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Recommended Citation

Schaefer, Jame, "Educating for Ecological Responsibility: Bernard Lonergan, Pope Francis, and a Local Case Study Prompted by a Global Reality" (2019). *Theology Faculty Research and Publications*. 772. https://epublications.marquette.edu/theo_fac/772

**Educating for Ecological Responsibility:
Bernard Lonergan, Pope Francis, and a Local Case Study Prompted by a Global Reality**
Jame Schaefer (Marquette University)

Bernard Lonergan's philosophy of knowing and Pope Francis's magisterial teachings yield a complementary trajectory toward educating for ecological responsibility. A concrete example was demonstrated by students in the capstone seminar required for the Interdisciplinary Minor in Environmental Ethics (INEE) at Marquette University in Spring 2017. After exploring Lonergan's explanation of responsibility, his philosophy of education in which he underscores the need to integrate different ways of knowing, and the pope's call for "integral ecology" when addressing and acting on ecological problems, the INEE seminar and its outcomes are described. They demonstrate local ways in which individuals and their religious communities can help mitigate the adverse effects of human-forced climate change when upper levels of governance fail to recognize the role human actions play in this global phenomenon and to act responsibly.

Educating for Responsibility—Insights from Lonergan and Pope Francis

In *Insight: A Study of Human Understanding*, Lonergan explains his fourth transcendental precept—responsibility—as the person's freely willing the good that emerges after having been attentive, intelligent, and reasonable.¹ Responsibility also implicitly permeates these three precepts of the cognitive process within which persons can choose to be fully attentive, fully intelligent, and fully reasonable to the best of their innate abilities. Doing so assumes openness to and consideration of data that are discovered when seeking to answer a question, recognizing what is known and unknown, and pursuing the unknown for as complete an answer as possible in order to reason to an act through which the good can be recognized. When choosing to act, decision-makers are responsible to themselves for seeking and implementing a morally good action, responsible to others, and responsible to God who is the primary good they desire when willing the good. The good that informed decision-makers seek transcends their particular interests and becomes a detached, disinterested, and unrestricted desire to know.² According to Lonergan, the decision-maker's failure to choose and implement a morally obligatory course of action that is consistent with what is known or to reject a morally reprehensible course of action is sinful.³

Responsibility for making informed moral decisions and acting accordingly to achieve the good resounds throughout the first encyclical dedicated to the ecological crisis that has grave social ramifications. In *Laudato si'*, *On Care for Our Common Home*, the good to which Pope Francis calls all people is the flourishing of the Earth community that is currently imperiled by human attitudes toward and interactions with other species, abiota, and systems.⁴ Poor and

¹ My reading of Lonergan's *Insight* suggests basic manifestations of these transcendental precepts: *attentiveness* as openness to discovering data and information of all types pertinent to an issue; *intelligence* by assessing the discovered; and *reasonableness* by thinking critically about the evaluations and avoiding bias and other impediments to knowing. I am grateful to Robert Doran, SJ, for leading a faculty-graduate student seminar on *Insight* from August 2012 to May 2014 that stimulated my interest in appropriating Lonergan's thinking when interrelating theology, the natural sciences, and technology.

² Bernard Lonergan, *Insight: A Study of Human Understanding*, eds. Frederick E. Crowe and Robert M. Doran, Collected Works of Bernard Lonergan (CWL), vol. 3 (Toronto: University of Toronto Press, 1992), 659-660.

³ Lonergan, *Insight*, 689.

⁴ Pope Francis, *Laudato si'* [Encyclical on Care for Our Common Home], May 24, 2015; "responsibility" is used in various forms fifty-five times.

vulnerable people who are struggling to survive today are most adversely affected, and future generations are threatened to inherit a life-impoverished planetary home. Pope Francis urges Christians to recognize their duties toward the natural world and God that are, quoting Pope John Paul II, “an essential part of their faith” (64).⁵ As creatures who are uniquely endowed with intellectual abilities to reason, develop arguments, interpret reality, and engage in meaningful relationships with others and with God (81, 119), Christians have a responsibility to engage in dialogue about their interconnections with other creatures, their habitats, and the biosphere of Earth and to make and execute informed decisions for their mutual well-being (68). Failing to be responsible ruins the person’s relationships with one another, with Earth, and with God (70). Committed to living up to their dignity as responsible persons, the ecologically conscious are “selfless” (81, 211).⁶

For Lonergan and Pope Francis, educational opportunities are essential to facilitate the person’s openness to and understanding of diverse ways of knowing⁷ and integrating them for reflection and judgment about the correct course of action to achieve the good.⁸ Lonergan’s “generalized empirical method”⁹ provides a systematic understanding of the interior dynamics of knowing that ground the differentiation of disciplines and integrate them for a unified vision from which a decision can be made.¹⁰ The unified vision Pope Francis proffers for making decisions about the ecological crisis requires careful consideration of pertinent scientific, social, economic, cultural, political, and ethical perspectives. Embracing a theologically-grounded understanding of their intricate interconnection, he proposes “integral ecology” as the way in which to reach a unified vision that is sufficient for making decisions and bringing about changes in our thinking, attitudes, and ways of living in the world (202-203). Key to this task are religious sources that can motivate ethical behavior and take us to “the heart of what it is to be human” (11). Toward that goal, he urges “Educating for the Covenant between Humanity and the Environment” to facilitate “making the leap towards the transcendent which gives ecological ethics its deepest meaning” (210), developing an “ecological citizenship” in which good habits are manifested (211),¹¹ and training people in solidarity, responsibility, and compassionate care

⁵ All parenthetical references to *Laudato si'* refer to the numbered parts of the encyclical. In this reference, Pope Francis is drawing from John Paul II’s, *Peace with God the Creator, Peace with All of Creation* [1990 World Day of Peace Message], January 1, 1990, 15, the first document by a pope that is dedicated to human responsibility for addressing the ecological crisis.

⁶ This “selfless” characterization resonates with Lonergan’s understanding of “disinterested.”

⁷ Tad Dunne illuminates this point in “Bernard Lonergan (1904-1984),” *Internet Encyclopedia of Philosophy*, <https://www.iep.utm.edu/lonergan/>.

⁸ See *Insight*, chapter 11, for a full and inspirational explanation.

⁹ Named in *Insight*, 96, succinctly concluded in 267-269, and detailed in chapter 3, “The Canons of Empirical Method”; chapter 4, “The Complementarity of Classical and Statistical Investigations”; and chapter 6, “Common Sense and Its Subject.”

¹⁰ Bernard Lonergan, *Topics in Education: The Cincinnati Lectures of 1959 on the Philosophy of Education*, CWL 10, eds. Robert M. Doran and Frederick Crowe (Toronto: University of Toronto Press, 1993), 23. For helpful discussions, see Richard M. Liddy, “Bernard Lonergan on a Catholic Liberal Arts Education,” *Journal of Catholic Education* 3, no. 4 (2000): 522-532; and Jeffrey Centeno, “Learning-To-Be: Reflections on Bernard Lonergan’s Transcendental Philosophy of Education Towards An Integral Human Existence,” *Metanexus*, April 18, 2007, <http://www.metanexus.net/essay/learning-be-reflections-bernard-lonergans-transcendental-philosophy-education-towards-integral>.

¹¹ Though Pope Francis mentions self-restraint explicitly at 105, several other good habits/virtues are implicit in *Laudato si'* that I explore in “Converting to and Nurturing Ecological Consciousness—Individually, Collectively, Actively,” in *All Creation Is Connected: Voices in Response to Pope Francis’s Encyclical on Ecology*, ed. Daniel R. DiLeo (Winona MN: Anselm Academic, 2018), 136-153.

(210). He identifies various settings in which ecological education can occur with emphasis on the family's formative role (212-214).

Both Pope Francis and Lonergan view the person's opting for the morally obligatory decision as a transformation of the person. Choosing the moral route is a personal commitment that manifests the dominance of the higher aspirations of the human spirit and the human heart.¹² He poignantly describes the dynamic operation of God's gift of grace in the person who cooperates with that grace when making and sustaining this transformation.¹³ For Pope Francis, the person's changes from attitudes and actions that imperil the Earth community to attitudes and actions that promote its flourishing constitute an "ecological conversion" (217, 219, 220). It is "radical" (4), "profound" (5), "impossible without motivation and a process of education" (15), "personal" (211), and "a change of heart" (218).

They also conclude that love motivates the person to choose to act responsibly. Lonergan points to the order of the universe as a good chosen by God that manifests God's goodness and perfection¹⁴ and to God as the primary good¹⁵ who floods human hearts with a love that operates on and cooperates with the person to achieve good.¹⁶ A person's desire to know is ultimately a desire for God, and the person who intelligently wills the good is in love with God.¹⁷ Urging all to ecological responsibility, Pope Francis shares Lonergan's faith-filled views about the world as a manifestation of God's love. He teaches that God "created out of love" (65), the entire material universe "speaks of God's love," and everything—soil, water, mountains, and creatures—constitutes "a caress of God" with each having its own purpose (84). Human creatures are "made for love" (58), should "think deeply," "love generously" (47), and "respect" all creatures because all are dependent upon one another as constituents of our common home (42). All are called together by God's love into a "universal communion" (76). To strengthen the person's resolve to love, God offers abundant grace that is "at work deep in our hearts" (205), to which we need to be "ever open" (200), respond, and make God's grace evident in the ways we relate to other creatures (221).

¹² Lonergan, *Insight*, 297; and *Topics in Education*, 62-63. Richard M. Liddy analyzes and perceptively applies Lonergan's thinking to the climate crisis in "Changing Our Minds: Bernard Lonergan & Climate Change" in *Confronting the Climate Crisis: Catholic Theological Perspectives*, ed. Jame Schaefer (Milwaukee: Marquette University Press, 2011), 253-276.

¹³ Lonergan, *Method in Theology* (New York: Herder and Herder, 1972), 105-107, 122-123. For a presentation of how God's grace works in people collectively, see Robert M. Doran, "Social Grace," *Method: Journal of Lonergan Studies* N.S., 2.2 (2011): 131-42.

¹⁴ Lonergan, *Insight*, 721; see also 711 and 714. His discussion of perfection has affinity with Thomas Aquinas's understanding as best conveyed in *Summa theologiae* 1.73 and *Summa contra Gentiles* 2.45-46. Currently conceptualized as "the sacramentality of creation," the belief that God is manifested by the world is prevalent throughout the patristic and medieval period, a primary concept in the spirituality of the Society of Jesus as expressed by St. Ignatius of Loyola, and one that is currently being retrieved as a reason for ecological responsibility. For many examples, see Jame Schaefer, *Theological Foundations for Environmental Ethics: Reconstructing Patristic and Medieval Concepts* (Washington DC: Georgetown University Press, 2009), chapter 3.

¹⁵ Lonergan, *Insight*, 681; see his detailed explanation of the notion of God in 680-692.

¹⁶ Lonergan, *Method in Theology*, 105-107, 122-123; in 107, 122, and 123, he explicitly refers to God's love as a "gift," a term he uses interchangeably with "grace" to emphasize its dynamism. His full treatment of grace appears in *Grace and Freedom: Operative Grace in the Thought of St. Thomas Aquinas*, CWL 1, eds. Frederick E. Crowe and Robert M. Doran (Toronto: University of Toronto Press, 2000).

¹⁷ Lonergan, *Insight*, 711. Also see Dunne on Lonergan's understanding of how love functions to reverse the dynamics of moral decline in "Bernard Lonergan (1904-1984)."

Thus, Lonergan and Pope Francis provide complementary ways of thinking about, calling for, and applying the imperative of responsibility to our lives. Together they provide a backdrop from which to examine and assess a concrete example of educating for ecological responsibility.

A Locally Focused Case Study Prompted by a Global Reality

Established in 2001 by Marquette University, the Interdisciplinary Minor in Environmental Ethics requires undergraduate students to complete a capstone seminar as their culminating learning experience. It offers an opportunity for students to explore an ecological problem from a theologically based ethical perspective informed by the required courses in ecology, environmental and natural resource economics, environmental philosophy, earth and environmental physics, and religious foundations for ecological ethics. Collaboration within the capstone is required—planning, sharing drafts of research, seeking comments for revisions, assessing progress, reflecting on ethical implications, and identifying the ethical approach that should be taken to address the problem. Among the problems that have been explored in capstone seminars are the city of Waukesha’s water dilemma and the Great Lakes Compact, healing the Milwaukee Estuary, water sustainability, mitigating the climate crisis through agriculture in Southeastern Wisconsin, environmental justice in the Milwaukee area, and electricity production and use in the United States.¹⁸

Following is a description of the 2017 seminar and highlights of its outcomes. Though my students were not assigned to read from Lonergan’s corpus, parallels of his thinking surface throughout their capstone experience. Their appropriation of Pope Francis’s teachings is readily evident.

Description of the 2017 INEE Capstone Seminar

During the semester prior to commencing this seminar, registered students met to share their ideas for its focus. Most were enrolled in Foundations for Ecological Ethics (THEO 4440) and had proactively consulted with one another before our meeting. They informed me that they unanimously agreed to focus on human-forced climate change. After fleshing out why and where they wanted to orient this focus, they tentatively settled on the effects of climate change within the State of Wisconsin. They also expressed their wish for an outcome that is both practical and helpful. They agreed to research sources of information from various perspectives and come prepared to share them during the first session of our seminar. They also agreed to bring Pope Francis’s *Laudato si’* that they had read in THEO 4440 as a probable source of theological motivation for ethical norms for addressing this global phenomenon.

The seminar opened with a review of its major purpose—a theologically based ethical response to climate change in Wisconsin. They discussed how to reach that point and committed themselves to finding sources from the perspectives of the various disciplines that are required for the capstone.¹⁹ They anticipated having to integrate these perspectives for a comprehensive understanding of the problem in order to discern the most appropriate ethical pathway toward addressing climate change, and they readily recognized that this process requires openness to one another, individual resourcefulness, and teamwork. A basic outline for the subsequent three-hour weekly sessions was established with the expectation that they would present their outcomes to INEE faculty at the seminar’s culminating session. Though most of the six students knew one

¹⁸ Reports generated are accessible at “Capstone Seminar Projects, Interdisciplinary Minor in Environmental Ethics,” Marquette University, <http://www.inee.mu.edu/CapstoneSeminarProjects.shtml>.

¹⁹ Ecology, economics, political science, philosophy, and theology.

another, their respective majors, and their interests in pursuing the seminar's focus, a new and welcomed addition was a Theology and Religion major who worked part-time in healthcare and was eager to explore the health effects of climate change on vulnerable populations.²⁰

When sharing the sources found between semesters, they noted the substance of the data, the organizations that provided them, and any bias requiring caution and careful consideration.²¹ They discussed possibilities for categorizing these sources and settled on ecological, economic, health, political and social perspectives of fossil fuel use in Wisconsin. They began populating their findings on D2L, Marquette's online course management program, identified gaps in their data base and the types of additional sources needed, and established reasonable due dates for entering them prior to the next seminar session. Throughout the remainder of the semester, a strong sense of responsibility to one another prevailed. To facilitate their awareness of the responsibilities to which they committed, I entered detailed directions on D2L after each session.

As we began our second session, my students complained about the disappearance of data and reports pertaining to climate change from the websites of the President of the United States, the Environmental Protection Agency, and the U.S. Department of Energy. They viewed this swift elimination of data and reports—after January 20, 2017, the day Donald Trump became President—as impeding their desire to be as thoroughly informed as possible. Two students reported that the Public Service Commission of Wisconsin and the Department of Natural Resources had also removed important sources. However, they were delighted to have found non-government organizations' sites from which these and other sources could be linked into the capstone depository. Though initially frustrated, disappointed, and disgusted by these roadblocks to their learning, my students determined to find whatever they needed to proceed. Trust in government to provide credible data could not have been lower as the reality of bias at federal and state levels loomed large.²²

My students soon realized the need for sources beyond those available through the internet and Marquette's library system. They began identifying Marquette professors to share their disciplines' perspectives on the capstone topic. Among them was Ayman El-Refaie, an electrical engineering professor at Marquette, who enlightened us about the latest energy efficiency technologies that are available and at various stages of development. They also sought energy experts within Milwaukee and Wisconsin to share their respective data, perspectives, and

²⁰ The students and their majors: Wyatt Meyer--Biological Sciences, Alyx Birmingham--Global Ecology and Psychology, Lydia Melland--History, Tony Peacock--Marketing and Supply Chain Management, Eleni Eisenhart--Public Relations, and Heidi Golembiewski--Theology and Religion.

²¹ On avoiding impediments to understanding, see Lonergan, *Insight*, 244-267. Also helpful is Dunne's analysis of Lonergan's understanding of the working of bias and the resulting dynamics of historical decline in "Bernard Lonergan (1904-1984)."

²² In *Insight*, 244-267, Lonergan describes three types of bias—individual bias (244-247), group bias (247-250), and general bias (250-267). Though an analysis of reasons why federal and State of Wisconsin officials removed these data is warranted but not possible within the confines of this essay, all three biases may be suspected based on abundant publicly-available evidence of (1) denial and skepticism expressed reflexively by President Donald Trump, his appointees to head the Environmental Protection Agency and the Department of Energy, the Governor of the State of Wisconsin, and his appointee to the Public Service Commission that human activities are forcing changes in the global climate; (2) actions they have taken—especially Trump's withdrawal from the 2015 Paris Agreement with 195 other nations to minimize greenhouse gas emissions and contribute to the Green Climate Fund under the United Nations Framework Convention on Climate Change (UNFCCC), his unequivocal advocacy for coal and loosening restrictions on emissions from burning coal, and Governor Scott Walker's refusal to endorse programs that minimize greenhouse gas emissions and advance renewable and efficient energy strategies; and, (3) the 2016 Republican Party Platform that commits to eliminating the Clean Power Plan, growing a fossil-fueled economy, and shifting responsibility of environment regulations to the states.

contributions. Most agreed to consult via videoconferencing in order to avoid adding to their carbon footprints.

Our first consultant was Erick Shambarger, Director of the City of Milwaukee's Environmental Collaboration Office (ECO). He amazed my students with the many local environmentally responsible programs with which his office works, his personal energy, and his unequivocal commitment to Pope Francis's teaching about caring for Earth. He also stimulated their thinking about creating a toolkit for parishes in the Archdiocese of Milwaukee to use that would facilitate moving toward a more renewable energy future. During a subsequent seminar session, my students decided to produce a toolkit that would feature practical ways in which people could switch from fossil fuels to efficient and renewable energy strategies. They decided to gear their toolkit for use by parishioners and parishes in the Archdiocese of Milwaukee, though they expressed hope that others in the area would find their project helpful. They aimed to create a finished product that Archdiocesan officials would want to upload to their website.

Consultations with specialists at RenewWisconsin, the American Council for an Energy-Efficient Economy, Wisconsin Energy Institute, and the State of Wisconsin's Division of Health²³ yielded data, insights, and helpful leads for the toolkit and the required research-reflection paper. Prior to each consultation, my students took turns identifying an article or report written by the consultant for all to read and from which to ask at least two questions. The fact that all consultations were lively and challenging demonstrated their preparedness and attentiveness to these experts.

While continuing to collect options for including in the toolkit, my students turned to its scholarly parallel—the research-reflection paper. Each agreed to draft key points to include in one of the sections of the paper (ecological, health, social, economic, and social ramifications of fossil fuel use at national, state, and local levels). Prior to the next session, they posted their respective points with major sources upon which to rely and reviewed each other's postings. During the session, they took turns leading discussions on their postings and seeking additional input and consensus for proceeding. Each student began to draft a chapter for the seminar paper, and a schedule was established for placing them on D2L. In subsequent sessions, assigned drafts were commented on, edits were welcomed, consensus was reached on the edited drafts, and they were revised accordingly. Opportunities were offered to footnote disparate opinions, but none of the students chose this option. Some discussions were lively with students respectfully and sometimes humorously challenging one another and suggesting edits geared toward producing a seminar paper that showed differentiation in the discipline-based perspectives and integrating them for moral decision-making.²⁴

Identifying the most appealing theological motivation for addressing human-forced climate change became a major focus. As already mentioned, my students began revisiting Pope Francis's 2015 encyclical in preparation for the first session. They read assigned chapters for discussion during parts of four seminar sessions, consulted sources they had studied in THEO 4440 to bolster some of the pope's teachings,²⁵ and shared their preferred theological motivations

²³ Katherine Klausning of RenewWisconsin on renewable energy sources (www.renewwisconsin.org); Seth Nowak of the American Council for an Energy Efficient Economy on energy efficient strategies (www.aceee.org); Gary Radloff of Wisconsin Energy Institute on analysis of state and federal energy policies (www.energy.wisc.edu); and staff at the Wisconsin Department of Health Services (www.dhs.wisconsin.gov).

²⁴ A demonstration of Lonergan's thinking about differentiating ways of knowing and unifying them as indicated, for example, in *Topics in Education*, 23.

²⁵ Primarily my *Theological Foundations for Environmental Ethics*.

for switching from fossil fuels to renewable and efficient energy strategies. After considering these possibilities and speculating on their potential appeal to parishioners in the Archdiocese of Milwaukee, they settled on the following:

- The *sacramentality of creation*—the belief that God is present to and manifested through the world should prompt the faithful to contemplate and respect God’s creation by mitigating the emissions of greenhouse gases;
- Aquinas’s concept of the *inter-cooperation of creatures* bolstered by Aldo Leopold’s land ethic²⁶ to encourage the faithful to perceive themselves as members of the Earth community and to cooperate with one another, other species, and systems of Earth for the common good—its flourishing;
- *Self-restraint* in using the goods of Earth in ways that do not threaten the well-being of vulnerable people, future generations, and the viability of the Earth community; and
- *Hope* through faith in God that people will be open to God’s grace and be strengthened to switch from fossil fuels to an efficient and renewable energy future.

In the midst of this discernment process, Patxi Álvarez, SJ, the Social Justice and Ecology Secretariat of the General Curia of the Society of Jesus, visited us, shared his appreciation for *Laudato si’* and other exemplary efforts by Jesuits to reflect theologically on ecological concerns,²⁷ and congratulated my students on their efforts. His insights were especially encouraging to the Theology and Religion major who agreed to draft the theological section of the seminar paper, seek comments from the other students, clarify the draft during one of the seminar sessions, reach consensus, and revise accordingly.

Preparing an outline for the seminar paper proved to be the most contentious task the students subsequently tackled. After considerable discussion, they decided to modify the basic format of the Ignatian pedagogical paradigm with which they were familiar (experience/data → reflect/judge → act → evaluate) and to begin their paper with the theological motivation for addressing human-forced climate change. They hoped this approach would serve as an efficacious entry for parishioners to know about and recognize human-forced climate change as a problem that warranted their response. One student volunteered to draft the paper outline on Google Docs, other students edited and commented on it, and the edited outline was reviewed and refined in seminar until a consensus was reached.

When viewing all parts of the seminar paper together, my students proceeded to add specific recommendations for action that flowed from the theologically grounded ethical imperative to switch from fossil fuels to efficient and renewable energy strategies. They decided to list these recommendations for action following the principle of subsidiarity—individuals,

²⁶ Aldo Leopold, *Sand County Almanac with Essays on Conservation from Round River* (New York: Oxford University Press, 1949), 237-243. The most succinct statement of Leopold’s land ethic appears on 262: “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.” My students especially appreciated Leopold’s understanding that embracing the land ethic changes the role of *Homo sapiens* from the “conqueror” of the land community to a “plain member and citizen” of it, thereby requiring respect for other living and abiotic members of that community and accepting responsibility for cooperating with them for their mutual well-being. His land ethic resonates with Pope Francis’s teaching in *Laudato si’*, especially 220-221.

²⁷ For example, “Healing a Broken World,” *Promotio Iustitiae* 106, 2011/2; *Healing Earth*, the interactive online environmental science textbook commissioned by the Higher Education Secretariat of the Society of Jesus for use in Jesuit colleges and universities, and made available for use by Jesuit colleges, universities, and January 2016, <https://healingearth.ijep.net/>; and, *Reconciling God, Creation, and Humanity: An Ignatian Examen*, Ignatian Solidarity Network, http://jesuits.org/Assets/Publications/File/Ignatian_Ecological_Examen1.pdf.

families, neighborhoods and parishes, municipal, state, and federal governments.²⁸ Though strongly committed to individual responsibility, they concluded that concurrent action was needed on all levels of decision-making if the adverse effects of human-forced climate change are to be mitigated. These recommendations were submitted to the paper team for entering into D2L Discussions for commenting, suggesting edits, and assuring consensus.

Concurrently, another team focused on the toolkit. Led by the creative Public Relations major, the team designed the kit and selected from the pool of ideas some readily available efficient and renewable energy options from which parishioners and parishes can choose. The team followed the principle of subsidiarity, arranging these options according to individuals, neighborhoods, and parishes. They ended with some “simple” ways identified by the Catholic Climate Covenant in which parishes and parishioners can help mitigate human-forced changes in the global climate.²⁹ The completed *Flipping the Default Toolkit* was entered on D2L for discussion and completion during the last working session of the seminar.

Planning began for publicly presenting the highlights of the seminar paper and the toolkit. In addition to INEE faculty, my students decided to invite family members and friends, Marquette’s Community Engagement Director, the Coordinator of the Archdiocese of Milwaukee’s Social Justice Ministry, the founder of Wisconsin Green Muslims, and all experts with whom they had consulted. Each student opted to highlight key findings from the research with which they were most familiar. Some assumed additional roles—opening and moderating the program, overviewing the toolkit, recognizing guests, and fielding questions and comments. A trial run was held to assure a smooth presentation accompanied by a slide program that two of the students voluntarily prepared with input from their peers.

Outcomes of the Seminar

An excellent research-reflection paper, a useful *Flipping the Default Toolkit*, and a stellar presentation by my students were prominent outcomes of this seminar. Additional outcomes should have significance for their futures academically, professionally, and personally.

The Research-Reflection Paper

A Plan to Flip the Default that the six students carefully planned, drafted, and finalized after several iterations consists of fifty-three pages that include an introduction and seven substantive chapters. The first is “A Religious Motivation” in which they hoped to stimulate parishioners and others to want to learn about the adverse effects of climate change and options for switching to efficient and renewable energy strategies. Subsequent chapters focus on the various effects of energy use, as indicated by their titles: “The Ecological Impacts of Energy Use”; “Health of Individuals, Communities, and Future Populations”; “Societal Impacts; Political Implications Regarding Fossil Fuels”; “Economic Impacts and Benefits of Renewable Energy”; and, “A Milwaukee Study of Local Perspectives.” Following these chapters are lists of recommended actions by individuals and their families, neighborhoods, parishes in the

²⁸ Presumed in Pope Leo XIII’s 1891 encyclical, *Rerum Novarum*, and derived from Pope Pius XI’s 1931 encyclical, *Quadragesimo anno*, 80, the principle of subsidiarity prescribes responsibility at the lower level of self-governance before moving to successive collective levels and proscribes interference by a higher level in a lower level that deprives it of exercising its responsibility but instead supports its exercise of responsibility.

²⁹ “10 Ways Your Parish Can Make a Difference,” Catholic Climate Covenant, www.catholicclimatecovenant.org/resource/catholic-climate-covenant-10-ways-your-parish-can-make-a-difference.

Archdiocese of Milwaukee, and Wisconsin at large to consider implementing. The paper closes with three and a half pages of consulted references.³⁰

The Presentation

Opening the program, the student moderator situated the capstone project within the global context of foreboding changes in the climate that may seem overwhelming and unsolvable but must be addressed responsibly by switching from fossil fuels to efficient and renewable energy. My students described themselves as “ordinary people” who can embrace “small solutions to the large climate problem” while viewing their efforts as an entry into a movement of people throughout the world who are striving for a positive energy future. By positing themselves as “ordinary,” they hoped other people would be able to identify with them, share their hope for the future, and act responsibly by opting for small solutions that are readily available to them.

After presenting basic information about fossil fuels, renewable energy sources, and the seminar process that led to their presentation, the students took turns sharing their findings on the subtopics on which they had worked most intensely throughout the semester. The first student began with the faith-based motivations for switching from fossil fuels to renewable and efficient energy: *The sacramental creation* that attests to God’s presence; *cooperation* with one another, other species, and systems for our common good—the flourishing of Earth; *restraint* when using the goods of Earth; and, *hope* through God’s abundant grace for people to choose to switch from fossil fuels to renewable and efficient energy strategies. Other students followed, presenting the ecological, health, societal, economic, and political ramifications of using fossil fuels nationally, statewide, and locally. They recognized that integrating these differentiated findings and reflecting on them warrant switching to efficient energy strategies and renewable sources. They expressed their confidence that switching is possible as evidenced by the options they identified and the alternatives they discovered, and they shared their hope that efforts to switch would mean a better future if parishioners in the Archdiocese of Milwaukee and others joined them.

The student who organized and led the technical development of *Flipping the Default Toolkit* presented an overview that follows the order of the capstone research-reflection paper. Tools in the kit were accessed and explained briefly to show how easily the options can be identified.

INEE faculty, members of the students’ families, friends, capstone consultants, and other guests lauded the capstone effort. Recognizing that my students’ work provided practical ways in which to demonstrate ecological responsibility with sensitivity to vulnerable people and Earth, the Coordinator of the Archdiocese of Milwaukee’s Social Justice Ministry stated that he would urge the Priest Council to upload the toolkit on the Archdiocesan webpage. The Director of Marquette’s Office of Community Engagement welcomed a PDF of the toolkit for uploading on its website as an example of the type of community outreach his office encourages. The Director of the City of Milwaukee’s ECO complimented my students and said he would add the toolkit to ECO’s web site. Speaking on behalf of Wisconsin Green Muslims, Huda Alkaff, its founder and director, congratulated my students on their fine work from a religious perspective and joined them in hoping others would choose to convert to energy efficiency and renewable sources.³¹

³⁰ A PDF is available upon request to schaeferj@marquette.edu.

³¹ Alkaff was one of twelve recipients in 2015 of President Barack Obama’s “Champions of Change” for her exemplary efforts in protecting the natural environment and human communities from the effects of climate change.

Toolkit for Flipping the Default from Fossil Fuels to Efficient and Renewable Energy Strategies

Currently accessible from the website of the Interdisciplinary Minor in Environmental Ethics,³² the Archdiocese of Milwaukee,³³ the City of Milwaukee,³⁴ Marquette's Office of Community Engagement,³⁵ and other sites,³⁶ *Flipping the Default Toolkit* begins with the religious motivation for switching from fossil fuels to renewable sources and energy efficiency strategies. Synopses of the theological concepts that most profoundly motivated my students and they explained in detail in their seminar research-reflection paper appear first: the *sacramentality* of creation; *cooperation* with others for our common good; *restraint* when using the goods of Earth; and, *hope* through God's grace for switching from fossil fuels. Links to sources of information include Pope Francis's *Laudato si'* and statements by popes John Paul II and Benedict XVI on the ecological crisis.³⁷

Subsequent pages in the kit include sources that individuals, neighborhoods, and parishes can access. For individuals, my students included links to voter education, information on voting available through the Wisconsin Elections Commission, and four Milwaukee programs that aim to help people choose and adapt to a renewable energy lifestyle. At the neighborhood level, they included links to assessors of energy efficiency in buildings, renewable energy training, sustainable investments, and support for organizations that practice and advocate "green energy." Parishes are alerted to efficient and renewable energy services offered by the City of Milwaukee, homily helps collected by the Catholic Climate Covenant for priests, and Catholic Energies that works with dioceses and parishes to reduce energy use in buildings. Another page provides links to Christian, Muslim, Jewish, and local and regional interfaith organizations that provide religiously motivated sources for conserving energy and using renewable sources as ways to protect "Mother Earth." At the state level page, corporations are encouraged to invest in renewable energy by contacting Renew Wisconsin and Midwest Environmental Advocates, and Wisconsin lawmakers are urged to develop a renewable energy portfolio standard for future investments and a flourishing planet. The last page of the toolkit consists of the Catholic Climate Covenant's "10 Simple Ways to Make A Difference Today," thus encouraging others to participate in seemingly small ways that can cumulatively contribute to achieving an energy future in which the Earth community can flourish.

More Meaningful Outcomes

³² INEE Capstone Seminar, *Flipping the Default Toolkit*, Interdisciplinary Minor in Environmental Ethics, Marquette University, May 2017, <https://www.inee.mu.edu/documents/INEEFlippingtheDefault.pdf>.

³³ Archdiocese of Milwaukee, <https://www.archmil.org/ArchMil/Resources/SOLJUS/INEE4997>. When announcing the Social Justice Committee of the Priest Council's decision to include the toolkit on the Archdiocesan website, the Social Justice Ministry Coordinator wrote that the priests were impressed with the "strong theological reflection" it contained and were amazed "that college students had that strength" (E-mail from Rob Shelledy, May, 16 2017).

³⁴ Environmental Collaboration Office, City of Milwaukee, <https://city.milwaukee.gov/ImageLibrary/BBC/images/MarquetteUFlippingtheDefaultToolkit.pdf>.

³⁵ INEE Capstone Report, *Flipping the Default Toolkit*, Office of Community Engagement, Marquette University, <https://www.marquette.edu/community-engagement/documents/INEE4997FlippingtheDefault-CommunityBasedProjects.pdf>.

³⁶ For example, Forum on Religion and Ecology, Yale University, <http://fore.yale.edu/news/item/flipping-the-default-from-fossil-fuels-to-renewables-and-energy-effici/>.

³⁷ John Paul II, *Peace with God the Creator, Peace with All of Creation* [1990 World Day of Peace Message], January 1, 1990; and Pope Benedict XVI, *If You Want to Cultivate Peace, Protect Creation* [2010 World Day of Peace Message], January 1, 2010.

The most profound outcome was my students' commitment as individuals to be ecologically responsible as Pope Francis urged and as Lonergan explained generally as his fourth transcendental precept. After reflecting on their research findings and discussing in depth how to act, each concluded with a personal decision to switch from reliance on fossil fuels to efficient and renewable energy. They also realized the need for collective action at successive levels of governance beyond themselves as individuals. Though they considered their individual responsibilities essential, they realized the need to demonstrate responsibility among themselves, the people with whom they live and work, and their families, parishes, neighborhoods, and communities. The fact that they discovered early in the semester that federal and state governments had removed data pertaining to human-forced climate change prompted them to realize that local action is vital and may be the only realistic hope at this time. Their decisions demonstrated a transformation in themselves that Lonergan envisions and parallels the ecological conversion that Pope Francis urges. The fact that they presented themselves to others as "ordinary people" was a conscious decision within which to welcome others who thought of themselves as ordinary to identify with them. Their decision is admirable. How they characterized themselves is cherishable.

Another related outcome was their ability to integrate their diverse knowledge, skills, and interests to achieve a comprehensive understanding of the harmful effects of relying on energy sources that threaten the flourishing of the Earth community. From this comprehensive view of the adverse ecological, health, economic, social, and political effects from reliance on fossil fuels, my students discerned that the only ethical path to take was switching to renewable and efficient energy strategies. They deliberately chose that pathway. This outcome manifests Lonergan's understanding of knowing that prompts decisions to act responsibly and Pope Francis's call for an integrated ecological approach to addressing the ecological crisis.

Other outcomes have significance for my students. The teamwork skills they developed and refined will be helpful during their graduate studies, professional lives, and social relationships. They recognized and respected each other's specified knowledge and skills, and they built on their differences when working in teams to tackle many multi-dimensional tasks—finding credible sources of information, presenting assigned reports in-seminar, commenting on drafts of parts of their research-reflection paper, and submitting tools for the toolkit. They expanded these skills when collaborating on their research-reflection paper, public presentation, and toolkit that they offered to the Archdiocese of Milwaukee. Surely, they are well prepared to work with others after an arduous but stimulating, productive, and meaningful capstone seminar.

Conclusion

Lonergan's explanation of responsibility that follows when a person is attentive, intelligent, and reasonable and his emphasis on integrating different ways of knowing to discern the ethical imperative for acting meshes well with Pope Francis's teachings about the need for an integrated ecological approach to address and act responsibly toward other people, species, systems, and Earth. They also share a similar understanding of the transformation that individuals experience when they discern, choose, and follow the ethical pathway that surfaces. And, both emphasize the dynamic role of God's love for motivating, strengthening, and sustaining care for Earth---our common home.

Students in the 2017 Capstone Seminar for the Interdisciplinary Minor in Environmental Ethics at Marquette University demonstrated responsibility generally and specifically. They demonstrated responsibility generally when identifying and committing to the ethical imperative

they discerned individually and agreed upon collectively after having been attentive, intelligent, and reasonable. They demonstrated responsibility specifically when discerning the ethical imperative to mitigate the adverse effects of human-forced climate change and committing to be ecologically responsible as Pope Francis urges. They advanced their individual commitments when collaborating to produce a practical set of “tools” for switching from fossil fuels to renewable and efficient energy strategies and a seminar paper that provides scholarly support for their *Flipping the Default Toolkit*.

The overall structure of this seminar provided a framework within which students could exercise their diverse ways of knowing that Lonergan describes and an opportunity to focus on an ecological issue that Pope Francis urges all to address. By explicitly requiring students who are seeking this minor to integrate the knowledge and skills they learned in various disciplines to address one ecological issue and conclude to an ethical response, they were able to demonstrate integrated learning as envisioned by the current pope and one of the twentieth century’s most eminent systematic theologians. That my students embraced this opportunity wholeheartedly is exemplary and gratifying.