown to influence social interactions with people from that group (Harris et al., 1992). This suggests that a student's attitude toward diversity may influence the quality of their interaction with students from other races.

No study has been found that systematically investigated how both situations (e.g., classrooms, residence halls) and internal attitudes toward diversity on a college campus may influence the quality of the cross racial interactions among students. Counseling psychologists could benefit from such a study. Understanding the context in which more healthy relationships occur between students of different races and ethnicities on college campuses has relevance both to the field of psychology generally and to counseling psychology specifically. Negative intergroup relationships have been related to increased anxiety in individuals (Brewer & Brown, 1998; Stephan & Stephan, 1985) as well as the arousal of fear, disgust, contempt, anger and jealousy (Smith, 1993). Negative intergroup anxiety leads to avoidance of people in the other group (Stephan & Stephan). Cultural mistrust can be fed by negative cross racial experiences and inhibit the relationship between Black students and White counselors (Atkinson, Morten & Sue, 1998). On the other hand a positive, interracial climate is associated with increases in individual students' effective coping strategies, higher self-esteem and better academic performance in elementary school children (Marcus-Newhall & Heindl, 1998).

The purpose of the present correlational study will be to investigate both how the quality of cross-racial interactions vary across situations in a campus environment and also to examine the influence of the person's internal attitude on the quality of these interactions. The influence of race, gender and cohort on cross racial interactions will also be examined. The study will use a random sample of students from the undergraduate population of a large and racially diverse mid-Atlantic university.

Chapter 2

Literature Review

The following chapter section reviews relevant literature related to understanding cross racial interactions in a college environment. First, campus climate studies will be reviewed, focusing on those studies that recognize the different settings that exist in a college environment and those studies that explore the different experiences racial groups have on campuses. Cotton et al. (2000), a campus situational study, will be examined in relative depth. Next, cross racial interactions in different settings will be investigated, with a number of studies revolving around the concept of the contact hypothesis (Allport, 1954), and others grounded in environmental research. Last, the literature involved in attitudes toward diversity and how they might play into cross racial interactions is reviewed.

Campus Climate Studies

Campus climate studies provide a broad understanding about the state of college environments. While these studies encompass a rich diversity of sub communities (e.g., race, gender, sexual orientation, religion), the current literature review will focus on those pertaining to race. Many of these studies investigate how students of different races are perceiving and experiencing the campus environment (Ancis, Sedlacek & Mohr, 1998; Mack et al., 1997; McClelland & Auster, 1990), while some focus on specific settings such as residence life (Johnson-Durgans, 1994; Newswanger, 1996). They all provide information about students' interpersonal

experiences with other students. Climate studies support the idea that there are racial differences in perceptions about campus climates. This literature also lends support to the notion that different situations can influence the quality, as well as quantity, of cross racial interactions (McClelland & Auster, 1990; Nesdale & Todd, 1998).

Differences by environment. Several climate studies investigate the quantity of cross racial interaction in different settings within the college environment (Hurtado, Dey & Trevino, 1994; McClelland & Auster, 1990). McClelland and Auster (1990) studied the racial climate at a small, Eastern private liberal arts college; largely residential and predominantly White. Data included both qualitative focus groups and surveys, with 186 White and 20 Black randomly selected students (Black students were over sampled but the total population was extremely small). They compared the level of cross racial interaction occurring at officially sanctioned school functions (e.g., football games) and purely social functions (e.g., parties) and found that there was less interaction at official school functions than at social functions reported by both Black and White students

McClelland and Auster (1990) wondered what were the characteristics of the official school functions that tended to produce greater segregation, than social functions and conjectured about the role that the institution has in hindering or promoting intergroup contact. When asked about their perception of the racial climate in the social and school function settings, however, 70-75% of African American students and 90-93% of White students said the climate was friendly. This study is

useful since it compares cross racial interactions in two settings within the campus environment.

Hurtado, Dey and Trevino (1994) studied the interaction among different race/ethnic students and found that the minority students interacted with White students more than White students interacted with minority students. For example, they found that minority students dined more frequently with someone of a different ethnic or racial background than White students. They also found that 42% of Asian American students reported interracial or ethnic dating, compared to 24% of Mexican Americans, 13% of African Americans and 4% of White students. These findings are counter to the popular perception that minority students self segregate more than White students. This is important since it questions a widely held myth that one key to increasing cross racial interaction is to reduce the self-imposed self segregation of minority students (Hurtado et al.). This study is also one of the first attempts to systematically assess the quantity of cross racial interaction in a variety of situations (e.g., dining, dating). However, it does not attempt to study the quality of these cross racial interactions. The contact hypothesis (Allport, 1954) informs us that simple contact is not sufficient to guarantee positive experiences, and therefore, it is important to also understand the positive or negative nature of the cross racial contact that does occur.

Korgen, Mahon, and Wang (2003) compared the level of racial tension, interracial friendships and dating at two comparable Northeastern universities, but

with different racial demographics. The first institution was relatively homogeneous with students of color comprising only 6% of the population while the second was more heterogeneous with students of color representing 29% overall and 38% of the students living on campus. The study included 164 students from the first institution and 152 from the second. Korgen et al. found that the second institution reported a higher level of cross racial friendships. This might be expected because of the higher minority levels. However, they discovered counterintuitive results when isolating the residential environment from the commuter environment. Residential students at the second institution reported significantly higher racial tension, and were far less likely to have dated interracially than their commuter counterparts. The authors conjecture that this might be due to a so-called tipping effect (Glazer, 1995, as cited in Korgen et al., 2003), that as the number of minority members grow in an area and majority members shrink, segregation can actually increase without intentional interventions to create a positive environment. This study is useful in the current review because it reflects how cross racial interactions can vary between the commuter and residential environments on a college campus.

Newswanger (1996), studied whether there were significant differences in White racial identity attitudes using the White Racial Identity Attitudes Scale (Helms & Carter, 1990) between White students who had lived with African American roommates in residence halls and those who did not. Participants included 187 White students only from an Ivy League institution in four categories: residential students

assigned with Black roommates; randomly selected first year students; randomly selected seniors; and residential advisors. No difference was found in White racial identity attitudes between White students living with Black roommates and other White students. However, White roommates reported the highest number of both positive and negative changes in thinking about race. White students cited the lack of preparation for encounters with their Black roommates, preexisting negative thoughts and feelings about racial differences, and mixed actual experiences with interactions as reasons for negative changes in thinking about race. Newswanger observed that structured environments and positive interventions need to be created in order to improve cross racial interactions in residence hall settings. A limitation of this study is that Newswanger did not examine environments outside of the residence halls.

The Campus Assessment Working Group (2003) conducted 21 qualitative focus groups with both racially homogeneous and heterogeneous groups and involving 157 undergraduate students at a large, mid-Atlantic university. They found that students expressed experiences of positive interaction with students of other races in classroom and residential settings. The authors observed that these settings may provide the informal, ongoing opportunity for contact that can foster positive relationships. They also found that students reported that large scale, campus wide events (e.g., major art, entertainment and even sporting events) which were not focused on any particular race or culture, but were attended by all races were experienced as positively contributing to a sense of interpersonal connection across

racial lines. This was true even when students didn't actually interact directly with someone of another race.

Differences by race. From a number of studies a picture emerges of different perceptions between White students and minority students, particularly African American students. Minority students feel more socio-cultural alienation (Mack et al., 1997); African American students feel the climate is less friendly (Ancis, Sedlacek, and Mohr, 1998; McClelland & Auster, 1990); and significantly less satisfying than White students (Fisher & Hartmann, 1995; Student Affairs Research Services, 1994).

In a study of perceptions and experiences about the campus cultural climate, Ancis, Sedlacek, and Mohr (1998) found significant differences between racial and ethnic groups on a number of dimensions related to the climate. Respondents comprised 578 African American, Asian American, Latino, and White undergraduates (60% return rate) from a large mid-Atlantic university. African American students consistently reported more negative experiences compared to Asian American, Latino, and White students. Specifically, African-American students experienced greater racial/ethnic hostility; greater pressure to conform to stereotypes; less equitable treatment by faculty, staff, and teaching assistants; and more faculty racism than their Asian-American, Latino, and White counterparts. White students consistently reported less racial tension, few expectations to conform to stereotypic behavior, an experience of being treated fairly, a climate characterized by respect for diversity and the most overall satisfaction.

Mack et al. (1997) surveyed 150 seniors at five small private, predominately White and highly selective colleges in California. White students had a positive view of cross racial interactions and did not perceive their race as a barrier or burden. Black students tended to describe the climate as more hostile, uneasy, and uninviting, with Asian and Latino students holding views between these two contrasting groups. For example, Black students were more likely than Asian or White students to agree that the campus was racially hostile and that students were uneasy in the presence of their group. On the other hand White students were less likely than Asian, Black, and Latino students to perceive a lack of campus activities for their racial group. White and Latino students were most comfortable interacting with other racial groups, whereas Asian students were the least comfortable. This study does not examine how these experiences, for all races, may vary by different environments on campus (e.g., classrooms, residence halls).

Johnson-Durgans (1994) surveyed students in the residence halls of a predominantly White university in the Midwest in order to examine differences in the perceptions of racial climates between African American and White students. Respondents totaled 3,347 (56.8% return rate) comprised of 10.3% African American, 82.2% White and 7.5% other students of color. The questionnaire included a series of items related to cross racial interaction with peers, such as, “It does not matter in my hall what race you are, everyone gets along well” and “The residents in my hall are friendly.” Significant differences were found between the perceptions of African

American students and White students related to hall peers, as well as the resident hall environment, hall government, and hall staff. The authors reported non-parametric results which only showed magnitude of these differences but not direction.

Fisher and Hartmann (1995) studied the racial climate of a predominately white, large Midwest university. Their study included 120 White and 120 Black students (79% and 78% response rates respectively) who answered 23 open-ended questions. They found that 44% of the Black respondents had personally been the target of other students' racial prejudice, six times higher than reported by their White counterparts (7.5%). Similarly, 54% of Black students and 46% of White students reported witnessing racial prejudice by others (about 90% targeting Blacks and 10% targeting Whites). A majority of both groups felt that making friends with others was affected by race (79% of Black and 56% of White students). This study did not examine whether these negative experiences were more or less prevalent in different situations on campus (e.g., in classrooms, in residence halls).

These studies related to racial differences report relatively consistent findings that White students are having more positive experiences than Black students, and in some cases other students of color, in college environments. It is reasonable to conjecture that in terms of peer-to-peer relationships, students of color will report a differing quality of cross-racial interactions than White students. None of these studies have systematically explored how the quality of cross racial interactions might vary by race across situations on campus.

Cotton campus situational study. Cotton, Kelley and Sedlacek (2000) conducted a survey to gain student input about the situations in which they had positive and negative experiences with same race and different race students. The study included 75 in-depth, semi-structured interviews of undergraduate students, stratified by race and randomly selected at a large, public mid-Atlantic university. The primary purposes of this qualitative study were to (1) better understand the situations in which students have positive and negative cross racial interactions, and (2) attempt to uncover common characteristics of those situations to guide strategies to enhance positive contact. The study used the critical incidents technique (Flanagan, 1954), a strategy of interviewing to gather the critical characteristics of a situation or behavior. An inductive approach was used to analyze the responses and to develop a classification structure (Cotton et al.). Multiple raters were used to enable assessment of inter-rater reliability.

Four themes emerged from the interviews: (a) Academic settings - Students described academic situations as an opportunity to engage in positive dialogue across racial and ethnic lines. Although large classes presented challenges for interaction, students generally seemed to accept a safe classroom setting that encouraged discussion. Small-group classroom discussions were especially conducive to cross racial interaction. (b) Campus employment - On and off campus employment experiences were frequently mentioned as opportunities for positive cross racial interaction. Work settings could foster accomplishment and shared responsibilities

for achieving common goals. (c) Residential life - In numerous cases, students indicated that living in the residence halls provided ongoing opportunities for interaction with students of different races in a non-threatening environment. Planned programs as well as through informal contact and development of friendships were cited as ways in which these interactions might occur. (d) Social interaction - Social activities provided frequent opportunities for positive (and negative) interactions among racial groups. These activities include belonging to a student group, going to parties, participating in sports, taking part in a fraternity/sorority event, attending campus-wide events (e.g., basketball games), and going to off-campus activities.

Cotton et al. (2000) observed that the settings described by students varied from structured situations with significant institutional oversight (i.e., classrooms, workplaces) to unstructured situations in which students are free to choose with whom and how they will associate. The structured settings provide more opportunities for campus intervention in shaping cross racial interactions. The unstructured environments are less amenable to institutional intervention.

Cotton et al. (2000) concluded that faculty should be engaged to further promote the classroom opportunities for cross racial interaction; the work environment should be recognized for its potential value to enhance these interactions; and the social environment should be explored to find more safe, non-anxiety producing ways for students to interact across racial lines.

The study by Cotton et al (2000) is very helpful in depicting a schema for

categorizing students' cross racial interactions within the university environment. This schema includes broad settings (such as academic, work, residential or social) and specific situations within these settings (e.g., classrooms, formal residence hall programs, student groups, etc.). The study supports the idea that students are experiencing unique, cross racial interactions specific to these settings and situations.

Are some broad settings or specific situations reported by Cotton et al. (2000) more conducive to positive cross racial interactions than others? To what extent are the findings above accurate reflections of the entire student body? While very informative, the findings by Cotton et al. cannot be generalized without a random sample, nor can situations (e.g, classrooms, formal residence hall programs, student groups) be compared to each other relative to cross racial interactions without a quantitative measure of these experiences.

Cross racial interactions in different settings

There is ample research to support the concept that the environment in which cross racial interactions take place can affect the quality of those interactions. The contact hypothesis and environmental studies are two lines of research that inform this issue.

Contact hypothesis. Allport's (1954) contact hypothesis originated a body of research that elaborates on the experiences of intergroup relations. The contact hypothesis provides evidence that bringing people of different racial/ethnic backgrounds into contact with each other under certain conditions may lead to

improved interpersonal relations as described below. The contact hypothesis can provide a useful perspective in terms of investigating how cross racial interactions may vary depending on the characteristics of the different situations on a college campus.

As originally defined by Allport, and refined by later researchers, the four conditions (Brewer & Brown, 1998) that must be present in order for contact with members of different racial/ethnic groups to enhance intergroup relations include: a) equal status of all group members within the contact situation; b) cooperative interdependence among group members; c) norms that support positive relations; and d) interactions that disconfirm stereotypes and encourage the transmission of individuating information about group members (Allport, 1954; Cook, 1985; Gaertner, Dovidio & Bachman, 1996; Marcus-Newhall & Heindl, 1998; Pettigrew, 1998). Brewer and Brown observe that the contact hypothesis is one of most long-lived and successful ideas in the history of social psychology.

While many studies of the contact hypothesis were conducted in experimental settings (Cook, 1985; Cook & Pelfrey, 1985; Gaertner et al., 1989; Wilder, 1984; Wright, Aron, McLaughlin-Volpe and Ropp, 1997), a number of studies were also conducted in field settings (Green, Adams & Turner, 1988; Marcus-Newhall & Heindl, 1998; Powers & Ellison, 1995). Gaertner et al. (1994), for example, found in a study of 1,357 students attending a multi-cultural high school a correlation between a reduction in intergroup bias/prejudice and the presence of contact hypothesis criteria.

In general the field based studies such as Gaertner et al. confirm the validity of the contact hypothesis in actual settings.

Nesdale and Todd (1998) tested the contact hypothesis in a college residential environment. The authors chose this setting because they saw it as meeting the requirements called for by the contact hypothesis. Students have equal status and ample opportunity to meet each other and disconfirm negative stereotypes. Hall settings typically emphasize collegiality and egalitarian social norms, and programming activities and hall staff encourage cooperation and collaboration. The study included 246 students (127 international; 119 Australian) living in three residence halls in an Australian university. In one hall the international students (mostly Chinese) were the majority, in the second hall the international and Australian students were about equal, and in the last hall the Australian students were the majority. The authors found that the minority group in each hall had a significantly greater amount of cross-cultural contact with the majority than vice versa. The authors also found that this level of contact generalized for students to many of their other settings on campus - classroom assignments, leisure activities, travel and general university activities, i.e., if a student reported high cross-cultural contact in the residence hall, she/he also reported high cross-cultural contact in other settings in the university. This study is important because it examined the amount of cross cultural contact in a number of settings in a university environment as well as evidence that there seems to be a cross-over effect from one setting (e.g., residence hall) to another

(e.g., leisure activities). While the study measured the quantity of contact, it did not attempt to measure the quality of these cross cultural contacts.

Pettigrew (1994) reinforced the importance of the contact hypothesis criteria to influence behaviors in a particular situation. He asserts that one of the strongest findings from social psychological research is the power of situational norms to shape intergroup interaction. Further, that people are fully capable of immediate behavioral change as they move from one set of situational norms to another. Pettigrew cites several examples of field studies of this phenomenon. Minard (1952, as cited in Pettigrew, 1994) found that most Black and White coal miners followed a pattern of racial integration below the ground and racial segregation above the ground. Reitzes (1953, as cited in Pettigrew, 1994) studied a large steel mill outside Chicago. Inside the mill, Black and White workers were fully integrated in a multiracial union. Outside the mill these workers lived in segregated residential areas, and many of the same White workers who believed strongly in an interracial union belonged to a neighborhood organization that kept Black citizens from living in the area. Pettigrew cites the need for reinforcing cross racial bonds and friendships as one way to influence situational norms in college environments. Pettigrew's review reinforces the perspective that situations in a college environment can vary in their effect on cross racial interactions.

Powers and Ellison (1995) studied whether the contact hypothesis simply reflected selectivity bias, i.e., people who seek out situations in which the contact

hypothesis seems to confirm positive cross racial interactions are actually people who have positive internal attitudes toward people of other races. Powers and Ellison used archival data from the National Survey of Black Americans conducted by the University of Michigan in 1980, resulting in a sample of 2,107 adults. They found no evidence that the validation of the contact hypothesis was due to an artifact of unobserved self-selection processes. This study is of particular interest because it focuses on the question of whether the internal attitudes of people toward diversity influences their cross racial interactions. While Powers and Ellison's research, in this case, disconfirmed this phenomenon, evidence will be examined later in the literature review that suggests such influence is possible.

Wright et al. (1997), found that people do not have to have direct friendships with people of other races to experience an improvement in attitudes toward other races. The authors experimentally tested this hypothesis with 178 undergraduate students at a West coast university. They found that if a person simply knows someone from within their own in-group who has a close relationship with someone from an out-group, the person's attitudes can become more positive toward the out-group even though he/she has no direct interaction. Thus it is possible for a student to feel vicarious positive (or negative) cross racial experiences in campus settings. This is useful information, because in a number of situations on campus - e.g., classroom, basketball game, party - a student may not have a direct cross racial interaction but may observe such interaction among others. This observation alone may be sufficient

to affect how the student would rate their experience of cross racial interaction in those settings.

On the other hand Wilder (1984) found that just one pleasant, direct contact with an out-group member had virtually no impact on stereotypes about the out-group even if the out-group member seemed typical of the out-group. Participants were 62 female undergraduates, 30 from one college and 32 from another college, both independent institutions in the Northeast, which harbored prejudiced attitudes and stereotypical perceptions toward one another. The experimental design manipulated stereotype-disconfirming interactions between students representing each college, but found that this one-time interaction did not reduce stereotypes held about students in the other college. This would suggest that the recurring nature of some campus situations (e.g., same classmates all semester, roommate all semester, co-worker) would more likely foster improved cross racial interaction than chance, fleeting encounters (e.g., conversation at a party, attending one event).

In summary, the contact hypothesis provides a theoretical basis, supported by empirical study, to suggest that the characteristics of a given situation can affect the nature of cross racial interactions. Since the situations on a college campus can vary tremendously, from classroom settings to residential environments to parties, it seems plausible that the quality of cross racial interactions can also vary across these situations. However, there have been no systematic attempts to measure whether and to what degree the quality of such interactions might vary.

Environmental assessment. Environmental assessment research has confirmed that different settings can have distinctive characteristics (Moos, 1973). The characteristics of these settings are governed in part by the behaviors and characteristics of the people in these settings (Moos, 1973). It has long been recognized that people can behave toward people of other races/ethnicities in different ways depending on the situation and context (Smith, 1993). These findings point to the discrete, unique nature of different settings in an environment. At the same time there is evidence that the experiences an individual has in one situation can influence their mood and behavior in another situation (Moos, 1996). This suggests that the quality of cross racial interactions may co-vary for certain situations, e.g., the experience in the classroom may influence the experience in similar situations such as labs sections or study groups.

Attitudes toward diversity and cross racial interactions

The review so far has focused on the potential ways that situations can influence the positive or negative nature of cross racial interactions. There is a body of research that suggests that our internal attitudes toward people who are different may influence our interactions (behaviors) with those people as well.

Link between attitude and behavior. In general attitudes can predict many forms of social behavior across a wide range of contexts (Baron & Byrne, 1994). However, the strength of the link between attitude and behavior depends on several factors: is the attitude specific (stronger link) or general (Newcomb, Rabow, &

Hernandez, 1992); and to what extent does an individual have a vested interest in the subject matter of the attitude. For example, students of color are more concerned about cross racial interactions and race relations, more so than White students (on campuses where White students are the majority) because they see it more directly impacting their lives (Fisher & Hartmann, 1995). This might suggest that there will be stronger associations between attitudes toward cross racial interactions (behaviors) for students of color than for White students on majority White campuses.

Effect of prejudice on cross-racial interactions. There is evidence that if a person holds negative attitudes toward another group (prejudice), that person's social interactions with people from that other group can be negatively impacted. Harris et al. (1992) studied this effect in pairs of boys in third through sixth grade that were about to participate in a task together. One of the boys in each pair was secretly informed (randomly) that the other boy had disruptive social skills and got into trouble a lot. Boys that were told this later reported that they had a more negative interaction with their partner (enjoyed the task less, liked their partners less and were less friendly toward their partners) than boys that were not told this about their partner. In this case the experimentally induced prejudice led to a phenomenon sometimes referred to as the self-fulfilling prophecy (Baron & Byrne, 1994). This phenomenon suggests that the positive or negative nature of cross racial interactions between college students may be impacted by the attitudes of the students toward each other's group (e.g., racial, ethnic, religious, etc..).

Prejudice is an attitude (usually negative) held toward a specific group (Baron & Byrne, 1994). It would be difficult to measure the amount of prejudice a person might harbor toward all of the possible racial targets of this prejudice (e.g., African American, White, etc..). Another approach would be to examine the degree to which the person is generally more open toward accepting and appreciating people and cultures that are different than one's own. Miville et al. (1999) found that having an open and appreciating attitude toward diversity represented by all other persons (a universe-diverse orientation) was associated with lower levels of prejudice (e.g., homophobia and dogmatism) and higher levels of empathy.

Thus, if the quality of cross-racial interactions is to be examined, the possible impact of attitudes on these interactions ought to be examined as well. Instead of trying to assess the specific prejudice or attitude each student has toward a student of another race, another approach would be to measure the general openness and appreciation for diversity that a student exhibits and determine if it has any influence on that student's cross racial interactions. There is some evidence to suggest that the association between attitude toward diversity and quality of cross racial interactions (behaviors) may be stronger for students of color, particularly Black students, because race is a more salient aspect of their lives.

In summary, if the positive or negative nature of cross racial interactions is going to be explored, in addition to the situation in which the interaction takes place, there is the real possibility that the attitude of the individual may effect this

interaction. No studies could be found that have attempted to measure the extent to which these interactions are influenced by both the external situation and the internal attitudes of people.

Summary. Campus climate studies provide the general context within which to better understand cross racial interactions in a college campus environment. Are the positive or negative nature of these interactions uniform across the variety of campus settings or are some situations better than others? Some campus climate studies recognize that cross racial interactions may vary in different settings, but none explore this concept in a way that would enable comparison between settings on campus, for example, classrooms versus residence halls.

While all students seem to acknowledge the challenges for improving these interactions, studies suggest that students of color are experiencing the climate and cross racial interactions more negatively than their White counterparts. Is this uniform across all settings? Or would a closer examination show that in certain situations students of color are more comfortable in their relationships with White students than in other situations?

The contact hypothesis offers a theoretical basis to explain why the positive or negative nature of cross racial interactions may differ among settings. There is also sufficient research to suggest that our internal attitudes can influence the quality of our cross racial interactions.

So to what extent can we better understand how the positive or negative nature of cross racial interactions varies among the different settings on a college campus and, at the same time, assess the extent these interactions are influenced by the internal attitudes of people toward diversity? The current study will focus on these questions.

Statement of Problem

Universities provide an excellent opportunity to enhance positive cross racial interaction (American Commitments National Panel, 1995). While students express a desire for better interactions, creating such an environment remains a challenge (Humphreys, 1998).

Campus climate studies have been helpful in understanding the general nature of cross racial interactions (Fisher & Hartmann, 1995). Cotton et al. (2000) provides qualitative, empirical support for the idea that students perceive different and unique cross racial experiences across settings. No campus climate studies have been found that focus on how the large variety of different situations on a college campus may influence such interactions.

In addition to the setting of cross racial interactions, there is evidence that peoples' predispositions toward others who are different can effect these interaction as well (Baron & Byrne, 1994). For example the attitude of prejudice (usually negative) has been found to influence the positive or negative nature of the interaction between the person with the prejudice and a person who is the target of the prejudice (Harris et al., 1992).

To what extent does the link between attitude and behavior relate to the quality of cross racial interactions? Campus climate studies have not examined the internal attitudes of students toward diversity as a variable related to the outcome of cross racial interactions.

The purpose of this study is to examine the different situations across a campus environment, the internal attitudes of students and their relationship with the positive or negative nature of interactions between different race students. Therefore, the present study will test the following hypotheses:

Hypothesis 1: Students will cluster in identifiable ways related to the similarity of their CRIS scores.

It is clear that the college campus consists of a variety of different situations. The contact hypothesis provides a theoretical basis to suggest that different situations might influence cross racial interactions in different ways (Allport, 1954; Brewer & Brown, 1998; Pettigrew, 1994). Various studies of the contact hypothesis in and outside of college environments help to support the idea that cross racial interactions will vary across campus situations (Nesdale & Todd, 1998). Therefore, it is logical to hypothesize that the different situations on a college campus will manifest different characteristics, and this will influence cross racial interactions.

There is evidence that certain situations may foster the opportunity for more positive cross racial interactions. For example, situations with recurring contact, such as classrooms, versus one-time, such as parties, may be more likely to lead to a higher quality of cross racial interaction (Wilder, 1984). Similarly, structured situations such as classrooms or work places may provide more opportunities for contact hypothesis

criteria to come into play (Campus Assessment Working Group, 2003; Cotton et al., 2000). There is also evidence that the racial characteristics of students is related to their cross racial experiences (Fisher & Hartmann, 1995). Therefore, hypothesis 1 will analyze both the quality of cross racial interactions and the demographic characteristics of students to identify identifiable clusters of students and/or situations.

Hypothesis 2: The quality of cross-racial interactions for Black/African American, Asian Pacific American and Latino students will be lower than for White students.

There is substantial research to support the idea that African American students are experiencing the campus environment more negatively than their White counterparts (Ancis, Sedlacek, and Mohr, 1998; Fisher & Hartmann, 1995; McClelland & Auster, 1990; Student Affairs Research Services, 1994).

Hypothesis 3: There will be a positive correlation between the perceived quality of cross-racial interactions and internal attitudes toward diversity.

This correlation will reflect the positive relationship between a person's internal disposition toward appreciating differences and similarities with other people and their level of positive experience with different race students irrespective of differing situations. The research in this area is equivocal. On the one hand there is a clear link between attitudes and social behavior (Baron & Byrne, 1994). On the other hand Powers and Ellison (1995) found no basis to believe that people with positive attitudes toward diversity sought out situations in which their experience would confirm their attitudes. However, there appears a sufficient basis to hypothesize that attitudes toward diversity will have some affect on the interaction.

Additional Analyses

Two research questions are posited that are intended to examine how gender and cohort relate to the cross racial experiences and how cross racial interactions differ from interactions in general (i.e., not specific to race).

The first research question relates to better understanding how gender and cohort relate to cross racial experiences. Are students of different genders and cohorts having different experiences across the settings? Does gender interact with these experiences? Are seniors, who have been on the campus for several years having cross racial interactions different than freshman who have just started?

Research Question 1: Do the quality of cross racial interactions vary by gender or cohort?

Research into gender differences found that women were more likely to have more liberal racial attitudes than men (Schuman, Steen, Bobo, & Krysan, 1997; Springer, Palmer, Terenzini, Pascarella, & Nora, 1996). The cohort, or class standing is an indicator of how long the student has been exposed to the university environment and presumably influenced by that environment. This can vary between one and five years for the vast majority of undergraduate students. There are several studies which suggest that residential students (living on campus) versus commuter students (living off-campus) are having different cross racial experiences (Campus Assessment Working Group, 2003; Cotton et al., 2000; Korgen et al., 2003; Nesdale & Todd, 1998) .

The second research question relates to how cross racial interactions might differ from interactions in general (i.e., not specific to race). It is difficult to assess the

meaning of positive or negative cross racial interactions in a given situation without comparing it to a norm or benchmark. What are the quality of interactions in the same situation without specifically focusing on race? One of the weaknesses with campus climate studies is that they don't assess perceptions of the campus environment in relation to a broader context. For example, students of color may report they are dissatisfied with the state of race relations on a campus, but they may also indicate that relations on campus are better than in society generally. While not eliminating the concern, it puts the concern in a context. This can only be determined by establishing norms.

The current study attempts to determine benchmarks or norms related to the positive or negative nature of student interactions in situations across campus without focusing on race. Against these benchmarks then, the positive or negative cross racial interactions can be compared for the same situations.

Research Question 2: How does the quality of cross racial interactions between students differ from the quality of general interactions between students, without reference to race?

The meaning of ratings or scores is enhanced when they can be viewed in relation to comparable ratings for an appropriate reference group (Hopkins, 1998). It is important to understand that a norm is not necessarily a goal, but a measure of what is.

Summary. The current study extends the Cotton et al. (2000) study which explored the quality of cross racial interactions across the campus environment.

Extension of the Cotton et al. study enables greater generalization of its findings concerning the relationship of the different settings to the quality of the interactions. By adding a measure regarding a person's attitude toward diversity the current study will extend the previous work by examining the interaction between environment and internal disposition in relation to a student's cross racial interactions.

Chapter 3

Method

Design Statement

This descriptive, correlational study will examine the quality of cross racial interactions in 13 situations in a college campus environment and internal attitudes toward diversity. The study will use the Miville-Guzman Universality-Diversity Scale-Short (MGUDS-S), excerpts from the Cultural Attitudes and Climate Questionnaire (CACQ), and the author developed Cross Racial Interaction Scale (CRIS).

Participants

A stratified, random sample of 1,000 participants were randomly selected from the Fall, 2002 enrolled undergraduate population of the University of Maryland, College Park. The sample was stratified by the four major racial/ethnic categories represented at the University of Maryland - White, African American/Black, Asian Pacific American, and Hispanic/Latino, with 250 students randomly selected from each category.

The Office of Institutional Research and Planning reported these as the four largest undergraduate student racial/ethnic categories at the University of Maryland in the previous year (Fall, 2001) as follows: White (59.4%), African American/Black (13.1%), Asian Pacific American (13.8%), Hispanic/Latino (5.1%). Other categories that were not used in the current study included: International (2.9%), and Unknown (5.5%). The American Indian population at the University of Maryland was recorded

at 0.3% and was not formally analyzed in this study due to the inability to draw a large enough sample. However, the Office of Institutional Research and Planning was able to provide the names of 25 American Indian students, so these were included in the sample, for a total of 1,025 participants. Each student in the sample was randomly assigned to receive either version A (experiences with other races) or version B (no reference to race) of the questionnaire.

Measures

The Miville-Guzman Universality-Diversity Scale-Short (M-GUDS-S) (Fuentes, Miville, Mohr, Sedlacek & Gretchen, 2000) measures the construct Universal-Diverse Orientation (UDO). Miville et al. (1999) defined UDO as an attitude toward other persons in that similarities and differences are both recognized and accepted. The shared experience of being human results in a sense of connection with people and is associated with a diversity of interactions with others.

The M-GUDS-S is a 15 item questionnaire with items that are rated on a 6-point Likert-type scale ranging from strongly disagree (1) to strongly agree (6) (See Appendix D). The M-GUDS-S yields a total score as well as scores from three 5-item subscales. These subscales are: (a) relativistic appreciation of oneself and others, which involves recognition and acceptance of the similarities and differences among people, (b) diversity of contact, which assesses both previous and future intended behaviors relevant to interpersonal contact with people of different demographic backgrounds; and (c) sense of connection, involving the emotional bond one feels toward others. These subscales reflect the cognitive, behavioral, and affective

components of UDO, respectively (Fuertes et al., 2000).

The M-GUDS-S is a short form of the original version, M-GUDS, which consists of 45 items. Administration of the original version to four separate samples resulted in internal consistency and retest-reliability ranging from .89 to .95. The measure significantly correlated in theoretically predicted ways with measures of racial identity, empathy, healthy narcissism, feminism, androgyny, homophobia, and dogmatism. The original version displayed discriminant validity by not correlating with SAT verbal scores; however, mixed results were obtained with social desirability (Miville et al., 1999).

The short form M-GUDS-S was derived by selecting the five highest loading items on each of the three factors of the original scale. The correlation between the total score of the short form and the long form was found to be .77 ($p < .001$) (Fuertes, et al. 2000). The short form correlated in theoretically predicted directions with items from a new student orientation survey related to religious tolerance, attitudes toward gay and lesbian persons, and having close friends of another race (Fuertes, et al. 2000).

The Cross Racial Interaction Scale (CRIS) is a new instrument developed by the author to measure the extent students report positive or negative experiences with students of races other than their own in situations across the campus environment. The scale includes 13 situations grouped into four major settings: (a) academic setting - classrooms, small group/lab discussion sections, study groups and group projects outside the classroom; (b) campus employment setting - on campus and off-campus

jobs; (c) residential life setting - planned programs as well as informal interaction and friendships; and (d) social setting - broad category that includes student groups, parties/social events; sports & recreation, fraternities and sororities, large campus events (e.g., first look fair, basketball game) and off-campus socializing stemming from on-campus relationships. The CRIS uses a 6 point Likert-type scale from 1=very negative to 5=very positive, and includes a not applicable option (0) for each situation to indicate that the respondent had no experience with students of other races in that situation.

The CRIS was drawn from the results of the qualitative study by Cotton et al. (2000) in which 75 semi-structured interviews of undergraduate students, stratified by race and randomly selected at a large, public university, were used to gain student input about the situations in which they have had positive and negative experiences with same race and different race students. The purpose of this qualitative study was to (1) better understand the situations in which students have positive and negative racial experiences, and (2) attempt to uncover common characteristics of those situations to guide strategies to enhance positive contact. The study used the critical incidents technique (Flanagan, 1954), a strategy of interviewing to gather the critical characteristics of a situation or behavior. An inductive approach was used to analyze the responses and to develop a classification structure (Cotton et al., 2000). Multiple raters were used to enable assessment of inter-rater reliability. Analysis of the responses led to the identification of four major settings where experiences were taking place: Academic, campus employment, residential and social. Within each of

these major settings, specific situations were repeatedly mentioned. The CRIS settings and situations were drawn directly from the outcome of this earlier study.

Two versions of the CRIS were administered, each to one-half of the sample. Version A (see Appendix A) asked about experiences with students of **other races** [emphasis added] in different situations on campus (e.g., classrooms, residence halls). Version B (see Appendix B) asked the same question but left out the reference to other races. Version B served as a control. This allowed comparisons, by race, between the control group and the test group to establish benchmarks, i.e., norms against which to compare experiences across races. This methodology is drawn from the Situational Attitude Scale (SAS) originally developed by Sedlacek and Brooks (1970). Sedlacek (1996) elaborates on the method which is to use experimental and control forms of a questionnaire in order to assess prejudice without social desirability bias.

The CRIS was pilot tested with a small convenience sample of undergraduate students in order to check face validity and understandability. It was also reviewed with a researcher widely published in the areas of race, race relations, and campus climate and who was involved in the qualitative study (Cotton et al., 2000). He confirmed the CRIS to be an adequate reflection of the results of the qualitative study.

The Cultural Attitudes and Climate Questionnaire (CACQ) (Helm, Sedlacek, & Prieto, 1998) is a 100 item question designed to measure students' perceptions and experiences of the university racial and ethnic climate (see Appendix C). Using a 4-point and 5-point Likert-type scale, 560 first and third year college students reported

their level of agreement with statements regarding the campus climate (Ancis, Sedlacek, & Mohr, 1998). The overall coefficient alpha reliability of the questionnaire was .81 (Helm, Sedlacek, & Prieto, 1998). Eleven factors were identified using principal axis factor analysis and varimax rotation, accounting for 48% of the total variance. The factors were labeled Racial Tension ($r=.73$); Cross-Cultural Comfort ($r=.73$); Diversity Awareness ($r=.67$); Racial Pressures ($r=.60$); Residence Hall Tension ($r=.69$); Fair Treatment ($r=.74$); Faculty Racism ($r=.77$); Respect for Other Cultures ($r=.62$); Lack of Support ($r=.63$); Comfort With Own Culture ($r=.55$); Overall Satisfaction ($r=.78$).

The CACQ is one of very few campus climate surveys for which psychometric characteristics are available. Eight items were selected from the CACQ by the author that seemed most likely to correlate in theoretically predictable ways with the CRIS. While the entire CACQ would be valuable to administer, it would more than triple the length of the current survey (from 29 items to 129 items, plus demographics). Consultation with researchers in the campus Office of Institutional Research and Planning (responsible for administering numerous surveys) strongly suggested that increasing the length would further exacerbate what have become smaller and smaller response rates in recent years among general student mailings.

The CACQ was reviewed by the author to identify the items that should have a strong relationship with the CRIS. A student's average CRIS score across all situations on campus should reflect their overall experience, and correlate to three CACQ questions that measure overall campus climate: "There is racial conflict on

campus”, “There is racial/ethnic separation on campus” and “There are a great deal of friendships between students of different racial and ethnic groups”.

Other CACQ items were selected that related to specific situations, for example, “There is interracial tension in the residence halls” should correlate with the CRIS scores about experience in the residence halls. Other CACQ items related to the classroom situation were selected that should correlate with CRIS scores specific to the classroom.

Open Ended Question. One open ended question was asked: “Describe an activity or environment on campus where you have had positive relationships with students who were different than you (e.g., race, ethnicity, religion, sexual orientation...)”. This question was intended to obtain qualitative to better understand the situations on campus where positive relationships across racial lines are occurring. Ultimately, the goal is to foster environments that will increase such experiences. The open ended question also reflects an extension of the qualitative information gathered by Cotton, et al. (2000). The results of this question were not used in the current study. These data will be analyzed in a future study.

Demographics. Gender, race/ethnicity, and cohort were primary sorting keys. Cohort was included because of the known developmental changes associated with the college years. Also, living on or off-campus, employment on or off-campus, part or full-time status and current college (major) were obtained for possible significance in examining differences in the experiences with students of other races (see Appendix E).

Procedures

The data that was used for this study was archival data, having been collected as part of a funded research grant project in which the author was a co-principal investigator.

The following process was used to collect the data. The sample of 1,000 students was randomly selected from the Fall, 2002 undergraduate population. Twenty five Indian American students were then added for a total of 1,025 students. Each student was then randomly assigned to receive either version A or version B of the questionnaire. Version A asked about experiences with students of **other races** [emphasis added] in different situations on campus (e.g., classrooms, residence halls). Version B asked the same question but left out the reference to other races. Version B was a control. All statements concerning anonymity, voluntary participation and freedom to stop at anytime were the exact same for both versions A and B. All of the procedures below were the exact same for respondents whether they received version A or B.

After Institutional Research Board approval was obtained, an email was sent to each of the selected students inviting them to participate in the study (see Appendices F and G). They could then click on a web URL to complete a questionnaire if they wished.

Version A of the questionnaire included the following sections (a) what has been their experience with students of other races in different settings on campus (CRIS, 13 items), (b) their attitude towards diversity issues

(M-GUDS-S, 15 items), (c) their opinion about the racial climate on campus (CACQ excerpted, 8 items), (d) open-ended question about where they have had positive experiences on campus, and (e) demographic information. Version B, since it eliminated the reference to race, include sections (a) what has been their experience with other students in different settings on campus (eliminated reference to race) (CRIS-non race version, 13 items), and (d) and (e) which remained the same.

A \$10 (for version A) and \$5 (for version B) gift certificate to the University Book Center were offered as an incentive to complete the questionnaire. In order to protect anonymity, after completing a questionnaire the respondents were sent to a web site separate from the questionnaire web site and could either enter a mailing address for the gift certificate or read instructions on how to pick up their certificate on campus.

Ten days following the initial email, a followup email was sent to the entire sample (since responses were anonymous) asking them to complete the survey if they had not already done so. Five days following the second email, the web site receiving surveys was closed.

A total of 381 surveys were completed (37.2% response rate). One response was removed since it included no responses to the instruments in the questionnaire. Of the 380 useable responses, 195 completed version A (reference to experiences with other races) and 185 completed version B (no reference to race).

A set of steps were taken in order to obtain the best response rate possible. A significant incentive was provided (every respondent was guaranteed a \$10 or \$5 gift

certificate to the university book store), a short survey was constructed (10 minutes to complete), an initial invitation email was reviewed first with students to maximize its potential to persuade students to complete the questionnaire, and a reminder followup was sent approximately 2 weeks after the initial email.. A third reminder was not possible since it was the end of the semester.

Chapter 4

Results

This section is divided into preliminary analysis, hypothesis and research question analysis, and additional analysis. The preliminary analysis describes the results of the surveyed sample in terms of demographics and comparison of the respondents to the version A of the questionnaire which referenced race, and version B of the questionnaire which did not.

Preliminary analysis

Respondents. Three demographic profiles were examined. First, the demographics of the respondents representing the entire sample themselves, second, a comparison of the respondents who took version A versus those who took version B of the questionnaire and third, a comparison of the entire sample (respondents) to the mailing list (all students sent the questionnaire). Version A included the reference to race in the Cross Racial Interaction Scale, CRIS, while version B did not include the reference. These two versions will be referenced as version A (race) and version B (non-race). Table 1 compares the demographic characteristics of these different samples including race, gender, cohort (e.g., junior, senior), housing (living on campus/off campus), and employment.

Comparison of version A and version B respondents. Out of 1,025 students sent the questionnaire, there were 381 completed questionnaires. One response had no data and was eliminated, leaving 380 useable responses, or a 37 percent response rate. Of the 380 valid responses, 195 responded to version A (race) and 185

responded to version B (non race). These are comparable response rates, with version A having a 5.4% higher return rate than version B. Comparing the demographic characteristics of the respondents to the two versions exhibits some differences (adjusted for the 5.4% difference, which would be an expected difference between Version B to version A). For example, the response rate increased substantially for students of color from version B to version A, while the response rate for White students decreased. The Black, APA and Latino student respondents increased from 90 to 118, or 25.7% (adjusted by the 5.4% expected increase), while White student respondents decreased from 59 to 56, or -10.5% (adjusted). Therefore, students of color were 36.2% more likely to respond to a questionnaire about race relations versus a questionnaire about student relations without reference to race than White students.

Non-response bias. Table 1 shows the percentage breakdown of demographic characteristics for all of the students sent the questionnaire as well as those for the respondents. There are several significant differences in these characteristics.

Cross tabs and chi square analyses were run with race, gender, cohort and housing as criteria. Significant differences were found for Gender, $X^2(1, N = 1280) = 3.91, p = .048$. Significant differences were found for Race (Black, APA, Latino, and White) $X^2(3, N = 1280) = 15.42, p = .001$. No significant differences were found for Cohort (First year students, Sophomore, Junior and Senior) $X^2(3, N = 1280) = 2.429, p = .488$. Significant differences were found for Housing (living on-campus or off-campus) $X^2(1, N = 1280) = 13.75, p < .000$.

The previous findings suggest significant non-response bias, however, several

factors might explain some of the difference. For example, 13.9% of the respondent pool self-identified as either multirace or unknown. Adding the multirace students proportionately back into the original race categories would change their percentages. For example the number of multirace students self-identifying as part Latino would have increased the Latino count by 15.5%.

In comparing Gender, 11.8% of the respondent pool elected to not identify gender. Thus, while the percentage of females was 52.9% for the respondent pool and 52.1% for the original sample, males were 35.3% of the respondent pool while comprising 47.9% percent of all of the students sent the questionnaire. What is unclear, is to what extent the 11.8% of respondents who did not report gender are causing the non-response bias conclusion for gender.

In conclusion, even though there may be reasons other than non-response bias that can explain the differences between the response pool and all of the students sent the questionnaire, based on the differences in the Chi square analyses, it is likely that this sample is not representative of the population of all undergraduate students at the University of Maryland during the Fall, 2002 semester.

Use of selective sample sets. Table 1 includes all categories of respondents. Some of the analyses in this study exclude respondents depending on the intent. For example, in terms of race, this study is limited to investigating the four major race categories at the University of Maryland - Black, APA (Asian Pacific American), Latino, and White. Therefore, the categories of Multirace and American Indian will be excluded from some analyses. The category of Not reported may be excluded for

Race, Gender and Cohort.

Most of the analyses also focus on the respondents to version A (race) since this measures cross racial interaction. Therefore, most of the analyses will be limited to these 195 respondents.

Cross Racial Interaction Scale. The CRIS measures the quality of cross racial experiences in 13 different situations on campus. Table 2 provides descriptive data on the results of the CRIS scores, including the N, M and SD for each situation, as well as Pearson's product moment correlation matrix. The mean CRIS score varied from a high of 3.99 (SD = .81) for classrooms, to a low of 1.17 (SD = 1.74) for Greek life.

The CRIS uses a 6 point Likert-type scale of 0 = No Experience, 1 = Very Negative, 2 = Negative, 3 = Neutral, 4 = Positive and 5 = Very Positive. Some analyses will exclude the No Experience selection in order to more accurately reflect the quality of the cross racial interaction.

Table 1. Demographic Characteristics of Sample

		Respondents						All Students Sent Survey	
		Version A (race)		Version B (non-race)		Total Resp'dents		N	%
		N	%	N	%	N	%	N	%
Race	Black	37	19.0	30	16.2	67	17.6	250	24.4
	APA	50	25.6	33	17.8	83	21.8	250	24.4
	Latino	31	15.9	27	14.6	58	15.3	250	24.4
	Am. Indian	0	0	4	2.2	4	1.1	25	2.4
	White	56	28.7	59	31.9	115	30.3	250	24.4
	Multirace	10	5.1	16	8.6	26	6.8	-	-
	Not rep.	11	5.6	16	8.6	27	7.1	-	-
Gender	Female	104	53.3	97	52.4	201	52.9	534	52.1
	Male	69	35.4	65	35.1	134	35.3	491	47.9
	Not rep.	22	11.3	23	12.4	45	11.8	-	-
Cohort	1 st year	35	17.9	46	24.9	81	21.3	236	23.0
	Soph	50	25.6	31	16.8	81	21.3	246	24.0
	Junior	43	22.1	53	28.6	96	25.3	271	26.4
	Senior	65	33.3	51	27.6	116	30.5	272	26.5
	Not rep.	2	1.0	4	2.2	6	1.6	-	-
H'sing	On-campus	85	43.6	103	55.7	188	49.5	388	37.9
	Off-campus	110	56.4	82	44.3	192	50.5	637	62.1
Job	On-campus	38	19.5	43	23.2	81	21.3		
	Off-campus	70	35.9	58	31.4	128	33.7		
	Both	11	5.6	8	4.3	19	5.0		
	No job	75	38.5	75	40.5	150	39.5		
Totals		195	100%	185	100%	380		1,025	

Table 2
Pearson Correlation Coefficients for CRIS Scores

	N	M	SD	class rm	lab/ disc- uss.	study group	on camp. job	off camp. job
classrm	194	3.99	.81	1.00				
lab/discuss.	195	3.81	1.09	.45**	1.00			
study groups	193	3.69	1.26	.40**	.25**	1.00		
on camp. job	192	1.83	1.98	.01	-.03	.11	1.00	
off camp. job	193	2.71	1.97	.00	.11	.17*	.07	1.00
RL programs	195	2.33	1.90	.11	.19**	.05	.13	-.09
RL social	195	2.89	1.90	.06	.17*	.07	.13	-.12
student grps	193	3.22	1.73	.12	.27**	.20**	.12	.04
parties	195	3.22	1.62	.26**	.26**	.19**	-.02	.09
sports/rec.	195	2.68	1.95	.13	.19**	.19**	.21**	.07
Greek life	194	1.17	1.74	-.04	-.05	.05	.17*	.06
camp. events	195	3.50	1.46	.21**	.24**	.13	-.03	-.08
off-campus	194	2.98	1.90	.18*	.03	.25**	.03	.17*

** correlations significant at the 0.01 level (2-tailed)

* correlations significant at the 0.05 level (2-tailed)

Note. Includes 'no experience' CRIS scores.

Table 2 (Continued)

Pearson Correlation Coefficients for CRIS Scores

	RL prog.	RL social	stud't grps	parties	sports/ recr.	Greek life	camp. events	off campus
classrm								
lab/discuss.								
study groups								
on camp. job								
off camp. job								
RL programs	1.00							
RL social	.68**	1.00						
student groups	.18*	.09	1.00					
Parties	.12	.18*	.15*	1.00				
sports/rec.	.22**	.13	.24**	.18*	1.00			
Greek life	.24*	.13	.18*	.22**	.16*	1.00		
camp. events	.28**	.23**	.26**	.24**	.21**	.17*	1.00	
off-campus	.12	-.01	.20**	.25**	.19**	.13	.28**	1.00

** correlations significant at the 0.01 level (2-tailed)

* correlations significant at the 0.05 level (2-tailed)

Note. Includes 'no experience' CRIS scores.

Hypothesis 1: Students will cluster in identifiable ways related to the similarity of their CRIS scores.

This hypothesis was tested using a hierarchical cluster analysis. Cluster analysis is generally used to identify homogeneous subtypes within a complex data set and typically, there is no a priori knowledge about natural groupings (Borgen & Barnett, 1987) . The analysis clustered cases (students) based on the degree of similarity between their CRIS scores. The Ward's minimum variance method (Ward, 1963) was used as the clustering technique, with the proximity matrix calculated using the Squared Euclidean Distance measure. Ward's clustering method has been widely used in behavioral science research and has been found to be one of the more effective methods for recovering underlying structure (Borgen & Barnett). Out of the 195 respondents to the CRIS Version A (race), 185 respondents were valid cases for the hierarchical cluster analysis. Ten cases were not valid because at least one score among the 13 CRIS variables was missing (i.e., the respondents did not fill in a CRIS score).

Based on visual inspection of the resulting dendrogram, a seven cluster solution was chosen. Choosing a smaller number of clusters would have increased the in-cluster variance or dissimilarity (because the number of students in each cluster must increase). This would decrease the ability to describe unifying characteristics of the clusters.

Clusters and CRIS scores. Table 3 shows the number of students N in each cluster, with means and standard deviations for their CRIS (cross racial interaction scale) scores. It also displays the mean CRIS score for each cluster for the 13

situations. The clusters range from a high of 44 students (cluster 5) to a low of 14 (cluster 6). Mean CRIS scores ranges from a high of 4.20 (SD = .63) for cluster 2 to a low of 3.47 (SD = .56) for cluster 7. A one-factor, fixed effect ANOVA indicated significant differences between the cluster mean CRIS scores $F(6,178) = 2.45, p = .027$. Tukey's HSD post hoc test for pairwise comparisons found significant differences between cluster 7 and cluster 1 (M difference = $-.58, p = .043$), and cluster 7 and cluster 2 (M difference = $-.74, p = .008$). The unweighted mean of the cluster CRIS scores is shown in the right hand column.

Clusters and demographics. Crosstabs were run with the seven clusters of students and the variables of race, gender, living on/off campus, cohort, and employment. Table 4 displays this information. The percentage of each characteristic (e.g., race, gender) is displayed within each cluster of students, as well as the percentage of that characteristic for the total valid sample of 185 cases (far right column). Table 4 excludes selective demographic sub-categories in order to simplify the table. This means the percentages reflected do not sum to 100%. For example, the Race category excludes Multirace, American Indian, and No report. If these subcategories were added back to each cluster, Race would sum to 100%. Similarly, the No-report subcategory count is not shown for Gender, Cohort, Housing and Job.

CRIS and demographic characteristics of the seven clusters of students.

The following section analyzes the seven clusters in terms of the demographic profile of the students (Table 4), and characteristics of their CRIS scores (Table 3).

Two criteria were established to identify distinguishing characteristics of the

clusters. Using Table 4, the demographic percentages within a cluster were compared with expected percentages for the entire sample as shown in the right hand column. Wherever there was a difference of greater than 20 percent between the expected percentage and the cluster percentage for a given characteristic this was identified as a distinguishing characteristic of that cluster and is shown in **bold** in Table 4. Twenty percent was chosen after examining the size of variances between the cluster demographic percentages and selected as a reasonable cut-off.

Using Table 3, the CRIS scores were compared with the unweighted mean of clusters (CRIS) scores shown in the right hand column for each situation. Wherever there was a difference of greater than 1.0 full point between the cluster CRIS score and the unweighted mean CRIS this was identified as a distinguishing characteristic of that cluster and is shown in **bold** in Table 3. One full point was chosen after examining the size of variances between the cluster CRIS scores and selected as reasonable cut-off.

The seven clusters were analyzed using this operational definition of distinguishing characteristics. Each cluster is discussed below, with demographic percentages shown in parenthesis (cluster percent/expected percent). CRIS scores are also shown in parentheses.

Cluster 1 (26 students). This group is overwhelmingly living off campus (96.2%/54.6%) and working off-campus (65.4%/34%). They are predominantly upperclass students (juniors and seniors, 88.5%/53.5%) and include more minority students (Black, APA & Latino, 80.8%/59.5%). The lowest CRIS score is RL (resident life) programs (.15). This latter score is indicative of the off-campus living

characteristic, with almost all respondents in this cluster indicating 'no experience' for RL programs. This, combined with the low score for RL social (.27) and high scores for off-campus job (3.85) and off-campus activities (3.81) are consistent with the off-campus characteristics of this group.

Cluster 2 (18 students). This group is reflective of White (50.0%/29.7%), male (61.1%/34.1%), first year and sophomore students (66.6%/45.4%) and not employed (72.2%/39.5%). There are no APA students (0%/24.9%). They have relatively high CRIS scores, compared to the average, for RL social (4.22), RL programs (4.33), parties (4.17), sports/recreation (4.17), and Greek life (2.17).

Cluster 3 (38 students). The only distinguishing characteristic of this racially and gender representative group is that it lives more off-campus (78.9%/54.6%). They have the lowest CRIS score for sports/recreation (.55) among the clusters and low scores for RL programs (.47) and RL social (1.39).

Cluster 4 (30 students). The primary distinguishing characteristic of this group is living on-campus (70.0%/44.3%). The group is mostly first year and sophomore students (66.6%/45.4%). They have the second lowest CRIS score for classrooms (3.80). Interestingly, as an on-campus population, they do not work on campus, so their on-campus CRIS score is low (.70), while they work more off campus and their CRIS score for off campus work is high (3.87).

Cluster 5 (44 students). Demographically this group stands out in having no distinguishing demographic characteristic that exceeds the 20% threshold of difference. They have relatively high CRIS scores, exceeding 1 point higher than the average for

on-campus jobs (3.25), off-campus jobs (3.80), resident life programs (3.75), Greek life (2.59) and off-campus activities (3.98). Their CRIS score exceeds the average for 12 out of 13 situations.

Cluster 6 (14 students). These students primarily live on-campus (78.6%/44.3%), and work on-campus (64.3%/20.0%). They have the highest CRIS score for on-campus jobs (4.21) and high score for resident life social (4.36). A low score for off-campus jobs; can be explained primarily by the low percentage working off-campus, 7.1%, and most likely checking 'no experience'.

Cluster 7 (15 students). This group lives predominantly on-campus (73.3%/44.3%), are first year students (46.7%/18.9%) and not employed (60.0%/39.5%). They are overrepresented in Black students (40.0%/18.9%) while underrepresented in APA students (0%/24.9%). Their CRIS scores are low in almost all areas, below the average in 11 of 13 situations. Their CRIS scores are at least 1 point lower than average in study groups (2.07), off-campus jobs (.80), student groups (1.20), parties (1.13), sports/recreation 1.33), and off-campus activities (1.07). Though not differing by 1 point, they also have below average scores in the academic areas (classrooms, lab/discussion sections)..

In summary, hypothesis 1 was tested by first running a hierarchical cluster analysis which led to the identification of seven clusters of students based on their similar CRIS scores. These clusters were then analyzed using Crosstabs and Chi square analysis to determine distinguishing demographic characteristics, and CRIS descriptive statistics. This analysis found that all the clusters exhibited distinguishing

characteristics along either demographic and/or CRIS score continua, however, some clusters exhibited a clearer profile of characteristics than others. An ANOVA and post hoc analysis found significant difference between the mean CRIS scores for three clusters. These analysis support hypothesis 1.

Table 3: Clusters Mean CRIS Scores per Situation

	Clusters							Unwgt. Mean of Clstrs
	1	2	3	4	5	6	7	
<u>N</u>	26	18	38	30	44	14	15	
	<u>CRIS Scores</u>							
<u>M</u>	4.05	4.20	3.91	3.94	3.91	4.08	3.47	
<u>SD</u>	.56	.63	.76	.47	.57	.44	.56	
Classrm	4.08	4.28	4.03	3.80	4.00	4.29	3.73	4.03
lab/discuss.	3.62	4.06	3.79	4.07	3.95	4.07	3.13	3.81
Study groups	3.92	4.00	3.50	3.87	3.95	4.29	2.07	3.66
on campus job	2.04	.61	.89	.70	3.25	4.21	1.47	1.88
off campus job	3.85	.28	2.53	3.87	3.80	.50	.80	2.23
RL programs	.15	4.33	.47	3.13	3.75	1.93	3.27	2.43
RL social	.27	4.22	1.39	3.80	4.02	4.36	3.53	3.08
student grps	3.54	4.00	2.50	3.50	4.00	2.93	1.20	3.10
Parties	3.35	4.17	3.13	3.27	3.57	3.50	1.13	3.16
Sports/rec.	4.00	4.17	.55	2.63	3.43	3.29	1.33	2.77
Greek life	.69	2.17	.45	.60	2.59	.14	.00	0.95
Campus events	2.85	4.39	3.05	4.07	3.93	3.29	2.93	3.50
off-campus activities	3.81	2.89	2.71	2.57	3.98	2.07	1.07	2.73

Note. Bold items exceed a 1.0 full point variance from the unweighted mean of clusters.

Table 4.

Demographic Characteristics Of the Seven Clusters

	<u>N</u>	Percentage w/in Clusters							% of total Expect
		1	2	3	4	5	6	7	
<u>Race</u>									
Black	35	19.2	16.7	13.2	13.3	15.9	35.7	40.0	18.9
APA	46	30.8	0	28.9	40.0	25.0	28.6	0	24.9
Latino	29	30.8	16.7	23.7	13.3	9.1	0	6.7	15.7
White	55	19.2	50.0	18.4	23.3	40.9	28.6	33.3	29.7
<u>Gender</u>									
Female	100	50.0	27.8	63.2	56.7	54.5	50.0	66.7	54.1
Male	63	38.5	61.1	28.9	23.3	34.1	42.9	20.0	34.1
<u>Cohort</u>									
First year	35	0	33.3	7.9	33.3	13.6	21.4	46.7	18.9
Soph	49	3.8	33.3	23.7	33.3	31.8	42.9	20.0	26.5
Junior	37	30.8	5.6	26.3	13.3	20.5	14.3	20.0	20.0
Senior	62	57.7	27.8	42.1	20.0	34.1	21.4	13.3	33.5
<u>Housing</u>									
On-campus	82	0	55.6	21.1	70.0	47.7	78.6	73.3	44.3
Off-campus	101	96.2	38.9	78.9	30.0	52.3	21.4	26.7	54.6
<u>Job</u>									
On-campus	37	11.5	5.6	10.5	6.7	31.8	64.3	26.7	20.0
Off-campus	63	65.4	16.7	47.4	30.0	29.5	7.1	13.3	34.1
Not employed	73	11.5	72.2	42.1	53.3	27.3	28.6	60.0	39.5

Note. Bold items exceed a 20% variance from the expected percentages.

Hypothesis 2: The quality of cross-racial interactions for Black/African American, Asian Pacific Am. and Latino students will be lower than White students.

A one-factor, fixed effects ANOVA was used to analyze this hypothesis. The four major racial groupings represented the levels of the independent factor. Each participant's average CRIS score (i.e., the mean across all 13 situations) was the dependent variable. This is a between-subjects design. Differences among the actual 13 situations between the racial groups was not analyzed since this hypothesis relates to the overall quality of experience and not any particular situation.

For this analysis, the CRIS scores were limited to the 5 point Likert-type options of: Very Negative, Negative, Neutral, Positive, Very Positive. The 6th selection option of No Experience was excluded, since the purpose of this analysis is to determine the quality of the cross racial interactions, where the No Experience selection is not a measure of this quality. Since the hypothesis was addressing the quality of cross racial interactions, analysis was limited to respondents to Version A (race).

Table 5 shows the N for each race group, with their CRIS M, and SD. Results of the ANOVA indicated significant differences $F(3,170) = 4.495, p = .005$. Tukey's HSD post hoc test of pairwise comparisons found significant differences within Black students being lower than White students (M difference = $-.419, p = .005$), and Black students being lower than Latino students (M difference = $-.396, p = .031$).

These results provide partial support for hypothesis 2. The quality of cross-racial interactions for Black students was found to be lower than White students, however, the quality of cross-racial interactions for Asian Pacific American and Latino students was not found to be significantly lower than for White students.

Table 5.

Mean CRIS scores by race.

	N	M	SD
Black	37	3.64	.67
APA	50	3.83	.51
Latino	31	4.03	.62
White	56	4.06	.59
Total	174	3.90	.61

Hypothesis 3: There will be a positive correlation between the perceived quality of cross-racial interactions and internal attitudes toward diversity.

Because the relationship is hypothesized to be positive, a one tailed Pearson correlation was run for the overall coefficient as well as by race, gender, cohort, living situation and several combinations of demographic characteristics (e.g., White Males). The Miville-Guzman Universality-Diversity Scale-Short (M-GUDS-S) was used to assess internal attitudes toward diversity, and the mean of the CRIS score (i.e., the mean across all 13 situations) was used to assess the perceived quality of cross-racial interactions.

As in hypothesis 2, for this analysis, the CRIS scores excluded the 'No Experience' option, since the purpose of this analysis is to determine the quality (i.e., negative to positive) of the cross racial interactions, where the No Experience selection is not a measure of this quality. The analysis is limited to respondents to Version A - race based CRIS.

Results of the correlation between CRIS and M-GUDS-S scores is shown in Table 6. For the total sample, the correlation is $r = .26$, $p < .01$ level. There are large differences between subsets of the sample. For Race the largest difference was between White students ($r = .55$, $p < .01$) and APA students ($r = -.01$, not significant, ns). For Gender, the correlation for Male students ($r = .43$, $p < .01$) was much higher than Female students ($r = .17$, $p < .05$). Even for Housing, the correlation for students living off-campus ($r = .38$, $p < .01$) was much higher than students living on-campus ($r = .09$, ns).

Further subsets were chosen to explicate the different correlations. Females by race are shown in Table 6. White Female students had the highest correlation ($r = .58$, $p < .01$) while Black Female students were the farthest away with a negative correlation ($r = -.34$, ns). White and Black Female students were further divided into on-campus and off-campus, since housing showed a significant effect on the CRIS/M-GUDS-S correlation in Table 6. On campus White Female students dropped but still had a relatively high correlation ($r = .40$, $p < .05$) and on-campus Black Female students showed an increasing negative correlation ($r = -.64$, $p < .01$). Other comparisons were not attempted because of the small cell sizes.

The overall Pearson's coefficient $r = .26$ ($p < .01$) confirms the hypothesis that there is a positive correlation between the perceived quality of cross racial interactions and internal attitudes toward diversity. Additionally, there are intriguing variations in the correlation across sub-communities of students.

Table 6

Pearson Correlation Coefficient for CRIS and M-GUDS-S scores

Demographic characteristic		N	r
Overall		195	.26**
Race	Black	37	.10
	APA	50	-.01
	Latino	31	.41*
	White	56	.55**
Gender	Female	104	.17*
	Male	69	.43**
Housing	On-campus	85	.09
	Off-campus	110	.38**
	White Females	28	.58**
	APA Females	26	-.09
	Latina Females	15	.44*
	Black Females	22	-.34
	On campus Black Females	14	-.64**
	On campus White Females	19	.40*

** correlations significant at the 0.01 level (1-tailed)

* correlations significant at the 0.05 level (1-tailed)

Additional Analyses

Research Question 1: Do the quality of cross racial interactions vary by gender or cohort?

A 2x4 factor univariate analysis of variance was performed on gender (male, female) and cohort (first year students, sophomore, junior, senior). Each participant's average CRIS score (i.e., the mean across all 13 situations) was the dependent variable. This was a between-subjects design. Differences among the actual 13 situations were not be analyzed since this hypothesis related to the overall quality of experience and not any particular situation. Cases with missing data on gender or cohort identification were excluded.

As in hypothesis 2 and 3, for this analysis, the CRIS scores excluded the 'No Experience' option, since the purpose of this analysis is to determine the quality (i.e., negative to positive) of the cross racial interactions, where the No Experience selection is not a measure of this quality.

No significant differences were found, either in main effects or interactions. Gender $F(1,163) = 1.357$, $p = .246$, Cohort $F(3,163) = 1.767$, $p = .156$, Gender x Cohort $F(3,163) = 1.454$, $p = .229$.

Research Question 2: How does the quality of cross racial interactions between students differ from the quality of general interactions between students, without reference to race?

This research question compared the responses to the version A CRIS (race included) and the responses to version B CRIS (race not included).

A fixed effect, single factor ANOVA was run to compare the overall CRIS

scores for Version A (race) with the overall CRIS scores for Version B (non-race) All cases were included, 380, but the 'no experience' option was excluded to accurately reflect the quality of cross racial interactions. Descriptive data comparing the CRIS scores from both the race based version and non-race based version follows in Table 7. The cases for multirace, American Indian, and not reported were excluded to improve the performance of the ANOVA in terms of unequal cell sizes. The F test found no significant difference, $F(1, 378) = .162, p = .687$.

There was other evidence, however, that there were differences between the two CRIS scores. A fixed effect ANOVA was run on version B (race) and found no significant differences among the racial groups $F(3,145) = .522, p = .668$, that is, when race was not considered, students did not differ across racial groups in their overall CRIS scores. However, as shown in hypothesis 2, when race was considered (Version A) there were significant differences between the CRIS scores for Black and Latino students (M difference = $-.396, p = .031$) and between Black and White students (M difference = $-.419, p = .005$).

The differences in the M for Version A and Version B are shown for the race groups. Curiously, for Black students, the M for Version A is $-.21$ less than Version B. For White students the direction reverses, with the M for Version A $+.21$ higher than Version B.

Table 7

CRIS Scores (Versions A and B) by Race

	CRIS Version A (race)			CRIS Version B (non-race)			<u>M</u> Diff.*
	<u>N</u>	<u>M</u>	<u>SD</u>	<u>N</u>	<u>M</u>	<u>SD</u>	
Overall	195	3.92	.62	185	3.89	.44	+0.03
Black	37	3.64	.67	30	3.85	.36	-.21
APA	50	3.83	.51	33	3.86	.48	-.03
Latino	31	4.03	.62	27	3.98	.45	+0.05
White	56	4.06	.59	59	3.86	.49	+0.20
Total Race	174	3.90	.61	149	3.88	.46	+0.02

* (Version A minus Version B)

Preliminary validity check of CRIS.

Pearson's product moment correlation was used to check the construct validity of the CRIS instrument with a selective items from the the Cultural Attitudes and Climate Questionnaire (CACQ) (Helm, Sedlacek, & Prieto, 1998). Selected items from the CACQ have been used to confirm the overall ability for CRIS to measure the quality of cross racial interactions, as well as specific items related to the residential setting and the academic setting. All respondents to the Version A (race) questionnaire also completed eight items from the CACQ. In order to consistently report the degree to which responses are measuring the quality of cross racial interactions, the following responses have been excluded from this analysis: from the CACQ 'not applicable' and 'no interaction' and from the CRIS 'no experience'. Therefore, the number of respondents will vary in this analysis.

Overall CRIS. There should be a positive correlation between the mean CRIS score and the eight selected CACQ items, which are measures of racial tension, conflict and perceptions of fairness. These eight items were reverse scored as necessary so that a higher number meant the perception of a better racial climate (e.g., lesser racial tension/conflict). A mean of the CRIS score (an average across the 13 situations) should correlate positively with means of the eight CACQ scores. A Pearson's correlation matrix is shown in Table 8 with the CRIS mean and the eight CACQ scores. As predicted, the CRIS mean is significantly correlated ($p < .01$, 1 tailed) with all eight CACQ items.

Residence halls. Two of the CRIS items relate to cross racial experiences in the residence halls, and two of the CACQ items relate to the perception of the climate in

the halls. The Pearson correlation matrix (not shown) found all four factors to be significantly correlated. Specifically, CRIS (resident life programs) with CACQ4 (dorm racial tension) $r = .48, p < .01$ and with CACQ6 (dorm staff are fair) $r = .22, p < .01$. CRIS (resident life social) with CACQ4 (dorm racial tension) $r = .48, p < .01$ and with CACQ6 (dorm staff are fair) $r = .21, p < .01$. Note that CACQ4 was reverse scored.

Academic settings. Two of the CRIS items relate to cross racial experiences in the classroom and lab/discussion sections, and two of three of the CACQ items related to perceptions of the climate in the academic setting. The Pearson's correlation matrix found all four factors to be significantly correlated. Specifically, CRIS (classrooms) with CACQ5 (classroom race tensions) $r = .23, p < .01$ and with CACQ7 (faculty are fair) $r = .29, p < .01$ and with CACQ8 (teaching assistants are fair) $r = .32, p < .01$. CRIS (lab/discussion section) with CACQ5 (classroom race tensions) $r = .22, p < .01$ and with CACQ7 (faculty are fair) $r = .25, p < .01$ and with CACQ8 (teaching assistants are fair) $r = .33, p < .01$. Note that CACQ5 was reverse scored.

Table 8

Pearson Correlation Coefficients for CACQ Items

	N	M	SD	CRIS Mean	CACQ1	CACQ2
CRIS Mean	195	3.92	.62	1.00		
CACQ1 - racial conflict	190	2.98	.84	.28**	1.00	
CACQ2 - race separation	195	2.15	.95	.31**	.47**	1.00
CACQ3 - cross race friends	193	2.82	.85	.18**	.04	.25**
CACQ4 - dorms race tensions	141	3.36	.85	.51**	.59**	.34**
CACQ5 - classroom race tensions	188	3.60	.68	.28**	.47**	.30**
CACQ6 - dorm staff are fair	134	4.10	.98	.33**	.07	-.01
CACQ7 - faculty are fair	194	4.04	.87	.34**	.18**	.04
CACQ8 - teaching ass'ts are fair	193	4.09	.83	.33**	.06	.02

** correlations significant at the 0.01 level (1-tailed)

* correlations significant at the 0.05 level (1-tailed)

Table 8 (Continued)

Pearson Correlation Coefficients for CACQ Items

	CACQ3	CACQ4	CACQ5	CACQ6	CACQ7	CACQ8
CRIS Mean						
CACQ1 - racial conflict						
CACQ2 - race separation						
CACQ3 - cross race friends	1.00					
CACQ4 - dorms race tensions	.13	1.00				
CACQ5 - classroom race tensions	.05	.56**	1.00			
CACQ6 - dorm staff are fair	.06	.25**	.11	1.00		
CACQ7 - faculty are fair	.03	.20**	.26**	.61**	1.00	
CACQ8 - teaching ass'ts are fair	.03	.19*	.13*	.61**	.70**	1.00

** correlations significant at the 0.01 level (1-tailed)

* correlations significant at the 0.05 level (1-tailed)

Chapter 5

Discussion

This section first examines the results of the hypotheses and research questions. Then, a summary of the potential meaning of these results is provided, followed by limitations and implications for future research.

Hypothesis 1: Students will cluster in identifiable ways related to the similarity of their CRIS scores.

The cluster analysis represents an interesting way to uncover relationships among a large set of both demographic and situational data. The analysis identified seven clusters based on the similarity of CRIS scores for students within each cluster. The clusters were then distinguished from each other by examining both the variance in CRIS scores (1 point +/- from the mean for each CRIS situation) and variance in demographic profile (20% +/- from the expected percentage for each demographic characteristic).

Clusters 2, 5 and 7 seem to stand out the most in terms of providing the most information about cross racial experiences and student demographic data. Clusters 2 and 5 are high in quality of cross racial experiences and Cluster 7 is low in this quality.

Cluster 2 seems to be first year and sophomore students , White and Male, and seems particularly positive about the social environment, high in residence hall programs and social life, parties, sports and recreation, and Greek life. It may be too simplistic to conjecture that this cluster reflects students who are somewhat insulated from the experiences of being a minority student on campus, and have not yet been confronted with the difficult (and potentially developmental) dimensions of a

multicultural environment. Ancis, Sedlacek, and Mohr (1998) found similar results with White students consistently reporting less racial tension, an experience of being treated fairly and a climate characterized by respect for diversity and having the highest overall satisfaction. Findings by Mack et al. (1997) and Fisher and Hartmann (1995) also support this finding..

Cluster 5 seems also very satisfied with their cross racial experiences, high in on campus and off campus jobs, residence hall programs, Greek life and off campus activities. This cluster, the largest numerically, is the only one without any demographically distinguishing characteristics, i.e., it is most representative of the sample. Cluster 5 provides evidence that the quality of cross racial experiences are not starkly divided along racial lines. It represents a cross section of students, perhaps the largest segment of the student population (since it is the largest cluster), that reflects the racial and gender diversity of the campus and is generally satisfied with their interactions across racial lines. This is consistent with the widely held impression that the University of Maryland is not a racially troubled campus (Campus Assessment Working Group, 2003, March), indeed it has been recognized as a leader nationally in the area of diversity (Office of Human Relations Programs, 1998).

Cluster 7 reflects students who are dissatisfied, relative to the other clusters, with their cross racial interactions low in a remarkably large number of areas. These include off campus jobs, student groups, parties, sports and recreation, study groups, and off campus activities. This group also had a relatively large amount of 'no experience', which explains to some extent the low CRIS scores, it also suggests that this group is disengaged in a large number of campus activities. It also is the only

Cluster with Black students as a distinguishing characteristic. Unfortunately, this cluster tempers the positive outcome of Cluster 5, since Cluster 7 reinforces what a large number of studies have found related to Black students having less positive and more alienating experiences in college (Ancis, Sedlacek, & Mohr, 1998; McClelland & Auster, 1990). In some ways Cluster 7 stands in contrast to Cluster 2 also. Both clusters are comprised primarily of first year students. Cluster 2 is distinguished by the high White student count, while Cluster 7 is distinguished by the high Black student count (interestingly, both are absent any APA students). Recalling that the basis for the clusters was their similarity in CRIS scores, perhaps APA students are neither at the very high end or at the very low end in this regard.

So these three clusters provide evidence of distinguishable communities of students who share demographic traits and cross racial experiences. While the other clusters also have unique characteristics, these three seem the most pronounced.

In assessing the clusters, it is helpful to keep in mind several aspects of the data, specifically that certain factors covary in predictable ways. For example, far fewer first year students are employed while a large number of seniors are employed. So in clusters 2 and 7 which have high first year students and/or sophomores, it is understandable that they have high unemployment. Another consistent correlation is living off campus and having jobs off campus as well as the reverse. So, cluster 1 is high in off-campus living and high in off-campus employment. Another set of covarying factors relate demographic characteristics with CRIS scores. Since the cluster analysis necessarily had to include the 'no experience' selection (marked as 0 on a six point scale with very negative as 1 and very positive as 5), CRIS scores high in 'no

experience' should correlate with certain demographic characteristics. For example in Clusters 1 and 3, high off campus living means a large number of these students selected 'no experience' for CRIS scores in residence life programs and social/friendships, as opposed to having negative experiences. Cluster 2 has high unemployment, leading to low CRIS scores for on and off-campus jobs. Recognizing these overlaying relationships helps to accurately assess the underlying data. These relationships were examined as part of the interpretation of analysis and discussion for hypothesis 1.

Hypothesis 2: The quality of cross-racial interactions for Black/African American, Asian Pacific American and Latino students will be lower than for White students.

This hypothesis was partially supported in that Black students were found to have lower quality cross racial interactions than White and Latino students. This finding is not surprising and augments previous research which has found that Black students experience the college environment in less positive ways across a number of dimensions. A number of studies present findings of different perceptions between White students and minority students, particularly African American students. Minority students feel more socio-cultural alienation (Mack et al., 1997); African American students feel the climate is less friendly (Ancis, Sedlacek, and Mohr, 1998; McClelland & Auster, 1990); and significantly less satisfying than White students (Fisher & Hartmann, 1995; Student Affairs Research Services, 1994). The present study extends these findings to the specific area of cross racial interactions. It was expected that a greater degree of dissatisfaction would be evidenced by the Latino and

APA students than was reflected in the ANOVA. The Latino students had a mean CRIS of 4.03, comparable to a mean CRIS of 4.06 for White students. It would prove interesting to find out if such a similarity in experiences between White and Latino students would be evident in other universities in other parts of the country since other research suggests greater dissatisfaction. Vernez and Mizell (2001), for example, report the outcome of a focus group study involving Latino students at a number of universities in which social adjustment was identified as a major problem. Latino students in focus groups at the University of Maryland expressed negative experiences as compared to other racial groups (Campus Assessment Working Group, 2003). Perhaps, Latino students have satisfactory experiences with one-one relationships with other students, while their dissatisfaction may revolve around academic retention and preparedness, financial aide, etc., i.e., issues other than cross racial interactions.

Hypothesis 3: There will be a positive correlation between the perceived quality of cross-racial interactions and internal attitudes toward diversity.

The central point of this hypothesis was to test the degree to which internal attitudes, a relatively stable characteristic, might correlate with perceptions of the quality of cross racial interactions in different situations, a changing dimension, in a college environment. The overall Pearson's correlation for CRIS scores (quality of cross racial interactions) and M-GUDS-S (internal attitudes toward diversity) was $r = .26, p < .01$. The positive finding lends support to the literature that contends that attitudes influence behaviors (Baron & Byrne, 1994), i.e., that perhaps the internal attitude toward diversity might predict the quality of cross racial interactions, although

it must be stressed that this study did not test for a causal relationship. While Pearson coefficient was significant this overall correlation masks surprisingly wide variations in the correlation for sub communities of students.

White students have a much higher correlation when compared to APA and Black students. Male students have a much higher correlation when compared with Female students. This latter finding might be examined in light of Schuman et al. (1997) findings that women were more likely to have more liberal attitudes than men. Perhaps this leads to greater incongruity with the reality of the racial environment. The correlations for White males are somewhat consistent with the cluster analysis of hypothesis 1. Cluster 2 has distinguishing characteristics of White and Male, while Cluster 7 has a distinguishing characteristic of Black students. Cluster 2 reflects a high quality of cross racial interactions, while Cluster 7 reflects a low quality of cross racial interactions. Since MG-GUDS-S scores are generally consistent across racial groups, and generally high, Cluster 7 seems to reflect a greater disparity between M-GUDS-S and CRIS than Cluster 2.

A greater disparity than either race or gender alone is evident when these factors are combined. White females have an $r = .58, p < .01$ while Black females have a negative correlation of $r = -.34, p = n/s$. There are many anecdotal stories of Black students, particularly females, who arrived at college fully expecting a rich, diverse environment in which significant cross racial interaction would occur, and been extremely disappointed at what they find. This might lead to the ironic situation where those with the highest M-GUDS-S scores and the highest expectation of positive cross

racial interactions are the ones who are most disappointed and critical of their experiences.

The variation due to living situation is interesting, with on-campus students having an $r = .09$, ns and off-campus students having an $r = .38$, $p < .01$. Perhaps those who live on campus are exposed to a wider variety, both good and bad, of social experiences than those who live off campus. Those who live off campus have more limited social interactions than students who live in the residence halls and eat in the dining halls. The interactions for off-campus students may revolve principally around academic settings, classrooms, lab/discussions, etc... and these measure fairly high in CRIS scores. There is literature support for the different living experiences of on-campus and off-campus. Korgen, Mahon, and Wang (2003) found that residential students in a very racially diverse setting were far more likely to report higher racial tension than their commuter counterparts. The authors conjectured that this might be evidence of a 'tipping effect' (Glazer, 1995, as cited in Korgen et al., 2003), that as the diversity of a community grows, without intentional intervention strategies, the amount of racial tension can also grow. If true, this might suggest the residential environment warrants special attention. It could represent the greatest potential for expanding and deepening positive cross racial interactions, while it might also represent the greatest risk for negative experiences (Newswanger, 1996).

Research Question 1: Do the quality of cross racial interactions vary by gender or cohort?

The CRIS did not vary by gender or cohort (Gender $F(1,163) = 1.357, p = .246$; Cohort $F(3,163) = 1.767, p = .156$). In terms of gender, on the one hand, the cluster analysis in hypothesis 1 only had one cluster where gender was a distinguishing characteristic. That means the other six clusters reflected the gender distribution of the sample. On the other hand data from hypothesis 3 suggests that males and females are differing, at least in the extent that their internal attitudes are congruent with their cross racial experiences. The lack of significant difference among the cohorts indicates that the quality of cross-racial interactions isn't tied to a development dimension.

Research Question 2: How does the quality of cross racial interactions between students differ from the quality of general interactions between students, without reference to race?

This question was meant to primarily establish a non-race benchmark (version B). Doing so would enhance the value of the race based version A, by providing a reference group (Hopkins, 1998). The ANOVA did not find significant difference between the CRIS scores for the race-based version A questionnaire and non-race based version B questionnaire. On the one hand this would suggest that race as a factor doesn't substantially influence the perceived quality of the interactions between students. On the other hand there is clear evidence that the race-based version A created differences in CRIS scores that were not evident in the non-race version B. The ANOVA for version A found the CRIS scores for Black students to be significantly below White and Latino students while no differences were found in the non-race version B. There is also an interesting interaction (not significant) in mean CRIS score

and race. In Table 9, the mean CRIS score for Black students is .21 lower in the race-based version A than the non-race version B. The exact opposite change occurs for White students, that is, the mean CRIS score increases by .21 for the race-based version A. The latter finding would not be expected, unless White students actually have better interactions with students of other races than with students without reference to race. It does suggest the possibility of social desirability affecting the CRIS scores for White students.

Summary of findings

The primary purpose of this study was to better understand the quality and context surrounding cross racial interactions on a college campus in order to search for ways in which to improve these interactions. Review of relevant literature suggested several directions in which to investigate. Campus climate studies provided one line of research that tended to reinforce the differential nature of the experience along racial lines. Specifically, these studies suggested that students of color, and Black students in particular, were having less positive and more alienating experiences in college as opposed to White students (Ancis, Sedlacek, & Mohr, 1998; Fisher & Hartmann, 1995; Mack et al., 1997).

Another set of studies focused on intergroup dynamics, emanating from the contact hypothesis, that reinforced the idea that the characteristics of different situations can have differing influences on the quality of cross racial interactions (Allport, 1954; Cook, 1985; Gaertner, Dovidio & Bachman, 1996; Marcus-Newhall & Heindl, 1998; Pettigrew, 1998). The present study continued this line of research in seeking to find

evidence of the influence of different situations in the college environment on cross-racial interactions.

The present study also attempted to determine if the quality of cross racial interactions were influenced by the internal attitude toward diversity. There is evidence in the literature that such a relationship should exist (Baron & Byrne, 1994; Harris et al., 1992).

So prior literature supports the idea that race matters, the situation matters, and internal attitudes matter. The results of the present study were consistent with the findings of these previous studies. In addition, the present study provided further information regarding the relationship of these factors to the quality of cross racial interactions on a college campus.

Not only did situations as measured by the CRIS vary differently in terms of the quality of cross racial interactions, but this study found that students could be clustered according to the similarity of their experiences. These clusters yielded evidence of three distinguishable 'communities' of students which were reporting different cross racial experiences. Cluster 2 might be labeled 'Naive Young White Males'. Characterized by being primarily first year and sophomore students, White and male, these students have high perceived quality of cross racial interactions across a number of situations. 'Naive' is not meant pejoratively, but to reflect the general sentiment that everything is fine racially, everybody gets along and what is the problem (Mack et al., 1997)? Cluster 7 might be labeled 'Disengaged Young Blacks'. These are the classmates and roommates of the previous cluster, yet their cross racial experiences are

either low in quality or non-existent (i.e., no experience) for a large number of situations. This might be reflective of those students that don't make the successful transition to college that is further exacerbated by racial alienation (Humphreys, 1998; Reisberg, 1999). Cluster 5 might be labeled 'Silent Satisfied Majority'. These students reflect the full spectrum of campus diversity, and are in general pretty satisfied with their cross racial interactions. The study by the Campus Assessment Working Group (2003, March) found supporting data in their qualitative focus groups on the University of Maryland campus. The University has a reputation of being somewhat of a leader in this regard and perhaps there is some basis for it (Office of Human Relations Programs, 1998).

The present study further supports the literature and the cluster above in regards to Black students having cross racial experiences that are less positive than Whites (as well as Latino students in this study). The cluster analysis, however, points out the complexity of this finding since a large number of Black students are not having poor cross racial experiences. The correlation between the internal attitude toward diversity and cross racial experiences provides, perhaps, the starkest reminder that clearly defined segments of the campus population are experiencing incongruence between what they may want things to be like and the way they perceive things to be. White and Black females reflect the widest divergence with a .92 swing from $r = .58, p < .01$ to $r = -.34, ns$, respectively. This is an added lense into better understanding cross racial interactions. For a number of students, Black females in this case, the higher their openness toward diversity, perhaps the higher their dissatisfaction with the cross racial

environment they are experiencing. Why would Black females have a negative correlation and White females have a positive correlation? Perhaps White students, majority students, have more agency, and perceive a greater ability to seek out and/or initiate cross racial interactions that are consistent with their attitudes toward minorities, whereas minority students may approach the university environment more as an outsider perceiving their ability to shape that environment more passively. It must be noted, however, that this would be inconsistent with Powers and Ellison (1995) who disconfirmed evidence of selectivity bias, intentionally seeking out situations that confirm positive cross racial experiences. Perhaps many Black females arrive at campus with high hopes for new horizons and interactions with people, and find it not much different from their previous social experiences with Whites and others. There is evidence of this phenomenon in the literature (Reisberg, 1999, Smith, 1997).

The incongruence between expectations and reality as well as the clustering of students seems to suggest that the situation itself, at least as defined in this study, may not be a paramount factor that influences the quality of cross racial interactions. In other words, for example, this study did not find that students always experience a high quality of cross racial interactions in classrooms and always a low quality of cross racial interactions at parties. The quality of cross racial interactions are mixed across the situations, mixed across the race, gender and cohort groups, and mixed across internal attitudes. This by no means dismisses the idea that the situation matters. Clearly, there is variance in the quality of cross racial interactions across situations and in some cases consistent across the entire sample. For example the academic situations,

classroom, lab/discussion, and study groups, had the three highest mean CRIS scores for the entire sample (see Table 2). This study, however, simply has not pinned down the basis for this variance. What this study has done is to show a better understanding about interrelationships between situations, demographic variables, and attitudes toward diversity.

The results of this study also confirm that much of the student population is fairly satisfied with the quality of cross racial interactions evident by generally high CRIS scores. This should not be a reason for complacency, rather, affirmation that the myriad of efforts across departments, faculty and staff and the initiatives of students themselves ultimately have an effect. It is through these continued efforts, perhaps guided by studies such as the present study, to target communities of students or specific environments that cross racial interactions can be improved further. Racial tensions are never far from the surface. Students naturally affiliate along lines of shared experience, so diligence in this area is necessary.

Limitations

There are several limitations of this study. The relatively low response rate of 37.2% increases the risk of the effect of non-response bias. However, in recent years, random mailings of questionnaires to students from the Office of Institutional Research and Planning and also through the Campus Assessment Working Group, two units which develop and administer student surveys routinely, have had comparable results with response rates. The current study was informed by best practices in survey administration and included a significant incentive (every respondent was guaranteed a

\$10 or \$5 gift certificate to the university book store), a short survey (10 minutes to complete), an initial invitation email that was first reviewed with students to maximize its potential to persuade students to complete the questionnaire, and a reminder followup. Even so, this does not reduce the problem of systematic self selectivity in respondents (reduces the randomization of the sample) that is possible with a low response rate.

A second limitation in the sample is the low comparability in selected demographic variables between the random sample of students mailed a survey and those who responded. One standard way to check non-response bias is to compare the demographic profile of the respondents with the full random sample. Chi square analyses found significant differences in race, gender and housing. While it is not known what factors would actually lead to non-response bias, the lack of comparability, combined with the relatively low response rate, make it likely that this sample is not representative of the population of all undergraduate students at the University of Maryland during the Fall, 2002 semester. Therefore, great caution must be exercised in using the results of this study in connection with the full student population.

A significant limitation is that the validity and reliability of the Cross Racial Interaction Scale has not been established. The reliability of this instrument is undetermined because it has not been tested against other factors that might explain changes in the quality of cross racial interactions. For example, classes and jobs are typically during the week and during the day, while residence hall interactions and many social events (e.g., parties, sports) are more associated with the evening and to

some degree the weekends. This and other confounds have not been explicated. Does time of day make a difference? In terms of stability, a test-retest should be used to ascertain the degree to which the recalled quality of cross-racial experiences are consistent over time.

A specific limitation of the CRIS was discovered after its administration. Respondents were allowed to select 'no experience' intended for situations in which they had no cross racial interactions. However, it can also mean the participant had no experience with the situation (e.g., on-campus job).

A method bound limitation relates to the cluster analysis, which had the limitation of requiring all variable values to be filled out, therefore, the 'no experience' selection had to be counted in the proximity matrix. This had the effect of confounding the extent to which the cluster analysis was actually measuring the quality of cross racial experiences, since the data included 'no experience'. The effect on the cluster analysis was mitigated by visual inspection and where 'no experience' counts were significantly skewing the quality number downwards this was accounted for in the interpretation of the data.

Social desirability is always a factor that needs to be considered when asking for self-report data on a social related topic. While anonymity was promised and fully half of the sample served as a control, the degree to which social desirability may have influenced responses for both the CRIS and the MGUDS-S is unknown.

Implications for Future Research

Future research should focus on understanding why cross racial interactions are poor for some and better for others. Focus groups may be an effective way to target, for example, White females with a high attitude/experience correlation, and Black females with a low attitude/experience correlation. Similarly, White male first year students with high quality cross racial experiences and Black first year students with low quality cross racial experiences might provide rich, contrasting qualitative data about their differences. Another approach would be to conduct mixed focus groups (e.g., White and Black females together). This might be structured more like an intergroup dialogue program rather than a research study. Another area of future study would be to investigate the cross racial experiences of the graduate student body. These students comprise almost 30 percent of the student population at the University of Maryland and, therefore, have a significant stake in, and can significantly affect, the cross racial climate on campus.

Since a key purpose of this study is to further knowledge about the factors that influence the development and maintenance of positive cross racial interactions, an interesting future research effort would be to focus on a representative sub sample such as Cluster 5 ('Silent Satisfied Majority') and investigate further the factors they share in common that may be relevant to these positive outcomes. This would pave the way to develop intentional interventions and to foster environments that promote such factors more widely.

Another interesting direction of further research would be to use a different construct to measure the internal attitudes toward diversity. Specifically, Helms and

Carter's (1990) White Racial Identity Attitude Scale is a measure of White people's racial identity and may be a more accurate way to examine the relationship between cross racial interactions and internal attitudes.

In summary, as college campuses continue to become more diverse it becomes ever more important to foster environments that lead to improved race relations. One key aspect to improving race relations is to improve the quality of cross racial interactions students have on a day to day basis. These interactions can occur in a variety of settings. This study examined the quality of cross racial interactions in 13 situations on a college campus, and further examined the influence of internal attitudes and of demographic factors such as race and gender on these interactions. This study found that the quality of cross racial interactions did vary by situation and that students clustered in identifiable ways related to the similarity of their cross racial experiences. This study found evidence in support of previous research that Black students continue to perceive their cross racial experiences less positive than their White counterparts, and added to this research by finding large discrepancies between Black students' perceived cross racial experiences and their internal attitudes toward diversity. These results suggest that the quality of cross racial interactions is related to the setting in which they take place and the internal attitudes and demographic characteristics of the people involved. However, the study falls short of uncovering an overall pattern or coherency in these relationships that point clearly to strategies that can foster improved cross racial interactions. These findings are important because they add to our understanding of cross racial interactions. Future research should focus on finding the factors that explain the differences observed in this study, that is, why certain

communities of students cluster in their cross racial experiences. Find out what are the factors influencing those who are having positive interactions and what are the factors influencing those who are not. Implications to counseling psychology include being better informed about an important dimension of interpersonal relationships of our student clients, and being better able to provide consulting services to the institution surrounding the psycho-social dynamics of race relations.

Appendix A

**Cross Racial Interaction Scale (CRIS)
Version A - references race**

In the following settings, my experiences with students **of other** [emphasis added] races has been (Very Negative-Negative-Neutral-Positive-Very Positive-No Experience):

In the classroom

In my lab/discussion sections

In study groups & group projects outside the classroom

On-campus employment

Off-campus employment

Residence hall sponsored programs

Residence hall socializing; friendships

Student groups

Parties

Participating in sports/recreation

Fraternities/Sororities

Campus events (e.g., First Look Fair, basketball games...)

Off-campus activities stemming from on campus relationships

(The actual web survey can be seen at: <http://toto.umd.edu/survey/surveyor.asp>)

Appendix B

**Cross Racial Interaction Scale (CRIS)
Version B - no reference to race**

In the following settings, my experiences with other students has been (Very Negative-Negative-Neutral-Positive-Very Positive-No Experience):

In the classroom

In my lab/discussion sections

In study groups & group projects outside the classroom

On-campus employment

Off-campus employment

Residence hall sponsored programs

Residence hall socializing; friendships

Student groups

Parties

Participating in sports/recreation

Fraternities/Sororities

Campus events (e.g., First Look Fair, basketball games...)

Off-campus activities stemming from on campus relationships

Appendix C

**Cultural Attitudes and Climate Questionnaire (CACQ)
Selected items**

To what extent do you believe each of the following is present at the University of Maryland (Little or none- Some-Quite a bit- A great deal- Not applicable)

Racial conflict on campus

Racial/ethnic separation on campus:

Friendship between students of different racial and ethnic groups:

Interracial tensions in the residence halls:

Interracial tensions in the classroom:

How fairly do you believe you have been treated by the following (Very unfairly- Unfairly-Neutral- Fairly- Very Fairly-No interaction):

Residence hall personnel

Faculty

Teaching Assistants

Appendix D

**Miville-Guzman Universality-Diversity Scale-Short
(MGUDS-S)**

Please indicate below how descriptive each statement is of you (Strongly disagree-Disagree-Disagree a little bit-Agree a little bit-Agree-Strongly agree):

I would like to join an organization that emphasizes getting to know people from different countries.

I would like to go to dances that feature music from other countries.

I often listen to music of other cultures.

I am interested in learning about the many cultures that have existed in this world.

I attend events where I might get to know people from different racial backgrounds.

Persons with disabilities can teach me things I could not learn elsewhere.

I can best understand someone after I get to know how he/she is both similar and different from me

Knowing how a person differs from me greatly enhances our friendship.

In getting to know someone, I like knowing both how he/she differs from me and is similar to me.

Knowing about the different experiences of other people helps me understand my own problems better.

Getting to know someone of another race is generally an uncomfortable experience for me (reversed scored)

I am only at ease with people of my race (reversed scored)

It's really hard for me to feel close to a person from another race (reversed scored)

It is very important that a friend agrees with me on most issues (reversed scored).

I often feel irritated by persons of a different race. (reverse scored).

Appendix E

Demographic information:

Gender

Age

- Race/Ethnicity
- Hispanic/Latino
 - Asian/ Pacific Islander
 - White
 - African American/Black
 - Native American
 - Please specify if none of the above

- Live
- On-campus
 - Off-campus. If off-campus:
 - Live alone
 - Share with other students
 - Fraternity/Sorority
 - Live with parents
 - Other

- Employment:
- On-campus
 - Off-campus
 - Not Employed

- Class Standing
- Freshman
 - Sophomore
 - Junior
 - Senior
 - Other Status

Current Enrollment Status:

- Full time student
- Part time student

Current college:

- | | |
|-------------------------|-----------------------------------|
| - Arts and Humanities | - Agriculture & Natural Resources |
| - Letters and Sciences | - Health and Human Performance |
| - Architecture | - School of Public Affairs |
| - Journalism | - Behavioral and Social Sciences |
| - Education | - Library and Inf. Sciences |
| - Engineering | - Computer, Math & Phys. Sciences |
| - Life Sciences | - Business & Management |
| - Undergraduate Studies | - None |

Appendix F

Initial Email to one-half of the sample
Version A
(race included)

Hello,

You are one of a small number of selected students we are asking to complete a brief questionnaire about your experiences with students of other races on campus. It will take less than 10 minutes.

IN RETURN YOU WILL RECEIVE A \$10 GIFT CERTIFICATE TO THE UNIVERSITY BOOK CENTER.

After completing the questionnaire, we will ask you where to mail the \$10 gift certificate. This mailing information is completely separate from your responses to the questionnaire.

Your participation is completely voluntary. Your questionnaire response is completely ANONYMOUS.

Thank you very much for helping us to make the University of Maryland a better place for all students.

Click here to continue: [URL address]

Sincerely,
Warren Kelley, Division of Student Affairs

Appendix G

Initial Email to one-half of the sample
Version B
(race **not** included)

Hello,

You are one of a small number of selected students we are asking to complete a brief questionnaire about your experiences with other students on campus. It will take less than 5 minutes.

IN RETURN YOU WILL RECEIVE A \$5 GIFT CERTIFICATE TO THE UNIVERSITY BOOK CENTER.

After completing the questionnaire, we will ask you where to mail the \$5 gift certificate. This mailing information is completely separate from your responses to the questionnaire.

Your participation is completely voluntary. Your questionnaire response is completely **ANONYMOUS**.

Thank you very much for helping us to make the University of Maryland a better place for all students.

Click here to continue: [URL address]

Sincerely,
Warren Kelley, Division of Student Affairs

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