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The effects of off-campus service learning on the moral reasoning of college students

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This research examines the effects of an off-campus service learning program on the moral reasoning development of college students. A pre–post quasi-experimental design was employed with two groups of college students (aged 18–22), one that engaged in service learning and the other which did not. The intervention was an eight-week summer service project that took place in one of several cities in the US, coupled with a continuing reflection component completed during the fall semester following the service project. The service learning and comparison groups completed the Defining Issues Test (DIT-2) before and after the service learning course. Findings revealed no differences between the two groups' pre-test moral reasoning scores. Regarding post-test scores, the service learning group had statistically significant higher moral reasoning than the comparison group.

Religion and contemporary politics now echo with cries of social moral decline. Various commentators have warned of the 'death of character' (Hunter, 2000) or the demise of morality. While such concerns merit attention, there are reasons for hope. One such sign is a recent and sustained rise—throughout every age group—in volunteer and service participation across the United States (Corporation for National & Community Service, 2006). Concurrently, many colleges and universities have established integrated service learning initiatives. Service learning is defined as a pedagogical strategy that integrates meaningful community service with instruction and reflection to enrich the learning, teach civic responsibility and strengthen communities.

Volunteer and service activities engage individuals in reciprocal and ethical contexts, and thus have various potentials to prompt moral thought and development (Brandenberger, 1998, 2005). In that light, an investigation of moral outcomes stemming from such activities is warranted. Previous research on service learning outcomes has signalled an increase in self-esteem and an enhancement of social

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skills for those who engage in such enterprises (Miller & Neese, 1997), as well as other valued attributes (Astin, 1977, 1993; Bowen, 1977; Chickering & Riesser, 1993; McNeel, 1994; Pascarella & Terrenzini, 2005).

Piaget (1932) stressed that individuals develop cognitively and morally via constructive processes based on activity and interaction, and suggested that peer mutuality (inherent to many service learning programs) was an important element in the development of moral understanding. He argued for 'morality in action' as a means to learn justice and 'organic interdependence' (Piaget, 1970, p. 180). Similarly, Dewey stressed experience as a basis for moral imagination and growth (You & Rud, 2010).

In describing developmental processes specific to moral reasoning, the neo-Kohlbergian framework uses the concept of *moral schemas*, defined as mental models used for reasoning about moral dilemmas (Narvaez & Bock, 2002). Individuals use three qualitatively different types of moral schemas when making decisions about macromoral dilemmas (such as those in the Defining Issues Test (DIT)). From the simplest to the most complex, the moral schemas are:

- *Personal interest*. The individual using this schema tends to focus on personal advantage and impulsive cooperation. 'Fairness' is getting what I want. The person can consider the needs of others, but usually only briefly. Cooperation and reciprocity are often limited to one's in-group or known others. The person is not concerned about organising cooperation on a society-wide basis.
- *Maintaining norms*. A person employing this schema takes on a society-wide view in considering how people should cooperate generally with those who are not friends, kin or well-known acquaintances. The individual also focuses on the need for laws and what duties s/he has towards other members of society.
- *Post-conventional*. The individual utilising a post-conventional schema thinks about the meaning and essential elements of a fair society, broadly conceived, which may or may not contrast with the *status quo*. The individual reflects on and internalises moral ideals or principles that are shareable yet also understands that these shareable ideals are open to scrutiny and negotiated through the give and take of community or societal life.

Developmental gains in moral reasoning would be indicated by increasingly greater preference and use of the more complex moral schemas, with the post-conventional schema as the most complex. The Defining Issues Test (DIT and DIT-2; Rest, 1979; Rest & Narvaez, 1998, respectively) is the instrument most often used to assess these three moral schemas. The DIT asks the participant to rate fragments of moral reasoning arguments for five or six moral dilemmas. The traditional means of determining the moral reasoning schema preference is to use

the percentage of post-conventional schema items that participants endorse. This measure has traditionally been called the 'P score'. The neo-Kohlbergian perspective offers an additional, more recent index to indicate a participant's moral reasoning schema preference. The N2 index measures participants' preference for post-conventional schemas, while taking into account rejection of the less sophisticated schemas. The N2 index has been shown to outperform the P index in many ways (Rest, Narvaez, Bebeau, & Thoma, 1999a; Rest, Thoma, Narvaez, & Bebeau, 1997).

A handful of studies have examined moral reasoning and service learning participation. Boss (1994) compared two sections of an undergraduate ethics course, one of which was randomly selected to integrate service learning components. Using the DIT P score, Boss compared students' moral reasoning in each section. Boss's results showed significantly higher gains on moral reasoning for the service learning class. Similar results were found in a study by Gorman, Duffy, and Heffernan (1994). Boss hypothesised that the power of service learning flows from its integration of cognitive disequilibrium and social disequilibrium. In Boss's study cognitive disequilibrium was prompted by the presentation of complex ethical issues within the classroom. Students in the service learning group encountered social disequilibrium through the interpersonal encounters relevant to service learning contexts.

In more recent work, Mayhew and King (2008) examined the effects of pedagogical strategies on moral reasoning development. One of their pedagogical strategies was a service learning course in which students reflected upon their experiences in engaging in weekly community service that took place near the university campus. Mayhew and King were interested in both selection and accentuation effects of their four different pedagogical strategies. If students with higher moral reasoning scores were more likely to enrol in courses that had explicit moral emphases, a selection effect was present. An accentuation effect occurred when enrolment in a particular course improved students' moral reasoning. Using the DIT N2 index, Mayhew and King found that students in the service learning course did not exhibit strong selection effects but did show statistically significant accentuation effects.

The present study examined the effects of a service learning program on the moral reasoning development of college students. Specifically, we were interested in whether selection and accentuation effects characterised a service learning project in ways other than that measured by Mayhew and King (2008). Rather than having a semester-long, weekly service project near campus, our study examined a more intensive eight-week summer service project that took place in various cities in the US (far from campus), coupled with a continuing reflection component completed during the fall semester following the service project. We employed a pre–post quasi-experimental design engaging two groups of college students aged 18–22, one that participated in service learning and one that did not. Our first question concerned selection effects: do the service learning participants have higher pre-test N2 scores when compared to the non-service learning participants? Our second research question addressed accentuation effects: does the service

learning group, when compared to the comparison group, have higher post-test N2 scores? We were unsure whether selection effects would be present, which is why we have the question worded as an inquiry rather than a stated hypothesis. Unlike selection effects, we had a specific prediction for accentuation effects. We hypothesised that individuals who completed an off-campus service learning experience would have higher moral reasoning scores—specifically higher N2 scores—than the comparison group. Individuals in service learning contexts are likely to encounter new ideas of social interaction and means to address society-wide problems; they may also experience the effects of nascent or explicit social contracts that may or may not work well to help resolve social problems. Given such cognitive and social disequilibrium—and pedagogical guidance and reflection—we expected that service learning participants would show higher N2 scores after completion, suggesting an endorsement of post-conventional schemas while more often rejecting the other two schemas. Research has also shown that students can benefit from service learning experiences even if the inherent community immersion experiences are structured differently across multiple contexts (Bowman, Brandenberger, Snyder, & Toms, 2010). We thus expected to see accentuation effects like those described by Mayhew and King (2008).

Method

The data upon which the analyses are based were obtained from a pre–post, quasi-experimental design involving two groups of undergraduates at a Midwestern Catholic university. The first group of students (n = 76) participated in an eight-week summer service learning program, and the comparison group of students (n = 68) did not. The pre-test moral reasoning measure was administered to both groups in the spring, prior to the summer service learning program. The identical moral reasoning measure was again administered to both groups about 12 months following the pre-test.

The university context

The university is a large, faith-based university in the Midwest. Of the approximately 7800 undergraduates, about 85% are Roman Catholic. Rooted in the Catholic social justice tradition, the university's mission statement, as cited in Colby, Ehrlich, Beaumont, and Stephens (2003), articulates the institution's concern for social justice. The mission statement mandates that the university:

> ... seeks to cultivate in its students not only an appreciation for the great achievements of human beings but also a disciplined sensibility to the poverty, injustice and oppression that burden the lives of so many. The aim is to create a sense of human solidarity and concern for the common good that will bear fruit as learning becomes service to justice. (Colby et al., 2003, pp. 67–68)

The institution's commitment to justice is evident in programmatic ways throughout the university, though perhaps most prominently in its service learning centre,

which facilitates research and serves as an institutional clearinghouse for community engagement opportunities locally, across the nation and internationally, for faculty, staff and students. The research data upon which this study draws were collected and are maintained by the research team of the university's service learning centre (see, for example, Brandenberger, Cunningham, & Trozzolo, 2001).

Procedure

The population for the intervention portion of this study consisted of 215 students who intended to enrol in a three-credit summer service learning program (described below). These students completed a general student life survey (SLS), which provided demographic data. The comparison group was generated from a computerised randomised listing from the university registrar of undergraduates beyond their first year in college. Students who had already participated in a summer service learning program or were studying overseas were then excluded, reducing the comparison frame to about 1700. The appeal for participation was not framed in service learning, moral or religious terms. Late in the fall semester, 698 students (about 41% of those solicited) completed and returned the SLS. In the spring, both the service learning group and the comparison group were approached to complete the Defining Issues Test (DIT-2), a measure of moral reasoning. All 215 students in the summer service learning program and 158 of the 698 students in the comparison group completed the DIT-2. In the spring of the following year and six months following the completion of the summer service learning program, the DIT-2 was re-administered to both groups. Despite attrition from DIT-2 data purging and the loss to follow-up of students whose addresses were unavailable after graduation or were studying abroad, complete DIT-2 data were obtained from 76 participants in the summer service learning program (35% of those for whom we had pre-test data) and 68 members of the comparison group (43%).

Participants

The analyses in this study focus on 76 summer service learning participants (i.e., intervention) and a comparison group of 68 students who completed both the pre- and post-tests, yielding a total sample of 144 undergraduates. The demographic characteristics of both the comparison and intervention group were comparable to those of the general student population at the university, most of whom are of traditional college age (18–22).

Intervention

The service learning centre has been offering summer service learning opportunities since 1980. Three explicit goals have shaped this program: (a) to allow students to serve the needs of the poor in cities where there are university alumni clubs; (b) to provide an opportunity for alumni–student discussions of social concerns; and (c) to contribute to the continuing values education of the students,

the alumni, and the entire university community (Cunningham, 1997). Summer Service Learning Programs (SSLP), formerly known as Summer Service Projects (SSP), reflect the centre's primary aim of integrating academic studies and service.

The service tasks that students performed varied by site in dozens of cities. These tasks included tutoring at-risk youth, working with homeless women and children, fundraising for a shelter and aiding children and families undergoing surgery at a children's hospital. Besides the service activity itself, the program consists of assigned background reading related to cultural sensitivity, compassion and service. Additionally, journaling throughout the eight-week summer program was required, as was a five-page reflection paper. Finally, participation in one of three academic group reflection opportunities was required upon return to campus early in the fall semester.

The reflection process was clearly defined by the service learning centre. Facilitators read student papers and provided feedback. Sessions were designed to encourage reflective analyses, community dialogue and an integration of the service experience into the students' ongoing academic work and faith development. For the overall summer service learning experience (from preparation through September follow-up) students received three academic credits in a course titled 'Theo 360: summer service learning: confronting social issues'.

Instruments and analyses

Moral reasoning development was assessed using the Defining Issues Test-2 (DIT-2) (Bebeau & Thoma, 2003; Rest & Narvaez, 1998). The DIT-2 is a paper–pencil measure of moral judgement development. It contains five moral dilemmas. After each dilemma, the participant is asked to decide what moral action is best to take and to rate the relative importance of 12 factors in forming their judgement. The DIT-2 has shown evidence of reliability and validity (Rest, Narvaez, Bebeau, & Thoma, 1999b; Rest et al., 1999a). The *N2 score* from the DIT is used as the dependent variable. It measures a preference for the post-conventional schema while taking into account the rejection of the personal interest schema (Rest et al., 1997).

Results

As part of our preliminary analyses, we first compared characteristics of the service learning group to the comparison group. We examined the following variables: age, gender, educational level, political orientation, US citizenship and English as the primary language. Using logistic regression, we found that age and gender were each significant predictors for group membership (see Table 1). Specifically, the service participants were slightly younger (by 0.70 years on average) and were more likely to be female (82% female in the service group compared to 62% in the comparison group). Thus age and gender were the only demographic variables where the service learning students and the comparison group students in this

Table 1. Summary of logistic regression analysis for variables predicting membership for the service learning and comparison group

Predictor	B	SE B	Estimate odds ratio
Age	−0.74[*]	0.31	.50
Gender	1.01[*]	0.44	2.46
Education	−0.24	0.31	0.79
Political conservativism/liberalism	−0.20	0.21	0.79
Citizen of US	43.29	36,703.13	0.00
English as primary language	−21.14	27,176.07	0.00
Constant	−6.40		
-2 log likelihood	159.60		
Df	1		
Percent correctly predicted	71.4		

Notes: ∗ $p < .05$.

sample differed significantly. This age differential reflects the time of data collection of each group, as explained earlier. The service learning participants were surveyed at the beginning of the summer of their service and the comparison group was surveyed in the middle of the year following the service learning participants summer of service. We did not consider the age differential an issue in that the younger group had higher moral reasoning scores. Both the age and gender variables were taken into account in our analyses for each research question.

Question 1: Do the service learning participants have higher pre-test N2 scores compared to the non-service learning participants?

We used an analysis of covariance (ANCOVA) to answer this question, with pre-test N2 as the dependent variable, group as the independent variable and age and gender as the two covariates. Though the service learning participants had a higher mean pre-test N2 score (48.38, SD = 14.65) than the non-service learning participants (46.69, SD = 11.63), we found no statistical differences between the two groups: $F(1, 138) = 0.10$, $p = .75$.

Question 2: Do the service learning participants have higher post-test N2 scores than non-service learning participants?

We again employed an ANCOVA for our statistical analysis. Post-test N2 was the dependent variable, with group as the independent variable and age, sex and pre-test N2 as the covariates. Even after controlling for all three covariates, we found statistically significant differences: $F(1, 137) = 3.84$, $p < .05$ (partial eta-squared = .03). Illustrated in Figure 1, the service learning participants' mean post-test N2 score was 52.37 (SD = 12.61), whereas the non-service learning participants' mean post-test N2 score was 45.59 (SD = 12.74).
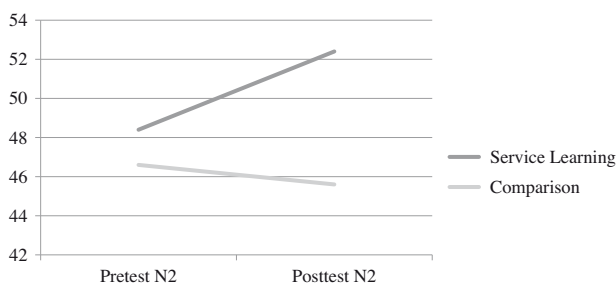
Figure 1.   Mean pre-test and post-test n2 score for the service learning and comparison groups

Discussion

The overall question addressed in this study was whether student involvement in an off-campus service learning experience impacted the moral reasoning of the participants beyond that of a comparison group. Like Mayhew and King (2008), we found no *selection* effect, in which students with higher moral reasoning scores were more likely to choose to engage in a service learning experience. However, participants in our study did show an *accentuation* effect, like those in the study reported by Mayhew and King (2008) and consistent with the findings of Boss (1994) and Gorman et al. (1994), where enrolment in the service learning experience appeared to improve students' moral reasoning scores, regardless of their pre-test scores.

We can also provide a broader perspective on the gain scores within the service learning group, comparing it to moral reasoning gain scores seen in the study reported by Mayhew and King (2008). The biggest gains in DIT-2 N2 scores in their study were seen in courses with explicit moral content. Students in these courses showed mean pre/post-test gain scores of four to five points, similar to the mean gain score of our entire service learning group (M = 3.99). Interestingly, students in the service learning course in Mayhew and King's study did not show as large a gain (2.5 points), though it was still a statistically significant increase.

As a team, we speculated about the aspects of the service experience that might facilitate growth in moral reasoning. Past research has suggested that an encounter with both cognitive and social disequilibrium, or dissonance, can prompt movement to higher stages (Boss, 1994; Haan, 1985; Walker, 1986). The work of Mayhew and King (2008) suggests key variables in the service learning experience that may influence participants' moral reasoning development: morally explicit content, reflection and active learning. The service learning experience in our study included not only an encounter outside of the student's ordinary experience (in this case a social service environment) far away from the university home, but also significant group discussion, reflective analysis and theological readings that integrated the experience into the participants' lives.

Limitations

The design of the study presents some limitations with respect to generalisability. The lack of randomisation and the voluntary nature of participation meant that

only motivated students were likely to have stayed with the data collection process through the post-intervention measures. While this is true of both the service and the comparison groups, it may mean that the results are less representative of the university's student population at large, and still further, to a college student population generally.

Future research

A continuing question for researchers in this area is related to the means by which levels of involvement in service learning before college are measured and controlled. It is not clear, as a developmental matter, when commitment to service develops. It remains a challenge for future research on service learning to longitudinally track measurable movement, through the cognitive–developmental stages of moral growth with levels of commitment to service, and to examine the motivations and other morally-related processes at each level.

Conclusion

This study further supports the growing empirical evidence that service learning has positive effects on moral reasoning, even when participants are contrasted with a similar comparison group. It breaks significant new ground in discerning whether a particular type of moral education program enhances moral reasoning for some participants based on their moral reasoning developmental profile. Such research gives direction to academic and not-for-profit institutions that espouse service learning and civic engagement as integral to their respective missions. The findings of this study offer an important extension of the study of Mayhew and King (2008) in that it suggests that service learning experiences with different community immersion structures have moral implications (as is often assumed but not often measured).

Acknowledgements

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