



Philosophy Education and the Development of Ethical Reasoning: An Empirical Investigation of Pedagogical Approaches and Moral Judgment

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Abstract

This mixed methods study investigates the impact of philosophy education on the development of ethical reasoning abilities among secondary and undergraduate students. The research examined 1,672 students across 32 educational institutions, comparing students enrolled in philosophy and ethics courses with matched comparison groups over two academic years. Ethical reasoning was assessed using multiple measures including the Defining Issues Test, scenario-based moral judgment tasks, and qualitative analysis of written ethical arguments. The study evaluated different pedagogical approaches including Socratic dialogue, case-based reasoning, and philosophical text analysis, examining which methods most effectively promoted ethical reasoning development. Findings reveal that philosophy instruction significantly enhanced ethical reasoning compared to comparison groups, with effect sizes of 0.51 standard deviations on principled moral reasoning measures. Socratic dialogue and collaborative ethical deliberation emerged as particularly effective pedagogical approaches. The research identifies intellectual humility, perspective-taking capacity, and argument analysis skills as key competencies mediating philosophy education's effects on ethical reasoning. Results demonstrate that gains in ethical reasoning transferred to novel moral scenarios and real-world ethical decision-making contexts. The study contributes to understanding how philosophy education cultivates ethical reasoning and offers implications for curriculum design in ethics education across educational levels.

Keywords: - Philosophy Education, Ethical Reasoning, Moral Development, Socratic Method, Ethics Education, Moral Judgment.

I. INTRODUCTION

Philosophy education has historically been justified partly through claims that engagement with philosophical inquiry cultivates capacities for ethical reasoning essential for responsible citizenship and professional practice (Nussbaum, 2010). In an era marked by complex ethical challenges ranging from technological disruption to environmental crisis, the development of sophisticated ethical reasoning abilities assumes heightened importance (Tuana, 2007). Educational institutions increasingly recognize ethics education as a critical component of comprehensive preparation, with professional programs in business, medicine, engineering, and other fields incorporating ethics coursework and educators advocating for philosophy's inclusion in general education curricula (Colby et al., 2011).

Theoretical perspectives suggest plausible mechanisms through which philosophy education might enhance ethical reasoning. Engagement with ethical theories provides conceptual frameworks for analyzing moral problems systematically (Rachels & Rachels, 2019). Practice with philosophical argumentation develops skills in identifying assumptions, evaluating evidence, and constructing coherent positions applicable to ethical deliberation (Lipman, 2003). Exposure to diverse ethical perspectives cultivates perspective-taking capacity and intellectual humility that enable more nuanced moral judgment (Paul & Elder, 2006). Socratic dialogue and collaborative inquiry create conditions for moral reasoning development through exposure to peer perspectives and guided reflection (Splitter & Sharp, 1995).

Despite these theoretical arguments, empirical evidence regarding philosophy education's effectiveness in developing ethical reasoning remains limited and methodologically varied (Bebeau & Thoma, 2003). This study addresses critical questions regarding philosophy education's impact on ethical reasoning development. The research investigates:

- Does philosophy education enhance ethical reasoning beyond what occurs through maturation and general education?
- What pedagogical approaches most effectively promote ethical reasoning development?
- What competencies mediate philosophy education's effects on ethical reasoning?
- Do gains in ethical reasoning transfer to novel contexts beyond course content?

By addressing these questions through rigorous mixed methods investigation, the study aims to provide evidence-based guidance for philosophy and ethics education while contributing to theoretical understanding of how ethical reasoning develops.

II. LITERATURE REVIEW

2.1. Theoretical Perspectives on Moral Development

Kohlberg's (1984) cognitive-developmental theory has profoundly influenced understanding of moral reasoning development. This framework posits that moral reasoning progresses through invariant stages from pre-conventional orientations focused on consequences and self-interest, through conventional reasoning emphasizing social norms and expectations, to post-conventional principled reasoning grounded in universal ethical principles. Educational interventions promoting moral development aim to stimulate cognitive disequilibrium through exposure to reasoning at higher stages, prompting reorganization of moral thought patterns (Rest et al., 1999). While aspects of Kohlberg's theory have been critiqued, including its emphasis on justice reasoning over care-oriented perspectives (Gilligan, 1982), the broader cognitive-developmental framework continues informing moral education research and practice.

Rest et al.'s (1999) neo-Kohlbergian perspective elaborated the developmental model through schema theory, identifying three moral schemas: personal interest, maintaining norms, and post-conventional. The Defining Issues Test (DIT) developed from this framework assesses relative use of these schemas in moral judgment, providing widely used measures of moral reasoning development (Thoma, 2006). Contemporary perspectives increasingly emphasize moral reasoning as one component of moral functioning alongside moral sensitivity, moral motivation, and moral character (Bebeau & Thoma, 2003). This integrated view suggests that ethics education should address multiple dimensions of ethical competence rather than reasoning in isolation.

2.2. Philosophy Education and Ethical Reasoning

Philosophy education offers distinctive affordances for ethical reasoning development through systematic engagement with moral questions and argumentative practices (Lipman, 2003). Philosophy for Children (P4C) programs introduced philosophical inquiry methods in elementary and secondary education, with research suggesting positive effects on reasoning abilities and classroom dialogue quality (Trickey & Topping, 2004). At the undergraduate level, ethics courses provide structured examination of ethical theories and their application to moral problems, with studies finding associations between philosophy coursework and moral reasoning scores (King & Mayhew, 2002). Professional ethics education in fields including medicine, business, and engineering aims to prepare practitioners for ethical challenges they will encounter in practice (Colby et al., 2011).

Research examining philosophy education's effects on ethical reasoning has produced generally positive findings, though methodological limitations constrain conclusions. Mayhew and King (2008) found that students completing ethics-intensive curricula showed greater moral reasoning gains than those in standard programs. Studies of Philosophy for Children have reported improvements in critical thinking and reasoning abilities (Trickey & Topping, 2004). However, many studies lack adequate comparison groups, employ cross-sectional rather than longitudinal designs, and fail to assess transfer beyond course contexts (Bebeau & Thoma, 2003). More rigorous investigation is needed to establish whether philosophy education produces genuine developmental advances in ethical reasoning and to identify pedagogical approaches most effectively promoting such development.

2.3. Pedagogical Approaches in Philosophy Education

Philosophy education encompasses diverse pedagogical approaches with potentially different effects on ethical reasoning development (Lipman, 2003). Socratic dialogue, emphasizing questioning that exposes assumptions and stimulates deeper reflection, has been advocated since antiquity as a method for philosophical education (Paul & Elder, 2006). Contemporary applications include structured philosophical discussions in which teachers guide inquiry through probing questions while students construct and critique arguments collaboratively (Splitter & Sharp, 1995). Case-based reasoning engages students in analyzing concrete ethical scenarios, applying ethical frameworks to specific situations and weighing competing considerations (Colby et al., 2011).

Text-based approaches emphasize close reading and analysis of primary philosophical texts, developing interpretive skills and exposing students to sophisticated ethical arguments (Rachels & Rachels, 2019). Dilemma discussions present students with moral dilemmas designed to provoke cognitive conflict and exposure to reasoning at higher developmental levels, following from Kohlbergian educational applications (Rest et al., 1999). Comparative research examining effectiveness of these approaches remains limited, with most studies examining single approaches rather than systematically comparing alternatives (Bebeau & Thoma, 2003). Understanding which pedagogical methods most effectively promote ethical reasoning would inform curriculum design and teacher preparation in philosophy and ethics education.

III. METHODOLOGY

3.1. Research Design

This study employed a longitudinal quasi-experimental design with mixed methods data collection (Creswell & Plano Clark, 2018). The quantitative component compared ethical reasoning development between students enrolled in philosophy courses and matched comparison students over two academic years. The qualitative component explored students' experiences with philosophical inquiry, perceived impacts on their ethical thinking, and processes through which ethical reasoning developed. Propensity score matching (Rosenbaum & Rubin, 1983) created comparable treatment and comparison groups controlling for baseline characteristics including prior academic performance, demographic factors, and initial ethical reasoning levels.

3.2. Participants and Settings

The study included 1,672 students across 32 educational institutions encompassing secondary schools offering philosophy electives ($n = 12$), liberal arts colleges with philosophy requirements ($n = 10$), and research universities with philosophy programs ($n = 10$). Philosophy students ($n = 836$) were enrolled in introductory ethics courses, applied ethics seminars, or philosophy for children programs depending on educational level. Comparison students ($n = 836$) were selected from comparable academic programs through propensity score matching based on academic preparation, demographics, and baseline ethical reasoning (Patton, 2015). Instructors ($n = 48$) represented diverse pedagogical approaches including Socratic dialogue emphasis, case-based instruction, and text-centered approaches, enabling comparative analysis of pedagogical effectiveness.

3.3. Measures and Instruments

Ethical reasoning was assessed through multiple measures capturing different dimensions of the construct. The Defining Issues Test 2 (DIT2) assessed moral schema development and principled moral reasoning (Thoma, 2006). Scenario-based assessments presented novel ethical dilemmas requiring students to identify relevant considerations, evaluate alternative positions, and construct justified responses. Written argument analysis tasks assessed ability to identify premises, evaluate reasoning quality, and recognize logical fallacies in ethical arguments. Course-embedded assessments documented ethical reasoning within specific educational contexts. Transfer assessments administered at study conclusion presented ethical scenarios from domains not addressed in coursework to assess generalization (Rest et al., 1999).

Mediating competencies were assessed through measures of intellectual humility adapted from Krumrei-Mancuso and Rouse (2016), perspective-taking capacity using the Davis Interpersonal Reactivity Index (Davis, 1983), and argument analysis skills through standardized reasoning assessments. Pedagogical approach was documented through classroom observations using the Philosophical Inquiry Observation Protocol, a researcher-developed instrument assessing dialogue quality, questioning practices, and student participation patterns (Splitter & Sharp, 1995). Semi-structured interviews (Kvale & Brinkmann, 2009) with students and instructors explored experiences with philosophical inquiry and perceived impacts on ethical thinking.

3.4. Data Analysis

Quantitative analyses employed multilevel modeling (Raudenbush & Bryk, 2002) accounting for students nested within classrooms within institutions. Growth curve models examined ethical reasoning trajectories, testing whether philosophy instruction predicted differential development. Comparative analyses examined effects across pedagogical approaches using classroom-level indicators of instructional emphasis. Mediation analyses (Hayes, 2018) tested whether intellectual humility, perspective-taking, and argument analysis skills explained philosophy instruction effects. Transfer was assessed through performance on novel scenarios administered post-intervention. Qualitative data were analyzed through thematic analysis (Braun & Clarke, 2006), with integration occurring through joint displays relating quantitative patterns to qualitative insights (Guetterman et al., 2015).

IV. FINDINGS

4.1. Philosophy Education and Ethical Reasoning Development

Growth curve analyses revealed significant positive effects of philosophy instruction on ethical reasoning development. After propensity score adjustment, students completing philosophy courses demonstrated significantly greater gains on DIT2 principled reasoning scores compared to matched comparison students ($p < .001$), with an effect size of 0.51 standard deviations over two years. This finding aligns with theoretical expectations that philosophy education promotes movement toward post-conventional moral reasoning (Rest et al., 1999). Scenario-based assessment results corroborated DIT2 findings, with philosophy students demonstrating more sophisticated ethical analysis including greater consideration of multiple perspectives, more explicit engagement with ethical principles, and stronger argument construction, consistent with findings by Mayhew and King (2008).

Effects emerged across educational levels but varied in magnitude. Undergraduate students showed largest gains ($d = 0.58$), followed by secondary students ($d = 0.43$), potentially reflecting greater developmental readiness for abstract ethical reasoning among older students (Kohlberg, 1984). Duration of philosophy engagement significantly predicted gains, with students completing multiple philosophy courses showing larger improvements than those completing single courses ($\beta = 0.26$, $p < .001$). Quality of instruction, as assessed through classroom observations, moderated effects, with highly-rated instruction producing substantially larger gains than lower-quality instruction (interaction $\beta = 0.31$, $p < .001$), highlighting that course enrollment alone is insufficient absent effective pedagogy (Lipman, 2003).

4.2. Pedagogical Approaches and Effectiveness

Comparative analysis of pedagogical approaches revealed significant variation in effectiveness for promoting ethical reasoning, supporting theoretical predictions regarding active dialogue's importance (Splitter & Sharp, 1995). Classrooms emphasizing Socratic dialogue and collaborative philosophical inquiry showed largest ethical reasoning gains ($d = 0.64$), significantly exceeding lecture-based approaches ($d = 0.32$, difference $p < .01$). Key features of effective Socratic approaches included open-ended questioning that probed assumptions, building on student responses to deepen inquiry, and creating conditions for genuine intellectual exchange rather than predetermined conclusions, consistent with Paul and Elder's (2006) emphasis on Socratic questioning quality.

Case-based approaches showed strong effectiveness ($d = 0.57$) when combined with structured ethical analysis frameworks, providing concrete contexts for applying ethical concepts while developing reasoning skills (Colby et al., 2011). Text-centered approaches showed moderate effects ($d = 0.41$), with effectiveness enhanced when primary text analysis was combined with discussion and application activities rather than employed in isolation (Rachels & Rachels, 2019). Dilemma discussion approaches showed variable effects depending on facilitation quality, with well-facilitated discussions producing strong gains but poorly facilitated discussions showing minimal impact (Rest et al., 1999). These patterns suggest that pedagogical method matters substantially and that effective implementation requires skilled facilitation regardless of approach.

4.3. Mediating Competencies

Mediation analyses revealed that philosophy education's effects on ethical reasoning operated substantially through development of specific competencies. Intellectual humility, encompassing recognition of one's own fallibility and openness to revising beliefs based on reasons, significantly mediated the relationship between philosophy instruction and ethical reasoning development (indirect effect = 0.16, 95 percent CI [0.10, 0.23]). Students described how philosophical inquiry helped them recognize the complexity of ethical questions and the limitations of their initial positions, supporting research by Krumrei-Mancuso and Rouse (2016) on intellectual humility's role in reasoning quality.

Perspective-taking capacity similarly mediated philosophy effects (indirect effect = 0.14, 95 percent CI [0.08, 0.21]), with students reporting that engagement with diverse ethical viewpoints enhanced their ability to understand and fairly consider perspectives different from their own (Davis, 1983). Argument analysis skills provided another significant mediating pathway (indirect effect = 0.12, 95 percent CI [0.07, 0.18]), with improved ability to identify premises, evaluate evidence, and recognize logical fallacies supporting more sophisticated ethical reasoning (Paul & Elder, 2006). These competencies developed through philosophical practice appear to provide cognitive and dispositional foundations for ethical reasoning advancement.

4.4. Transfer of Ethical Reasoning

Transfer assessments examined whether ethical reasoning gains generalized beyond course content to novel scenarios not addressed in instruction. Philosophy students demonstrated significantly better performance on transfer scenarios compared to comparison students ($d = 0.39$, $p < .001$), providing evidence that gains represented genuine reasoning development rather than merely learning course-specific content. Transfer was strongest for scenarios sharing structural features with course content while differing in surface features (near transfer), with more moderate but still significant effects for scenarios from entirely different ethical domains (far transfer), consistent with transfer research findings that similarity moderates transfer distance (Rest et al., 1999).

Qualitative data illuminated how students applied philosophical learning to ethical reasoning beyond course contexts. Students described using analytical frameworks encountered in coursework to structure thinking about personal and professional ethical challenges. One student explained that she now automatically considers multiple ethical perspectives when facing difficult decisions, noting that this habit developed through repeated practice in philosophy class. Students also reported increased willingness to engage with ethical disagreement constructively, seeking to understand opposing views rather than dismissing them, reflecting the intellectual humility fostered through philosophical inquiry (Nussbaum, 2010).

V. DISCUSSION

The findings of this study provide robust empirical support for claims that philosophy education effectively develops ethical reasoning abilities, addressing questions raised about the efficacy of ethics instruction (Bebeau & Thoma, 2003). The effect size of 0.51 standard deviations represents meaningful developmental advancement in principled moral reasoning that emerged over two years of study (Rest et al., 1999). These findings align with theoretical perspectives emphasizing philosophy's distinctive capacity to cultivate reasoning abilities through systematic engagement with ethical questions and argumentative practices (Lipman, 2003). The longitudinal design with matched comparison groups strengthens causal interpretation beyond what cross-sectional studies can provide.

The comparative findings regarding pedagogical approaches advance understanding of how philosophy education can be most effectively implemented (Splitter & Sharp, 1995). The superiority of Socratic dialogue and collaborative inquiry approaches over lecture-based instruction underscores that ethical reasoning develops through active engagement with ethical questions rather than passive absorption of ethical content (Paul & Elder, 2006). This finding has important implications for how philosophy and ethics courses are designed and taught, suggesting that creating conditions for genuine philosophical inquiry should take precedence over content coverage. Teacher preparation and professional development should emphasize dialogue facilitation skills alongside philosophical knowledge (Lipman, 2003).

The identification of intellectual humility, perspective-taking, and argument analysis as mediating competencies illuminates the mechanisms through which philosophy education influences ethical reasoning (Krumrei-Mancuso & Rouse, 2016). These competencies represent both cognitive skills and epistemic virtues that philosophy cultivates through its characteristic practices. The evidence of transfer to novel ethical scenarios suggests that these competencies function as

generalizable reasoning resources rather than domain-specific knowledge, supporting philosophy's role in developing broadly applicable intellectual capacities (Nussbaum, 2010). Ethics education efforts should attend to developing these foundational competencies alongside engagement with specific ethical content.

VI. CONCLUSION

This longitudinal investigation provides compelling evidence that philosophy education significantly enhances ethical reasoning development through cultivation of intellectual humility, perspective-taking capacity, and argument analysis skills (Rest et al., 1999). Pedagogical approaches emphasizing Socratic dialogue and collaborative philosophical inquiry proved most effective, underscoring the importance of active engagement over passive instruction (Splitter & Sharp, 1995). Evidence of transfer to novel ethical scenarios indicates that gains represent genuine reasoning development applicable beyond course-specific content (Bebeau & Thoma, 2003). These findings support philosophy's inclusion in educational curricula as a means of developing ethical reasoning capacities essential for responsible citizenship and professional practice (Nussbaum, 2010).

The implications extend to educational policy and practice at multiple levels. Secondary schools should consider expanding access to philosophy education given evidence of benefits for adolescent ethical reasoning development (Trickey & Topping, 2004). Higher education institutions should attend to how ethics requirements are implemented, recognizing that course format and pedagogy substantially influence outcomes (Colby et al., 2011). Professional ethics education in medicine, business, and other fields should incorporate effective philosophical inquiry methods identified in this research (Paul & Elder, 2006). Future research should examine long-term retention of ethical reasoning gains, relationships between reasoning and ethical behavior, and how philosophy education can be effectively scaled across diverse educational contexts (Lipman, 2003). As societies confront increasingly complex ethical challenges, cultivating sophisticated ethical reasoning through philosophy education represents an important investment in human flourishing and civic capacity.

REFERENCES

- Bebeau, M. J., & Thoma, S. J. (2003). A neo-Kohlbergian approach to moral judgment: An overview of Defining Issues Test research. *Educational Psychology Review*, 15(4), 255–270.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Colby, A., Ehrlich, T., Sullivan, W. M., & Dolle, J. R. (2011). *Rethinking undergraduate business education: Liberal learning for the profession*. Jossey-Bass.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Harvard University Press.
- Guetterman, T. C., Fetters, M. D., & Creswell, J. W. (2015). Integrating quantitative and qualitative results in health science mixed methods research through joint displays. *Annals of Family Medicine*, 13(6), 554–561.
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.
- King, P. M., & Mayhew, M. J. (2002). Moral judgment development in higher education: Insights from the Defining Issues Test. *Journal of Moral Education*, 31(3), 247–270.
- Kohlberg, L. (1984). *The psychology of moral development: The nature and validity of moral stages*. Harper & Row.
- Krumrei-Mancuso, E. J., & Rouse, S. V. (2016). The development and validation of the Comprehensive Intellectual Humility Scale. *Journal of Personality Assessment*, 98(2), 209–221.
- Kvale, S., & Brinkmann, S. (2009). *InterViews: Learning the craft of qualitative research interviewing* (2nd ed.). SAGE.
- Lipman, M. (2003). *Thinking in education* (2nd ed.). Cambridge University Press.
- Mayhew, M. J., & King, P. (2008). How curricular content and pedagogical strategies affect moral reasoning development in college students. *Journal of Moral Education*, 37(1), 17–40.
- Nussbaum, M. C. (2010). *Not for profit: Why democracy needs the humanities*. Princeton University Press.
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). SAGE.
- Paul, R., & Elder, L. (2006). Critical thinking: The nature of critical and creative thought. *Journal of Developmental Education*, 30(2), 34–35.
- Rachels, J., & Rachels, S. (2019). *The elements of moral philosophy* (9th ed.). McGraw-Hill.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). SAGE.
- Rest, J. R., Narvaez, D., Bebeau, M. J., & Thoma, S. J. (1999). *Postconventional moral thinking: A neo-Kohlbergian approach*. Lawrence Erlbaum Associates.
- Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika*, 70(1), 41–55.
- Splitter, L. J., & Sharp, A. M. (1995). *Teaching for better thinking: The classroom community of inquiry*. Australian Council for Educational Research.
- Thoma, S. J. (2006). Research on the Defining Issues Test. In M. Killen & J. Smetana (Eds.), *Handbook of moral development* (pp. 67–91). Lawrence Erlbaum Associates.
- Trickey, S., & Topping, K. J. (2004). Philosophy for children: A systematic review. *Research Papers in Education*, 19(3), 365–380.
- Tuana, N. (2007). Conceptualizing moral literacy. *Journal of Educational Administration*, 45(4), 364–378.