

Assessing Students' Moral Reasoning of a Values-Based Education

Di You, Neil H. Penny
Alvernia University, Reading, USA

Students' moral reasoning was assessed at a religiously affiliated liberal arts university. Cohort data were collected from undergraduate students who had entered the university as freshmen: 364 students in 2007 and 264 students in 2009. The results indicated that there was a significant increase in students' post-conventional moral reasoning scores between freshmen and seniors and a significant decrease in students' pre-conventional moral reasoning scores between freshmen and seniors. A positive weak correlation was observed between the number of theology and philosophy classes and students' post-conventional moral reasoning scores and between the number of community service hours and students' post-conventional moral reasoning scores. A negative weak correlation was observed between the number of theology and philosophy classes and students' pre-conventional moral reasoning scores and between the number of community service hours and students' pre-conventional moral reasoning scores. No significant difference was observed between seniors who completed the minimum requirement of theology and philosophy classes as well as community service hours and seniors who completed more in terms of moral reasoning. Overall, the findings indicated that enrollment at a religiously affiliated institution fostered students' moral reasoning development.

Keywords: moral reasoning, values-based, higher education

Introduction

Nationwide, an integral function of higher education is the moral development of the students. As Pascarella (1997) pointed out, at the college level, the central goal of the curriculum is to develop students' character and sensitivity to their moral responsibilities. Religious affiliated or not, most colleges and universities have as a part of their mission statement language that pertains to the moral development of the students (Wright, 2001).

An ongoing area of research is the investigation of factors that might contribute or impede the moral reasoning development at college level. In 2005, Pascarella and Terenzini found that the greatest gains in moral reasoning were made at private liberal arts colleges, followed by large public universities and the smallest gains were made by Bible colleges. Many studies have found a difference in moral reasoning by academic major (Cummings, Dyas, Maddux, & Kockman, 2001; Jeffery, 1993; Paradice & Dejoie, 1991; St. Pierre, Nelson, & Gabbin, 1990), while others have not (Bonawitz, 2002; Icerman, Kracher, & Kennelley, 1991; Livingstone, Derryberry, King, & Vendetti, 2006; Zeidler & Schafer, 1984). A relationship between higher moral reasoning

Di You, Ph.D., assistant professor, Department of Psychology and Counseling, Alvernia University.

Neil H. Penny, Ed.D., associate professor, Department of Allied Health and Human Services, Alvernia University.

and student GPA (grade point average) has been reported (Dollinger & LaMartina, 1998; Hendel, 1991; Overvold-Ronningen, 2005), and an advantage of female students over their male counterparts has been reported (St. Pierre et al., 1990; Bonawitz, 2002; Overvold-Ronningen, 2005). Lastly, a weak relationship between the number of theology and philosophy courses taken and the use of principled moral reasoning has been reported (Bonawitz, 2002).

One debatable issue is whether enrollment at a religiously affiliated liberal arts institution will foster or impede the students' moral reasoning development. On the one hand, Shaver (1985) conducted a longitudinal study with students at a Christian college and the results indicated that there was a significant decrease in conventional moral reasoning between the freshmen and seniors but a non-significant increase in post-conventional moral reasoning. On the other hand, McNeel (1991) stated that a significant growth in moral reasoning can occur in a conservative Christian college that embraces a liberal arts curriculum. In Foster and LaForce's study (1999), students were assessed during their first semester and again three and half years later. Those who continued enrollment to their senior years were found to make greater gains in moral reasoning than those who did not continue enrollment. In addition, there was mixed results in Friend's (1991) study. Friend found that students enrolled at divinity school had higher levels of moral judgment than liberal arts college students. Students enrolled at Roman Catholic and Southern Baptist institutions had lower levels of moral judgment than students enrolled at non-affiliated ones. Moreover, students enrolled at Jewish and United Methodist institutions did not differ significantly from students at non-affiliated institutions in terms of moral judgment.

Another factor of interest is whether involvement in community service has a positive impact on moral reasoning. Boss (1994) stated that involvement in community service work prior to the semester had no significant effect on students' moral reasoning, indicating that community service work without discussion of the relevant moral dilemmas was ineffective. However, community service in conjunction with an ethics class fostered growth in moral judgment. In addition, Wright (2001) indicated that even though students felt that their involvement in the community service was a positive experience, the study found no statistically significant difference in the moral reasoning between those involved in community service and those who were not. Meanwhile, Gorman, Duffy, and Heffernan (1994) found that students involved in community service showed a greater increase in moral reasoning.

For the past three decades, several reviews on moral reasoning interventions (Lawrence, 1980; Schlaefli, Rest, & Thoma, 1985; Self & Baldwin, 1994; King & Mayhew, 2002) indicate that in general, long-term (more than three weeks) programs including discussion of moral dilemmas tend to produce modest, but definite effects on moral reasoning development, and courses in the humanities and social sciences seem to show little to no effects. This is somewhat in line with what Friend (1991) found. In his study, the number of ethics courses taken was related significantly to the development of moral judgment of liberal arts college students, but not to the development of moral judgment of divinity school students. The number of philosophy or theology courses completed was not related significantly to student moral development.

In the US, when it is time for an individual to explore which university or college they wish to attend, they have plenty of options. One of those is to pursue a college degree in a religiously affiliated college or university. Through required courses, community service work, religiously affiliated colleges or universities provide an integrated approach for their students to explore faith issues and opportunities for students to put their faith into action. The university the authors are affiliated with is a small Catholic liberal arts university in northeast part

of the US. As part of the university mission statement, one of the goals is for the university to foster students to be "ethical leaders with moral courage". The main purpose of this study was to see whether the mission statement is effective, in other words, do students enrolled as freshmen made a significant change as seniors in terms of moral reasoning? Then, given the catholic heritage of the university, students need to take a prescribed number of theology and philosophy classes and completed required hours of community service work before they graduate. Therefore, we (the authors) sought to investigate whether there is any relationship between theology and philosophy classes and community service work completion and students' moral reasoning. Lastly, we were interested in examining whether there is any significant difference on moral reasoning between seniors students who completed the minimum requirement of the number of theology and philosophy classes as well as the number of community service hours for graduation versus senior student who completed more.

Method

Participants

In 2007 and 2009, participants were recruited from various classes to complete a moral reasoning survey. In 2007, 364 students who started at the university as freshmen took part in the study. Among them, 108 were freshmen, 82 were sophomores, 91 were juniors and 83 were seniors. In 2009, 264 students who started at the university as freshmen took part in the study. Among them, 97 were freshmen, 63 were sophomores, 49 were juniors and 55 were seniors.

Instrumentation

The DIT-2 (Defining Issues Test-2) (Rest & Narvaez, 1998) is a paper-and-pencil measure of the level of moral reasoning development. The test consists of five moral dilemmas that cannot be fairly resolved by applying pre-existing norms, rules or laws. Respondents' rate and rank arguments (12 for each dilemma) that they consider important in coming to a decision about what they would do. The scores reflect the proportion of choices that a person prefers to use each strategy (the PI (Personal Interest) Index) which describes the proportion of choices that a person selects arguments that appeal to personal interests or loyalty to friends and family, even when doing so compromises the interest of persons outside one's immediate circle of friends and the MN (Maintaining Norms) Index describes the proportion of choices that a person selects arguments that appeal to the maintenance of law and order, irrespective of whether applying the law to the dilemmas presented results in an injustice. Considered the highest level of moral reasoning and the most widely reported, the P (Post-conventional) Index describes the proportion of choices that a person selects arguments that appeal to moral ideas. In addition to the three main indices, there is the N2 Index which takes into account how well a person discriminates among the various arguments and has been shown to be a better indicator of change than the P Index. If the N2 Index score is higher than the P Index score, it indicates that the respondent is better able to discriminate among arguments than recognize post-conventional arguments. The validity of the DIT has been assessed in terms of seven criteria: (1) differentiation of various age and education groups; (2) longitudinal gains; (3) correlation with cognitive capacity measures; (4) sensitivity to moral education interventions; (5) correlation with prosocial behaviors and professional decision-making; (6) correlation with political attitudes and choices; and (7) adequate reliability (the Cronbach alpha value is in the upper 0.70s to low 0.80s and the test-retest reliability of DIT is stable). Furthermore, DIT shows discriminant validity from verbal ability/general intelligence and from conservative-liberal political attitudes (Rest, Narvaez, Bebeau, &

Thoma, 1999). In addition to the DIT-2, participants completed a demographic questionnaire developed by the authors to collect data on the independent variables.

Research Design and Analysis

A repeated cross-sectional design was used. To examine if enrollment at a religiously affiliated university makes a difference on students' moral reasoning, a 2×4 (year of data collection by educational level) factorial ANOVA (analysis of variance) test was conducted on the schema as well as N2 scores. Pearson correlation coefficients were calculated between schema as well as N2 scores and the number of theology and philosophy classes and between schema as well as N2 scores and the number of community service hours. After regrouping the senior students according to whether they just completed the minimum requirement for theology and philosophy classes as well as community hours, two 2×4 (year of data collection by the number of theology and philosophy classes/community service hours) factorial ANOVA tests were conducted on the schema as well as N2 scores of senior students.

Results

Descriptive statistics for both data sets, for the schema and N2 scores were presented in Table 1. A 2×4 factorial ANOVA test conducted on N2 score indicated there was a main effect for educational level ($F_{(3, 620)} = 6.70, p < 0.001$), but no main effect for the year when the data was collected, nor interaction between those two factors. Post Hoc Tukey HSD tests showed that the difference was between freshmen versus junior, freshmen versus senior and sophomores versus junior. The 2×4 ANOVA test conducted on *P* score indicated there was a main effect for educational level ($F_{(3, 620)} = 5.51, p = 0.001$) and a main effect for the year when the data was collected ($F_{(1, 620)} = 4.77, p = 0.03$), but no interaction between those two factors. Post Hoc Tukey HSD tests showed that the difference was between freshmen versus junior and freshmen versus senior. The 2×4 ANOVA test conducted on MN (maintaining norms) score indicated there was no statistically significant change, in terms of neither the data of the year collected nor educational levels. The 2×4 ANOVA test conducted on PI (personal interest) score indicated there is a main effect for educational levels ($F_{(3, 620)} = 3.17, p = 0.02$), but no main effect for the year when the data was collected, nor interaction between the two factors. Post Hoc Tukey HSD tests showed that the difference was between freshmen versus junior and freshmen versus senior.

To examine whether there is any relationship between theology and philosophy classes as well as community service work completion and students' moral reasoning, Pearson's correlation coefficient was calculated. The correlation between number of theology and philosophy classes and schema and N2 scores was significant except for MN scores. The correlation between community service and schema and N2 scores was significant except for MN scores (see Table 2).

Given the university where the data were collected has a minimum requirement for the number of theology and philosophy classes as well as the number of community service hours for graduation, we are interested in whether there is difference between seniors who completed the minimum requirement versus seniors who completed more. Two 2×4 ANOVA tests conducted on the schema and N2 scores indicated that there was no statistically significant difference between students who completed the minimum requirement versus seniors who completed more both in terms of theology and philosophy classes and community service hours.

Table 1
Mean Schema and N2 Scores by Educational Level

Educational level	2007							
	Post-conventional		Maintaining	Norms	Personal	Interest	N2	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Freshmen (<i>n</i> = 108)	25.20	11.97	36.98	11.57	31.31	9.49	22.61	12.41
Sophomores (<i>n</i> = 82)	28.43	15.18	36.46	11.40	30.10	12.16	25.72	14.85
Juniors (<i>n</i> = 91)	31.35	13.99	34.68	13.11	28.43	11.30	29.69	14.32
Seniors (<i>n</i> = 83)	30.95	14.51	35.01	12.23	27.54	12.75	27.49	15.01
2009								
Freshmen (<i>n</i> = 97)	24.26	12.38	35.46	11.07	33.04	12.13	21.87	11.64
Sophomores (<i>n</i> = 63)	25.09	11.99	37.69	12.17	29.94	12.69	21.79	12.83
Juniors (<i>n</i> = 49)	27.64	13.71	38.19	13.75	28.73	13.25	25.87	14.98
Seniors (<i>n</i> = 55)	29.19	14.51	35.87	12.53	30.21	13.92	23.96	13.34

Table 2
Correlation Coefficients Between Schema, N2 Scores and Theology/Philosophy Classes as Well as Community Service Hours

	N2	P	MN	PI
Number of Theo./Philo. classes	0.214**	0.200**	-0.018	-0.170**
Community service hours	0.141**	0.139**	-0.007	-0.124**

Note. ** $p < 0.01$.

Discussion

For N2 scores, the means varied for the 2007 group and 2009 group at each educational level and there was a significant increase from freshmen to seniors. The result provided additional evidence that enrollment at a religiously affiliated institution where a liberal arts approach was embraced foster students' moral reasoning (McNeel, 1991). For P scores, not only was there a significant increase from freshmen to seniors, but overall, 2007 group scored significantly higher than 2009 group. For MN scores, the means were similar for both the 2007 group and 2009 group at each educational level and in addition, MN schema is the most frequently utilized schema at all educational levels. For PI scores, there was a significant decrease from freshmen to seniors.

The significant correlation presented in Table 2 indicated that overall, as more theology and philosophy classes students were completed, the higher were students' P and N2 scores and the lower were students' PI scores. The similar pattern was also observed with community service hours. These results provided empirical evidence that the purposeful inclusion of the elements (theology and philosophy classes, community service, etc.) in the curriculum at a religiously affiliated institution seems to improve students' moral reasoning.

Overall, the findings of this study indicated that enrollment at religious affiliated schools did not impede students' moral reasoning. Rather, students' moral reasoning was fostered. However, students do tend to mainly rely on maintaining rules and order.

Limitations

While conclusions have been drawn from the current study, there were some limitations of the study. First, only cross sectional data was collected, therefore, no causation can be established. Ideally, when data was collected in 2007 and 2009, it would have been better if each participant was assigned a unique code, so we could match the data on those two occasions. However, due to confidentiality concerns, we did not do that.

Second, when we compared the mean schema and N2 scores of the sample with the national norms presented in DIT-2 Guide (Bebeau & Thoma, 2003), PI scores were equivalent at sophomore and junior levels, but about four points higher for the sample at freshmen and senior levels, MN scores were three points higher than the national norm at all educational levels, P and N2 scores were lower for the sample at all educational levels with an almost eight points difference at freshmen and senior levels. Therefore, the sample might not be representative enough for the conclusions to be generalized to college students at other institutions.

For future research, researchers might want to examine the contents of the philosophy and theology classes to see if specific content (e.g., ethic-focused versus moral focus or not) makes a difference in terms of students' moral reasoning. Researchers also might want to look into what kind of community service has the most impact on students' moral reasoning. Consequently, continued research about the relationship between theology and philosophy classes as well as community service and students' moral reasoning could help student affairs professionals and faculty members in fulfilling their mission statement goals of fostering the moral development of the students.

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