Ties that Bind: Enhanced Social Awareness Development Through Interactions with Diverse Peers

by

Shirley R. Greene Mark Kamimura

University of Michigan

Paper presented at the Annual Meeting of the Association for the Study of Higher Education Portland, Oregon, November 12-15, 2003

INTRODUCTION

Social awareness has it roots in the second wave of the feminist movement (Bickford & Reynolds, 2002). It is viewed as one of the key components of consciousness-raising, the other being social action. For many researchers, awareness about issues affecting the community or raising social consciousness has always been a precursor to social movement (Steinem, 1983; Swift, 1990). The internal and external survival of organizations, particularly higher education institutions, requires that they engage their members and encourage them to develop a social awareness that will enable them to reach out to the broader community on these issues. More recent research conducted by Astin (1998), revealed a decline in the percentage of first-year students who voted in a student election and expressed interest in "participating in a community action program," "promoting racial understanding," and "becoming involved with programs to clean up the environment" (p. 132)

Many traditional college-aged students lack the social awareness that leads to social change (Bickford & Reynolds, 2002). Although they can easily identify the icons of social movements, such as the civil rights movement, they seldom appreciate the needs, impetus, and historical specificity that drives social change movements. Furthermore, they fail to understand how a democracy works and exhibit little interest in the U.S. political system (Giroux, 1987; Hepburn, 1985). Reformers view students who lack this type of knowledge, understanding and interest as lacking sensitivity to the needs of others and a willingness to be active citizens (Swift, 1990).

From a research perspective, social awareness is an important facet of student development to understand because of the recognized links between social awareness and social change, as well as the development of critical thinking skills (Tsui, 2000). From a practice perspective, higher

education institutions are being called upon to create an informed citizenry capable of understanding and addressing a myriad of social issues.

Steinem (1983) defines the social change process as follows: "naming the problem; speaking out, consciousness raising, and researching; creating alternate structures to deal with it; and beginning to create or change society's laws and structures to solve the problem for the majority." This paper focuses solely on those aspects related to increased awareness, specifically "naming the problem, speaking out, consciousness raising, and researching (**Ibid**)." We define social awareness in terms of the importance that students attribute to: 1) speaking up against social injustice; 2) creating awareness of how people affect the environment; 3) promoting racial tolerance and respect; and 4) making consumer decisions based on a company's ethics. These dimensions constitute the type of social awareness that students need to develop during their college years, in order to function well in a complex and diverse society.

REVIEW OF LITERATURE

The relevance of exploring the development of social awareness among college students is supported by several theoretical and empirically-based studies. First, we examine literature linking social awareness development to student attitudes and cognitive development (Piaget, 1975; Tsui, 2000; Perry, 1970). Second, we review literature that discusses the influence of interaction with diverse peers on student awareness, growth, and development.

Linking Social Awareness, Attitudes and Cognitive Development

Students tend to develop their social and cognitive skills through social interaction with others. When interacting with diverse peers, students are able to engage in debates and actively confront the differences between their own point of view and that of others (Piaget, 1975). In addition, they develop the ability to manage the strong emotions that conflict can engender.

These cognitive and affective processes are relevant to the development of the dimensions associated with our social awareness measurement.

Tsui (2000) posits that social awareness and consciousness, along with political awareness, directly influences college students' development of critical thinking skills. This researcher concluded "awareness of political and social affairs may be relevant to critical thinking development because discussion about such topics tend to elicit more interest and participation among students (p. 432)." Other research suggests that students who possess critical thinking skills demonstrate a greater degree of social and political consciousness. These students demonstrate a political awareness or concern for general social issues rather than a concern with their own world and immediate social group (Enright, Lapsley, and Shukla, 1979; Hurtado et al., 2002).

During their college career, students are exposed to various social, political, and personal experiences that challenge their current view of the world. When students confront the dissonance between views presented to them and their own perspective, they move from being dualistic to more complex thinkers (Perry, 1970). In turn, they are able to accomplish the following: demonstrate perspective-taking skills, exhibit sociocentric behaviors, construct reflective judgment skills and broaden their perspectives concerning social issues (Selman, 1980; Perry, 1970). Other scholars similarly note how interaction across difference can be linked with cognitive growth in multiple dimensions. King and her collaborators discuss a theoretical connection between cognitive development and multicultural thinking (King & Baxter Magolda, 1996; King & Shuford, 1996).

Adding further support for the exploration of cognitive, affective and attitudinal variables in our model, several studies utilizing national longitudinal data show student interaction with

diverse peers is linked with increases in cultural knowledge and commitment to promoting racial understanding (Antonio, 1998; Hurtado, 2001; Milem, 1994). In their work on intergroup contact theory, Stephan and Stephan (1996) discuss the effect that the mediators of contact—including cultural knowledge—have on interaction across differing social identity groups (Cushner & Brislin, 1996; Triandis, 1972). They also cite research on attitudes in their discussion of the mediators of intergroup contact and emphasize the importance of values in what they call personal factors within their model (Ashmore, 1970; Katz, Wackenhut, & Hass, 1986; Stephan & Rosenfield, 1978; Stephan & Stephan, 1996; Wagner & Schonbach, 1984; Weigel & Howes, 1985).

Social Awareness and Interaction with Diverse Peers

More recent research has also explored the theoretical connections between interaction with diverse peers and dimensions of social awareness. Springer, et al. (1995) found that students who interacted with diverse peers reported more frequent discussion of complex social issues, including such things as the economy, peace, human rights equality, and justice. A few other works have addressed the impact of interacting with diverse others on racial understanding.

Astin (1993), in a multi-dimensional study of college impact, found that socializing with someone from a different racial background caused increases in cultural awareness, commitment to racial understanding, and commitment to the environment. Later research by Chang (1996) confirmed the relationship between diversity and racial understanding. These studies indicate that students who interact with diverse peers also demonstrate beliefs (importance of speaking up against social injustice and creating awareness of how people affect the environment) and values (desire to promote racial tolerance and respect) consistent with the development of social awareness.

A recent study of the University of Michigan and Harvard University law school students revealed that discussions with students from diverse backgrounds significantly influenced their views of the U.S. criminal justice system, as well as their views regarding civil rights and conditions within various social and economic institutions (Orfield and Whitla,, 2001). Fifty three percent of the students also stated "diversity in the classroom allowed students to confront stereotypes on social and political issues all or most of the time." Students who develop views and dispositions associated with social awareness are better prepared to take on social roles as decision-makers and agents of social change.

METHODS

Conceptual Framework

Given that a theoretical framework for studying the development of social awareness has yet to be developed, we designed a conceptual model that would take into account varying sources of influence as suggested by Astin (1993), Chickering (1969), Chickering and Reisser (1993), and Tinto (1975). These sources include: (1) the preenrollment characteristics of students, (2) students' academic experiences, and (3) students' social or nonacademic experiences including interactions with major agents of socialization on campus (Chickering, 1969).

As suggested by Astin (1993) and Chickering (1969), various pre-enrollment characteristics of students must be considered when examining the impact of experience in college. In order to clearly assess the impact of college interaction with diverse peers on social awareness, this study controls for several background characteristics including: precollege social awareness, academic ability, race/ethnicity, gender, and mother's level of education.

In addition to pre-college characteristics, Chickering (1969) emphasized assessing the impact of students' academic and non-academic experiences, by examining not only the types of

involvements but also the extent and nature of interactions within these experiences. Milem (1994) has also suggested that certain classroom experiences, such as dialogue between students of different backgrounds and beliefs will encourage students to reflect more on issues of race and diversity. Hurtado et al. (1994) operationalized interactions with diverse peers as how frequently a student engages in activities with someone of a different race/ethnicity. The findings suggest that the more students interact with peers from different racial/ethnic backgrounds, the more open they are to diverse perspectives. We also utilized the research investigating how students learn and acquire skills and dispositions through interactions with others (Piaget, 1975; Selman, 1980).

The model we developed was based on the items identified in the theoretical and empirical works discussed above. Additional items were added based upon their hypothesized significance to the model. In summary, we hypothesize that precollege level of social awareness, background characteristics, college experiences (i.e., academic, non-academic, and interaction with diverse peers), and attitudinal and cognitive growth measures influence the development of social awareness in college students.

Data Source

In an effort to better understand how colleges and universities are preparing students to participate successfully in an increasingly diverse society, the Diverse Democracy Project, funded by the U.S. department of Education was launched in 1999. This multi-method study utilized a longitudinal survey, administered to students at the beginning of their first-year and at the end of the second year of college at ten public universities. The universities involved in the project were chosen based on the following criteria: (a) a strong commitment to diversity as evidenced by the university's mission statement and the presence of a number of diversity

initiatives on campus; (b) recent success in diversifying their student body; and (c) engagement in significant community-building activities with a diverse student body.

The current study seeks to increase our understanding of factors that influence students' level of social awareness during the first two years of college. To accomplish this, we used data from the longitudinal survey that includes approximately 3,496 respondents from the Fall 2000 entering classes at the nine participating institutions. These respondents were randomly selected to receive a survey either during summer orientation prior to starting college or via mail during their first semester of college. Respondents to the first survey were mailed a follow-up survey in the Winter of 2002. Both surveys were designed to elicit responses pertaining to constructs that measure cognitive, social-cognitive, and civic outcomes.

Sample

Participants in this study included 3,496 students who took the first-year and follow-up survey. White students comprised the largest group with 69.1% of the students, followed by Asian American students (15.8%), African-American students (4.8%), Latino students (9.1%), and Native American students (1.2%). Female responses were higher than their male counterparts (61%). Mother's educational level for respondents was high school (19.3%), college (38.9%) and graduate school (52.1%). In this sample, the mean SAT score was 1169.7 (400-1600 scale) and standard deviation of this score was 164.9. The SAT score includes the combined math and verbal SAT scores and ACT scores, which were converted into a comparable SAT score.

Measures

The names, types, and scales for each of the variables used in the model are identified in Table 1. The outcome variable in this analysis, social awareness, was derived from the followup survey. This variable represents a scaled index of multiple items (i.e., speaking up against social injustice, creating awareness of how people affect the environment, promoting racial tolerance and respect, and making consumer decisions based on an company's ethics). The social awareness variable had an alpha reliability of .72. The remaining items in the model and their scale reliabilities are shown in Table 3.

The model estimated in this study included five different variable sets: (1) students' level of precollege social awareness, (2) background characteristics of students, (3) attitudinal dispositions, (4) cognitive indicators, and (5) students' college experiences (academic and non-academic) including interactions with major agents of socialization on campus (Chickering, 1969). After entering the pre-college social awareness control variable, the second block of independent variables to be entered into the model was student background measures, including gender, race/ethnicity, mother's level of education and SAT scores. This information was derived from institutional data provided by each of the ten schools participating in the study. Another background measures included a variable representing mother's level of education. This variable was dummy coded so that graduate school completion served as the reference group.

Attitudinal dispositions were measured by two scaled index items including identity awareness (α = .72) and tolerance of lesbian, gay and bisexual persons (α = .76). Cognitive indicators were measured by three scaled index items representing cultural awareness (α = .70), interest in social issues (α = .67), and Fletcher's measure of attributional complexity (α = .87).

The final block of independent variables recognizes the relationship between student outcomes and student-student interaction (Astin, 1984; Weidman, 1989). Three variables were included in this block labeled college experiences (i.e., classroom experiences, informal

interactions (α = .76), and interaction with diverse peers). Drawing from Astin (1993), Milem (1994), Springer et al. (1996), and Pascarella et al. (1996), we chose to incorporate frequency of interactions with diverse others into the model because of the hypothesized relationship with the outcome variable. The academic experiences of students were incorporated through a classroom experience variable that measured the number of diversity courses taken by respondents. Students' social or nonacademic experiences were measured by a variable representing informal interactions.

Analytic Procedures/Analysis

Data analysis for this study required two steps. First, exploratory factor analyses were conducted on all items within various constructs of the survey instruments. By using principal axis factoring and orthogonal rotation methods, we were able to reduce the number of measured variables for analyses. When necessary, survey items were reversed coded. A reliability analysis using Cronbach's alpha was conducted for each factor. Six of the factor-derived variables were included in our regression analyses (see Table 3). Factor loadings that contained a score of at least .422 or higher were retained in the development of subsequent summated rating scales (i.e., pre-college social awareness, college social awareness, social identity awareness, cultural awareness, and interest in social issues, Fletcher's attributional complexity, tolerance for lesbian, gay, and bisexual persons, and interactions in an informal context).

Second, multiple regression analyses were employed to estimate the coefficients of the model. Independent variables reflecting precollege social awareness, student background characteristics, student acquired characteristics, academic experiences, and social experiences were entered in five blocks. Social awareness prior to college, gender, race/ethnicity, academic ability, and

mother's level of education were used as control variables. Utilizing this approach, the relative contribution for each of the five blocks of independent variables could be examined.

RESULTS

The standardized beta coefficients for each independent variable are presented in Table 4. These standardized beta coefficients (regression weights) may be interpreted as direct effects of individual independent variables on the dependent variable, holding all other independent variables constant. Table 4 also presents each block of variables including the unstandardized beta coefficients of variables not yet added to the model. Examining the final regression model indicates that the model fits the data well, accounting for 41.8% of the variance in social awareness. The results presented below are organized according to the five blocks of predictor variables in the model, including precollege social awareness, students background characteristics, attitudinal dispositions, cognitive indicators, academic and non-academic college experiences.

Students' Background Characteristics

When entered in the equation, the precollege variables explained 28.5% of the variance in social awareness. As shown in Table 4, pre-college social awareness and students who identified themselves as Asian American were the only two significant predictors of social awareness in terms of precollege characteristics. As expected, the level of social awareness prior to college was the strongest significant predictor in the model, accounting for 27.8% of the variance (p<.001). The large positive coefficient of .34 indicates that the higher students rate the importance of social awareness prior to experiencing college, the higher they are likely to rate the importance of social awareness during college.

The other significant background predictor of social awareness was having an Asian-American background (p<.01). The negative coefficient implies that students who identify as Asian-American report lower gains in social awareness than white students. No significant differences were found between white students and other racial groups (i.e., Native American, African-American, and Latino/a). Regardless of the level of education attained by the mother, students' level of social awareness was not affected. We also found that there was no significant difference in the social awareness development of male and female respondents. With regard to precollege academic achievement as measured by SAT scores, social awareness of students was not influenced by these measures.

Attitudinal Dispositions

When incorporating identity awareness and tolerance for lesbian, gay, and bisexual persons into the model, the variance explained increased by 5.0%. This supports the relevance of including these attitudinal measures in the model. Controlling for all other independent variables, the variables representing students' attitudinal disposition had a significant positive net effect.

The strongest predictor for this block was tolerance for lesbian, gay, and bi-sexual persons (β = 0.127, p<.001). This variable included items suggesting the following are influences on students' development of social awareness: accepting and supporting someone who is gay, lesbian, or bisexual, accepting same-sex and heterosexual relationships, and continuing friendships with a person who reveals his/her homosexuality.

Identity awareness (β = 0.085, p<.001) was the second strongest significant predictor of social awareness for this block. The importance of social awareness is positively influenced by students who think about what I have in common with others in my racial/ethnic group, educate

others about the social identity groups to which I belong, feel proud when a member of my racial/ethnic group accomplishes something outstanding, and believe that what happens to people in my racial group will affect what happens in their life.

Cognitive/Knowledge

These variables, which include cultural awareness, attributional complexity, and interest is social issues, account for 8.3% of the variance in the development of social awareness. Not surprisingly, interest in social issues ($\beta = 0.170$, p<.001) is the strongest predictor of social awareness with a standardized regression weight of .18. It includes the following items: discussing political issues, keeping up with current issues, thinking about the amount of power people have, thinking about how this country will change is of little interest (reverse coded), and talking about a lot of societal problems is a turn-off (reverse coded).

Attributional complexity (p<.001) was the second strongest predictor of social awareness with a positive coefficient of .165 indicating that the higher the student's level of attributional complexity, the more likely they are to view social awareness as being important. Attributional complexity included items suggesting the following are relevant to the development of social awareness: thinking about the influence that society has on other people, thinking it is important to analyze and understand our own thinking processes, thinking a lot about the influence that society has on behavior, analyzing the reason or causes for people's behavior, and understanding how their thinking works when they make judgments about people.

Cultural awareness (β = 0.082, p<.001) was also a significant predictor of social awareness. It contains items indicating that students increase social awareness through racial and cultural awareness, knowledge of others' culture, and knowledge of own culture.

College experiences

Controlling for all other variables, the set of college experience variables explained 8.8% of the variance in social awareness development. The variable representing academic experiences, in this case the number of diversity courses enrolled in (β = 0.042, p<.001), had a small positive effect. The interaction with diverse peers variable (β = 0.028, p<.05) also had a small significant net effect on social awareness development. Students' non-academic experiences were measured by a variable labeled interaction with diverse peers in an informal context, which had no significant direct effect on social awareness development.

DISCUSSION

In this study, we showed how interactions with diverse peers, along with other significant variables, influence the development of social awareness. The fact that mother's educational level was not relevant is an interesting finding. A common belief is that socioeconomic status (SES), as represented in this study by mother's educational level, creates increased opportunities for students to participate in diverse experiences. However, the results of this study indicate that socioeconomic status has no influence on students' level of social awareness.

One of the most interesting findings in the study is the significance of being Asian American and the negative relationship it had with social awareness, especially because being Asian American was the only background characteristic besides our pretest of social awareness that was significant. It is not exactly clear as to the reason for this occurrence; however, one could speculate that because the items tend to be behavioral based measures, Asian Americans would not be culturally conditioned to attain social awareness under this definition. The constraints and influences on the Asian American culture in general would go against the behaviors of social awareness. At the same time, Asian Americans on many campuses are dealing with multiple

social issues regarding their association as students of color and their involvement with social actions as described in our social awareness model.

Asian Americans are not at the forefront of the dialogues on race/ethnicity but instead are referenced as the "model minority" which influences their own perceptions as students of color. Another perception of the definition of the social awareness factor is the inference that in order to speak out against inequalities and to aim toward creating social awareness one would have to be a part of the oppressed group. This would go against where society places Asian Americans and therefore would be another possible explanation for this finding.

Finally, findings of a significant relationship between college experiences and interactions with diverse peers support the conclusions of Pascarella andTerenzini (1991). They found that the impact of college on students is due to the cumulative effect of interrelated experiences instead of any single experience. The findings also support Hurtado et al. (1994) contention that students' interactions with diverse others is a relevant source of influence on the development of college students. Identity awareness found to be highly significant in our model supports theoretical research by Cooley (1907) suggesting that social consciousness, or awareness of society, is inseparable from self-consciousness.

Limitations

Several limitations should be considered when interpreting the results presented in this study. From a methodological perspective, it is important to remember that not all students who were sent a survey returned one. Second, the sample consists of data collected at nine, four-year public institutions. Given this limited number of institutions, it is not possible to generalize the results to all four-year institutions in the United States. The wide range of institutional types, such as community colleges, smaller institutions and private institutions were not incorporated

into this survey. However, given the general college experiences of students, the data can be a source for making reasonable assumptions about the effects of various college experiences that can contribute to expanding students' social awareness. In addition, our study depends on self-reported measures, which are susceptible to social desirability, meaning that students learn and tend to give answers that are more politically correct and which may not indicate one's true attitudes and behaviors. Therefore, the influence of social desirability and personal perceptions must be taken into account when interpreting our results.

Another limit of this study is the coding of race. Race in this instance was determined by the institutional data received from each of the ten universities. On the survey each student was offered the opportunity to mark each of the ethnic groups that best described themselves. However, with regard to race and the specific significance of Asian Americans in this model, it is undetermined whether or not this finding was a result of the grouping of Asian American without the ability to mark individual ethnicities to identify with. According to the construction of Asian American as a race included Pacific Islanders, South Asians and Southeast Asians, each of which could have a different development of social awareness. This argument can be made in each group but because of the significance of being Asian American and the development of social awareness, the issue is most pertinent for the category of Asian Americans within this study.

Lastly, while studies (Astin, 1998; Steinem, 1983) have been conducted to investigate aspects (i.e., racial understanding, interest in the environment) of what we have termed *social awareness*, theoretical frameworks for studying this variable are non-existent. Given the lack of other studies and widely used measures to examine undergraduates development of social awareness at the development of college students, this model should be viewed as being in the early stages of

development. This makes the components of the model we have outlined to measure the development of students' social awareness to be based heavily on the use of self-reported data. The use of self-reported data is however an improvement from assumption based decisions to improve social awareness and may be the best data collection currently available. Our measure of *social awareness* was created through factor analysis and contains dimensions that may not be present in other conceptualizations or operational definitions for the dependent variable. In our model the items that make up the factor *social awareness* are items that require action or a behavior be engaged in like *creating, speaking, making, promoting* versus a self reflection, belief or attitude regarding social awareness. These multiple definitions of social awareness allow us to only make assertions based on the composition of the factor in our data.

IMPLICATIONS OF THE STUDY

This study, which is primarily exploratory in nature given the dearth of previous research on social awareness development, provides some practical insights and raises some important theoretical implications for future research. As discussed earlier, previous research on student outcomes has not attempted to create or quantify the social awareness construct. Therefore, most of the previous assessments of student gains have omitted the development of social awareness.

The findings suggest that social awareness development may be moderated to some extent by pre-college social awareness and race/ethnicity, specifically being Asian American. Based on these findings, future research may be conducted to further understand the impediments to social awareness development among Asian Americans. Additional research might be to done identify pre-college activities/programs that contribute to social awareness development prior to entering college.

The findings of this study also draw attention to the attitudinal and cognitive development of students. The findings relating students' attitudinal and cognitive development to social awareness development suggest that development in this area may vary consistently with attitudinal and cognitive growth. Social awareness development may be moderated to some extent by these types of attitudinal and cognitive factors. Given these findings, future research should examine the relative influence of these types of factors on the variance in social awareness development.

Lastly, college experiences, in terms of academic and non-academic activities, warrant more attention. Given that classroom experiences had a significant influence on social awareness development, it would be worthwhile to identity specific types of diversity courses that influence this variable. By doing so, institutions committed to the social awareness development of their students may be able to duplicate those activities on their individual campuses. With respect to interaction with diverse peers, this study as well as future studies will undoubtedly contribute to the growing body of knowledge surrounding the importance of diversity.

CONCLUSION

The findings of this study support the major hypothesis that interaction with diverse peers is positively related to social awareness development. This is evidenced in our study through three main areas (Attitudinal Dispositions, Cognitive Complexity and Academic/Non-Academic College Environment). The attitudinal dispositions measured the level of identity awareness and tolerance for LGB persons both of which were significant indicators to one's social awareness development, however the more tolerance one had for LGB persons the high level of social awareness one would have. The second area of impact on one's social awareness was the area of cognitive complexity of an individual with the strongest indicators being their interest in social

issues and a Fletcher's measure of attributional complexity factors. The strongest indicator in the academic/non-academic college environment experiences were their classroom experiences. This measured how many courses students took that integrated or focused on diversity. These three areas are key indicators to how one's level of social awareness will be developed or not in college. For us to develop socially aware students we must pay closer attention to these findings and find ways to integrate experiences that foster each of these contributors to social awareness.

REFERENCES

Antonio, A.L. (1998). The impact of friendship groups in a multicultural university. (Doctoral dissertation, University of California, Los Angeles, 1998). <u>Dissertation Abstracts International</u>, 59, (09): 3365A.

Ashmore, R. D. (1970). The problem of intergroup prejudice. In B. Collins (Ed.), <u>Social psychology</u> (247-297). Reading, MA: Addison-Wesley.

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

Astin, A.W. (1998). The changing American college students: Thirty-year trends, 1966-1996. Review of Higher Education, 21 (2), 115-135.

Bickford, D.M. and Reynolds, N. (2002). Activism and Service-Learning: Reframing Volunteerism as acts of dissent. <u>Pedagogy: Critical Approaches to Teaching Literature</u>, <u>Language</u>, Composition and Culture, 8 (2): 229-252.

Chang, M. (1996). <u>Racial diversity in higher education: Does a racially mixed student population affect student outcomes?</u> Unpublished doctoral dissertation, University of California, Los Angeles.

Chickering, A. (1969). Education and identity. San Francisco: Jossey-Bass.

Chickering, A. and Reisser, L. (1993). <u>Education and identity.</u> 2nd Ed. San Francisco: Jossey-Bass.

Cooley, C.H. (1907). Social consciousness. <u>The American Journal of Sociology</u>, 12 (5): 675-694.

Cushner, K. and Brislin, R. W. (1996). <u>Intercultural interactions: A practice guide</u> (2nd ed.). Thousand Oaks, CA: Sage.

Enright, R.D., Lapsley, D.K., and Shula, D.G. (1979). Adolescent egocentrism in early and late adolescence. <u>Adolescence</u>, <u>14</u>, 687-695.

Giroux, H.A. (1987). Citizenship, public philosophy, and the struggle for democracy. Educational Theory, 37: 103-120.

Hepburn, M.A. (1985). What6 is our youth thinking? Social-political attitudes of the 1980s. Social Education, 49: 671-77.

Hurtado, S. (2001). Linking diversity and educational purpose: How diversity affects the classroom environment and student development. In G. Orfield and M. Kurleander (Eds.), Diversity challenged: Evidence of the impact of affirmative action (pp. 187-203). The Civil Rights Project, Harvard University, Cambridge, MA: Harvard Education Publishing Group. Hurtado, S., Dey, E.L., and Trevino, J.G. (1994, April). Exclusion or self-segregation?: Interaction across racial/ethnic groups on college campuses. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Hurtado, S., Engberg, M.E., Ponjuan, L. and Landreman, L. (2002). Students' precollege preparation for participation in a diverse democracy. <u>Research in Higher Education</u>, 43 (2): 163-186.

Katz, I., Wackenhut, J., and Hass, R. G. (1986). An ambivalence-amplification theory of behavior toward the stigmatized. In S. Worchel and W.G. Austin (Eds.), <u>The social psychology of intergroup relations</u> (pp. 103-117). Monterey, CA: Brooks/Cole Publishing.

King, P. M. and Kitchener, K. S. (1994). <u>Developing reflective judgment: Understanding</u> and promoting intellectual growth and critical thinking in adolescents and adults. San Francisco: Jossey-Bass.

King, P. M. and Shuford, B. C. (1996). A multicultural view is a more cognitively complex view. <u>American Behavioral Scientist</u>, 40 (2), 153-164.

Milem, J.F. (1994). College, students, and racial understanding. <u>Thought and Action, 9</u> (2), 51-92.

Pascarella, E.T. (2001). Using student self-reported gains to estimate college impact: A cautionary tale. Journal of College Student Development, 42: 488-492.

Pascarella, E.T., Edison, M., Nora, A., Hagedorn, L.S., and Terenzini, P.T. (1996).

Influences on students' openness to diversity and challenge in the first year of college. <u>Journal of Higher Education</u>, 67 (2), 174-195.

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

Perry, W. (1970). <u>Forms of intellectual and ethical development in the college years: A scheme.</u> New York: Holt, Rinehart and Winston.

Piaget, J. (1975). <u>The equilibrium of cognitive structures: The central problem of intellectual development.</u> Chicago: University of Chicago Press.

Pike, G. (1995). The relationship between self-reports of college experiences and achievement test scores. Research in Higher Education, 36: 1-21.

Selman, R.L. (1980). The growth in interpersonal understanding: Developmental and clinical analyses. New York: Academic Press.

The Benefits of Racial and Ethnic Diversity in Higher Education. Seventeenth Annual Status Report on Minorities in Higher Education. American Council on Education.

Springer, L., Palmer, B., Terenzini, P.T., Pascarella, E.T., and Nora, A. (1996). Attitudes toward campus diversity: Participation in a racial or cultural awareness workshop. <u>The Review of Higher Education</u>, 20 (1): 53-68.

Springer, L., Terenzini, P.T., Pascarella, E.T., and Nora, A. (1995, April). <u>Do White students</u> perceive racism toward minority students on predominantly White campuses? Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Steinem (1983)

Stephan, W.G. and Rosenfield, D. (1978). The effects of desegregation on racial attitudes.

<u>Journal of Personality and Social Psychology</u> 366: 795-804.

Stephan, W.G. and Stephan, C.W. (1996). <u>Intergroup Relations.</u> Boulder, CO: Westview Press.

Swift, J. S. (1990). Social Consciousness and Career Awareness. ASHE-ERIC Higher Education Reports, 8. Washington, D.C.: The George Washington University, School of Education.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. Review of Educational Research, 45, 89-125.

Triandis, H.C. (1972). <u>The analysis of subjective culture.</u> New York: John Wiley & Sons. Tsui, L. (2000). Effects of campus culture on students' critical thinking. <u>The Review of Higher Education</u>, 23 (4), 421-441.

Wagner, U. and Schonbach, P. (1984). Links between educational status and prejudice: Ethnic attitudes in West Germany. In M.B. Brewer and N. Miller (Eds), <u>Groups in contact: The psychology of desegregation</u> (pp. 29-52). New York: Academic Press.

Wiegel, R.H. and Howes, P.W. (1985). Conceptions of racial prejudice. <u>Journal of Social Issues</u>, 41: 117-138.

TABLE 1. Summary of Variables and Indices in the Research Model

Variable Name	Variable Type	Scale Range
Dependent Variable		<u> </u>
Importance of Social Awareness	Scaled index, four items	1 = Not important to 4 = Essential
Student Background Characteristics		
Student's gender	Dichotomous	0 = Male, 1 = Female
Student's race/ethnicity	Dummy-coded	Native American, African American, Asian, and Latino/a students. The referent group consisted of White students.
Mother's level of education	Dummy coded	High school and college. The referent group has attended graduate school.
Student's SAT score	Single-item, categorical	Combined math and verbal SAT score or converted ACT score (400-1600 scale)
Pre-college social awareness development	Scaled index, four items	1 = Not important to 4 = Essential
Attitudinal measures Social identity awareness Tolerance of lesbian, gay, and bisexual persons	Scaled index, four items Scaled index, three items	 1 = Strongly disagree to 4 = Strongly agree 1 = Strongly disagree to 4 = Strongly agree
Cognitive/knowledge		
Cultural awareness	Scaled index, three items	1 = A major weakness to 5 = A major strength
Interest in social issues	Scaled index, five items	1 = Strongly disagree to 4 = Strongly agree
Fletcher's attributional complexity	Scaled index, five items	1 = A major weakness to 5 = A major strength
College experiences		
Classroom experiences	Single-item, categorical	1 = None to $4 = $ Three or more
Informal context of interaction Interaction with diverse peers	Scaled index, four items Single-item, categorical	1 = Never to 5 = Very often 1 = No interaction to 4 = Substantial interaction

	Standard		
Measures	Mean	Deviation	Alpha
Importance of Social Awareness	023	.870	.72
Background			
Female	.610	.488	
Native American	.012	.110	
African-American	.048	.213	
Asian American	.158	.365	
Latino/a	.091	.287	
Mother's level of education (High	.193	.395	
School)			
Mother's level of education (College)	.389	.488	
Academic ability	1169.652	164.881	
Pre-college social awareness			.72
development	034	.886	
Attitudinal measures			
Social identity awareness	.010	.884	.72
Tolerance of lesbian, gay, and bisexual	039	.947	.76
persons			
Cognitive/knowledge			
Cultural awareness	.001	.864	.70
Interest in social issues	006	.841	.67
Fletcher's attributional complexity	041	.952	.87
College experiences			
Classroom experiences	2.453	.708	
Informal context of interaction	023	.886	.76
Interaction with diverse peers	2.594	.517	

TABLE 3. Factor Loadings and Reliabilities for Dependent and Independent Variables

		Internal Consistency
Factor and Survey Items	Factor Loadings	(Alpha)
Pre-college Importance of Social Awareness ^d		.72
Speaking up against social injustice	.782	
Creating awareness of how people affect the environment	.595	
Promoting racial tolerance and respect	.640	
Making consumer decisions based on company's ethics	.486	
Importance of Social Awareness ^d		.72
Speaking up against social injustice	.794	
Creating awareness of how people affect the environment	.604	
Promoting racial tolerance and respect	.609	
Making consumer decisions based on company's ethics	.517	
Social Identity Awareness ^c		.72
I often think about what I have in common with others in my racial/ethnic group	.802	
It is important for me to educate others about social identity groups to which I belong	.684	
I feel proud when a member of my racial/ethnic group accomplishes something outstanding	.584	
I think that what generally happens to people in my racial/ethnic group will affect what happens in my life	.457	
Tolerance of Lesbian, Gay, and Bisexual Persons ^c		.76
If I found out someone I knew was gay, lesbian, or bisexual, I'd be accepting and supportive	.904	
Romantic relationships between people of the same gender are as acceptable as they are for heterosexual couples	.686	
I would probably not be able to continue my friendship with a friend who I discovered was homosexual	.633	
Cultural Awareness ^a		.70
Racial and cultural awareness	.812	
Knowledge of others' cultures	.715	
Knowledge of own culture	.498	

^a Five-point scale: From A major weakness = 1 to A major strength = 5.
^b Four-point scale: From Very unlikely = 1 to Very likely = 4.
^c Four-point scale: From Strongly disagree = 1 to Strongly agree = 4.
^d Four-point scale: From Not important = 1 to Essential = 4.
^e Five-point scale: From A major weakness = 1 to A major strength = 5.
^f Five-point scale: From Never = 1 to Very often = 5.

TABLE 3. Factor Loadings and Reliabilities for Dependent and Independent Variables (Continued)

		Internal
Factor and Survey Items	Factor Loadings	Consistency (Alpha)
Interest in Social Issues ^c		.67
Enjoy discussing political issues	.739	
I try to keep up with current events	.443	
Often think about the amount of power people have	.594	
Thinking of how this country will change is of little interest to me	.467	
Students who talk a lot about societal problems turn me off	.422	
Fletcher's Attributional Complexity ^e		.87
I think a lot about the influence that society has on other people	.795	
I think it is important to analyze and understand our own thinking processes	.738	
I think a lot about the influence that society has on my behavior	.728	
I really enjoy analyzing the reason or causes for people's behavior	.786	
I am interested in understanding how my own thinking works when I make judgments	.729	
about people		
Informal Context of Interaction ^f		.76
Dined or shared a meal	.732	
Studied or prepared for a class	.671	
Socialized or partied	.760	
Attended events sponsored by other racial/ethnic groups	.520	

^a Five-point scale: From A major weakness = 1 to A major strength = 5.
^b Four-point scale: From Very unlikely = 1 to Very likely = 4.
^c Four-point scale: From Strongly disagree = 1 to Strongly agree = 4.
^d Four-point scale: From Not important = 1 to Essential = 4.
^e Five-point scale: From A major weakness = 1 to A major strength = 5.
^f Five-point scale: From Never = 1 to Very often = 5.

Table 4. Standardized Beta Coefficients for Blocked Entry Regression on Social Identity Awareness (*n*=3,593)

Awareness (n=3,593)					
Variable Name	Block 1	Block 2	Block 3	Block 4	Block 5
Pretest					
Social Awareness	.533***	.523***	.458***	.345***	.344
Student Background					
Charactersitics					
Student's Gender	.038**	.046*	009	.029	.027
Native American	.016	.019	.132	.103	.079
African American	012	003	069	061	067
Asian American	030*	026	131***	114***	111***
Chicano/Latino	.028*	.036*	.043	.011	003
Student's SAT	.028*	.042**	.0003***	.0001	.0001
Mother High School	035**	021	058	042	040
Mother College	035**	028	013	048	048
Mother Grad School	.035**	004	.010	043	043
Attitudinal					
Dispositions					
Identity Awareness	.127***	.151***	.156***	.087***	.086***
Tolerance for LGB	.188***	.185***	.176***	.122***	.120***
Persons					
Cognitive Complexity					
Cultural Awareness	.172***	.182***	.140***	.095***	.090***
Interest in Social Issues	.283***	.287***	.252***	.188***	.185***
Fletcher's Attributional	.282***	.279***	.240***	.158***	.157***
Complexity					
Academic and Non-					
Academic Experience			0.10	0.7.4	0.2.4
Classroom Experiences	.025	.025	.019	.014	.031
Interaction with Diverse	.095***	.089***	.069***	.038**	.064*
Peers					
D2	275	202	222	416	<i>1</i> 10
R ² Change in R ²	.275	.282	.333	.416	.418
Change in R ²	.275	.007	.051	.083	.002
F	1363.05	2015.44	1871.56	1638.55	1634.32

Note. Beta coefficients in italics represent the beta coefficient for each variable (not in the model) if it were to be entered in the next step.

^{*}*p*<.05, ***p*<.01, ****p*<.001.