

RUNNING HEAD: Diversity and Moral Reasoning

Diversity in the Classroom and Students' Moral Reasoning

Sylvia Hurtado, Matthew J. Mayhew, Mark E. Engberg

University of Michigan

Contact Information:

Sylvia Hurtado
610 E. University Avenue
2117 School of Education
University of Michigan
Ann Arbor, MI 48109
hurtados@umich.edu

Matthew J. Mayhew
610 E. University Avenue
2117 School of Education
University of Michigan
Ann Arbor, MI 48109
mmayhew@umich.edu

Mark E. Engberg
610 E. University Avenue
2117 School of Education
University of Michigan
Ann Arbor, MI 48109
mengberg@umich.edu

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Abstract

Recent Supreme Court rulings on Affirmative Action, political discussions (e.g., continuing debates about US military interventions abroad), and technological advances (e.g., genetic engineering and cloning) have generated renewed national interests in student moral outcomes that situate the experiences of the student in a diverse societal context. The purpose of this study is to examine how moral reasoning develops for 236 students enrolled in one of two types of courses. Two types of courses were compared in this study based on the level of diversity inclusion and type of pedagogy employed in the classroom. The first type of course, referred to as a “diversity course,” included both a social diversity course and a women’s studies course. Students in both diversity courses were exposed to content related to issues such as racism, sexism, and classism. Further, instructors in both courses employed active learning techniques (e.g., small group activities, discussion) that encouraged peer interaction across different race/ethnic groups. The second type of course, referred to as a “management course,” did not infuse diversity-related topics throughout the course and relied on more traditional pedagogical techniques. We used causal modeling to compare the two types of courses, controlling for the effects of demographic (i.e., race, gender), curricular (i.e., previous course-related diversity learning), and pedagogical (i.e., active learning) covariates. Results show that previous diversity courses as well as current enrollment in a diversity course contribute to students’ development of postconventional moral reasoning skills. Implications are discussed.

Diversity in the Classroom and Students' Moral Reasoning

Campus communities are striving to make sense of their roles in creating educational contexts that help students understand themselves as responsible participants in a tolerant and diverse democracy (Baxter Magolda, 1999; Evans, Forney, & Guido-Dibrito, 1998). Several national reports on higher education have called for colleges and universities to take a more central role in providing moral and democratic education. For example, the National Association of State Universities and Land-Grant Colleges (1997) called for greater attention to “developing character, conscience, citizenship, tolerance, civility, and individual and social responsibility in our students. . . . These should be part of the standard equipment of our graduates, not options” (pp. 12-13). The Association of American Colleges and Universities (2002) called for liberally-educated students to become empowered, informed and responsible learners charged with “maintaining the integrity of a democratic society” (p. xii). They also charged institutions with providing educational environments that “foster intellectual honesty, responsibility for society’s moral health and for social justices, active participation as a citizen of a diverse democracy, discernment of the ethical consequences of decisions and action, and a deep understanding of one’s self and respect for the complex identities of others, their histories and their cultures” (p. xii). These reports lay the foundation for improvements in practice as well as scholarship that investigates how curricular-based diversity learning influences student outcomes relating to moral development.

Over 62% of campuses have or are in the process of developing a diversity course requirement (Humphreys, 2000), and many institutions have engaged faculty in integrating issues of diversity into the college curriculum. Despite growing national interest in understanding the effects of course-related diversity on student learning outcomes (Hurtado,

2001; Milem, 2001; Gurin, 1999; Gurin, Dey, Hurtado, & Gurin, 2002), only three studies (Adams & Zhou-McGovern, 1990, 1994; Katz, 2001) have investigated how participation in diversity-related courses facilitates the development of moral reasoning. The purpose of this study is determine whether particular introductory courses, comparing those that address diversity and one that does not, are capable of producing change in tests of students' moral reasoning over one term. We believe the key is to account for the conditions of students' predispositions, preferences for course choice, as well as the use of active learning pedagogy in the classroom. It is our hope that the results of this study will not only contribute to understanding how certain contexts promote the development of moral reasoning, but that the study will be of value to educators interested in exploring the relationship between diversity and moral reasoning.

Theoretical Overview: Moral Development and Diversity

Moral Development

Lawrence Kohlberg's theory of moral development posits that there are six distinctive structures that serve as "general organizing principles or patterns of thought rather than specific moral beliefs or opinions" (Colby & Kohlberg, 1987, p. 2). Measures of moral reasoning, such as the Moral Judgment Interview (MJI; Colby & Kohlberg, 1987) and the Defining Issues Test (DIT; Rest, 1979), are used to assess how individuals use these six structures to reason about moral issues, rather than their positions on the issues themselves. These structures are organized into a sequential stage-theory to describe moral reasoning. Kohlberg (1976) summarized the stages as follows: the preconventional level (Stages 1 and 2), "rules and societal expectations are something external to the self"; the conventional level (Stages 3 and 4), "the self is identified with or has internalized the rules and expectations of others, especially those of authorities"; and

the postconventional level (Stages 5 and 6), in which a person has “differentiated his self from the rules and expectations of others and defines his values in terms of self-chosen principles” (p.33).

Each stage represents “a qualitative reorganization of the individual’s pattern of thought, with each new re-organization integrating within a broader perspective the insights achieved at the prior stages” (Colby & Kohlberg, 1987, p. 5). As individuals progress through stages, their concepts of justice expand from egocentric to societal perspectives. What is considered to be fair or morally right expands from a system that serves oneself (preconventional), to one that serves one’s close friends and family (conventional), and finally, to one that also serves strangers (postconventional). This theory of moral development suggests that individuals move from a position of pure self-interest to a conception of fairness that serves society. Subsequently, courses and programs designed to promote moral reasoning encourage college students to reason about moral issues from broader societal perspectives that serve the public good.

Research investigating these courses and programs often yield inconclusive results; some courses have been effective in promoting moral reasoning among college students; others have not. Rest (1979) attributes these mixed results to a number of theoretical and methodological problems associated with studying the development of moral reasoning within the context of a short-term intervention or course. He argues that there “is no reason to believe that the reorganization of basic cognitive structures can take place instantaneously or even overnight. It takes time to reflect upon various experiences and coordinate their many implications before one can arrive at a new way of construing a problem” (p.205). In addition, he argues that research on moral interventions are systematically plagued with design flaws, including failure to account for

selection bias, lack of meaningful control or comparison groups, and sample sizes too small to make meaningful conclusions about subgroup differences.

Kohlberg (1981) attributes the lack of conclusive findings to the “psychologist’s fallacy” (Kohlberg, 1981, p. 37), the faulty assumption that the variables important for psychologists to research are the important variables for teachers to think about. Kohlberg uses the term, “psychologist’s fallacy” to underscore the importance of understanding how moral decisions are made “in context” and how the development of moral reasoning cannot be understood without accounting for the contextual variables that make up each learning environment: “individual moral action usually takes place in a group or context and that that context usually has a profound influence on the moral decision making of individuals” (Kohlberg, 1981, p. 37-38).

In addition to understanding the specific contextual factors that make up any given intervention, Kohlberg (1976) and Rest (1979, 1986) offer some insight into unifying “environmental stimulations” and underlying psychological processes that engender growth in moral reasoning. Kohlberg (1976) underscores the importance of social stimulation in facilitating growth in moral reasoning: “moral development depends upon stimulation defined in cognitive-structural terms, but this stimulation must also be social, the kind that comes from moral decision-making, moral dialogue, and moral interaction” (p.49). For Kohlberg, environments ideal for stimulating growth in moral reasoning provide opportunities for individuals to learn to see things from perspectives different than their own. In these environments, individuals experience cognitive disequilibrium, the key factor that leads to the development of moral reasoning: “Changes in one’s cognitions comes from experiences that do not fit one’s earlier (and simpler) conceptions. Cognitive disequilibrium is the condition for development” (Rest, 1986, p.32).

Diversity and Learning

It is precisely this notion of cognitive disequilibrium that can occur in interactions with diverse peer groups that hold different perspectives in the classroom context. Gurin, Dey, Hurtado, & Gurin (2002) developed a theory about diversity and learning that posits that diversity on campus can provide the type of challenge students need for more active thinking and development. Students' familiar ways of thinking, or comfortable worldviews, can be overturned in their encounters with peers who hold different worldviews, perspectives, and emerge from distinct backgrounds and experiences that constitute a lived experience in an unequal society. In a profound way, students are forced to face that some peers experience discrimination and have worked to overcome a historical barriers to equality, and that greater attention needs to be given toward issues of social justice. Thus, student learning and development is spurred by knowledge about and personal experiences with diversity. These researchers hypothesized that a curriculum that exposes students to knowledge about race and ethnicity in classrooms that are ethnically and racially diverse, and that provides students with opportunities for meaningful interaction with diverse peers produces a learning environment that fosters active thinking. In tests of the theory, they found that active thinking and a wide range of learning and democratic survey outcomes were enhanced by students' participation in informal interactions with diverse peers and coursework on diversity issues. They concluded that, "The success of these curricular initiatives is facilitated by the presence of diverse students and a pedagogy that facilitates learning in a diverse environment" (p. 362).

Research on the development of moral reasoning within diversity-related courses has yielded inconclusive results and provides little insight into the nature of the specific characteristics of these courses that are the most conducive to growth in moral reasoning. Adams

and Zhou-McGovern (1990, 1994) studied a course that focused on racism, anti-Semitism, sexism, homophobia, and disability oppression; they found that this course was effective in promoting moral reasoning. However, Katz (2001) reported no significant differences between pre and post-test measures of DIT scores for his sample of students enrolled in an intergroup dialogue course. The current study attempts to examine these effects more completely by modeling course-taking, active learning (levels of engagement in the classroom), critical thinking dispositions, and ultimately students' scores on a test of moral reasoning. We hypothesized that students' moral reasoning is enhanced by diversity courses that provide opportunities for active learning and critical thinking.

Active Learning, Critical Thinking, and Moral Reasoning Development

Several studies have examined how active learning environments facilitate the development of moral reasoning (Lupfer, Cohen, Bernard, & Brown, 1998; Mustapha & Seybert, 1989, 1990; Smith & Bunting, 1999; Boss, 1994; Gorman et al., 1994). These studies attempted to disentangle the component parts of specific educational experiences in an effort to guide educators to create spaces and develop curricula that most effectively help students develop their capacities to reason about moral issues. Among these were the integrated general education curricula tested by Mustapha and Seybert (1989, 1990), the outdoor education course studied by Smith and Bunting (1999), and Lupfer et al.'s (1998) simulated jury exercise. Specifically, Mustapha and Seybert (1989, 1990) investigated the differential effects of traditional versus multidisciplinary curricula in facilitating growth in moral reasoning. The multidisciplinary curricula was organized around the central idea of decision-making, deploying small seminar groups, Socratic inquiry, and active learning approaches, and required students to formulate decisions of all kinds, including decisions related to moral issues. Both studies report higher

moral reasoning scores for students participating in the multidisciplinary, decision-focused curricula than for students participating in the traditional curricula.

Whether it is service learning (Gorman, et. al, 1994), a ropes course (Smith & Bunting, 1999), or community service (Boss, 1994), the experiential learning component of the undergraduate experience has consistently shown patterns of growth among students in terms of their development of moral reasoning. For example, in a study that compared two sections of the same ethics course, Boss (1994) showed that the section of the ethics class that required its members to complete 20 hours of community service work “that involved working directly with people in need” (p. 187) and to keep a journal of their experiences demonstrated higher levels of moral reasoning than the section that did not require its students to complete 20 hours of community service, even after controlling for class size, instructor, class exercises, and text used across the two sections. Moral reasoning scores for the community service students increased, while those of the control group remained stable.

Gorman, Duffy, and Heffernan (1994) used a similar design to test students enrolled in two courses, “Perspectives on Western Culture,” and “Person and Social Responsibility.” The latter included field projects that “put the students into direct contact with examples of social injustice” (p. 426). As part of these projects, students were asked to reflect upon and discuss their field experiences. Posttest moral reasoning scores were higher for students in the section with the field experiences. It should be noted that neither of the courses in our study had a field experience, nor did they directly address ethical issues, so the current study is of a set of introductory courses in a typical college curriculum—two that address diversity and one that does not. The courses also varied in the extent to which the instructor, as reported by the students, employed an active learning pedagogy.

Critical Thinking

The vast majority of studies relating moral reasoning to critical thinking report positive relationships between the DIT and measures of critical thinking among college students (Mentkowski & Associates, 2000; Wanshaffe, 2001; Taylor, Waters, Surbeck, & Kelley, 1985, Stepp, 2002). Stepp (2002) examined the relationship between critical thinking and moral development by administering the DIT and the Watson-Glaser Critical Thinking Appraisal (WGCTA; Watson & Glaser, 1980) to 121 first-year college students; DIT scores were significantly related to WGCTA scores. Similarly, Wanshaffe (2001) and Taylor, Waters, Surbeck, and Kelley (1985) examined the relationship between critical thinking and moral reasoning by administering Lawson's Classroom Test of Formal Reasoning (CTFO; Lawson, 1978) and the DIT; both studies report significant relationships between the CTFO and the DIT. In addition, Mentkowski & Associates (2000) investigated causal relationships among many constructs, including moral reasoning and critical thinking, and found that at two points in time, moral reasoning and critical thinking were significantly related.

Higher levels of critical thinking appear to be related to postconventional moral reasoning. However, with the exception of the study designed by Mentkowski and Associates (2000), little information is provided about the nature and directionality of the relationship between critical thinking and moral reasoning. King and Mayhew (2003) offer two hypotheses in attempt to clarify the relationship: each of these hypotheses positions the development of critical thinking as a precursor to the development of moral reasoning. The first hypothesis suggests that the development of cognitive complexity that underlies higher levels of critical thinking may enable students to see multiple social perspectives inherent in complex moral problems. The second posits that an increased capacity to engage complex critical thinking skills may enable students

to more readily access postconventional moral reasoning schemas when making a moral decision, or to use multiple schemas to organize information surrounding moral issues. King and Mayhew (2003) suggest that future researchers design studies to clarify this relationship: “few of these studies attempted to identify underlying influences in the cognitive domain that might affect moral reasoning (or vice versa); doing so would help explain why the relationship between cognitive complexity and moral reasoning is so strong” (p.40).

The current study extends the body of work on the effects of diversity courses and the factors that promote moral reasoning in several important ways. First, rather than relying on student self-reports (Gurin et. al., 2002), it tests whether participation in a diversity course has a similar impact on a standard measure of moral reasoning. Second, it goes beyond the standard pre- and post assessments to take into account of the type of pedagogy and learning that students report. Third, it attempts to model students’ selection of these courses as a way to emphasize that students’ comfort levels and predispositions can be accentuated or challenged during college.

Method

Data Source

The data for this study originated from a national research project, funded through the Department of Education, titled *Preparing College Students for a Diverse Democracy*. One of the main components of the Project included a classroom-based study in which students were administered the *Student Thinking and Interaction Survey* (STIS) along with several standardized instruments at both the beginning and end of the Winter 2001 semester. The STIS was specifically designed to assess how students’ exposure to diversity, through both course content and interactions with diverse peers, mediates students’ cognitive and social development.

Standardized instruments included the California Critical Thinking Dispositions Index (CCTDI) and the Defining Issues Test (DIT2), or test of moral reasoning.

Classroom data was collected at a Northeastern flagship university that was interested and experienced in assessing the impact of diversity courses on student learning and development. Students were administered the survey and standardized instruments in-class during the second and twelfth week of the course, although some students completed the survey and instruments on their own time. As an incentive, instructors agreed to award extra credit “homework points” in order to encourage student participation.

Two types of courses were compared in this study based on the level of diversity inclusion and type of pedagogy employed in the classroom. The first type of course, referred to as a “diversity course,” included both a social diversity course and a women’s studies course. Both courses met the campus-wide diversity requirement and included similar content and pedagogical methods. Students in both diversity courses, for instance, were exposed to content related to issues such as racism, sexism, and classism. Further, instructors in both courses employed active learning techniques (e.g., small group activities, discussion) that encouraged peer interaction across different race/ethnic groups. Although instructor techniques were not directly observed, the majority of students in both courses (71% in women’s studies and 98% in social diversity) agreed that in-class group activities contributed to their learning. Students in both courses (72% in women’s studies and 92% in social diversity) also agreed that there were ample in-class opportunities to interact with their classmates.

The second type of course, referred to as a “management course,” did not infuse diversity-related topics throughout the course and relied on more traditional pedagogical techniques. The content of the course focused primarily on basic concepts and issues in

management, although one class day was devoted to race and gender issues in management. In addition, the course was taught with a primary reliance on course lectures and provided students few opportunities to interact with classmates, especially structured interactions across race. Only 19% of the management students, for instance, indicated that group activities contributed to their learning, and only 28% agreed that they had opportunities to interact with their classmates.

Sample

Of the 708 students who enrolled in the three courses, a total of 275 students (178 diversity and 97 management) completed the STIS and DIT2 at both time points, resulting in a 39% longitudinal response rate for these instruments. An additional 39 cases did not include information about their race and were subsequently excluded from the analysis, resulting in a final analytic sample of 236 cases (151 diversity and 85 management). Approximately 71% of the students in the aggregate sample were female and 22% were students of color. Additionally, the majority of the sample were underclassmen (65%) and came from primarily White neighborhoods (80%). Examining the sample by course type, 87% of the students in the diversity course were female and 23% were students of color. In terms of the management course, 42% of the students were female and 19% were students of color.

Measures

In order to evaluate the influence of diversity courses on students' moral reasoning, scores on the Defining Issues Test 2 (DIT2) were assessed at the beginning and end of the semester. The DIT2 is an objective test of moral reasoning based on Kohlberg's cognitive-developmental theory of moral development (Rest, Cooper, Coder, Masanz, & Anderson, 1974; Rest, Narvaez, Thoma & Bebeau, 1999). On the DIT2, participants are presented with five dilemmas that are similar to those originally used by Kohlberg (1976, 1981), and then asked to

choose from a list of twelve items that represent prototypic statements of the stages of moral development. Participants are then asked to rate how important each question is in making a decision, what their decision is, and to rank the four most important questions. This process yields a DIT index score, called “N2”; a key feature of this index is that higher stage reasoning is prioritized and lower stage reasoning is rejected (Rest, Thoma, Narvaez, & Bebeau, 1997). The test accounts not only for ranked items that reflect postconventional moral reasoning, but also for rated items that reflect respondents’ preferences for higher versus lower stage reasoning.

In addition to the DIT2, the California Critical Thinking Dispositions Index (CCTDI) was used to understand how diversity courses influence students’ capacity for active thinking. The CCTDI also provides information about a students’ motivation to think in both work and learning environments. In doing so, the CCTDI offers more information about the thinking process than can be surmised from right or wrong answers on a skills test (Facione, Facione, & Giancarlo, 1996). Researchers refer to it as a “characteristic profile...of intellectual virtues...or habits of mind” that constitute the disposition to think critically (Facione, Sanchez, Facione, & Galnen, 1995). The CCTDI total score comes from a 75-item instrument consisting of seven subscales: Open-mindedness, Inquisitiveness, Systematicity, Analyticity, Truth-seeking, Critical thinking self-confidence, and cognitive maturity (Facione & Facione, 1992).

In order to measure the influence of the course environment, a scaled index of multiple items was created using principal axis factor analysis with a Varimax rotation. The resulting scale included items that measured students’ perceptions of an active learning environment. Items, for example, corresponded to whether assignments covered diverse perspectives or students were free to disagree with one another in class (see Table 1 for item names and factor loadings). The internal validity of the scale was high, with a Cronbach’s alpha reliability of .77.

Three dichotomous variables were also used in the analysis to control for students' background characteristics (i.e., gender and race) and course enrollment. In addition, previous enrollment in a diversity course was used to control for students' differing levels of diversity exposure. Students were asked to rate each prior diversity-related class (e.g., ethic studies, women's studies, intergroup dialogue) on a four-point scale from "none" to "three or more" and these individual scores were added together in order to arrive at a composite measure of previous diversity courses.

*****Insert Table 1 Here*****

Analyses

Missing data analysis revealed a small percentage (5%) of missing data across all variables in the model. In order to maintain statistical power, missing values for all continuous variables were replaced using the EM algorithm. The EM algorithm represents a general method for obtaining maximum likelihood (ML) estimates when a small proportion of the data is missing (Dempster et al., 1977 as cited in Allison, 2002; McLachlan & Krishnan, 1997, as cited in Allison, 2002). The EM algorithm consists of two steps, an expectation step and a maximization step, that are repeated multiple times in an iterative process that eventually converges to the ML estimates. Unlike conventional regression imputation, in which decisions must be made on which variables to use as predictors, the EM algorithm starts with a full covariance matrix and uses all available variables as predictors for imputing missing data. Missing data was not replaced for dichotomous variables, which resulted in a loss of 39 cases due to the use of a listwise regression technique. A comparison of means across all variables in the analytic sample and dropped cases sample revealed no significant mean differences.

Descriptive analysis was used to describe the means and standard deviations of selected variables in the model. Next, paired samples t-tests were performed to understand the relative change in students' DIT2 scores for both the diversity and management courses. Path analysis was then conducted, based on the a priori model, to investigate the nature of the direct and indirect relationships among the different variables in the model. Direct and indirect effects were calculated to establish the overall impact of the model. Tests for interactions were also performed, although no significant interactions were found.

Results

Table 2 presents the mean moral reasoning scores for students participating in the diversity courses and the management course at Time 1 and Time 2. Dependent sample t-test analyses indicate that students participating in the diversity courses demonstrate higher levels of moral reasoning at Time 2 than Time 1 ($t=2.76, p<.01$). No significant change is found for students participating in the management course. Thus, after one term, students enrolled in a diversity course begin higher and end higher than introductory management students on moral reasoning scores.

*****Insert Table 2 Here*****

Figure 1 presents the final path model used in this study. Specifically, it provides an overview of the effects of diversity-related pre-college dispositions, participation in the diversity courses, and classroom practices that can lead to the development of moral reasoning among this group of undergraduate students. The significant paths in the model captures an important accentuation effect evidenced initially in Table 2 changes: students at Time 1 who begin with higher moral reasoning scores tend to select courses (enrollment in diversity) that further challenge their moral reasoning skills. The model also indicates that the diversity course affects

students' moral reasoning at Time 2, in two ways. One of these is indirectly through an active learning environment, which in turn yields critical thinking that leads directly to higher moral reasoning. The other path is direct from the course to moral reasoning at Time 2 (controlling for moral reasoning at Time 1). Presumably this is the result of course content that raises questions about social justice in comparison to one that does not. These results are further illustrated in the significant direct and indirect effects in Table 3.

*****Insert Figure 1 Here*****

Table 3 presents information concerning the direct and indirect effects of each variable on all other endogenous variables included in the model.

*****Insert Table 3 Here*****

Pre-college dispositions

Two of the three diversity-related pre-college dispositions shared a significant relationship with moral reasoning scores at Time 1. Race ($\beta = -.15$, $p < .05$) shared a negative relationship with Time 1 moral reasoning scores. This indicates that students of color scored lower on the DIT2 at Time 1 than did the white students. In addition, it appears as though race has a small but significant negative indirect effect on moral reasoning at Time 2 ($\beta = -.09$, $p < .05$). This indirect effect is probably a statistical artifact reflecting the strong relationship between moral reasoning at Time 1 and moral reasoning at Time 2 ($\beta = .57$, $p < .001$). It is interesting to note, however, that there were no significant gender differences in moral reasoning at Time 1 with this student sample. This is supported by a group of studies that have found no differences in moral reasoning between men and women (for a list of this group of studies, see King & Mayhew, 2003).

Results also indicate that course-related diversity learning has a positive effect on the development of moral reasoning among this group of college students. Previous course diversity-learning ($\beta = .19, p < .01$) shared a positive and significant relationship with Time 1 moral reasoning. This suggests that previous exposure to course-related diversity learning has a positive effect on students' capacities for postconventional moral reasoning. In addition, previous course-related diversity learning shares a significant indirect effect with moral reasoning at Time 2 ($\beta = .11, p < .01$).

Impact of diversity-related course learning

Results indicate that at Time 1, students with high moral reasoning scores are more likely to enroll in diversity courses than are students with low moral reasoning scores ($\beta = .15, p < .05$). Results also show that participation in the diversity-related courses leads to higher levels of postconventional moral reasoning at Time 2 than does participation in the management course ($\beta = .11, p < .05$). Within the context of a single term course, students participating in the diversity courses were more likely to demonstrate postconventional moral reasoning than students enrolled in the management course. This finding, in conjunction with earlier findings on the direct and indirect effects previous diversity-course learning on moral reasoning, indicates a curricular effect of diversity learning on moral reasoning; increased, additive exposure to diversity course-related learning may facilitate the development of moral reasoning to a greater degree than taking one diversity course in a single term. This suggests another possible route, through student course-taking, through which students develop moral reasoning skills.

It is important to note, when compared to the management course, these diversity-related courses are more likely to serve as active learning environments ($\beta = .39, p < .001$). Although “active learning environments” does not have a direct effect on moral reasoning at Time 2, it has

a significant indirect effect on moral reasoning at Time 2 through disposition toward critical thinking ($\beta = .04, p < .05$). Disposition toward critical thinking shares a significant direct relationship with moral reasoning at Time 2 ($\beta = .21, p < .001$). Collectively, these findings suggest that critical thinking is related to moral reasoning and that this relationship may help to explain how diversity courses facilitate its development.

Limitations

This study investigated the development of moral reasoning for undergraduate students enrolled in one of three courses: an introduction to management course, a women's studies course, and a diversity course. Some research on the development of moral reasoning suggests that business majors are more likely to score lower on the DIT than students from other majors (for a review of these studies, see King & Mayhew, 2002, 2003). This disciplinary effect might bias comparisons between moral reasoning scores in favor of students enrolled in the diversity courses. However, this potential bias would only pertain to Time 1 scores. Any effects of the diversity course on moral reasoning at Time 2 is statistically controlled for by accounting for initial differences between scores of students enrolled in the courses at Time 1.

In addition, we did not directly observe each class. Instead, we relied on student perceptions of the class environment and pedagogy. We recommend that future research introduce a qualitative component that examines the nuances of the classroom experiences and how these nuances might affect the development of moral reasoning.

Another limitation involves the sample of students of color examined for this study. As discussed in the missing data section, we performed missing data analyses in an effort to yield the most accurate parameter estimates without sacrificing the integrity of the data. For this reason, we did not try to impute data for categorical variables, including race and gender. This

resulted in a loss of 39 cases due to missing data; most of these cases were lost due to students not responding to questions on race and ethnicity. Although no significant mean differences were found between the analytic sample and the dropped cases, we urge readers to cautiously interpret findings addressing the relationship between race and moral reasoning.

Discussion

National scandals that reveal dishonesty in managing money among corporate leaders, political debates about whether leaders have misled the public about US military interventions abroad, and technological advances that include cloning and genetic engineering all raise new questions regarding the moral judgment of highly-educated citizens. What are the responsibilities that come with the privilege and power to serve the public good? How might schools and colleges better serve national interests in ensuring students understand their ethical responsibilities as individuals in a larger societal context? Many professional schools are designing courses on ethics to respond to these questions. Results from the current study suggest that participation in a general diversity course in a typical college curriculum can also help to enhance students' moral reasoning skills. Embedded in the general education curriculum, this may be a helpful approach toward making tolerance and social responsibility a part of the "standard equipment" of college graduates.

Our findings extend the body of work on the effects of diversity courses and the factors that promote moral reasoning in several important ways. While much work has been conducted on the outcomes of diversity courses, only a few have relied on standard measures of outcomes, and only a few previous studies have included a comparison group. Part of the problem is that it is relatively difficult to get instructors to agree to give up valuable class time unless they believe such tests are relevant and it is difficult to overcome the selection effect, since students are not

randomly distributed across the courses they take. We were fortunate in that this campus had instructors who believe these outcomes were important for undergraduates. Our solution to the issue of selection differences was to account for students' predispositions (controlling for moral reasoning scores at Time 1) and modeling student course-taking in order to assess the additional contribution of the courses and their pedagogy. In creating the model, we illustrated how students' predispositions can be accentuated during college as well as how a diversity course can create a sufficient challenge to initiate development. In terms of accentuation, previous diversity courses as well as current enrollment in a diversity course contribute to student moral reasoning skills. While students' enrolled in a diversity course begin higher on moral reasoning than students in the management course, they also increase over their initial position.

The model also helped to uncover important findings related to challenging students' worldviews. A diversity course, presumably through content that addresses power, oppression, and social justice, can upset student's view of the status quo and directly affect student moral reasoning. Moreover, student perceptions of an active learning environment employed in these courses have the added benefit of increasing critical thinking dispositions, which in turn, produce higher moral reasoning. This confirms the findings of Gurin et al., 2002, who emphasized that it was not simply the presence of diverse peers or diversity content, but also opportunities for meaningful interaction that result in important outcomes for students.

Our study went beyond the standard pre- and post assessments used in many moral development studies by accounting for the type of pedagogy and learning that students reported were a feature of their course-related experiences. This work opens the door for additional studies that fully explore the contribution of the variety of college experiences that enhances student moral reasoning skills (King & Mayhew, 2003). In particular, the question of how much

time it takes for undergraduates to show change in their moral reasoning skills has received at least a partial answer. It appears as though change can be evidenced in one term, but this is also dependent on the pedagogy and content that is sufficiently challenging to move students from one stage of development toward another. No doubt, such instances of cognitive disequilibrium must be accompanied by a relatively safe educational environment facilitated by a pedagogy that gives attention to student frustration or reversion to familiar positions. Future work should be devoted to understanding some of the standard classroom practices that challenge students toward active thinking and development of moral reasoning skills.

Educational Implications

Embedded within the call of higher education is the idea that colleges and universities have the responsibility of graduating students with the capacities and skills needed to be tolerant and responsible citizens in a diverse democracy. This study marks an important step toward understanding the theoretical and practical means to this end. Theoretically, this study bridges theories of moral development with those of diversity learning. Common to these two schools of thought is the idea that development occurs in the context of exposing and challenging individuals to new ways of thinking about themselves and the society in which they live. Mechanisms for development include creating opportunities for individuals to experience cognitive disequilibrium, either through pedagogies that facilitate active learning or through creating opportunities for student to interact with diverse peers. We challenge diversity educators interested in providing contexts that facilitate the development of moral reasoning to engage students in activities involving role-taking, discussion, and dialogues with diverse peers.

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Table 1

Variable Names, Loadings and Reliability of Active Learning Environment Factor

Scale and Individual Item Measures	Loading	Alpha
ACTIVE LEARNING ENVIRONMENT*		.77
Overall, this course met my expectations.	.75	
Assignments in this class made me think.	.73	
The amount of work required was appropriate for the credit received.	.68	
Assignments covered material from diverse perspectives.	.65	
Questions in this class were encouraged.	.59	
Students in this class were free to disagree.	.58	

* Items based on the following four-point scale: *Indicate your agreement with the statements below as to the content of this course: 1= Strongly disagree, 2=Somewhat disagree, 3= Somewhat agree, 4= Strongly agree*

Table 2

DIT2 Mean Differences for Diversity and Management Courses

	<u>Time 1</u> DIT2 Mean Score (Standard Deviation)	<u>Time 2</u> DIT2 Mean Score (Standard Deviation)	Mean Difference
Diversity Course	31.25 (15.00)	34.01 (15.98)	2.76**
Management Course	26.88 (12.53)	27.99 (12.57)	1.11

**p<.01

Table 3

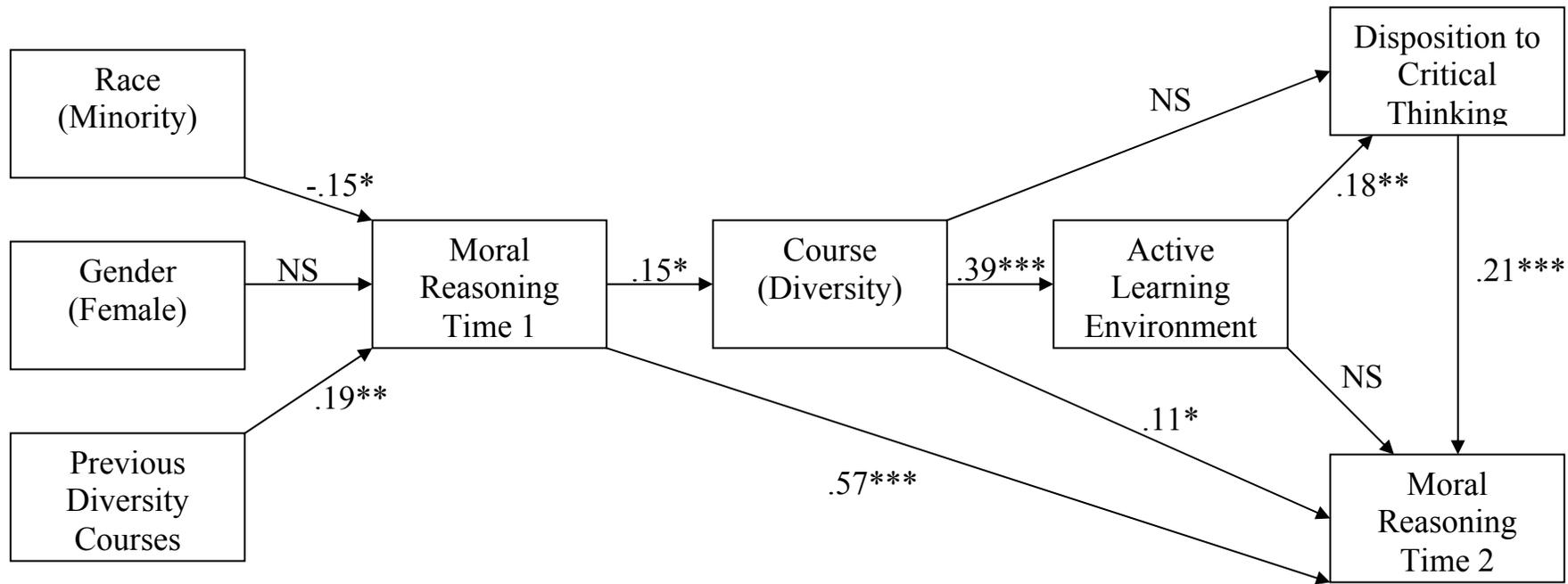
Direct and Indirect Effects in the Model (n=239)

Effects	Standardized Regression Weight (Beta)	Standard Error
Direct Effects on:		
DIT2-Time 2		
DIT2-Time 1	.57***	.06
CCTDI	.21***	.05
Course (Diversity)	.11*	.05
Active Learning Environment	-.05	.05
CCTDI		
Active Learning Environment	.18**	.07
Course (Diversity)	.04	.07
Active Learning Environment		
Course (Diversity)	.39***	.06
Course (Diversity)		
DIT-Time 1	.15*	.07
DIT-Time 1		
Previous Diversity Course	.19**	.06
Race (SOC)	-.15*	.06
Gender (Female)	.12	.06
Indirect Effects on:		
DIT2-Time 2		
Previous Diversity Course	.11**	.04
Race (SOC)	-.09*	.04
Gender (Female)	.07	.04
Active Learning Environment	.04*	.02
DIT2-Time 1	.02	.01
Course (Diversity)	.00	.02
CCTDI		
Course (Diversity)	.07**	.03
DIT2-Time 1	.02	.01
Previous Diversity Course		
Gender (Female)	.00	.00
Race (SOC)	-.00	.00
Active Learning Environment		
DIT2-Time 1	.06*	.03
Previous Diversity Course	.01	.01
Race (SOC)	-.01	.01
Gender (Female)	.01	.01
Course (Diversity)		
Previous Diversity Course	.03	.02
Race (SOC)	-.02	.01
Gender (Female)	.02	.01

* p<.05, **p<.01, ***p<.001

Parentheses indicate the group coded 1 (reference group coded 0).

SOC = students of color.



* p<.05,**p<.01,***p<.001

Parentheses indicate group coded 1 (with referent group coded 0).

Figure 1

The effects of pre-college dispositions, curricular content, and pedagogy on the development of moral reasoning.