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W. Pitt Derryberry, Hannah Snyder & Travis Wilson

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Moral Judgment Differences in Education and Liberal Arts Majors: Cause for Concern?

W. Pitt Derryberry, Western Kentucky University
Hannah Snyder, University of Pennsylvania
Travis Wilson, Kentucky Christian College
Brian Barger, Western Kentucky University

Abstract

Education majors' moral judgment development reportedly lags behind other majors. This study questions the degree to which such differences exist. For this study, moral judgment development and other criteria were considered among 74 education and 50 liberal arts majors. Results revealed minimal mean differences and minimal differences in relationships. This study suggests that factors beyond major may be more relevant to college students' moral development.

Introduction and Overview

Attending college is recognized as an important contributor to moral development and moral judgment development in particular. Years of formal education have consistently been found to be the highest predictor of moral judgment (Colby & Kohlberg, 1987; Rest, Narvaez, Bebeau, & Thoma, 1999). Higher education has been cited as accounting for up to 50 percent of the variance in the advancement of moral judgment, more than can be accounted for by age alone (Rest, Deemer, Barnett, Spickelmier, & Volker, 1986). While the college experience appears to be a powerful contributor to moral judgment, a variety of explanations have been offered in explaining what years of formal education really represent in terms of its contribution.

In general, factors pertaining to college such as its overall selectivity along with offered social and academic experiences have all been identified as interacting with established student characteristics in impacting moral judgment development (for specific accounts and discussions see Derryberry & Thoma, 2000; Pascarella & Terenzini, 1991; Rest et al., 1986; and Schlaefli,

W. Pitt Derryberry is an Educational Psychologist and an Associate Professor of Psychology at Western Kentucky University. His research interests include the moral psychology and moral education of adolescents and young adults.

Hannah Snyder worked as an intern in Western Kentucky University's Research Experiences for Undergraduates program and is a graduate of Oberlin College. She is currently employed as a research assistant at the University of Pennsylvania.

Travis Wilson worked as an intern in Western Kentucky University's Research Experiences for Undergraduates program and is a graduate of Kentucky Christian College.

Brian Barger is a graduate of the Experimental Psychology Masters program at Western Kentucky University. He is currently employed with the Peace Corps.

Rest, & Thoma,1985). There has therefore been an interest in determining whether such factors are facilitated by certain types of majors or programs of study in order to understand better the relationship between attending college and moral judgment development. Differences in moral judgment development have been noted among students in various majors. For example, McNeel (1994) cited deficits in the moral judgment ability of business and education students relative to other majors, and Pascarella and Terenzini (1991) reported similar trends.

Though limitations have been recognized in the research comparing moral judgment ability among majors (Pascarella & Terenzini, 1991), the trends noted are nonetheless problematic for those responsible for majors in which deficits have been found. This is especially true for those who work with education majors given the moral demands of teaching and the perceived role of teachers as moral exemplars and facilitators of student moral development (Chang, 1994; Goodlad, Soder, & Sirotnik, 1990). Because teaching is described as an inherently moral profession and enterprise (Goodlad et al., 1990), whose members are required to model and facilitate effective moral decision making (Chang, 1994), any indication that future members of the profession are ill equipped relative to their peers to make sense of moral situations is disconcerting.

The Moral Judgment Ability of Education Majors

A variety of studies address the moral judgment ability of education majors. In an early study, Strange (1977) found that the majority of students enrolled in an introductory education course reasoned at Kohlberg's first conventional stage. Yeazell and Johnson (1988) found the moral judgment development of a group of undergraduate education students to be somewhat low in comparison to other college samples they referenced. Diessner (1991) supported that the moral judgment development of education majors lags behind other majors in reviewing all available studies that indexed the moral judgment development of education majors, according to Rest's Defining Issues Test (DIT; see Rest, 1979, 1986; Rest et al., 1999).

Though these studies describe relatively low moral judgment scores among teacher education majors, surprisingly few have directly compared teacher education students with other groups of college students. Lampe (1994) found that a large sample of teacher education students scored significantly lower on the DIT than a composite sample of college students that Rest (1979) compiled. Alarmingly, the scores that Lampe (1994) reported more closely rivaled those traditionally reported for students in high school than they did students in college (see Rest, 1979).

McNeel (1994) noted distinct differences in DIT scores in comparing the moral judgment ability of those in education, business, and liberal arts majors. According to McNeel (1994), the DIT scores for education and business seniors were lower than the DIT scores of seniors in liberal arts majors. Additionally, McNeel (1994) observed that though those in all three major groups saw significant growth in moral judgment development while in college, the average effect size for those in liberal arts majors was much greater (1.10) than for those in education and business majors (.58).

Recently, Cummings, Dyas, Maddux, and Kochman (2001) administered the DIT and the Academic Misconduct Scale (AMS; Ferrell & Daniel, 1995), a measure of academic misconduct, to a large group of education majors. Cummings et al. (2001) also found that the scores of their sample of education majors were significantly lower than what is usually reported among college students. Cummings et al. (2001) also investigated the correlation between DIT and AMS scores. A small, but significant, negative correlation was found, suggesting that lower levels of principled moral reasoning may be related to academic misconduct. Although the authors did not compare the AMS scores of their sample with any other student samples, Cummings et al. (2001) suggest

that those in teacher education majors may be more prone to academic misconduct, and possibly future moral infractions, given the low DIT scores seen in their sample and others.

Statement of the Problem

Research detailing their moral judgment ability suggests that education majors appear to be reasoning at a lower level than other college students. However, premature conclusions should not be drawn from the literature currently available for a variety of reasons. Principally, education majors have rarely been compared to specific majors. With the exception of McNeel (1994), teacher education majors have most often been compared with composite samples comprised from a variety of schools that have included numerous types of majors. Since institution type (e.g., liberal arts, church affiliated, comprehensive, research, etc.) is known to be a correlate of moral judgment ability (Pascarella & Terenzini, 1991), the comparison of education majors from a single institution to a group comprised of multiple majors from multiple colleges and universities poses a major confound. Additionally, referenced composite samples are several decades old, raising the possibility that they are no longer representative even of the institutions from which they were drawn. Another problem is that previous studies have focused only on participants' abilities to make postconventional moral judgments, which refer to the most advanced level of moral reasoning according to Lawrence Kohlberg's (1969; Colby & Kohlberg, 1987) conception of moral development. As such, research has ascertained the degree to which those in teacher education majors refer to postconventional arguments in making moral decisions in comparison to other majors. However, ability to refer to postconventional arguments does not mean that the postconventional level is the modal level of moral judgment development (see Rest et al., 1999). Thus, claims that developmental distinctions exist in terms of modal level may not be warranted. Lastly, only one of the aforementioned studies (e.g., Cummings et al., 2001) addressed variables related to moral judgment indices. As Cummings et al (2001) addressed, it is important to consider how other relevant constructs relate to moral judgment ability in order to increase understanding of reasons for and/or impact of any differences seen among majors.

In this study, then, education majors are compared to liberal arts majors at a large south-central regional university. In addition to indexing moral judgment development, scores from other indices that have been shown to relate to moral judgment development are considered in order to provide a more precise understanding about any differences that may be seen between major groups. In addition to indexing moral judgment development, other relevant constructs are considered in the current study. This includes academic misconduct and human rights attitudes, which have both been acknowledged as outcomes of moral judgment development (see Cummings et al., 2001; Derryberry & Thoma, 2005; Getz, 1985; and Rest et al., 1999). Two noted influences on moral judgment development are also considered in the current study, including academic and intellectual aptitude and the attributional complexity of judgments regarding human behavior (see Derryberry, Wilson, Snyder, Norman, & Barger, in press; Thoma, Rest, Narvaez, & Derryberry, 1999). Two key research questions are addressed in this study. First, do differences exist between those in education majors and liberal arts majors at the same university on measures of and related to moral judgment? Second, do relationships among these variables differ for education majors and liberal arts majors at the same university?

Method

Participants

Participants for this study included 74 education majors. Majors represented in this group included general education, elementary, middle grades and secondary education, special

education, vocational education, music education, and physical education. Mean age was 22.92 years (SD = 6.08). This group included 1 freshman, 39 sophomores, 16 juniors, 8 seniors, and 10 other. Sixty-six were female and 8 were male. Of those that reported ethnicity, there were 69 Caucasians, 3 African Americans, and 1 other.

Participants also included 50 liberal arts majors. Majors represented in this group included humanities, natural sciences and mathematics, psychology, history and social sciences, and general studies. Mean age was 23.28 years (SD = 6.09). This group included 1 freshman, 12 sophomores, 13 juniors, 20 seniors, and 4 other. Thirty-six were female and 14 were male. Of those that reported ethnicity, there were 40 Caucasians, 6 African Americans, 1 Native American, and 2 other. All participants were recruited from psychology and education classes and received extra credit in their courses for participating.

Materials

Defining Issues Test. The Defining Issues Test (DIT; Rest et al., 1999) was used to assess moral judgment. This instrument provides information about participants' reference to the Personal Interest (i.e., similar to Kohlberg's stages 2 and 3), Maintaining Norms (i.e, similar to Kohlberg's stage 4), and Postconventional (i.e., similar to Kohlberg's stages 5 and 6) moral judgment schemas. From the data that DIT responses supply, a variety of developmental indices are generated. An important DIT index utilized in the present study is the P score, which refers to participants' reference of the Postconventional schema. This index ranges from 0 – 95. Although a new index of postconventional reasoning known as the N2 score has been developed, Thoma (2005) suggests that the N2 score is most beneficial in denoting those greatest advances in postconventional reasoning. Because this study considers samples that have been reported as scoring low on the DIT and because prior studies referenced P scores, P scores are the considered index of referenced postconventional reasoning.

Although the P score denotes reference of the Postconventional schema in making moral judgments, it does not provide information regarding the relative influence of the Maintaining Norms or Personal Interest schemas. For example, two individuals could have fairly low P scores yet be fundamentally different in terms of their moral judgment development. While one individual could be largely making moral judgments according to the Maintaining Norms schema, another might be making moral judgments based on logic of the Personal Interest schema. Thus, also referenced in this study are the Maintaining Norms (MN) and Personal Interest (PI) schema scores, which also range from 0 – 95.

Attributional Complexity Scale. The Attributional Complexity Scale (ACS; Fletcher, Danilovics, Fernandex, Peterson, & Reeder, 1986) is a 28 item 7-point likert scale designed to assess participants' attributional complexity or preference for complex versus simple ways of viewing the self and others. Composite scores range from 0 to ±84, with higher scores revealing greater attributional complexity.

ACT scores. ACT composite scores were obtained from participants' college computer records with their permission. Because many universities (including the one where data were collected in this study) rely on the ACT in making decisions about the likelihood of successful matriculation of prospective students, ACT scores are considered an inference of academic and intellectual aptitude in the current study.

Attitudes Towards Human Rights Inventory. The Attitudes Towards Human Rights Inventory (ATHRI; Getz, 1985) was used in the current study to assess human rights attitudes. This 48 item 5-point likert scale contains questions revolving around issues such as abortion, euthanasia, homosexual rights, due process rights, free speech, women's roles, and the role of religion in public schools. Scores range from 40 – 200. Those with low scores are assumed un-interested in granting and supporting civil liberties and human rights while those with high scores are assumed interested in granting and supporting civil liberties and human rights.

Academic Misconduct Scale. The Academic Misconduct Scale (AMS; Ferrell & Daniel, 1995) is a 41 item 5-point likert scale designed as a self-report of academic misconduct. The AMS is designed to measure five aspects of academic misconduct: cheating on tests and assignments, inappropriate use of resources, subtle manipulation, strong manipulation, and quasi-misconduct. Scores are a mean of items, and thus can range from 1.0 to 5.0 with higher scores indicating more instances of academic misconduct.

Procedure

For most participants, research was conducted across two sessions ranging from 45 minutes to 1 hour each, while some participants completed an abbreviated single session of 45 minutes. Those participating in the two-session version completed other measures not reported here. Informed consent was obtained at the start of the first session, and participants were provided with contact information should they have any questions about the research after their participation. All materials were coded with a participant number for confidentiality.

Results

Means and standard deviations for all scales were obtained, and no major anomalies were found (Table 1). To determine if mean differences existed between major groups, separate analyses were conducted for each dependent variable or dependent variable set. In addressing moral judgment development, a Multivariate Analysis of Variance (MANOVA) was conducted with DIT P, MN, and PI scores as the dependent variables. No significant differences were seen between major groups on any of these moral judgment indices. Because a large percentage of underclassmen were included in both samples, the DIT scores of upperclassmen (e.g., juniors and seniors) in both samples were also compared since moral judgment developmental change may not be apparent until later in college (Rest, 1986). Thus, three separate t-tests were conducted in which the P, MN, and PI scores of the education (N = 24) and liberal arts (N = 31) were compared. No significant differences were seen on any of these three DIT indices.

In addressing attributional complexity, an Analysis of Variance (ANOVA) was conducted on ACS composite scores. A significant but small main effect was seen favoring the Liberal Arts majors group ($F\ [1, 121] = 4.569$, $p = .035$, $\eta 2 = .036$). An ANOVA was conducted in considering the difference between major groups on ACT scores. A significant but small main effect was seen favoring the education majors group ($F\ [1, 104] = 4.965$, $p = .028$, $\eta 2 = .046$). In addressing academic misconduct, an ANOVA was conducted on AMS scores. No significance was reported. An ANOVA was conducted in addressing differences between groups on human rights attitudes. A significant and moderate main effect was seen in favor of liberal arts majors ($F\ [1, 108] = 10.063$, $p = .002$, $\eta 2 = .085$).

Attributional complexity, academic and intellectual aptitude, human rights attitudes, and academic misconduct all have documented relationships with postconventional thinking. Thus, bivariate correlations were conducted within each major group among P, ACS, ACT, ATHRI, and AMS scores. In the education majors group, significant correlations were seen between P and ACT scores ($r = .533$, $p < .001$) and P and ATHRI scores ($r = .313$, $p = .011$). In the liberal arts majors group, significant correlations were seen between P and ACS scores ($r = .386$, $p = .008$) and P and ATHRI scores ($r = .493$, $p = .001$). Due to the differences between groups in how P scores related to ACS, ACT, and ATHRI scores, z-tests were conducted in order to test the significance of these differences. In considering the difference in the r's reported for each group for P and ACS scores, the computed z was 1.18. According to Glass and Hopkins (1996), the critical z-value must be 1.96 or above in order to claim that the difference between groups in reported r is significant with $\alpha = .05$. Thus, the difference between groups in how P scores correlate with ACS scores was not significant. In considering the difference in the r's reported

for each group for P and ACT scores, the computed z was 1.63. Thus, the difference between groups in how P scores correlate with ACT scores was not significant. In considering the difference in the r's reported for each group for P and ATHRI scores, the computed z was 1.05. Thus, the difference between groups in how P scores correlate with ATHRI scores was not significant.

Discussion

Previous studies suggest that education majors are less advanced in terms of their moral judgment development than other majors (Cummings et al., 2001; Diessner, 1991; Lampe, 1994; McNeel, 1994; Strange, 1977; Yeazell & Johnson, 1988). However, education majors were rarely compared to other majors within the same institution. Furthermore, previous studies seldom addressed other indices related to moral judgment. For these reasons, the current study addressed two research questions regarding the moral judgment ability of education majors and liberal arts majors within the same university.

The first research question asked whether differences existed between education and liberal arts majors on indices of and related to moral judgment development. Though no significant moral judgment developmental differences existed, some significant differences were seen in three variables related to moral judgment development. Specifically, education majors had significantly higher ACT scores while liberal arts majors had significantly higher ACS and ATHRI scores. Although significance is seen on these three variables, it is important to note that three main effects do not consistently favor one major over another. Additionally, none of the three main effects are strong. Specifically, the main effects for ACS ($\eta 2 = .036$) and ACT ($\eta 2 = .046$) are small, and the main effect for ATHRI ($\eta 2 = .085$) is moderate. Given the similarity of the DIT scores of each group along with the trends pertaining to the main effects on ACS, ACT, and ATHRI scores, this study is not supportive of previous studies warning that the moral judgment of education majors lags behind other majors. Additionally, this study does not support that those in education majors are more likely to engage in academic misconduct than are those in other majors. In fact, the AMS means for both groups suggest that the participants of this study are not prone to academic misconduct.

This difference in findings between this and prior studies is likely due to the considered comparison groups. As mentioned, earlier considerations of moral judgment variability among majors used composite samples compiled from a variety of institutions as their comparison group. Because institution type relates to DIT P scores (Pascarella & Terenzini, 1991), the use of composite samples as a comparison group to education majors in prior studies may have confounded these findings. Additionally, the demographics of college students in terms of both background and ability have changed since the composite samples that these authors cited were compiled. This shift in demographics may also have led to changes in the mean DIT P score of the college students that were considered in these studies (Thoma, 2005). For these reasons, we recommended that conclusions regarding the role of major should not stem from comparisons with composite samples and should instead result from comparisons of major groups from the same institution.

It should be noted, however, that the mean P score of 29 for both groups considered in this study is quite low, lower than that reported in other considerations of majors. On average, students from both samples in this study preferred maintaining norms to postconventional moral judgments (see Table 1). Since higher education is a major predictor of DIT scores (Rest et al., 1986), it is concerning to see college student scores that more closely resemble those of high school students. The low P scores of the students in this study could be due either to individual characteristics of the students who attend the university or to characteristics of the institution

itself. At the same time, however, the low P scores of those in this study are not too surprising. As Thoma (2005) noted, a decline in DIT scores has been observed in the last decade, which in part is attributed to the increasing number of students attending college today. Additionally, Thoma (2005) cited regional trends in the DIT scores of college students, with Southeastern college students generally scoring lower. Because of these factors in conjunction with Pascarella and Terenzini's (1991) acknowledgement that there are differences among types of colleges (e.g., those from large comprehensive regional universities generally score lower on the DIT), the low DIT scores of those in this sample are somewhat expected.

Bivariate correlations were computed in order to address the second research question which addressed the nature of the relationships among the variables considered in this study. The correlations reported for each group among P, ACS, ACT, and ATHRI scores are important to note and address important concerns regarding the moral judgment development of education majors. Both attributional complexity and academic and intellectual aptitude have been recognized as important contributors to postconventional thought (Derryberry et al., in press; Thoma, Narvaez, Rest, & Derryberry, 1999), and postconventional thinking is also known to influence human rights attitudes (Derryberry & Thoma, 2005; Rest et al., 1999). In this study, a significant correlation existed between ACS and P scores ($r = .386$) for the liberal arts majors but not for the education majors ($r = .175$), while a significant correlation existed between ACT and P scores for the education majors ($r = .533$) but not for the liberal arts majors ($r = .247$). Significant correlations between P and ATHRI scores were seen in both groups, though the reported α was lower for the liberal arts majors (.005) than it was for the education majors (.05). Given these trends along with the noted findings regarding contributors to and outcomes of moral judgment, it might be tempting to conjecture that the moral judgment of education and liberal arts majors in this study is more strongly influenced by different sources, and that the liberal arts majors of this study are doing more with their moral judgment ability than are education majors. One might even speculate that such relationships could ultimately result in trends similar to those that McNeel (1994) witnessed where the effect of college on moral judgment development for liberal arts majors was twice that of education majors. As the z-tests conducted in this study support, however, the relationship of P scores with ACS, ACT, and ATHRI scores was not significantly different in either group. Thus, it cannot be stated in this study that notable distinctions exist in how ACT scores relate to P scores for education majors, how ACS scores relate to P scores for liberal arts majors, and how P scores relate to ATHRI scores for liberal arts majors. The z-scores computed in this study therefore prevent assumptions from being made regarding future trends in these groups since there is no evidence to support that the relationships of P scores with other related variables are any stronger for liberal arts majors than they are for education majors (or vice versa).

In sum, then, this study does not support that notable moral judgment developmental differences exist among major groups. However, it is important to note that these findings only apply to one university. Additionally, as is the case with most of the previous studies, this study addresses categories of major (e.g., education vs. liberal arts) rather than specific majors within these two categories (e.g., elementary education vs. psychology). Thus, future study involving a variety of different types of institutions in which specific majors are addressed is recommended. It is also important to acknowledge that this study does not argue against the effect that college has on moral judgment development or character development overall. Instead, it is suggesting that other factors of the college experience may be of more relevance in advancing moral judgment ability than is major.

At the same time, though, we are not maintaining that exploring the role of major on moral judgment development specifically or moral development in general is of limited utility. In addition to addressing the moral judgment ability of specific majors at a variety of institutions,

other forms of moral judgment development should be examined. In this study and the others mentioned earlier, moral judgment development is explored in the context of the justice-based ethic and tradition that Lawrence Kohlberg initiated (see Colby & Kohlberg, 1987; Kohlberg, 1969). However, other forms of moral judgment have been identified which emphasize different considerations such as Gilligan's (1982) ethic of care and Shweder's (1991) ethic of divinity. Given certain emphases of some majors and schools versus others, the likelihood of differences among majors where ethics such as these are concerned is plausible. Also, moral development encompasses more than just the ability to make moral judgments. For example, other components such as moral sensitivity, moral motivation, and moral implementation (to name a few) are integral facets of individual moral and character development as a whole (see Narvaez, 2005; Rest et al., 1999). Thus, exploration of such components should be considered in future study. Indeed, there is much that remains to be discovered about how and for whom the college experience and major interact with student characteristics in impacting moral judgment ability and moral and character development. Therefore, it is hoped that this study has prompted a renewed interest in continued thinking about and unearthing of such possibilities.

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Table 1
Descriptive Statistics by Major Group.

	Education *M*	Education *SD*	Education *N*	Liberal Arts *M*	Liberal Arts *SD*	Liberal Arts *N*
DIT P	29.95	10.31	73	29.23	12.73	47
DIT MN	39.17	12.36	73	39.62	12.97	47
DIT PI	23.91	9.43	73	25.29	12.34	47
ACS	32.44	17.88	74	39.84	20.11	49
ACT	21.59	3.69	66	19.9	3.94	40
AMS	1.39	0.32	66	1.41	0.27	44
ATHRI	124.27	13.64	67	132.95	14.57	43