

LAUDATO SI' AND INTEGRAL ECOLOGY

A RECONCEPTUALIZATION OF SUSTAINABILITY

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Abstract. This study analyzes sustainability concepts through the lens of Roman Catholic Social Teaching (CST) with a special emphasis on *Laudato Si'*. CST expands the focus of sustainability to include social justice through its emphasis on human dignity, the common good, and *caritas*. In CST, justice is understood as structural while environmental obligations are connected to integral human development and peace. In *Laudato Si'*, Pope Francis calls on us to counter prevailing unjust systems with a structural reordering of multiple ecologies: environmental, economic, social, cultural, and daily life. Based on this reordering, he developed the notion of *integral*

ecology, and we show how it encompasses a set of existing sustainability ideas in CST and, more importantly, how it changes the focus and scope of sustainability. Unfortunately, and despite supposed good intentions, some institutions misrepresent and use the term “sustainability” to justify systems that result in “un-sustainable” consequences. We thus show how *Laudato Si'* offers an antidote to such unsustainable practices by reconceptualizing the sustainability construct through the notion of integral ecology.

Keywords: *Laudato Si'*; Roman Catholic Social Teaching; integral ecology; human ecology; sustainable development; social justice; business unsustainability

INTRODUCTION

Laudato Si': On Care for Our Common Home is the second encyclical by Pope Francis, the 266th pope of the Roman Catholic Church. The major focus of this document is a consideration of global environmental issues together with a wide range of associated recommendations. Such a unique emphasis on the environment indirectly engenders a need for reconceptualizing the (relatively) recently established notion of *sustainability*. The purpose of this article, therefore, is to show how the encyclical contributes to this broader definition of sustainability. We begin with a brief introduction to *Laudato Si'*, indicating how the encyclical provides groundbreaking recommendations related to sustainability practices. Next, we provide a background of Roman Catholic Social Teaching (CST) and show how it relates in general to sustainability, with a particular focus on recent papal thought (St. John Paul II and Benedict XVI). We then provide a specific description of three sustainability-related concepts within CST: *human ecology*, *peace*, and *ecological conversion*. This background is then followed by a detailed explication of how *Laudato Si'* contributes to a broader consideration of sustainability and how the typology introduced within *integral ecology* dovetails with sustainability practice. Finally, we consider how some business practices contribute to *un-sustainability* and show how the concept of sustainability should appropriately be reconceptualized based on tenets laid out in *Laudato Si'*.

LAUDATO SI' BREAKS NEW GROUND

The Pontifical Academies of Sciences and Social Sciences held a joint workshop entitled “Sustainable Humanity, Sustainable Nature: Our Responsibility” at the Vatican in May of 2014 (<http://www.casinapioiv>).

va/content/accademia/en/events/2014/sustainable.html). The conference brought together leading natural and social scientists from around the world, including four Nobel laureates. This workshop and others served to 1) delineate the boundaries between science and religion while they simultaneously and mutually informed one another, and 2) develop the knowledge base at the Vatican as a groundbreaking encyclical on the environment was being prepared.

Although Popes St. John Paul II and Benedict XVI had taken up environmental issues in encyclicals and assorted documents, environmental themes had never before been treated so extensively in any official Church document. Released in June 2015, *Laudato Si'* is the first papal social encyclical dedicated primarily to environmental issues. It would come to incorporate state of the art contemporary research bearing on environmental crises and their attendant consequences, utilizing a depth of scientific information that marked a departure from previous encyclicals in both content and style. As evidence of this, the document has been widely praised by the scientific community (Brulle & Antonio, 2015).

Not everyone was convinced, however. Upon its release, *Laudato Si'* immediately drew critique from both climate scientists and climate skeptics for the way that scientific information regarding climate change was presented. It has been noted that *Laudato Si'* tended to show the most conservative estimates and the least controversial science while others expressed concerns that it underemphasized the anthropogenic nature of climate change, and misleadingly suggested that volcanoes and the sun could have contributed to climate change when, if anything, those factors actually militate against it (Gillis, 2015). In truth, climate change models include multiple scenarios and take stock of numerous variables while excluding others, resulting in varying future predictions (IPCC, 2014). Finally, climate skeptics also expressed concerns about the very legitimacy of a pope or the Roman Catholic Church issuing statements about science, especially when they believe that the science is far from settled (Cornwall Alliance, 2015).

In relation to this, some researchers even suggest that current environmental crises are largely the result of practices perpetuated under the Hebrew-Christian tradition. They blame Genesis for the mandate to subdue the earth and exercise dominion over it, as such a mandate has been used to justify the wanton abuse of natural resources, pollution, irresponsible industrialization, and attendant climate change wrought primarily by Western civilization. Lynn White, in his classic and widely cited 1967 article "The Historical Roots of Our Ecological Crises," alleged that "Christianity is the most anthropocentric religion

the world has seen,” arguing that anthropocentrism generates ecological crises (White, 1967). However, White considered the medieval St. Francis of Assisi to have been “the greatest spiritual revolutionary in Western history” due to the fellowship and sense of equality he afforded other creatures. To address Christian complicity in environmental crises, he suggested that St. Francis should become the “patron saint for ecologists.”

The path of St. Francis will thus provide the avenue by which CST can shift the Christian tradition from a cause of environmental crises to a leader in addressing them. In *Laudato Si'*, Francis draws inspiration from his titular namesake, introducing the text with the saint's *Canticle of the Creatures* (Francis, 2015a: 1, hereafter referred to as LS). The document decries “excessive anthropocentrism” as causally connected to the environmental problems we are experiencing in our shared home (LS: 115–136), with such an explicit critique of anthropocentrism marking a departure from previous papal writings on the environment. Altogether, the inspirations from St. Francis, combined with the treatment of scientific information on environmental crises, surely break new ground in the Roman Catholic account of sustainability. In this light, we will show how *Laudato Si'* builds, integrates, and expands upon existing CST elements, and how it develops a new framework of integral ecology to unify these elements in novel ways that also contribute to the secular sustainability literature.

ROMAN CATHOLIC SOCIAL TEACHING (CST) IN RELATION TO SUSTAINABILITY

Laudato Si' develops and integrates multiple strands of thought that are included in CST, of which Church teachings on the environment may be regarded as a specific element. In what follows, we articulate the fundamentals of CST, lay out the general approach to sustainability found therein, and indicate how the Roman Catholic approach intersects with lay models of sustainability. We then identify three themes unique to the Roman Catholic approach—human ecology, peace, and ecological conversion—that predate and inform *Laudato Si'*.

The Fundamentals of CST

CST has been articulated in a set of social encyclicals written by various popes dating back to Pope Leo XIII's *Rerum Novarum*. Papal encyclicals ostensibly have authority on the truth and cover a range of topics; social encyclicals are a certain class of papal encyclical that

seeks to “read the signs of the times” and provide teachings on how to follow Christ in the social reality in which we find ourselves. In this light, a number of researchers have applied CST to business ethics and corporate social responsibility (Sison, Ferrero, & Guitián, 2016; Vacarro & Sison, 2011). For our purposes here, we will consider CST as articulated in social encyclicals and other speeches and writings by the three most recent popes: St. John Paul II, Benedict XVI, and Francis.

It should be noted that different scholars and thinkers have categorized the fundamentals of CST in various ways (Cerner & Morgan, 2000; Curran, 2002; McCarthy, 2009; Thompson, 2010). In fact, the differences in methods of categorization may even be found within the Church. The United States Conference of Catholic Bishops (USCCB) in particular identifies seven themes of CST: 1) Life and Dignity of the Human Person, 2) Call to Family, Community, and Participation, 3) Rights and Responsibilities, 4) Option for the Poor and Vulnerable, 5) The Dignity of Work and the Rights of Workers, 6) Solidarity, and 7) Care for God’s Creation (USCCB, n.d.). Moreover, *The Compendium of the Social Doctrine of the Church* organizes these themes into a set of principles and values (Pontifical Council for Justice and Peace, 2004: 49–92, hereafter referred to as CSDC) and adds subsidiarity, the principle that encourages autonomy in decision-making at the smallest organizational level possible (CSDC: 81–83). A more recent, and perhaps more parsimonious, document, *The Vocation of the Business Leader: A Reflection*, distills CST into two foundational principles: human dignity and the common good (Pontifical Council for Justice and Peace, 2015: 30–37).

The first of these two principles, human dignity, is accorded to human persons based on their nature as *imago Dei*, beings made in the image of God who have immortal souls and a supernatural destiny. This grounding and purpose of ethical treatment of, and regard for, human beings contrasts with many philosophical theories that base ethics and justice on the unique rationality of humanity. In the Christian tradition, and indeed in the Abrahamic tradition, human persons have dignity for reasons that transcend their rationality and intellect. That being said, the Church parts company with many strains of liberalism and especially libertarianism in rejecting the unqualified rights of people to pursue whatever selfish or disordered desire they may happen to have. Furthermore, Church doctrine suggests that rights must be tempered by duties, and that when people seek what is truly good for them, they will not want to secure certain rights, nor would they insist on rights that come at the expense of others. In the CST tradition, rights and duties are balanced for the sake of the common good.

In relation to the common good, the Roman Catholic Church holds that the nature of the human person is socially constituted and that we are created for right relationship, starting with the family. As stated in Genesis, “So God created mankind in his own image, in the image of God he created them; male and female he created them” (1:17). People can thus reach the fullness of life as intended by God only through their relationships with one another, and it is in this sense that humans also mirror God, who is a trinity of profoundly interpenetrated persons. The Church’s notion of the common good, therefore, does not require a trade-off with the good of the individual. It does not erase or override the individual as collectivism, totalitarianism, or utilitarianism often does, for the principle of human dignity differentiates this notion of the common good from these other approaches to social welfare. Specifically, what is truly good is not always what people think or want it to be.

Roman Catholics are called to live a life in imitation of Jesus Christ. As such, they ought to behave in an ethical manner and emphasize socially just pursuits, for ethics and social justice lie at the heart of the Gospels and are also critical elements within CST, which in turn places a strong emphasis on love, or *caritas*, in discerning right actions and relationships. The Latin *caritas*—sometimes translated as charity—expresses the notion of love as gift. For Christians, Jesus is God’s gift of Himself to the human person for the forgiveness of her sins and her eternal salvation. Love, hereon identified with *caritas*, denotes the self-gift of God to human persons and the call to emulate this self-gift for others and God. The importance of ethics, social justice, and *caritas* within CST can thus be seen in Jesus’s summary of the entire law in two commandments—first, “love the Lord your God with all your heart, and with all your soul, and with all your mind, and with all your strength”; and second, “love your neighbor as yourself.” There is no other commandment greater than these” (Mark 12:30–31).

General Approach to Sustainability in CST

These fundamentals of CST form the foundation upon which its unique approach to sustainability is presented in social encyclicals over time. Until *Laudato Si’*, environmentally-related content had been woven into the fabric of other teachings, making the project of mapping a distinctively Roman Catholic approach to sustainability challenging. In general, sustainability concerns in CST have remained tied to social justice considerations with a seemingly anthropocentric outlook. Furthermore, justice in CST is understood as structural, with environmental obligations being connected to integral human development and peace.

The Saint Kateri Tekakwitha Conservation Center serves as a great resource for educating society about the uniquely Roman Catholic approach to sustainability. Named after St. Kateri, the first Native American saint who was beatified by St. John Paul II and regarded as the patron saint of the environment and ecology, the Center is dedicated to advancing a Roman Catholic approach to the environment that also integrates justice concerns, and serves to compile key documents that enable us to distinguish Roman Catholic from non-Roman Catholic approaches. As such, in its *Introduction to Catholic Environmental Justice and Stewardship* (Saint Kateri Tekakwitha Conservation Center, 2000), the Center identifies seven themes of ecological responsibility which are mainly adapted from a 1991 USCCB statement. They are the following:

1. a sacramental view of the universe;
2. a consistent respect for human life, which extends to respect for all creation;
3. a worldview affirming the ethical significance of global interdependence and the global common good;
4. an ethics of solidarity promoting cooperation and a just structure of sharing in the world community;
5. an understanding of the universal purpose of created things, which requires equitable use of the Earth's resources;
6. a special concern for the poor and vulnerable, which gives passion to the quest for an equitable and sustainable world; and
7. a conception of authentic development which offers a direction for progress that respects human dignity and the limits of material growth.

These themes, woven into a distinctively Roman Catholic framework in *Laudato Si'*, clarify CST values as they relate to sustainability and provide evidence of a uniquely Roman Catholic approach to environmental issues.

In the context of recent history, St. John Paul II was the first pope to pay considerable attention to our obligations to the natural environment. His two successors, Benedict XVI and Francis, continued in this direction, with St. John Paul II and Benedict XVI delivering most of their environmental statements in Peace Day messages. These three popes attribute environmental degradation to materialist, consumerist,

hedonist, greedy, and selfish behaviors, and hold that we are obliged to future generations. Environmental responsibility amounts to a duty to care for creation, to steward resources wisely, and ultimately derives from obligations mapped out in the first chapter of Genesis, which include duties such as fruitful reproduction of the species and dominion over the Earth. Benedict closely ties these two together with the notion of human ecology, while Francis emphasizes and re-conceptualizes the second.

Benedict XVI also began to connect environmental obligations to “integral human development,” an idea of Pope Paul VI which he cultivated. Paul VI delineated and defined integral human development as follows: “Development cannot be limited to mere economic growth. In order to be *authentic*, it must be complete: integral, that is, it has to promote the good of every person and of the whole person” (Paul VI, 1967: 14). In a similar vein, for St. John Paul II, the “apex of development is the exercise of the right and duty to seek God” (John Paul II, 1991: 29, hereafter referred to as CA). Thus, in Roman Catholic anthropology, the whole person is fundamentally oriented toward God, and since persons exist in relationship and community, the whole of society should also be oriented toward God.

Benedict XVI also noted how human persons’ relationships to one another (morally, culturally, and economically) parallel their relationships to the whole of the created world (environmentally). In seeking to develop humanity, therefore, one must attend to all these elements to be integral. Benedict XVI later labeled this idea “human ecology.” In particular, he suggested that the culture that leads to decay in our interconnections is part of the same culture that leads to environmental degradation. That is,

when human ecology is respected within society, environmental ecology also benefits. Just as human virtues are interrelated, such that the weakening of one (virtue) places others at risk, so the ecological system is based on respect for a plan that affects both the health of society and its good relationship with nature. (Benedict XVI, 2009: 51)

Human Ecology. A key characteristic of the Roman Catholic approach to sustainability includes a reframing of the issues in terms of human ecology. Human ecology as a field is not limited to Roman Catholicism, as it includes the interdisciplinary study of the relationship of human persons with the natural, social, and built environments (Marten, 2001). When the Church uses the term “human ecology,” she designates the full range of the human environment, especially that

which governs life itself. Benedict XVI, for example, made extensive use of this concept in *Caritas in Veritate*, where he explicitly linked environmental responsibilities to Roman Catholic sexual ethics and views on reproduction and natural death.

Supported in general by the principle of human dignity, human ecology has been evolving in CST and has taken on various meanings in the writings of different popes. As we will see, it is a forerunner to the concept of integral ecology that became so central to *Laudato Si'*.

St. John Paul II first introduced the term “human ecology” in the encyclical *Centesimus Annus* (CA: 38). In this articulation of human ecology, he does not immediately discuss the family or sexual ethics; rather, he focuses on the “social structure,” on “structures of sin” (CSDC: 119), and identifies a “social ecology’ of work” (John Paul II, 1987: 36). For him, the human environment includes the built environment in which people work and live in community, an environment that can be infused with love and ethics or corrupted by sin. This idea is preceded by a section calling for better care of creation, and is succeeded by a section on the importance of family and marriage as the foundation of an authentic human ecology.

For Benedict XVI, human ecology pertains mainly to the entire life cycle from conception to natural death, and concerns the practices supporting or inhibiting reproduction at the beginning of life as well as care at the end of life. As such, science and technology, social norms, political laws, and economic behaviors may be more or less ethical depending on their support of life and a culture of life rather than a culture of death. On this view, the institution of the family, including marriage and sexual ethics, should be governed by natural moral laws that express a right order intended by God for the human being. In addition, the focus on life in Roman Catholic ethics should be situated within the teachings of a pro-life consistent ethic opposing war, capital punishment, murder, genocide, and abortion. In this sense, human ecology incorporates and extends beyond the boundaries of sustainable development and its four dimensions of economy, society, culture, and environment.

Peace. Before *Laudato Si'*, CST connected all the pillars of sustainability to peace. Human ecology, environmental responsibility, and integral human development depend on and further peace, which should be understood much more as “an enterprise of justice” rather than the absence of war (Paul VI, 1965: 78). Justice, in turn, will be integral to Francis’s notions of sustainability in *Laudato Si'*.

St. John Paul II's first major statement about the environment, entitled "Peace with God the Creator, Peace with All of Creation," was delivered on the World Day of Peace in 1990. This document placed "the ecological crisis ... within the broader context of *the search for peace.*" Thus, because environmental issues are interdependent with other issues and apply globally, the responsibility to deal with these concerns inheres in everyone. Such responsibility, however, requires solidarity to be exercised, which includes cooperation between nations and attention to the structural bases of poverty (John Paul II, 1990).

St. John Paul II also indicated that contemporary weapons of war pose severe dangers to the environment that could extend globally. This message notably critiques the misapplication of technology, including "indiscriminate genetic manipulation" of organisms and "the unscrupulous development of new forms of plant and animal life" (John Paul II, 1990).

Benedict XVI developed further the idea that environmental protection should be regarded under the rubric of peace, but proceeded to connect obligations to the environment with other obligations to respect life. He thus linked environmentalism with the consistent ethic of life under the rubric of human ecology: "It should be evident that the ecological crisis cannot be viewed in isolation from other related questions, since it is closely linked to the notion of development itself and our understanding of man in his relationship to others and to the rest of creation" (Benedict XVI, 2010: 5).

Ecological Conversion. Other ideas important to the Roman Catholic approach to sustainability include an emphasis on ecological conversion and social sin. Both these ideas were strongly developed by St. John Paul II (John Paul II, 1984: 15–16, hereafter referred to as RP) and were most recently elaborated upon by Francis. With regard to social sin, St. John Paul II shared that "from one point of view, every sin is personal; from another point of view, every sin is social insofar as and because it also has social repercussions" (RP: 15). In the *Compendium of the Social Doctrine of the Church*, social sin "is every sin committed against the justice due in relations between individuals, between the individual and the community, and also between the community and the individual" (CSDC: 118).

Even prior to writing *Laudato Si'*, Francis began to connect social sin with ecological conversion. For him, ecological conversion is a way of responding to the destruction of the environment which in itself amounted to a sort of social sin:

This is one of the greatest challenges of our time: conversion to a development that respects Creation. In America, my homeland, I see many forests, which have been stripped ... that becomes land that cannot be cultivated, that cannot give life. This is our sin: we exploit the earth and do not let it give us what it harbors within, with the help of our cultivation. (Francis, 2014)

Sustainability outside of CST. A major impetus for secular sustainability began with the Brundtland Report (WCED, 1987), which defined sustainability as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Here the sustainability movement transcends the environmental movement that predated it by recognizing the interdependence of environmental matters with broader development objectives. Thus, the new view of sustainable development combines the three pillars of environmental protection, social equity, and economic growth. These three must be pursued in tandem, as they are interdependent and mutually reinforcing (Sustainable Kingston, 2012), and it is inherent in the Brundtland report that neglecting one pillar jeopardizes the others over the long term.

More recently, a cultural aspect to the relevant dimensions of sustainability has been added to the secular concept of sustainability. This inclusion came about because of the realization that indigenous peoples, members of non-dominant societies at the margins of the global market, and alternative worldviews risk cultural, ideological, and literal extinction (Hawkes, 2001) and therefore merit sustainability consideration.

Nevertheless, this secular definition of sustainability can be expanded by considering specific principles of CST together with the recent notion of “integral ecology” proposed in *Laudato Si'*. Figure 1 depicts the evolution of sustainability concepts within a primarily CST framework. It summarizes the central concepts related to sustainability and justice as generally represented in CST and in recent papal writings. This evolution is then shown in relation to the secular concept of sustainable development.

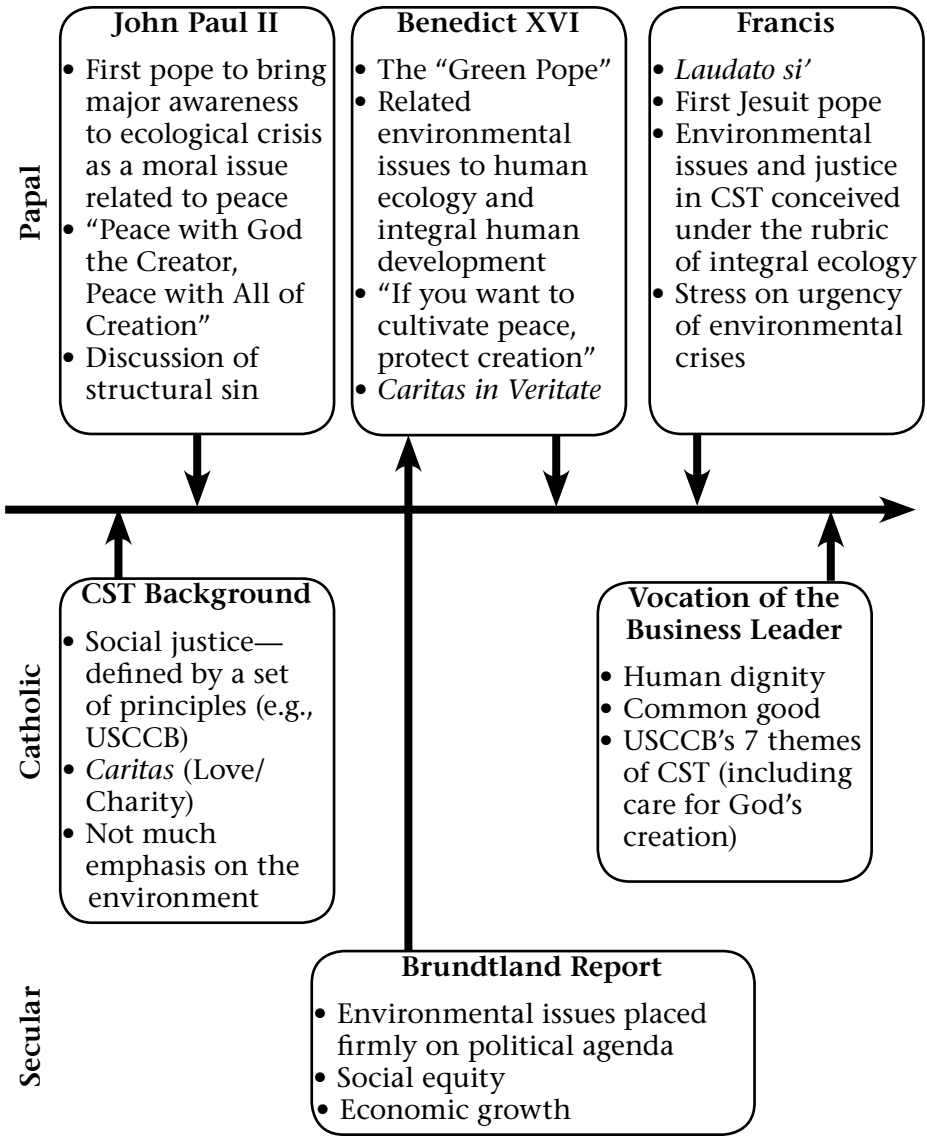


Figure 1: Evolution of Sustainability Concepts/Thoughts

LAUDATO SI’ AND INTEGRAL ECOLOGY

The Integrating Role of the Spiritual Exercises

Laudato Si’ builds upon existing CST related to sustainability while also contributing new ideas, and one of its most important conceptual

evolutions includes a shift from human ecology to a notion of integral ecology. In fact, the term “human ecology” is rarely used in this encyclical; instead, the notion of integral ecology becomes a central conceptual framework for *Laudato Si'* as a whole. Integral ecology integrates and develops prior papal treatments of environmental obligations, integral human development, human ecology, and peace. This concept and framework may constitute Francis's unique contribution to CST and furnish us with a conceptual apparatus for differentiating Roman Catholic from non-Roman Catholic approaches to sustainability in general.

The very meaning of the word “integral” has a twofold sense: 1) honest, fair; and 2) complete, entire, whole. In utilizing this concept, *Laudato Si'* references the great tradition of virtue ethics that forms an important theoretical grounding for CST. Integrity is itself a virtue; likewise, ecology is a more complex term than common usage ordinarily connotes—the terms “economics” and “ecology” are words that are rooted in the Greek word *oikos* which means *home*.

It is thus helpful to consider the meaning of integral ecology in light of the title and first line of *Laudato Si'* by which Francis directly addresses God—translated into English, it means “Praise Be to You!” The encyclical invites us to orient our understanding of ecology toward the praise of God, specifically a Trinitarian God, and further reminds us that all of our endeavors in society and indeed in all of creation ought to be ordered and directed toward the same. This approach of praise rests fundamentally on the *Spiritual Exercises* of St. Ignatius upon which Ignatian spirituality is founded, and with which the life of a Jesuit such as Francis must be deeply infused.

The first principle and foundation of the *Exercises* begins thus: “The human person is created to praise, reverence, and serve God Our Lord, and by doing so, to save his or her soul” (Ganss, 1992). Given the title of *Laudato Si'*, Francis begins the encyclical from a standpoint of praise, and much of the subsequent text likewise emphasizes reverence and service. The next part of the first principle then reads as follows: “All other things on the face of the earth are created for human beings in order to help them pursue the end for which they are created.” Therefore, while ecology ordinarily refers to the science of ecosystems, the natural world in the Roman Catholic worldview is understood as a created world, gifted to the human person who is also a created being. In the language of Ignatian spirituality, human persons are to utilize these gifts to praise, reverence, and serve God. The entire encyclical thus presents a concerted account of how human persons might structure their relationships

toward each other, society, culture, economy, and the environment in view of the ultimate purpose for which they were created.

Economic Injustice, Technocracy, and Anthropocentrism

Laudato Si' takes an integral approach partly by locating environmental issues in relationship with economic and social ones, among others. The chapter entitled "Integral Ecology," for instance, identifies a set of ecologies (environmental, economic, social, cultural, daily life) and articulates their interconnection in light of the common good and intergenerational justice. Integral ecology is concerned with the whole of ecology, and in the Roman Catholic worldview, that whole is a creation willed and ordered by God. According to this view, human persons ought to arrange their affairs, attitudes, habits, activities, processes, and policies in accordance with praise, reverence, and service.

Laudato Si' also builds on the critique of the current economic system laid out in *Evangelii Gaudium* (Francis, 2013: II:1; IV:2, hereafter referred to as EG), where Francis admonishes those responsible for abuses in finance and the markets that have tended to lead people to over-consume and waste material resources while marginalizing and excluding others. Just as *Evangelii Gaudium* followed previous papal encyclicals (e.g., *Laborem Exercens*, *Caritas in Veritate*), *Laudato Si'* serves to put the economy in its proper place as a dimension of human flourishing the tools of which serve as means to wellbeing.

As with *Evangelii Gaudium*, *Laudato Si'* also places emphasis on impoverished populations and equality considerations, taking care to turn one's focus unto those most excluded from participation in the benefits of an economy. Francis even argues that the global North owes an ecological debt to the South, thereby making environmental justice a key element of his message (LS: 51–52). Throughout *Laudato Si'*, an analogy is drawn between the environment itself and the poor (LS: 170, 190) as both remain vulnerable and neglected in contemporary paradigms of dominance (LS: 2, 48). The encyclical also offers several critiques of elements in global society that need to change, specifically what Francis calls the technocratic paradigm, a culture of consumerism and waste, and excessive anthropocentrism. All these elements draw awareness to structures of injustice in need of transformation.

Inspired by the philosophy of Romano Guardini (1998), Francis directs incisive attention to the technocratic paradigm. He acknowledges the great value of science and technology, but indicates that they should not be relied upon exclusively or unreflectively as the solution

to environmental problems. Essentially, his view seems to be that they should be regarded as means and not as ends. It is a critique of the technocracy that parallels a longstanding assessment of unjust economic structures in CST, namely that the economy should serve as a means to the end of human wellbeing. Moreover, he implies that an alliance between science/technology and finance/economics emphasizes utilitarian values that undermine human dignity and the common good. Danger adheres in such tool-cultivating disciplines such that human persons themselves may devolve into tools, instruments in the hands of the craftsmen of programs that seek to aggregate total consumer satisfaction. Oftentimes, the outcomes of such projects may not authentically yield advances in social welfare.

Drawing on *Evangelii Gaudium* and the writings of previous popes, *Laudato Si'* also makes a connection between how consumerism and waste impact the environment and the poor. It is noted in *Evangelii Gaudium* that these “problems [of pollution and waste] are closely linked to a throwaway culture which affects the excluded just as it quickly reduces things to rubbish” (EG: 22). As a result, human persons within a technocratic paradigm become instrumentalized by such a culture, with they themselves “considered [as] consumer goods to be used and then discarded. We have created a ‘throw away’ culture which is now spreading.... The excluded are not the ‘exploited’ but the outcast, the ‘leftovers’” (EG: 53).

This “throw away” culture might be due to the misunderstanding of “anthropocentrism.” For Francis, excessive anthropocentrism refers to a mistaken interpretation of Genesis as advocating domination rather than stewardship. In *Laudato Si'*, he emphasizes the duties to “till and keep,” cultivate and preserve (LS: 67), and an understanding of nature as a creation with its own intrinsic order. Nevertheless, such a critique of excessive anthropocentrism does not depose humans from inhabiting a privileged role in this order. Unlike non-anthropocentric accounts, CST continues to link environmental issues with obligations to other humans, specifically the poor. During Francis’s address to the UN General Assembly (Francis, 2015b), he shared that “the poorest are those who suffer most from such offenses, for three serious reasons: they are cast off by society, forced to live off what is discarded, and suffer unjustly from the abuse of the environment. They are part of today’s widespread and quietly growing ‘culture of waste.’” The implication is that the natural environment ought to be regarded as a gift to meet the legitimate needs of all human persons.

In the same address, Francis also furthered his critique of excessive anthropocentrism by advocating a *right of the environment*. He justified

this right on two grounds: 1) human persons depend on the environment in that it has instrumental value for all people; and 2) creatures have intrinsic value, both in themselves and in their interconnection in creation. As with *Laudato Si'*, Francis in his address to the U.N. observes how environmental harm is connected to social and economic exclusion. Both documents, following a considerable body of CST, view integral ecology as encompassing “integral human development” in consideration of both the material and spiritual needs of human persons.

A Dynamic of Structural Injustice and Ecological Conversion

All these critiques of existing practices are related to CST notions of justice as structural. In other words, entire systems exist in which individuals collectively participate in structures of sin, with each one playing small but necessary roles and taking actions that accumulate in broad scale damage. Conversion, which requires a complete shift to attitudes, priorities, and ways of life that are best expressed by the first principle and foundation of St. Ignatius (Ganss, 1992), is therefore necessary to better receive the gifts of God’s grace that enable human persons to co-create with Him in their response to injustice. This is because while all persons are individually responsible for their choices, collective movements are ultimately needed to transform these structures. Indeed, such a dynamic between sin and grace reveals a striking resonance between *Laudato Si'* and the *Spiritual Exercises*.

Avenues toward positive environmental change are mapped out in the final two chapters of *Laudato Si'*. Emphasis is placed on the obligation to promote dialogue across disciplines, spheres, societies, etc., and it is here that Francis calls for an ecological conversion. In the final chapter, he emphasizes the importance of wonder, praise, reverence, and contemplation in general. There is a return to prayer, worship, and a sacramental approach to inspire more care for the environment, a return to the orientation laid out at the beginning of the encyclical: Praise be to you, my Lord!

Integral Ecology: A Model

Figure 2 shows how the concept of integral ecology is related to both the secular sustainable development paradigm and prior teachings on the environment and justice in CST. The left side of the triangle shows a progression of thought in the sustainable development literature, with the past represented at the bottom of the triangle and the future at the top, while the right side of the triangle shows a parallel progression of thought in CST. Both sides of the triangle are then integrated by *Laudato Si'*, with all the dimensions of integral ecology that correspond

in various ways to the ideas on either side of the triangle found at the center. Ultimately, the principle of praise from the *Spiritual Exercises* that also figures in the title of *Laudato Si'* serves as the apex and integrating theme of all these ideas. Ignatian Spirituality informs the entire project of *Laudato Si'*, and is therefore represented at the top of the triangle.

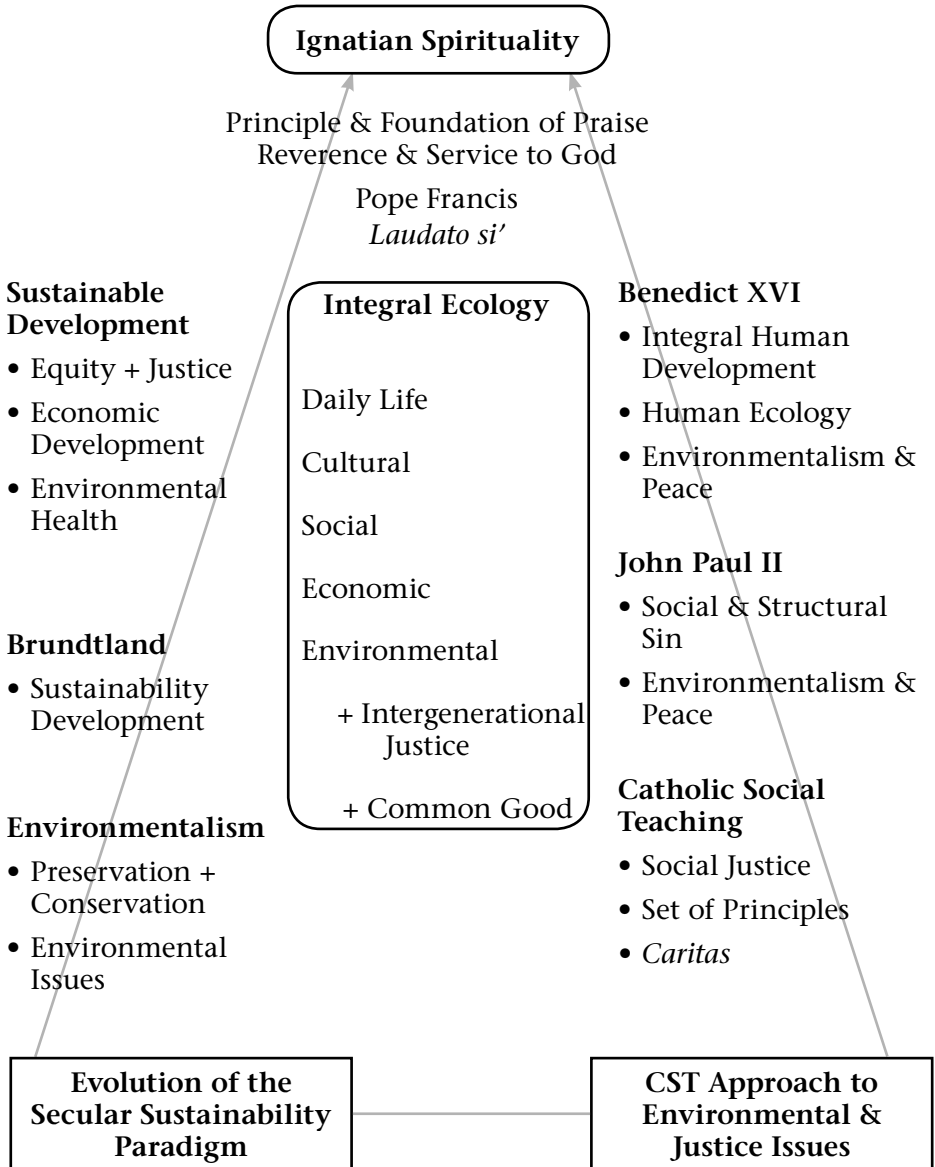


Figure 2: *Laudato Si'* Integrates Sustainability with CST with an Ignatian Focus

INTEGRAL ECOLOGY AS AN ANTIDOTE TO BUSINESS “UN-SUSTAINABILITY”

In contrast to the conceptualization of sustainability described within CST, the non-Roman Catholic approach to the sustainability paradigm (Afgan & Carvalho, 2010) often focuses on only one of the four pillars of sustainable development, namely that of environmentalism. In the minds of many, sustainability simply equates to environmentalism (Werbach, 2009), with one definition of environmentalism referring to itself as a “social movement and associated body of thought that expresses concern for the state of the natural environment and seeks to limit the impact of human activities on the environment” (Levy, 2010). Due in part to this interpretation, many environmentalists in North America have been accused of valuing other species over poverty considerations.

In line with this, many businesses use the trendiness of the term “sustainability” to advance their interests. We suggest, however, that the evidence often points to effects that are the reverse of their stated intentions, to a sort of “un-sustainability.” Moreover, strategic co-option by businesses in the form of greenwashing (Delmas & Burbano, 2011) has yielded widespread suspicion of business pretensions for sustainability. Such greenwashing invites concerns about profit being the real goal alongside a superficial focus on people and the planet deployed for marketing purposes. As a result, underserved or invisible stakeholders may be marginalized by supposed business sustainability. Indeed, such co-option of the sustainability concept is connected with another usage of the term in business—“sustainable competitive advantage,” where what is to be sustained is financial success, not environmental or social welfare.

Food, health, and energy, for instance, may be regarded as key dimensions of a sustainable humanity. These domains of human concern can be considered within a CST framework, particularly as they were the focus of the 2014 Vatican conference on sustainable humanity and nature. Yet many companies in these sectors have engaged in unsustainable practices, leading us to believe that these businesses, industries, and sectors need to reorient their activities to pursue the authentic good of the human being. To contribute to the integral ecology of which Francis speaks, these institutions could reconceptualize their purposes and redesign their practices with the help of the concepts of integral human development and peace. For such a change to happen, however, ecological conversion will be necessary among institutions’ stakeholders, and the topic should be brought up in meaningful dialogues across sectors.

Figure 3 shows how we can conceive of the overlapping concerns of these three essential domains as potentially being interwoven and balanced in an integral ecology so that greater harmony could be cultivated. Here the dynamics of grace and sin, or ecological conversion and structural sin, mediate the ways in which these domains interact with each other and either serve or fail to praise the Creator. Structural sin is the tendency that leads to a disordering of right relationships, whereas ecological conversion necessitates a continual re-evaluation and commitment to re-order relationships and activities toward God. Reducing structural sin and stressing dimensions of ecological conversion would thus facilitate the integral ecology of food, energy, and health issues within these two dimensions.

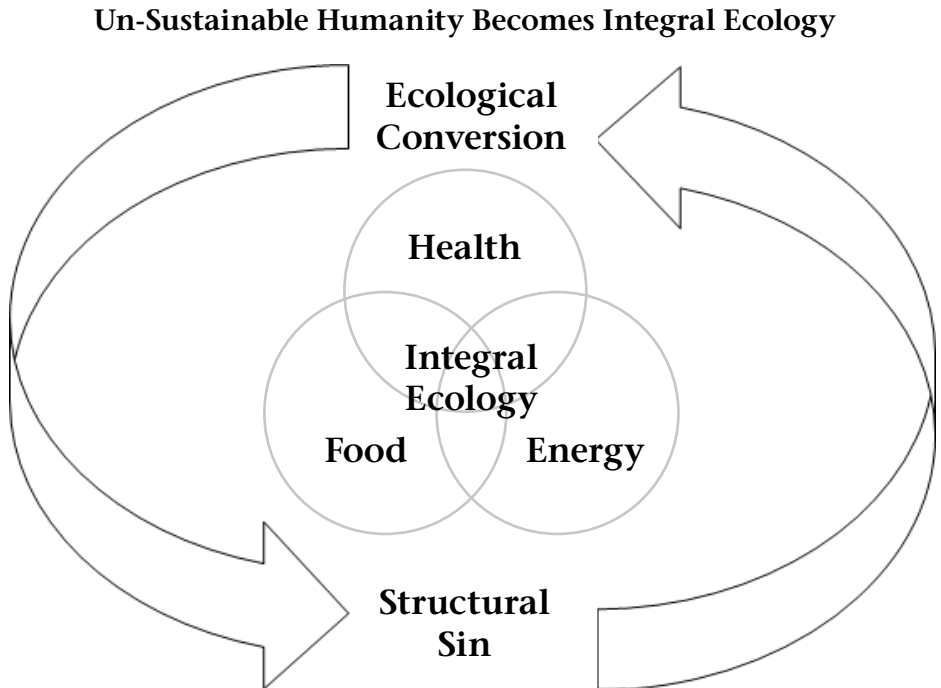


Figure 3: Unsustainable Humanity Becomes Integral Ecology

Despite supposed good intentions, therefore, institutions misrepresent the underlying purpose of sustainability if they use the term “sustainability” to justify systems that result in “un-sustainable” consequences. CST offers an antidote to these dehumanizing trajectories through its emphasis on human dignity, the common good, and *caritas*. It returns the focus of sustainability to social justice, where justice is understood as structural and where environmental obligations are connected to integral human development and peace. Francis thus calls

on us to counter prevailing unjust systems with a structural reordering of multiple ecologies: environmental, economic, social, cultural, and daily life. His notion of integral ecology encompasses a set of ideas extant in CST in such a way as to change the focus and scope of sustainability, one that institutions, stakeholders, and people should take into consideration to improve the ecological health of the planet. In the end, integral ecology aims to bring multiple dimensions into a cohesive harmony proper to a created universe, beheld from the standpoint of praise, reverence, and service to God.

DIRECTIONS FOR FUTURE RESEARCH

Future research should follow the spirit of the 2014 Vatican conference on sustainable humanity and nature, and investigate the domains of food, health, and energy in light of the concept of integral ecology developed in *Laudato Si'*. For example, studies may be done on companies in certain industries that affect many aspects of the global culture and economy in addition to the environment, such as those in biotechnology, fossil fuels, and big pharmaceuticals. If there are examples of controversial business activities in these industries that may not cohere with the principles of CST, such practices could be evaluated as to how they advance or diminish an integral ecology.

Future research should also explore the notion of sustainable humanity as it relates to integral and human ecology. Such conceptual projects could examine the evolution of CST in relationship to secular concepts, including those in the domain of human ecology. Theoretical studies could also develop models of how the domains of food, health, and energy could be brought together more harmoniously and synergistically within a systems thinking perspective. Finally, the pertinence of the integral ecology concept to secular conceptions and practices should also be evaluated.

CONCLUSION

This research study has aimed to demonstrate how *Laudato Si'* contributes to both the existing body of Roman Catholic Social Teaching and the sustainable development literature, particularly through the notions of integral ecology and the first principle and foundation of the *Spiritual Exercises* of St. Ignatius. The former offers a uniquely Roman Catholic contribution to sustainable development while strengthening existing CST ideas. The latter places a Jesuit stamp on this special approach to sustainability.

The notion of integral ecology constitutes an important evolution in CST regarding sustainability. It incorporates a wider variety of CST concepts such as integral human development, peace, structural justice, an ethic of life, human ecology, and ecological conversion. Integral ecology thus makes for a broader conception of sustainability that applies to multiple ecologies (environmental, economic, social, cultural, and daily life) while maintaining a key focus on justice and the common good.

Integral ecology also provides an improved rubric relative to the existing sustainable development paradigm because it integrates justice considerations more thoroughly, allowing CST to avoid some of the pitfalls of said paradigm regarding un-sustainable business practices. Integral ecology thus serves as an antidote to business un-sustainability because it requires more thorough and earnest incorporation of multiple ecologies. Moreover, the Roman Catholic dynamics of grace and sin allow for a process of continual evolution as integral ecology is advanced.

In *Laudato Si'*, Francis implicitly draws from the *Spiritual Exercises* of St. Ignatius. The first principle and foundation of the Exercises thus serves as an integrating principle for the encyclical—even its title embeds an orientation toward praise of the Creator—and grounds it in a uniquely Roman Catholic approach to sustainability. Francis's work, therefore, of blending Ignatian spirituality with the inspirations of St. Francis of Assisi has resulted in a reconceptualization of sustainability.

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