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The Impact of Diversity Courses on College Students' Moral Development

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We utilized data from a multi-institutional longitudinal study to investigate the association between diversity-related coursework and moral development among students over 4 years of college. Our findings parallel the prior research, which support the positive effects of diversity on college students, by offering new evidence that diversity experiences positively impact moral development. Further, the findings revealed that students who enter college with lower precollege academic ability might experience greater gains relating to the impact of diversity coursework on their moral growth.

The task of creating an inclusive and affirming campus is a challenging and multifaceted endeavor for colleges and universities. When racial tensions escalate on campus, educational leaders, students, and faculty seek strategies to address attitudes and behaviors that undermine the educational values of equity and inclusion. Among a range of possible organizational responses, modifications to the curriculum have been pursued as a means for providing a long-term structural approach aimed at improving the campus climate (Humphreys, 1997; Hurtado, Milem, Clayton-Pedersen, & Allen, 1999; 1998; Mayhew, Grunwald, & Dey, 2005). Examples of curricular changes addressing campus diversity, racial/ethnic

identity, and inclusion and equity have been plentiful since the civil-rights era (Arthur, 2011; Levine & Cureton, 1992; Rhoads, 1998; Rojas, 2007). Such curricular changes can be laden with controversy on- and off-campus, and are thus closely monitored by the public and journalists alike. One such example resurfaced recently following students' activism and a faculty lawsuit that highlighted systemic and ongoing racial inequities on the University of California Los Angeles (UCLA) campus (Doumit, 2014; Gordon, 2014; Lew, 2013). At UCLA these events reenergized a decades-long debate among the faculty over including a diversity course as part of the undergraduate general education requirements.

In situations like UCLA's and other comparable scenarios, campus community members advocate for requiring diversity courses as a means for improving the campus climate (Rankin & Reason, 2005; U.S. Department of Education, 1998). One of the underlying rationales for this curricular modification is that diversity course content can promote students' moral discernment regarding fundamental matters of human dignity and respectful conduct across a range of differences, especially racial differences, thus contributing to a more positive and affirming campus climate (Dalton & Crosby, 2010; Milem, Chang, & Antonio, 2005).

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The educational utility of diversity courses has been consistently observed in empirical analyses. Such courses have been characterized by practitioners and scholars as holding the potential to reduce bias, cultivate empathy, and promote respectful treatment across sociocultural differences (Chang, 2002; Milem et al., 2005). In particular, diversity courses contribute positively to a range of desirable student outcomes such as: cognitive and academic development (Nelson Laird, 2005); psychological well-being (Bowman, 2010); civic engagement (Bowman, 2011); social justice and action (Bowman, 2010, 2011; Gurin, Dey, Hurtado, & Gurin, 2002; Hurtado, Mayhew, & Engberg, 2004; Hurtado, 2003; Nelson Laird, 2005; Nelson Laird, Engberg, & Hurtado, 2005); and bias reduction (Chang, 2002).

Among the many educational benefits of diversity courses, few studies have examined the specific relationship between diversity courses and students' moral development (notable exceptions include Adams & Zhou-McGovern, 1994, and Hurtado, Mayhew, & Engberg, 2012). Utilizing longitudinal data and focusing on the first year of college, Bowman (2009) found little evidence to support any potential benefits of diversity coursework regarding college students' moral development suggesting that such courses are instead more suited for cultivating students' need for cognition. He did observe, however, a modest positive affect on moral reasoning for students from low- and middle-income families after enrolling in three or more diversity courses in the first-year of college. This work suggests that the benefits of diversity courses on students' moral development may be conditional on students' personal characteristics.

Interestingly, the limited empirical attention allotted to examining moral development as an outcome of having experienced a diversity course in college stands in contrast to the relative enthusiasm that positions

diversity courses as an organizational strategy to address campus climate challenges. Campus climate research is increasingly focused on the idea that moral conduct is concomitant with socially responsible personal conduct that promotes respectful behaviors among community members (Dalton & Crosby, 2010; Dey, Antonaros, Ott, Barnhardt, & Holsapple, 2010). Therefore, this study is designed to examine the relationship between college students' experiences with diversity courses and their moral development during college. We approach this topic by drawing on the longitudinal design of the Wabash National Study of Liberal Arts outcomes to evaluate the effect of diversity courses. Our approach expands the empirical discourse beyond the typical duration of a semester or an academic year to evaluate the relative impact of diversity courses across the college curriculum. Our analyses are designed to address the general effect of enrolling and completing diversity courses on students' moral development, along with the unique effects of particular types of diversity courses (courses focusing on either diverse perspectives, gender studies, and equity or social justice themes) that have been characterized as similar pathways for achieving comparable outcomes. We seek to contribute to a scholarly and practical conversation about the extent to which these courses shape students' moral judgment.

BACKGROUND ON MORAL JUDGMENT AND DIVERSITY COURSES

Building on the work of Mayhew and King (2008), Adams (2002), and Dalton and Crosby (2010), among others, Engberg and Porter (2013) have conceptualized the dynamic relationship between diversity experiences (of which diversity courses are a part) and the development of college students' moral

reasoning. A major contribution of Engberg and Porter is the emphasis they place on campuses being in an agentic position to influence students' moral and ethical capacities through the intentional adoption of "innovative solutions and institutional strategies" (p. 296). The particular strategies to which Engberg and Porter refer are familiar mechanisms of campus climate—curricular, cocurricular, and informal interactions between students (Hurtado, et al., 1999; Mayhew et al., 2005; Milem et al., 2005; Rankin & Reason, 2008). Even so, Engberg and Porter (2013) contend that campuses' choices of whom they admit and enroll, and their decisions about what courses they will include in the curriculum results in expanding or contracting the opportunities that students have to engage in cognitive and affective contemplation requisite for moral development. More specifically, diversity courses and experiences prompt students to reflect on their individual identities and the larger social structures that act upon these identities. The cognitive disequilibrium that arises while engaging with the content and interactions provided by diversity courses (and experiences) provides students' with a chance to exercise moral reasoning, which resultantly also fosters moral development. While students experience intergroup contact and gain exposure to new knowledge about diverse people, and expand their familiarity with sociocultural and political power structures, students experience opportunities to exercise moral judgment. Students activate moral discernment by trying to: (a) cognitively process forms of oppression; (b) determine egalitarian methods for reducing their own or the perceived biases of others across forms of difference; and by (c) searching for and identifying common pathways that breed acceptance and seek justice as a community norm. Theoretically, by emphasizing the role of the campus in creating opportunities for moral development through

diversity courses and experiences, Engberg and Porter's conceptualization operationalizes what is largely understood about individual-level mechanisms of moral reasoning.

Kohlberg (1975), Kohlberg and Hersh, (1977), Rest (1994), and Gilligan (1982) characterize the more advanced conceptions of moral development as involving collective justice and social or community welfare. Unequivocally, the college experience has been associated with students' development of moral reasoning (King & Mayhew, 2002; Pascarella & Terenzini, 2005), and has largely been studied by using college students' scores on the Defining Issues Test (DIT). The DIT is an instrument that assesses the contemplative processes used in rendering a moral judgment, rather than the substantive, issue-specific content of the dilemma (Rest, Narvaez, Thoma, & Bebeau, 2000). In the contemporary instrument, the DIT-2, the respondent is given a story that presents a moral dilemma, followed by questions about how one would approach the matter (Rest, Narvaez, Thoma & Bebeau, 1999). DIT-2 scores reflect the relative priority that a respondent places on a particular sort of moral schema while deliberating matters, ranging from a tendency towards personal interest, maintaining norms, or postconventional schemas (Rest et al., 1999). These schemas have an increasing pattern of sophistication, where postconventional reasoning reflects an increasing consideration for societal needs even if it doesn't neatly conform to routine norms, rules, or formal authority structures (Bebeau & Thoma, 2003; Rest et al., 1997, 1999).

Moreover, moral reasoning requires that an individual render a judgment which juxtaposes one's objective evaluation with subjective and reflective sensitivity. This process is mediated by one's knowledge, personal affect, ideological disposition, as well as contextual influences such as broader cultural and societal norms.

These complex dynamics are reflected in the prior scholarship on moral development in college students. Across many studies using the DIT/DIT-2, individual and organizational factors (e.g., gender and institutional type) exert a consistent influence on students' moral development (King & Mayhew, 2002).

Over the last fifteen years, colleges have focused greater attention on students' moral and ethical reasoning as a path for promoting students' personal and social responsibility (Association of American Colleges and Universities [AAC&U], 2002; Colby, Ehrlich, Beaumont, Rosner, & Stephens, 2000; Dey, Antonaros, Ott, Barnhardt, & Holsapple, 2010). Exposure to college has been observed to positively influence students' moral development (King & Mayhew, 2002; Rest & Thoma, 1985), but incivility and disrespectful conduct has remained a paramount concern for college leaders and community members. Prior attempts to understand factors that influence moral and ethical development in college have provided specificity about the role of students' personal characteristics (Mayhew, Seifert, Pascarella, Laird, & Blauch, 2012). Bebeau and Thoma's (2003) work demonstrated that educational ability and year in college are positively associated with students' moral development. Gender has also consistently been associated with moral development in college, with women tending to score higher than men (King & Mayhew, 2004; Pascarella & Terenzini, 2005). Campuses have pursued educational initiatives that are intended to support an institutional mission focused on facilitating students' moral and socially responsible competence (Hersh & Schneider, 2005; King & Mayhew, 2002), of which diversity courses are a component.

Diversity courses have long been a part of the college curriculum; more than twenty-years ago, using a representative sample of 196 two- and four-year campuses, Levine and Cureton (1992) estimated that 34% of US campuses had

a multicultural general education requirement, and one third offered elective diversity courses. Barnhardt's (2015) random sample of 147 four-year campuses estimated that 38% of campuses had adopted a diversity requirement by 2002. AAC&U's survey of US campuses reported upwards of 54% of campuses that adopted a curricular diversity requirement (Humphreys, 1998). Nelson Laird and Engberg's (2011) synthesis of diversity courses affirms that they are implemented differentially as either curricular requirements for general education or within a major, or as an elective. Within these structural variations, differences manifest in course content, pedagogy, mode of delivery, as well as factors such as faculty/instructor characteristics and student enrollment patterns (Nelson Laird & Engberg, 2011; Knight, Lattuca, Kimball, & Reason, 2013; Pickert, 1992).

Course content is often used to categorize what constitutes a diversity course. For instance, Bowman (2010) regards diversity courses as, "coursework that focuses on racial/ethnic and/or gender diversity" (p. 544). This conception merely touches the surface, however, for diversity courses have come to be regarded as consisting of a curriculum and pedagogy inclusive of, but not limited to, race, ethnicity, sexual orientation, gender, religion, socioeconomic status, ability, political ideology, language, and teaching and learning styles (Bowman, 2010; Bowman & Brandenberger, 2012; Chang, 2002; Gurin, Dey, Hurtado, & Gurin, 2002). The utility of diversity courses is in their connecting community discourses to social problems involving identity, geography, commerce, social institutions, and human rights (Appaduri, 2000; Hall & Tarrow, 2001). There is general agreement that social identity-based diversity courses are infused with a transformative or critical philosophical paradigm (Arthur, 2011; Bird, 2001; Taylor, 1998) that enlightens students to new perspectives through expanding their knowledge of human and cultural differences (Denson, 2009; Engberg,

2004; Hurtado, Alvarez, Guillermo-Wann, Cuellar, & Arellano, 2012). As a result, diversity courses challenge student's beliefs, values, and attitudes toward equality and social responsibility (Bowman & Brandenberger, 2012; Chang, 2002). Furthermore, diversity courses tend to foster interactional diversity across students' diverse social identities because of the frequent and high-quality interactions that occur in these educational contexts (Gurin et al, 2002). These interactions encourage an egalitarian atmosphere for learning leaving students with a sense that the class itself invites openness, respect for all students and their learning styles, student-teacher dialogue, democratic values, and support (Krockover, 1997).

Part of the challenge in understanding the role of diversity courses in a student's college experience has been complicated by the research design. Bowman's (2011) meta-analysis of studies examining college diversity experiences (not limited to diversity courses) and civic engagement, indicated that studies involving students' self-reported gains tended to generate larger effect sizes than longitudinal designs. We use Bowman's work to assume that longitudinal designs will provide more precise estimates of the unique effect of diversity experiences, with the effect of diversity course on moral judgment being the emphasis for this analysis. Further, the existing studies that examine diversity courses and moral development have tended to restrict the pretest and posttest design time period to the duration of a semester (Hurtado et al., 2012), which doesn't necessarily support our purpose which is to examine the utility of diversity courses in students' college experience, longitudinally, to estimate whether there are subsequent effects on their moral judgment.

METHODS

To estimate the impact of taking diversity-oriented courses on fourth-year growth in

moral reasoning, we analyzed data from the Wabash National Study of Liberal Arts Education (WNS), which examines "outcomes associated with undergraduate liberal arts education and the educational conditions and experiences that foster these outcomes" (Blaich, 2011, para. 2). The WNS is a longitudinal study consisting of three cohorts of student participants that were assessed at three time points during college: early fall of the first year; late spring of the first year; and spring of the fourth year. The data for this analysis were from the 2006–2010 WNS cohort specifically, which included student samples from 17 four-year institutions (11 liberal arts colleges, three research universities, and three regional universities). Investigators purposefully oversampled liberal arts colleges because the study was primarily concerned with the impact of liberal arts colleges and liberal arts experiences. Researchers were also attentive, however, to ensuring that the sample group represented differences in colleges and universities nationwide according to institutional type and control, size, selectivity, location, and patterns of student residence.

The 17 selected campuses varied on a number of important criteria. Geographically, they represented four general regions of the US (Northeast/Mid-Atlantic, Southeast, Midwest, and Pacific Coast) and 11 states. Likewise, academic selectivity ranged from including some of the most selective campuses to colleges utilizing essentially open admissions practices. On average, the ACT (or SAT equivalent) for the sample group of 17 campuses was 26, but it varied from 21 to 32. Undergraduate enrollment also varied, with the four-year campuses (research universities and regional institutions) in the sample averaging an entering enrollment of 2,975 students, to the liberal arts colleges in the sample averaging 439 students in their entering classes. All liberal arts colleges were private, and five of the six research universities

and comprehensive institutions were public.

Student Sample

Participants from each of the 17 campuses were sampled in one of two ways. For larger institutions, investigators randomly selected participants from the incoming first-year class at each institution, except in the case of the largest participating institution where the sample of the incoming class was drawn from the College of Arts and Sciences. Second, for a number of the smallest institutions in the study—all liberal arts colleges—the sample was the entire incoming first-year class. All sampled students received an invitation to participate. The first year response rate was 50.1% of those who actually received the invitation at the 17 four-year schools. Those choosing to do so received a \$50 stipend for participating in the first data collection point (late Summer 2006, early Fall 2006), which yielded involvement from 4,193 students. This session lasted between 90–100 minutes, and it consisted of a WNS precollege survey documenting student demographic characteristics, family background, high school experiences, alcohol consumption, health status, and the like. Additionally, students completed a series of instruments that measured dimensions of cognitive and personal development theoretically associated with a liberal arts education. One of these instruments was the DIT–2. To respect participants' time, the two lengthier outcome measures (one of which was the DIT–2) were randomly assigned and administered to half the sample at each of the 17 participating institutions. The DIT–2 is described in detail below.

In Spring 2010, researchers collected follow-up data from the fourth-year, full-time, undergraduate student participants. At this assessment point, survey data was collected regarding students' collegiate experiences, such as academic major, work obliga-

tions, completed coursework and cocurricular involvement. Participants also completed follow-up assessments related to the instruments administered during the initial data collection, including the posttest measure for moral development, the DIT–2. Again, a \$50 stipend was provided to participants. A few students in the initial data collection did not participate in the data collection interval during Spring 2007; as such, a dummy variable was generated to indicate participation/nonparticipation in the 2007 data collection and was subsequently employed as a control in the analyses.

In sum, from the initial sample of 4,193 students who participated in the late Summer 2016 and early Fall 2006 testing, 2,212 participated in the Spring 2010 follow-up data collection, for a response rate of 52.8%. These students represented approximately 10.0% of the total cohort population of incoming first-year students at the 17 participating institutions. Of these 2,212 students, usable 2010 data were available for 998 students (recall that the DIT–2 was randomly assigned to half the respondent group).

The final four-year sample we analyzed was overrepresented by White students (vs. students of color), by women (vs. men), and by slightly higher ACT (or SAT equivalent) scores. A weighting algorithm was developed to adjust for potential response bias by sex, race, academic ability, and institution in the sample analyzed. Thus we weighted the sample according to our description in the paper. The institutions self-selected themselves into the sample by responding to the WNS invitation to participate. Thus, while the sample of students was weighted up to the population characteristics of each participating institution by race, sex, and ACT score, we cannot make any claims about the generalizability of the results to institutions that did not volunteer to participate. Weighed against this, however, was the fact that the focus of the paper is on

estimating the specific impact of diversity courses, not on generalizability of that finding to any specific population of American four-year institutions. Using information provided by each participating campus regarding sex, race, and ACT (or SAT equivalent) score, the 2010 follow-up participants reflected each institution's fourth-year undergraduate population by sex, race (person of color/White), and ACT (or SAT equivalent) quartile. Weighing the data in this manner made the sample more representative of the individual campus populations from which they were drawn; however, doing so cannot adjust completely for nonresponse bias.

Outcome

The DIT-2 assesses moral judgment as it relates to the aforementioned moral schemas of the moral development models: personal interest, maintaining norms, and postconventional (Rest et al., 1999). The instrument yields an N2 score, a measure of the extent to which a respondent employs higher order postconventional moral reasoning when confronted with predetermined dilemmas (Rest, Thoma, Narvaez, & Bebeau, 1997). We identified the N2 score obtained at the end-of-college time point as the dependent variable. The internal consistency of the DIT-2 ranges from .77 to .81 (Bebeau & Thoma, 2003; Rest et al., 1997; Rest et al., 1999).

Independent variable

Our independent variables of interest referred to students' self-reported histories of taking diversity courses during college as reported at the end of college. We included measures of whether a student took one or more diversity-oriented courses during college, operationalized as courses focusing on: (a) diverse cultures and perspectives (DP) (e.g., African American Studies, Latino Studies); (b) women's/gender studies (WGS); and/or (c) issues of equality and/or social justice

(ESJ). To estimate the global effect of diversity course taking we created a dummy variable signifying enrollment in any type of diversity course (1 = took at least one diversity course of any type; 0 = did not do so). To examine the estimated effects of particular forms of diversity-oriented courses, we created three dummy variables to represent a student taking at least one course in the topical areas of: diverse cultures and perspectives, women's/gender studies, and equality and/or social justice. These three variables were each coded: 1 = took at least one course in that area, 0 = did not take a course in that area.

Conceptual model and controls

Several college impact frameworks and conceptual models guided the selection of control variables for this study (Astin, 1993; Pascarella, 1985; Pascarella & Terenzini, 1991, 2005). Fundamentally, these models hold that in order to explain the net impact of college experiences, one should account for individuals' precollege propensities, experiences and capabilities, the campus characteristics where individuals are enrolled, and other important college experiences that may covary with the study's independent variable—in this case taking diversity-oriented courses. The ultimate goal is to select control variables that not only correlate significantly with the outcome measure, but also correlate significantly with the independent measure(s).

Accordingly, students' background/pre-college variables included: precollege measures of students' DIT-2 N2 scores; ACT (or SAT equivalent) scores (provided by each participating institution); level of parental education; sex; race (person of color versus White); and level of precollege "conservative" political views (see Table 1). As noted, we also controlled for participation in the 2007 assessment. Based on the prominence of research literature demonstrating a link

TABLE 1.
Description of Variables, Means, and Standard Deviations (N = 998)

Variable	M	SD
DIT2 N-Score	46.00	14.22
<i>Reflects both the acquisition of more sophisticated moral thinking, but also gains in greater clarity about ideas that should be rejected for their simplistic or biased solutions.</i>		
DIT2 N-Scores (Precollege)	37.42	14.66
Took at least one diversity oriented course in any category 1 = Yes, 0 = No	0.90	0.30
Took at least one diversity oriented course focusing on diverse perspectives (DP) 1 = Yes, 0 = No	0.83	0.38
Took at least one diversity course focusing on women's or genders studies (WGS) 1 = Yes, 0 = No	0.44	0.50
Took at least one diversity course focusing on equity and/or social justice (ESJ) 1 = Yes, 0 = No	0.43	0.50
White 1 = White, 0 = Student of Color	0.82	0.39
Male 1 = Male, 0 = Female	0.37	0.48
Precollege ACT (or SAT equivalent) scores ACT Score, SAT Equivalent (provided by each institution)	27.29	4.21
Parental education At least one parent has a graduate degree, 1 = Yes, 0 = No	0.44	0.50
Campus compositional diversity 1 = Under 10%, 2 = 10–20%, 3 = Above 20%	1.96	0.84
Precollege political views Political Views (1 = far left, 5 = far right)	2.85	0.93
Completed 2007 assessment Respondent completed the second assessment after his/her first year of college (completed all three assessments) in 2007	0.86	0.35
Cocurricular involvement Number of hours per week the respondent spends participating in cocurricular activities	2.79	1.58
Member of a religious group 1 = Member of a religious congregation or group during college, 0 = Not a member of a religious congregation or group	0.36	0.48
Involvement in spiritual activities Frequency regarding activities that enhance spirituality (e.g. worship, meditation, prayer etc.) 1 = never, 4 = very often	2.13	1.12
Humanities/Social Science major 1 = Majored in Humanities and/or Social Science 0 = Did not major in Humanities and/or Social Sciences	0.54	0.50
STEM major 1 = Majored in STEM field 0 = Did not major in STEM field	0.26	0.44

between campus structural/compositional diversity and whether it was a salient factor in the interactional diversity students experience in their academic environments (Hurtado et al., 2012), we controlled for the percentage of students of color enrolled on each of the 17 campuses. Specifically, we created a three-level variable signifying whether a campus had 10%, 10–20%, more than 20% enrollment of students of color. Finally, we included four college experience variables (aside from diversity-oriented courses)—academic major (social sciences/arts/humanities vs. other; science/technology/engineering/mathematics vs. other), a measure of college cocurricular involvement; and two measures related to religiosity and spirituality. (See Table 1 for variable metrics and descriptives.)

Analyses

Continuous variables were standardized to simplify the subsequent interpretation of our findings. We tested our model for multicollinearity and used ordinary least squares (OLS) regression to estimate the net general effect of taking diversity courses on end-of-fourth-year DIT–2 N2 score. This approach involved regressing the end-of-college DIT–2 N2 score on all the precollege variables and measuring compositional diversity of the institution attended and the aforementioned college experience variables. In the second stage, we sought to determine if the effect of diversity-oriented courses on fourth-year growth in moral reasoning was moderated by, or conditional upon students' precollege traits. To accomplish this, we added cross-product interaction terms of students' precollege characteristics (academic ability, Fall 2006 DIT–2 N2 score, race and gender) and the four diversity course dummy variables to the general effects equation specified in the first stage of the analysis. In both stages of analysis, we estimated a

general model indicating whether a student took any type of diversity course, followed by a subsequent model that utilized the three diversity course dummies specifying particular types of courses students took (DP, WGS, ESJ) in place of the overall diversity-course dummy variable.

Since WNS includes multi-institutional data, it was important to account for any nesting or clustering effects. A nesting or clustering effect assumes that students on the same campus would exhibit greater similarities to their campus's peers than to students at the other campuses in the sample. Thus, the error terms for the prediction models are likely correlated, which may result in underestimated standard errors in our models (Ethington, 1997; Raudenbush & Bryk, 2001). Therefore, in all analyses, we accounted for the nested nature of our data by using the svy regression procedure in the Stata statistical routines that adjusts for this nesting or clustering (Groves et al. 2004). The results presented below are standardized coefficients (β) thus conveying effect sizes, or the relative change in a standard deviations unit of the DIT–2 N2 score, for each standard deviation change in an independent variable. The magnitude of the coefficients may be compared to determine more or less pronounced predictors.

Finally, it is notable that we chose OLS regression rather than propensity score matching as our basic analytical approach for two reasons. Our independent variable of interest had multiple forms, therefore regression analysis provides ample opportunity to test for, and report, conditional effects. Additionally, evidence is accruing which demonstrates that in instances where independent variables are coded as nonexperimental dummies (i.e., coded: 1 or 0), regression analysis and propensity score matching generate essentially the same effect estimates,—particularly (as in this study) when the analytic model includes

TABLE 2.
Estimated Effects on Moral Reasoning

Predictor	Model I (N = 998)			Model II (N = 998)		
	β	SE ^a	t Ratio	β	SE ^a	t Ratio
Precollege DIT2 N-Score	.492	.023	21.55***	.491	.025	20.03***
Precollege ACT (or SAT equivalent) Score	.126	.061	2.05	.133	.058	2.27*
White	.261	.070	3.73**	.276	.073	3.80**
Male	-.192	.123	-1.56	-.209	.127	-1.64
Parental Education	.074	.067	1.11	.068	.065	1.04
Precollege Political Views	-.004	.041	-.11	-.001	.046	-.02
Campus Compositional Diversity	.024	.024	.99	.014	.027	.50
Completed 2007 Assessment	.306	.064	4.76***	.302	.058	5.23***
Cocurricular Involvement	.006	.026	.024	.005	.026	.20
Humanities/Social Sciences Major	-.097	.098	-.99	-.068	.102	-.66
STEM Major	-.069	.062	-1.11	-.081	.064	-1.17
Member of a Religious Group	-.045	.088	-.52	-.039	.088	-.46
Involvement in Spiritual Activities	.007	.021	.32	.008	.023	.33
Took at Least One Diversity Course, Any Category	.354	.114	3.11**			
Took at Least One Diversity Course (DP) ^b				.188	.087	2.16*
Took at Least One Diversity Course (WGS) ^b				-.059	.063	-.94
Took at Least One Diversity Course (ESJ) ^b				.175	.057	3.09**
R ²		.421***			.422***	

^a Standard errors reflect adjustment for the nesting and clustering effect.

^b DP = diverse perspectives, WGS = women's or gender studies, ESJ = equity and/or social justice.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

a pretest measure of the outcome (e.g., Foster, Wiley-Exley, & Bickman, L., 2009; Glynn, Schneeweiss, & Stürmer, 2006; Hanson, Weeden, Pascarella, & Blaich, 2012; Padgett, Salisbury, An, & Pascarella, 2010; Pascarella, Salisbury, & Blaich, 2013; Shadish, Clark, & Steiner, 2008; Shah, Laupacis, Hux, & Austin, 2005; Zanutto, 2006).

RESULTS

Our control variables emerged as strong predictors of the dependent measure. The precollege (2006) DIT-2 N2 score and the ACT (or SAT equivalent score) yielded a correlation of 0.59 and 0.31 respectively with

the end-of-fourth-year (2010) DIT-2 N2 score. Other control variables generated modest but significant ($p \leq 0.01$) correlations with our variable of interest. Specifically, students' taking diversity courses were negatively associated with precollege conservative political views (correlations ranged from -0.11 to -0.17); and positively associated with majoring in the social sciences or humanities (correlations ranged from 0.16 to 0.24), as well as the overall percentage of students of color on campus (0.11 and 0.16). Campus compositional diversity was only significantly correlated with two of the three diversity course types we examined, gender/women's studies courses and equality/social justice courses.

In Table 2, Model 1 depicts the estimated net effect of taking at least one diversity-oriented course in any of the three areas on four-year gains in the use of moral reasoning (i.e., DIT-2 N2 score). Holding all other influences in the model constant, taking at least one diversity-oriented course in any of the three areas was positively linked to an increase on the N2 score after four years of college ($\beta = 0.354, p \leq 0.01$). Model 2 details the unique effect of the different types of diversity courses, and demonstrates that both diverse cultures/perspectives and equality/social justice courses have a positive relationship to students' moral development, whereas a comparable effect was not observed for women's/gender studies courses. With statistical controls in place for all other influences, including the influence of other types of diversity courses taken, students who took at least one diverse cultures/perspectives course displayed a 0.188 standard deviation increase ($p \leq 0.05$) on their DIT-2 N2 scores at the end of college. Completing at least one equality/social justice course was linked to a 0.175 standard deviation increase ($p \leq 0.01$) on the DIT-2 N2 score as well.

Across the tests examining the conditional

effects of diversity-oriented courses according to precollege characteristics, only academic ability (precollege ACT/SAT score) was significant. We further explored this interaction by dividing the ACT (SAT equivalent) distribution at the 50th percentile and re-estimated the effect of taking a diversity course for each half of the sample (ACT or equivalent of 27 or below vs. ACT of 28 or above). The conditional effects analyses revealed two findings about what sorts of courses are best suited for students based on their precollege academic abilities (see Table 3). For students with low precollege abilities, the strongest positive effect of exposure to a diversity course was derived from completing a diverse cultures/perspectives type of course. This group, or those that entered postsecondary education with an ACT score of 27 or below, exhibited sizeable increases on the DIT-2 at the end of college ($\beta = 0.340, p \leq .001$). For students with high precollege abilities, equity- and social justice-themed diversity courses tend to better serve them; those with an ACT score of 28 or higher were predicted to have a 0.145 ($p \leq 0.05$) standard deviation increase in their DIT-2 score at the end of college, after having completed an equity and social justice themed course.

TABLE 3.
Conditional Effects by Precollege Academic Ability

Variables	ACT (Below 28) (N = 474)			ACT (28 and Above) (N = 524)		
	β	SE ^a	t Ratio	β	SE ^a	t Ratio
Cultures and Perspectives Course (vs. other)	0.340	0.052	6.25***	-0.033	0.089	-0.37
Women's/Gender Studies Course (vs. other)	-0.101	0.044	-2.35*	-0.049	0.077	-0.64
Equity and Social Justice Course (vs. other)	0.178	0.089	2.00	0.145	0.054	2.67*
<i>R</i> ²	0.490			0.303		

^a Standard errors reflect adjustment for the nesting and clustering effect.

* $p < .05$. ** $p < .01$. *** $p < .001$.

DISCUSSION AND IMPLICATIONS

Our findings demonstrate that diversity courses positively influence students' moral development during their collegiate careers. That is, in addition to diversity coursework being constructive for promoting college students' cognitive and academic development (Nelson Laird, 2005) and a host of other outcomes (psychological well-being, civic engagement, bias reduction, social justice and action; see Bowman, 2010, 2011; Chang, 2002; and Nelson Laird, Engberg, & Hurtado, 2005, respectively), such courses are also an asset in terms of fostering college students' moral development. Further, considering the sizeable statistical effect of diversity courses, this aspect of the curriculum is educationally productive.

These findings supplement the established body of literature by utilizing a longitudinal design to underscore the impact of diversity courses over the duration of students' collegiate careers. Because of the pretest and posttest measures of moral judgment while accounting for a host of covariates, these findings emerge as particularly compelling—and suggest that diversity courses as an aspect of the undergraduate curriculum are likely to yield a profound positive influence on students' moral discernment by the end of college. This finding contrasts Bowman's (2009) research which also used the WNS sample to investigate the role of diversity courses on college students' moral growth (Bowman, 2009). He observed just a modest relationship between diversity courses and moral development during the first year of college, while our findings suggest that throughout four years of college, these courses exert a more prominent influence. These two studies together pose important questions about curriculum structure as well as the learning process. Perhaps time is a particularly salient factor undergirding the

relationship between diversity courses and subsequent moral development. Time may provide students with opportunities to observe and apply their course-based knowledge or to gain tangible real-life experiences with moral dilemmas based in issues of diversity or equity. Therefore, future research should carefully unpack the sequencing of diversity course enrollment as part of the college curriculum to determine if there is an optimal time to enroll during a student's collegiate experience. Further, diversity courses continue to be a contested part of the college curriculum, and without a body of evidence describing their contributions to student learning and development, decisions surrounding whether diversity courses shall be adopted for inclusion in the undergraduate curriculum (like the aforementioned at UCLA) will be rendered without needed and precise empirical evidence.

Our findings also stand out as a departure from earlier research that compared types of diversity courses (Case, 2007; Tsui, 2009) in that women's or gender studies courses had no effect on our outcome, whereas courses on diverse perspectives and social justice did. Our nonfindings around women's/gender studies for this study should in no way be construed as implicating these courses as ineffectual, for these courses have been observed to facilitate a number of personal and educational benefits (Harris, Melaas, & Rodacker, 1999; Stake & Hoffmann, 2001) distinct from moral development. These changes in women's and gender studies over time may help explain why they are not compatible with students' moral development during college. It might be the radical differences in social, economic, cultural, and political tensions that manifest in the other two types of courses that help students think about the complex dilemmas emphasized in postconventional moral schemas. Further studies involving inductive or mixed-methods methodologies may hold insights to these dynamics.

Our study showcases the varying effect of particular types of diversity courses for particular students. Students with lower precollege academic abilities experience dramatic positive gains regarding moral development when compared to their high academic ability peers, for courses focusing on diverse perspectives. Alternatively, students with higher precollege academic abilities yield small positive gains (compared to their lower-ability peers) from enrolling in equity and social justice courses. This outcome might result from differing background, familial, and educational experiences. Additional research that analyzes potential varying impact for students by academic ability might uncover the fundamental interactional effect. Nevertheless, these findings coupled with the general finding that each of these types of courses hold a relationship to students' moral development suggests that it is advisable for campuses to create or maintain choices when patterning diversity-course options in the curriculum. That is, one universal course to satisfy a diversity requirement may not serve all students well. Specifically, students, faculty, and student affairs academic advisors should be able to easily identify the variations in their campus's diversity course offerings, so it is easy to create matches that best support student growth and development. Future researchers might further explore and unpack the impact of diversity courses for students, particularly as it affects higher educational policy.

Despite the salience of our findings, this study reveals inequities according to race. In both Models 1 and 2, White students exhibited significantly greater (although small) moral development gains compared to students of color across the 4 years of college. In our follow-up tests examining students' race and diversity course-taking patterns, the interaction terms yielded no significant findings. The lack of a conditional effect of race and diversity

course taking is likely a reflection of the egalitarian learning environment that are often characteristics of these courses (Krockover, 1997); that is, racial differences are addressed fairly and justly. Even so, the main effect of race is still a concern, suggesting that there are other aspects of the college experience that operate tacitly to foster unequal development along racial lines, that the outcome measure has latent racial bias embedded in it, or both.

In the future it is imperative that we continue to further examine the ways in which a robust and varied curriculum (and one that includes such things as diversity courses) is essential for student development. As the public and political will is increasingly advocating for "no frills" employment-based curricula to reduce students' costs and time, researchers and educators must remain steadfast in communicating the educational value of all aspects of a general education curriculum. This work demonstrates that diversity-oriented courses are essential for cultivating moral judgment—the kind of thinking that is valuable for working through the complex dilemmas that are inevitable in communities, organizations, and the world of work.

CONCLUSIONS

Our analysis clearly demonstrates that diverse perspectives and social justice courses contribute positively to college students' moral development during 4 years of college. This finding, coupled with the lack of a general effect regarding women's studies, suggests that future research might allot greater attention to the structural dynamics related to diversity-oriented courses. What is the relationship between women who take gender courses and moral development? How does the organizational infrastructure of such courses contribute to students' development? Do stand-alone courses across various disciplines, versus

courses embedded in particular programs, versus courses within a specific department, affect student development differentially? If the institutionalization of women's studies in the academy is an explanatory factor for its noneffect, perhaps the other two types of diversity courses fostered moral judgment because they were somewhat curricular "outsiders." Likewise, in the merit- and achievement-based normative culture of higher education, maybe students with lower precollege academic abilities are "outsiders" which better primes them for the sort of moral discernment associated with exposure to

diversity-oriented courses. Moreover, this study affirms the salience of diversity-oriented courses as a curricular strategy that leads to students developing greater capacities to navigate moral dilemmas with the sort of deliberation that accounts not only for their self-interests, but for the shared interests of those around them and the collective aspirations that their communities seek to advance.

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